Online and in-person student experiences on the PDBA programme at Wits Business School

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DECLARATION

I, **Sibongile Lungelwa Horo** declare that this research report is my own work except as indicated in the references and acknowledgments. It is submitted in the partial fulfilment of the requirements for the Master of Business Administration at the University of the Witwatersrand, Johannesburg. This project has not been submitted before for any degree or examination in this or any other university.

Signed:  Johannesburg on 27/02/2023

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To my husband and daughter who have had to sacrifice quite a lot to support me on in this journey, this is our win.

DEDICATION

I dedicate my work on this research article to my late parents, I would like to express gratitude for all the sacrifices you have made to give me the best you could. Thank you for instilling in me the value of education and giving me a fighting spirit.

~ Nosipho Dina Tantsi 1962 – 2021 ~

~ Mziwandile Sydney Tantsi 1962 – 2021 ~

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ABSTRACT

This study explores Wits Business School's (WBS) students, alumni and course administrators' perceptions of online learning compared to the classroom learning experience in the Post Graduate Diploma in Business Administration (PDBA) programme.

A concurrent mixed methods design was followed in this study whereby quantitative and qualitative methods were employed in data collection and analysis. The study sampled 107 WBS students with experiences with both online learning and in-person classroom learning. Two course administrators and two students were also sampled to explore their perceptions of the two forms of course delivery. The study also intended to assess how these experiences influence students' satisfaction with learning. Descriptive analysis and deductive analysis were utilised for data analysis for both quantitative and qualitative phases of the study respectively.

The results from the survey found that students have more favourable perceptions of online learning in comparison to traditional learning. However students had less favourable perceptions with online learning in terms of student-to-student interaction. Regression analysis revealed that online learning significantly improves student satisfaction through student-instructor and student-content interaction.

Results showed that satisfaction with online learning was positively influenced by favourable perceptions of interactions between students and lecturers and students with the course content. There was no evidence to conclude that traditional face-to face learning positively influences student satisfaction with learning. However, the course administrators did not see lack of student-student interaction as a key issue that may influence the performance and satisfaction of students with the courses. The results of the study recommend the implementation of a hybrid leaning model to improve both online and traditional learning.

KEYWORDS

Online learning

Traditional face to face learning

Student experiences

Concurrent mixed methods design

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LIST OF ACRONYMS

4IR	Fourth Industrial Revolution
IT	Information Technology
WBS	Wits Business School
PDBA	Post Graduate Diploma in Business Administration
MBA	Master of Business Administration

CHAPTER 1. INTRODUCTION

1.1 Statement of purpose

This mixed method study explores Wits Business School's (WBS) students, alumni and course administrators' perceptions of online learning compared to the traditional classroom learning experience in the Post Graduate Diploma in Business Administration (PDBA) programme. A mixed method study has been chosen for this research to enable the researcher to report on complex phenomena qualitatively as well as show statistical analysis through numbers and charts that emanate from the research to give the research findings depth (Creswell, 1999).

1.2 Background of the study

Almost all South African higher education institutions have relied on face-to-face learning since the inception of higher education (Mgqwashu, 2017). According to Hurlbut (2018), face-to-face learning is considered traditional. It excludes student experiences since it takes place in a controlled environment, with a lecturer present using traditional teaching techniques and resources. These physical classrooms, however, are inaccessible when issues emerge, ranging from student demonstrations to pandemic outbreaks as recently experienced (Mpungose, 2020). Face-to-face learning enables real-time interaction with resources and other students, this occurs within a set contact period, and gives students immediate feedback or interaction (Waghid, 2018). On the other hand, online learning is education conducted over the Internet and covers any learning that occurs over distance and not on a face-to-face platform (Mpungose, 2020).

The transition to twenty-first-century education system has provided a new viewpoin on the proficiency of online and traditional types of teaching: online education versus traditional face-to-face learning (Martin & Bolliger, 2018). This transformation has been brought about by the fast progress of information technology (IT), which has spread from industrial production to nearly every facet of life in the universe. According to Venter (2019), online education appears to be

gaining popularity in South Africa since most institutes of higher learning have included online training in their curricula.

According to Pedro, Francisco, and Mario (2020) global education gradually and progressively prepared for a planned shift to online learning. The outbreak greatly affected the South African education system at all levels, where the national lockdown resulted in the closure of schools and universities (Mhlanga & Moloi, 2020). This halt in education necessitated an urgent adaptation of 4IR tools to continue learning and save the 2020 academic year for students speeding up the digital evolution of the education sector (Mhlanga & Moloi, 2020).

Pedro, Francisco and Mario (2020) cite that most international institutions of higher education have long had accessible online platforms, but educators prefer direct student engagement. As a result, they could effectively employ these resources that enable uninterrupted learning following the outbreak of COVID-19. Face-to-face lessons were the most common in South Africa (Mpungose, 2020). The extension of the national lockdown in South Africa from 21 days to a further 14 days pushed institutions to implement online learning (Mhlanga & Moloi, 2020).

Though Wits University, like most South African universities, had already been offering select programmes on online platforms, the national lockdown compelled the university's mostly in-person teaching to fully online learning to accommodate students who have been evacuated from campus (Wits News, 2020). Classes which were held on campus before the lockdown, during the lockdown period were moved to online platforms that all registered students could access. Although the PDBA already had an online offering pre COVID; this programme provided the necessary learnings to the institution to effectively roll out other programmes online.

Online learning is highly rated for being flexible, as it allows students to choose how their learning programme will look like, this form of learning also requires the traditional learning student to adapt a new way of studying (Martin & Bolliger, 2018). It enables students to devote their time to other activities which are time sensitive and catch up at a later stage with their coursework. Examinations are

also flexible in that students can take their exams whenever it is most convenient. Furthermore, lecture sessions may be tailored to the needs of both the learner and the instructor.

In terms of communication, students in traditional education systems engage in face-to-face conversations to stimulate a composed learning environment in the classroom (Bali & Liu, 2018). In this format, students are more vocal and expressive of their views, increasing their satisfaction with the learning experience. Furthermore, instructors may identify the students' flaws and strengths, allowing them to address the students' learning' and academic needs that need attention (Martin & Bolliger, 2018).

Therefore, online and traditional classroom learning have advantages and disadvantages. However, there is limited empirical evidence on the experiences and perceptions of students on the two approaches. With the increase in online learning and the continuation of traditional learning at Wits University, it is imperative to explore the perceptions of students on their experiences with online learning and traditional face-to-face learning to develop ways of improving the administration and delivery of both modes of learning. It is against this background that this study is conducted.

About Wits Business School

Wits Business School was first incepted over 55 years ago as the graduate school of business administration of the University of the Witwatersrand, which is currently celebrating its 100-year legacy in 2022. Located in the heart of Parktown, it is the home where industry specialists hone their skills in preparation to tackle global challenges (Wits Business School, 2022). The school offers postgraduate academic programmes, executive education short courses, and an array of thought leadership events and seminars. The school delivers innovative and transformative learning experiences to students participating in their African programmes.

Wits Business School is the oldest Business school locally and has, over its history, received several accolades for its educational excellence, thought leadership and high employability of its alums. To showcase this excellence, the

school is accredited with various accreditation bodies, which is key to their acquisition of new students and guarantees high-quality education at the institution. The school's brand promise is to " sculpt global leaders". This tied with the legacy the institution has had over time, has afforded them a top-of-mind position in the minds of employers seeking highly effective employees and students alike who have identified the school as a key partner in attaining their developmental goals.

The PDBA is a NQF level 8 qualification, which is equivalent to an honours level qualification. This programme is offered in the traditional classroom in person with two intakes, the online version of the programme is offered on a per module basis, with 6 intakes throughout the year. This programme is suitable for ambitious students who are pursuing a Master of Business Administration (MBA) or want to give their career the edge (Wits Business School, 2022).

1.3 Research problem

Online learning is becoming increasingly popular among students. The traditional classroom mode is viewed as restrictive, inflexible, and impractical for students (Wei & Chou, 2020). Institutions can now conduct efficient classroom instruction through the internet in the current age of advanced technological innovation (Paul & Jefferson, 2019). This transformation in the pedagogical medium is causing academic institutions to reconsider how they will provide course content. However, to effectively implement online learning and improve traditional face-to-face learning, it is important to explore students' perceptions of the two methods and their experiences (Paul & Jefferson, 2019).

The scientific literature has several benefits of online learning; it is advantageous in terms of reducing the cost and time associated with student travel, uniformity of content, and the ability for students to work on the coursework at their convenience (Khalil Elfaki, Abdulraheem, & Abdulrahim, 2019). Although studies addressing persistence in the classroom have been equivocal, online students are more predisposed to a self-learning style, present themselves more independently, and hold an internal locus of control (Malinauskas & Pozeriene, 2020). The uniqueness of online learning is related to a shift in the instructor's

and student's social presence in a learning environment (Mahlangu, 2018). It should be emphasised that the nature of student motivation influences the format of engagement with instructors and therefore enables accurate prediction of the success of online learning (Markova, Glazkova, & Zaborova, 2017).

Even with these benefits, it has been found that online learning harms students' performance (Chisadza, Clance, Mthembu, Nicholls, & Yitbarek, 2021; Elfaki, Abdelrahim, Khalil Elfaki, Abdulraheem, & Abdulrahim, 2019). Students registered for online learning frequently confront a lack of opportunity to communicate directly with the lecturer in real-time, receive timely feedback, and lack external control (Markova, Glazkova, & Zaborova, 2017).

According to Muhammad and Kainat (2020), students require the online course work to flexibly align with employment and family commitments. Still, others need help with online courses due to poor self-direction. Müller and Mildenberger (2021) argue that one of the drawbacks of online learning is the lack of prompt feedback for both the student and the teacher. Furthermore, Castro and Tumibay (2021) suggest that one main drawback of online learning is that students lack the discipline to carry out curriculum tasks independently, it is also time consuming to independently prepare for an online lesson. Dumford and Miller (2018) claim that conventional learning allows students to connect with the instructor in real-time and that face-to-face learning helps students plan their studies. Therefore, literature has different views regarding online and traditional learning. However, although online learning differs slightly in its administration, students are assessed in the same way as traditional learning students (Greener, 2018).

Academics and administrators' experiences with online learning are equally important, they are a crucial component in making a success of online learning and their buy-in makes the roll out of this process work seamlessly (Maphalala & Adigun, 2020). A study conducted in a South African university by Maphalala and Adigun (2020) identified areas which educators identified as key drivers to their buy-in into online learning such as technical support and training on the use of e-learning platforms and adequate provision of IT infrastructure and stable internet connection. At this institution, there were serious concerns on the preparedness

for online learning facilitation by educators and how much their normal mode of delivery needed adaptation for the online landscape, and it was important to revisit the evaluation techniques used and whether they remain effective for an online classroom (Maphalala & Adigun, 2020).

Therefore, there is a need for insights on how students and administrators view online and traditional learning, which will enhance the focus on students' satisfaction factors at institutions (Warschauer, 2006). There is a scarcity of research studies which have explored students' and administrators' perceptions of online learning versus traditional face-to-face learning. Therefore, this study aims to contribute to the body of knowledge and propose ways in which online and traditional learning can be improved for the motivation and performance of students in the digital environment (Martin & Bolliger, 2018).

1.4 Research objectives

This study's objective is to understand WBS PDBA students and course administration's perceptions of online and traditional classroom learning experiences. Specifically, the study intends to achieve the following:

i. To understand the students' perception of online learning and their experiences of online course content
ii. To understand students' perception of traditional face-to-face learning and their experiences with traditional learning course content
iii. To explore programme administration members' perceptions of online and traditional learning

1.5 Rationale

This study seeks to contribute to the body of knowledge on online learning and traditional learning experiences of students. Technological advancements have boosted the usage of online tools to enhance remote education(Riedel & Nwankwo, 2015). Higher education institutions now provide online training with integrated web-based educational materials (Mahlangu, 2018). Several studies have investigated the challenges and benefits associated with e-learning during

the pandemic (Mailizar & Fan, 2020). Researchers are attempting to investigate the benefits and challenges of modern online learning initiatives from the perspectives of diverse stakeholders (Cranfield, Tick, Venter, Blignaut, & Renaud, 2021). Mailizar and Fan (2020) did a study that revealed that students' voices are crucial on this subject. As a result, this study investigates students and the administrator's perspectives of online learning, contrasting their perspectives with traditional learning to assess the experiences of various students.

Further, the study may help the management and administrators of the school in formulating strategies that improve the experiences of students learning online or utilising traditional learning methods. There is a greater need for higher education institutions to update their curriculum, and modern teaching methods and strategies should be prioritised (Toquero, 2020). Higher education institutions are also hubs of social activity and interaction.

The study can be beneficial to education policymakers at the national level. Given the global experiences of the fourth industrial revolution (4IR), South African educational institutions must be prepared for online learning to become the new standard in the education system with fast-increasing technological advancements. To that end, the government may consider collaborating with various groups to implement interventions to ease into online learning transition while providing equal education access for all students.

1.6 Delimitations of the study

i. The study is limited to students, alumni, and course administrators of the PDBA programme at WBS.

1.7 Definition of terms

i. Online learning: Online learning is a type of remote education that primarily consists of internet-based education in which courses are delivered synchronously (that is, live online sessions) and asynchronously (that is, students access course materials online in their own time, which is

associated with the more traditional distance education) (Chisadza et al., 2021).

ii. Traditional face-to-face learning is synchronous or in real-time. In a traditional classroom, instructors interact with students in real-time. Face-to-face learning enables real-time interaction, occurs within a set contact period, and gives students immediate feedback (Mpungose, 2020).

1.8 Assumptions

i. This study assumes that participants will reflect standard perspectives and experiences regarding online and traditional face-to-face learning.

ii. The study assumes that participants will give honest and truthful responses regarding their experience with online and traditional face-to-face learning

iii. It is also assumed in this study that the sample selected will be a true representative of the population under study.

CHAPTER 2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This chapter reviews extant literature on online and traditional classroom learning. The literature is reviewed alongside the study objectives. The first section of the chapter presents the definition of the topic. This is followed by the literature review relating to each objective in which propositions are formulated at the end of each discussion. The final section summarises the propositions formulated.

2.2 Definition of topic

Online learning is a type of distance education that primarily consists of internet-based education in which courses are delivered through live online sessions, or students can access course material online in their own time (Chang, 2020). Traditional face-to-face learning takes place live, in a classroom environment, and there are instant student instructor interactions, while online classes employ a form of technology to deliver learning instructions and interact with students (Chisadza, Clance, Mthembu, Nicholls & Yitbarek, 2021).

Online learning by design is geared at increasing accessibility to all students, especially those with circumstances preventing them from taking part in on-campus activities (Maphalala & Adigun, 2020). This method of learning requires a more well thought out process from the academics' end, in ensuring that the students are prepared well in advance of the learning journey. The online platforms employed to facilitate online learning allow for students to have one place where their academic history is contained to enable them to better manage their learning journey (Maphalala & Adigun, 2020). Online learning is not possible without the right tools and students and educators alike need to capacitate themselves with fully functional computers, high-speed internet, understanding of the use of learning platforms and skills from educators on how to engage students

in an online environment as well as they can in a classroom environment for optimal learning (Maphalala & Adigun, 2020).

Educators in online learning setting, facilitate the learning process (Matuku, Douglass, & Charman, 2018). Whilst in a traditional face-to-face set up, classes are arranged so that the teacher can better measure student understanding and interest and participate in class activities. Educators can gauge the needs of the class and can evaluate which parts of the curriculum require more investment and are able to make those adjustments immediately (Das, Birendra Jhajharia, Singh, & Das, 2022).

Online learning is ideal for non-traditional students who need flexibility due to employment or family obligations (Arias, Swinton, & Anderson, 2018). In the past, non-traditional students were adults, but as blended learning has become more common in universities, online learning has reached various age groups. On the other hand, traditional face-to-face lessons are still more effective for students who need more direction and guidance to navigate the curriculum (Chisadza, Clance, Mthembu, Nicholls & Yitbarek, 2021).

Mutuku (2018) posit that traditional and online education systems are comparable, particularly in curricula. Curricula at various educational institutions are often tailored to meet the needs of society. To measure students' understanding of the instructions there are set assessments administered to test student capabilities (Chang, 2020).

A similarity between traditional and online learning is the method of assessing students' understanding. Assignments are administered to students as part of their curricula in both traditional and online learning. Assignments are recognised as vital components of learning, regardless of whether students are enrolled in traditional or online learning. These are designed to enhance performance and understanding of the learning process. Furthermore, online, and conventional learning is comparable in that assessments are used to measure intellectual content retention, generally at regular intervals during the course instruction. Exams are the primary means of assessing students’ academic achievement (Lazarevic & Bentz, 2021).

Furthermore, instructors serve as facilitators of students' learning. They help students and other facilitators physically by leading students through the learning process. Instructors must also create lectures and student dialogues to aid students in grasping complicated concepts. Further, there appears to be considerable differences between online and traditional learning systems in five key areas. Scholarly, online, and conventional education systems have various characteristics, particularly flexibility, contact, communication, learning method, and skill development (Dumford & Miller, 2018).

2.3 Perceptions of online learning

Castro and Tumibay (2021) argue that online education has undoubtedly made its way into higher education, with new programmes being introduced continuously. The blended synchronous learning system is also gaining traction in higher education; however, its implications on student and teacher experiences have yet to be extensively explored. With the fast development of the global education industry, many institutions offer distance learning or blended learning (Johnson et al., 2016).

Students who work full-time and attend online classes had a more favourable attitude toward online learning than others (Chang, 2020). Online students are more likely to be motivated and eager to attend subsequent online learning courses when given a chance. Since online learning programmes are meant to serve an off-campus population, Fresen (2018) argues that these distance students will be more motivated by this learning environment. However, such sentiments are not usually shared by those who attend face-to-face learning courses.

According to Albiladi and Alshareef (2019), the fundamental advantage of online learning is that students save time travelling as there is no requirements to commute to campus. Instructors also save on travel and may work from home when conducting online classes. Another advantage is that students may work on lessons independently reducing the teaching element and focus more on the discussions with class to assess level of understanding and encourage engagements in online classrooms. Costs can considerably be reduced while

offering online learning, by repurposing learning material in between different classes through recordings of live classes, catering, for programmes that offer catering services to students. Institutions are also able to make more money through online learning by accepting a higher number of students on programmes as this does not have an effect on physical infrastructure (Dumford & Miller, 2018).

Malinauskas and Pozeriene (2020) found that favourable perceptions toward technology and an independent learning mode increase student satisfaction. As a result, depending on their skill levels and attitudes, students may react differently to an online learning environment. However, online learning has often been considered less interactive than face-to-face learning (Nennig, Idárraga, Salzer, Bleske-Rechek & Theissen, 2020) It is mostly due to a lack of social presence and engagement. On the other hand, online learning has been touted as being more cost effective and convenient than a traditional learning environment and giving opportunities for more students to further their education.

In this study, student perceptions of online learning are assessed using Moore's (1993) distance learning framework. Moore, (1993) posits that learner satisfaction with distance learning is based on the learner-to-learner interaction, learner-instructor interaction, and learner-content interaction.

2.3.1 *Learner to learner interaction*

Interaction between learner's benefits remote learning and increases student engagement (Martin & Bolliger, 2018). Designing activities that promote engagement to keep online students from feeling bored is critical. These help students feel connected and can foster a vibrant sense of community. Traditional tools for active learning, like discussion boards, group chats, blogs, wikis, group activities, or peer evaluation, were effective in encouraging student-to-student contact in online courses (Francescucci & Rohani, 2019). Francescucci and Rohani (2019) strongly recommend using web-based tools to increase engagement in online courses.

Martin and Bolliger (2018) found that when a number of students are more responsive to assessments formats that include discussions as this satisfies their learning needs and enhances engagement with peers and instructor. The use of social media in online courses allows for increased participation through social interaction (Martin & Bolliger, 2018). Therefore, based on this discussion, the following hypothesis was formulated:

Hypothesis 1a: Favourable perceptions of learner-to-learner interaction increase students' satisfaction with online learning.

2.3.2 *Learner-Instructor interaction*

Martin and Bolliger (2018) found that interaction between students and instructors increases student engagement in online courses. Student involvement may be strongly related to utilising several student-instructor communication channels. Lecturers in an online environment must foster a relationship with students to provide positive results of the learning journey. The interaction and relationship between students and instructors is interactive and encourages an environment of reciprocal learning (Martin & Bolliger, 2018). Students are also able to access information freely on online platforms available concerning, assignment feedback, grades, reducing administrative questioning during online engagements (Martin & Bolliger, 2018).

Students appreciated detailed and timely instructor comments on their work to improve their learning process (Ouyang, Chen, & Li, 2021).

Therefore, based on the discussion, the following hypothesis was formulated:

Hypothesis 1b: Favourable perceptions of learner-instructor interaction increase students' satisfaction with online learning.

2.3.3 *Learner-content interaction*

Learner-to-content interaction is engaging with knowledge intellectually, can directly influence a student's ability to grasp concepts related to (Moore, 1993). According to Alqurashi (2019), learner-to-content engagement can take place

when online content in form of videos and instructional manuals are consulted in looking for information. Asynchronous and synchronous distribution are viable approaches for assisting online students in gaining access to material for important engagement (Banna, Lin, Stewart, & Fialkowski, 2015) Online instructors must constantly seek learning materials that provide for an interactive learning environment (Muzammil & Sutawijaya, 2020).

Martin and Bolliger (2018) point out that applying course content to life situations assists with understanding and critical thinking abilities is one technique for increasing engagement. Real-world application relates to how relatable the material is in solving real industry challenges. Ghaderizefreh and Hoover (2018) propose employing suitable technology to bring the information to life, which increases student engagement. When engaging students in their courses, online educators must be picky about the materials and information they use. Instructors should build realistic exercises that allow students to assess problems from various viewpoints and encourage students to use relevant material intelligently (Ghaderizefreh & Hoover, 2018).

Based on this discussion, the following hypothesis was formulated:

Hypothesis 1c: Favourable perceptions of learner-content interaction increases students' satisfaction with online learning.

2.4 Perceptions of traditional face to face learning

Traditional learning provides synchronised coursework in which all students gather in a venue for in person learning in a classroom environment (Mutuku, 2018). As a result, students must devote themselves to the academic schedule they are provided for all the contact lessons and programmes while forgoing responsibilities that clash with schoolwork. Rojabi (2020) established that one of the most significant aspects of teaching and learning experiences is interaction, which is a large aspect of traditional learning. To encourage student learning the in-person set up facilitates increased interaction incorporating the social component and assists the learning journey. Lazarevic and Bentz (2021) contend that social contact is critical to explaining the link between social presence and

the social learning concept. Classrooms become lively places when social interaction becomes an element of classroom dynamics.

Furthermore, social learning interaction, which is critical for successful learning, promotes and supports meaningful and productive learning. Additionally, social interaction enhances learning engagement, which has been shown to affect learning and success positively (Sadeghi, 2019). In terms of communication, students in conventional education systems engage in in-person conversations, which are thought to produce a conducive environment for learning (Hassenburg, 2017). Students are able to express their views on course teachings immediately, increasing student's satisfaction with the learning experience (Mutuku, 2018). Further, instructors may identify the students' shortcomings and strengths, allowing them to address the student's learning needs.

Student satisfaction is vital in learning, as well as social presence and engagement. Several researchers contend that when comparing online and traditional learning satisfaction, students are more satisfied with face-to-face interactions (Li, Qi, Wang & Wang, 2019). In this context, Chang (2020) claimed that interactions between students and teachers contribute to satisfaction. Li, Qi, Wang and Wang define satisfaction as having three components: satisfaction with the instructor's directives and assistance, contentment with one's dedication to learning, and contentment with course guidelines.

Traditional learning offers students opportunities to improve co-curricular abilities through sports and other extracurricular activities. In most cases, the learning process should complement an effective fitness programme. Exercise improves students' understanding by relieving mental strain. Further, students are given counselling sessions through counselling programmes to improve their mental health and equip them with important learning and problem-solving abilities (Mutuku, 2018).

Based on the discussion, the following hypothesis was formulated:

Hypothesis 2: Favourable perceptions of traditional face-to-face learning increase student satisfaction with face-to-face learning.

2.5 ANALYTICAL FRAMEWORK

The transactional distance theory serves as the foundation for this study. It has been identified four significant criteria for studying online learning: faculty-student interaction, student-content interaction, student-student interaction, and student character (Moore, 1993). These factors serve as the study's organising principle.

2.5.1 *Transactional distance theory*

As cited in Nwankwo (2015), the theory of transactional distance, according to Moore (1993), assessing non-traditional learning methods asserts that there needs to be considerations covering course structure and student autonomy. The instructional methods need to differ slightly from norm, not only from a technological perspective, but engagement strategies employed to facilitate learning. The strategies employed, need to alter based on the audience to ensure that no one is left out. This theory brings to light the relationship that exists between students, instructors and course material and how this affects learning, and the environment in which learning is offered (Moore, 1993) .

Moore (1993) defines remote learning as the transaction that occurs when there the instructor and the learner are separated by time and location which prompts for different behaviours between the two stakeholders. These behaviours should be regarded as relative rather than absolute. Moore, (1993) defined three forms of interaction when examining the interactive feature of distance education: faculty-student, student-content, and student-student relationships.

Faculty-student interaction

Moore (2013) identified interaction as an important facet of remote learning. He asserted that educational philosophy, personality, course subject matter, and the environment all impact faculty-student interaction. Moore (2013) also pointed out that, as with in-person learning, some communication in remote education will flow in one way. However, he suggested that one-way communication leads to increased transactional distance and fewer beneficial learning experiences

(Moore, 2013). Controlling communication implies reducing transactional distance.

Student-content interaction

The nature of the programme's learning objectives, delivery method and evaluation of student understanding is reflected in course structure (Moore, 2013). The structure of a course impacts how it is received by students, factoring in that each student comes in with their own expectations. Communication is influenced by course structure, notably how much debate is permitted or encouraged (Moore, 2013) He claimed that highly structured programmes are not as successful as they limit consideration for student interaction.

Moore (2013) described this as the process of engaging information to alter the thinking or mindset of the students involved. Assignments, presentations, conversations, and exams are part of the course curriculum (Moore, 2013). According to Das, Birendra, Singh, & Das (2022) highly organised content affects the students' ability to form their own observations of the learning experience.

Student-student interaction

According to Das, Birendra, Singh, and Das (2022) there is limited knowledge on student interaction. Face-to-face interaction between students happens in conventional schooling, while for online students there are various tools available to make this possible such as email, online meeting platforms, discussion forums and document sharing (Moore, 2013). At times, remote learning students are expected to meet in-person for social gatherings arranged by the school, which can pose challenges for students who are not in the same geographical area.

2.5.2 *Conceptual Framework*

This study is guided by the transactional distance theory, which views students' satisfaction with distance learning as based on the student-instructor interaction, student-content interaction, and student-student interaction. Thus, in this study, students' perception of online and traditional learning is assessed by looking at the student-student interaction, student-instructor interaction, and student

content interaction. The influence of these interactions on student satisfaction will then be assessed. This is summarised in the figure below.

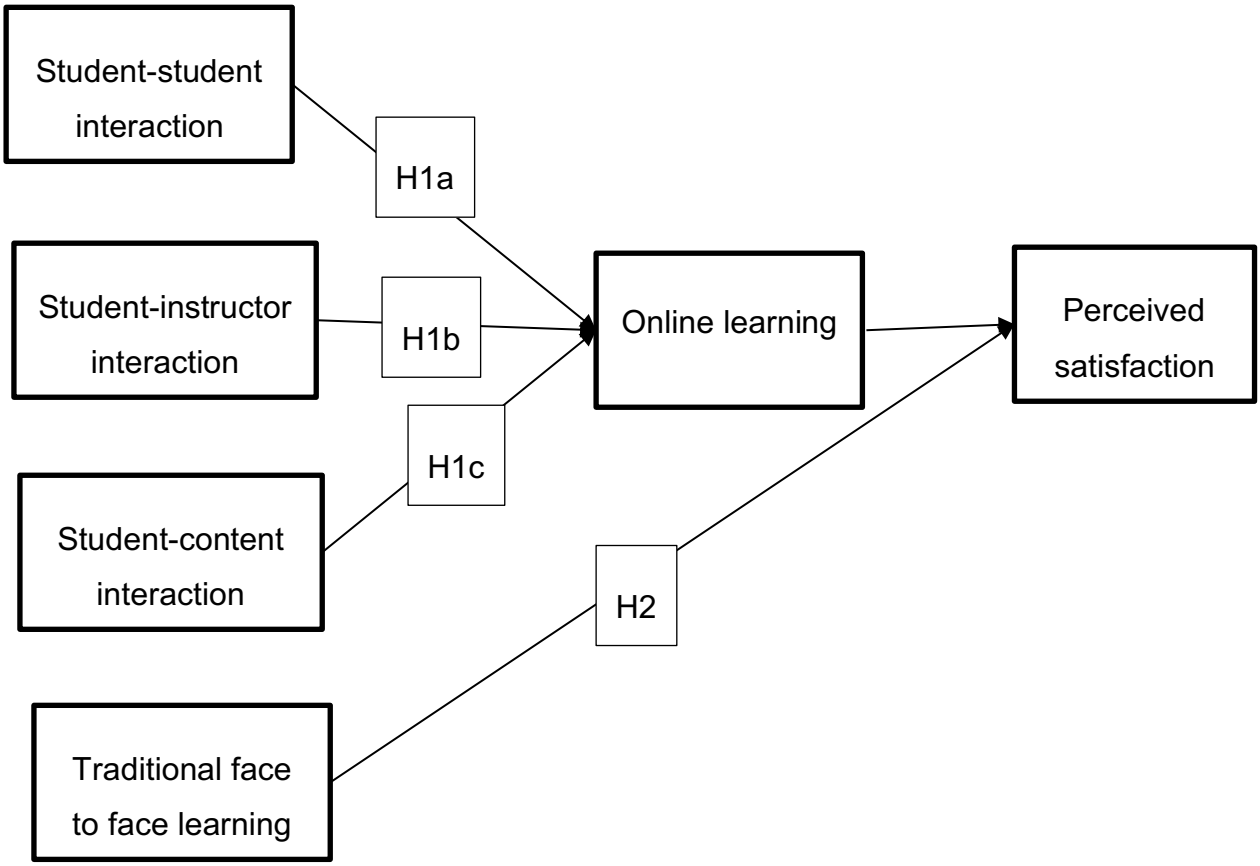

Figure 2.1: Conceptual Framework

Based on the figure above, the following hypotheses are tested in this study:

Hypothesis 1a (H1a): *Favourable perceptions of learner-to-learner interaction increases students' satisfaction with online learning.*

Hypothesis 1b (H1b): *Favourable perceptions of learner-instructor interaction increases students' satisfaction with online learning.*

Hypothesis 1c (H1c): *Favourable perceptions of learner-content interaction increase students' satisfaction with online learning.*

Hypothesis 2 (H2): *Favourable perceptions of traditional face to face learning increases student satisfaction with face-to-face learning.*

2.6 Conclusion of Literature Review

The literature review suggests that face-to-face education is more satisfying to students than online education. However, there is limited empirical evidence on the perception of students on online learning versus traditional face-to-face learning. Although online learning is fast growing, it is still in its early stages of development. As a result, developers and providers of online learning need a better understanding of how students perceive and respond to blended learning approaches because student perception and attitude are critical to motivation and learning. As a result, the significance of this research rests in investigating Wits University students' perceptions regarding the two methods of delivery of the PDBA programme.

CHAPTER 3. RESEARCH METHODOLOGY

This section describes the methodology followed in relation to the propositions from the literature review in the previous chapter. The first section of this chapter discusses the research approach, followed by research design, population and sampling issues, data collection, data analysis, trustworthiness of the study and lastly, the chapter discusses ethical considerations.

3.1 Research approach

This research is based on the pragmatic research philosophy. Pragmatism necessitates the development of a research approach that will most effectively address the research problem understudy (John W Creswell, 2014). Pragmatism advocates mixed research approaches in addressing the research problem. Thus, pragmatism enables the integration of qualitative and quantitative research methods into a study (Morgan, 2017). Qualitative research is employed to better comprehend the background, emotions, behaviours, and social meanings that people develop through experience and interaction. Qualitative research is employed to focus on four interviews conducted with students and course administrators to gain in-depth insights on the differences between online and in-person learning experiences. The disadvantages of this method, include lack of sufficient reliability and validity and it provides inadequate evidence and requires stronger evidence (Kumar, 2018). As this is a mixed-method study, an attempt to overcome this shortcoming will be made through surveys.

Quantitative research employs a theory-testing approach to investigate the relationships between variables (Creswell & Creswell, 2017). Quantitative research is chosen in this study because it provides data reliability and reduces sampling bias (Creswell, 2014). The shortcomings of both research approaches are why pragmatic research integrates the strengths of qualitative and quantitative research in a single study. The integration of both qualitative and quantitative research methods allows the researcher to improve the quality of the research (Morgan, 2017).

This study uses a combination of deductive and inductive approaches to answer questions derived from theory as well as from research participants (Morgan, 2017). The deductive research approach allows for objectivity in data analysis and interpretation and results from generalisation. Inductive approaches enable the researcher to develop theories or generalisations based on the observations made from the study (Creswell & Cresswell, 2017).

Therefore, this study will address the following:

- Who is assessed? - Students and alumni of the PDBA Programme at WBS and Programme administrators
- What is assessed? - Students, alumni and programme administrators' perceptions of online learning and traditional face to face learning
- How are they be assessed? - An interview with open-ended questions to four participants comprising of students and course administrators as well a survey with closed-ended questions.

3.2 Research design

This study follows a concurrent mixed method design, which is characterised by the simultaneous collection of qualitative and quantitative data. In concurrent designs, priority may be given to one form of data over the other (Creswell & Cresswell, 2017). The focus is on exploring the perceptions of WBS students and course administrators concerning their experiences (Levin, 2006).

A survey was conducted to collect quantitative data. The survey sought to collect data from a wide sample. This study surveyed WBS students using a questionnaire to collect data about the participants' perceptions of their experiences as online or traditional classroom students. Surveys enable the researcher to obtain detailed and relevant data the researcher did not anticipate finding on the onset (Levin, 2006).

This study investigates the participants' perceptions of their experiences as online or traditional classroom students through in-depth interviews, where two students and two course administrators are interviewed.

3.3 Data collection methods

A survey and interviews were conducted to collect data from participants. The online survey collected data from the students and alumni, designed based on the research objectives and administered online to the selected sample. Online surveys have become widely used due to their efficiency and effectiveness (Kumar, 2018). Its ability to reach wider range of participants, cost effectively, enables the researcher to reach out to many participants.

A link to the questionnaire was sent via email and consent to collect student data was obtained through an online tick box on the survey instrument. This was then distributed to the student and alumni population of the WBS PDBA programme.

Interviews were conducted with some of the student population and course administrators simultaneously.

3.4 Population and sample

3.4.1 *Population*

The target population for this study is WBS students and alumni in PDBA programme as well as course administration members. The students and course administrators have experience with either online / traditional learning and or administrating a programme that has both online and traditional learning components.

3.4.2 *Sample*

The sample of this study is selected from WBS PDBA students and alumni for the quantitative survey and course administrators and students for the qualitative interviews with experience in online and traditional learning. The study utilised a sample of 109 students. Morgan (2017) states that sample sizes of at least 100 observations in cross-sectional quantitative studies are appropriate for reliable results. For qualitative analysis, a sample of four participants were interviewed,

Diane and Casey, (2018) state for partial theme representation there need to be at least four respondents.

3.4.3 *Sampling method*

Convenience sampling was used to select the sample of students for this study. Convenience sampling involves selecting a sample from those who are available and willing to participate. The justification for using convenience in this study was that the population size was unknown. Therefore, the researcher had no access to the list of the population. Therefore, probability sampling methods were not feasible (Morgan, 2017).

In addition, purposive sampling was used to select a sample of course administrators and students. Purposive sampling is a non-probability method whereby the researcher uses his or her discretion to select a sample from the population. Thus, the sample of course administrators were selected based on the judgement of the researcher concerning the knowledge of the participants about online and traditional learning.

3.5 The research instruments

3.5.1 Questionnaire

Data was collected from students using a questionnaire. Measurement items on the questionnaire were assessed on a 5-point Likert scale.

The design of the questionnaire is as follows:

SECTION A	Demographic Information
SECTION B	Attitudes towards online learning
SECTION C	Experiences with online learning

SECTION D	Attitudes towards traditional learning
SECTION E	Experiences with traditional learning

3.5.2 Interview Guide

An interview guide has been designed with the objective of getting insights from students and course administrators during in-depth one-on-one interviews on the following aspects.

This is structured as follows:

- Online learning experiences
- Traditional learning experiences
- Administrative planning for both online and traditional learning
- Student interactions in both online and traditional learning

3.6 Procedure for data collection

The questionnaire for students was uploaded on Qualtrics, permission to collect data requested from Wits University's registrar's office. A permission request letter was sent to the university to collect data. The link was then distributed to WBS students and alumni.

Consent from the participants to was obtained during the survey. An interview guide was used to collect qualitative data from participants and online interviews conducted with the selected course administrators and students on MS Teams. Permission to record the interviews will be sought from the participants. The recorded interviews will be transcribed into text for analysis.

3.7 Data analysis strategies and interpretation

Following a deductive research approach, data analysis is conducted using statistical tools to answer research questions. IBM Statistical Package for Social Scientists (SPSS) version 27 is utilised to analyse the data.

Analysis of the research questions was conducted using descriptive statistics. Descriptive statistics are used to summarise sample characteristics and describe students' perceptions of online and traditional learning.

Qualitative data collected is used to provide depth to the quantitative analysis. Thus, for each research question, quantitative results will be supported by qualitative results, which are analysed using deductive analysis.

3.8 Quality Assurance

3.8.1 *External validity*

Creswell (2014) explains external validity as being able to form generalisations of the findings of the research across all populations. Blumberg, Cooper, and Schindler (2014) note that at threat to external validity may arise as a result of differences in population, one where the data is collected from and one where the results of the survey are generalised. The findings of this study are drawn from a sample representative of the population as the survey was only sent out to current and alumni students of the PDBA programme.

3.8.2 *Internal validity*

Blumberg, Cooper, and Schindler (2014) define internal validity as an assessment of whether the instrument employment measures what it purports to measure such that results from the research are free from error and inferences can be made from them. Factor analysis is used to assess the internal validity of the measures employed in this study, to summarise the data enabling easy interpretation of patterns and relationships (Gie Yong & Pearce, 2013). Exploratory factor analysis (EFA) from the SPSS version 27 statistical package

is used to test for the validity of the scale of measurement to provide methods for examining the structure of correlations among many variables.

3.8.3 *Reliability*

Reliability concerns the accuracy and precision of the research procedure and the ability of a measure to produce consistent results Blumberg, Cooper, & Schindler (2014). To ensure research reliability, and evidence sequence adherence, a research framework that includes objectives and procedures is key (Morgan, 2017). Instrument consistency and internal validity will be measured using Cronbach's Alpha, with 0.7 being the reliable measure cut-off.

Cronbach's alpha coefficient is used to test the scale's reliability. It is used to assess a survey questionnaire's internal consistency that involves multiple Likert-type items (Cronbach, 1951) . The measure is considered reliable if Cronbach's alpha is greater than 0.7 and all the measurement scales in this study showed an a Cronbach's alpha that is reliable as they were all above 0.7.

3.8.4 *Credibility*

Credibility of the study is achieved if readers can trust the findings of the study and the processes that led to the conclusions (Flick, 2018). In this study, credibility will be ensured by having the study reviewed by peers, in a process called membership checks. This helps improve the credibility of the findings, proving that the findings came from a systematic investigation (Flick, 2018).

3.8.5 *Transferability*

If the findings of a research can be extended to various situations, it is transferable (Flick, 2018). In this study, transferability suggests that the findings might be extended to other universities. This is achieved by providing adequate detail of the findings of the study as well as a clear explanation of the findings.

3.8.6 *Dependability*

Research is deemed to be reliable if it can be duplicated in a comparable scenario and yields similar results (Connelly, 2016). Making sure that the research approach is aligned to what the study seeks to achieve will assure dependability in this study. This will be achieved through matching the data collected in both the qualitative and quantitative methods employed in the study.

3.9 Ethical considerations

Obtaining informed consent is a key element of doing research with human participants. In this study, participants will sign the informed consent form articulating the research's purpose.

CHAPTER 4. PRESENTATION OF RESULTS

4.1 Introduction

Results of the survey and interviews conducted are presented in this chapter. The study employed a mixed methods approach, and findings from both data collection methods will be presented concurrently. Data collection was conducted using a survey which was emailed to participants who concluded this online with close ended questions and an interview guide which was conducted online, in one-on-one interviews with both students and programme administrators. This study's objective was to explore WBS's students and course administrators' perceptions of online learning in comparison to the traditional classroom learning experience. This chapter mainly focuses on testing the following hypotheses set out in Chapter 2.

The first section of this chapter presents results of the sample characteristics followed by reliability and validity analysis. Reliability is assessed using Cronbach's alpha whereas validity is assessed using factor analysis. Thereafter, descriptive statistics per item are presented. Lastly, hypotheses testing is conducted using correlation and regression analysis.

4.2 Sample characteristics and demographic profile of respondents

The survey link was shared on Qualtrics and a total of 109 responses were received out of a population of 540 students who were emailed the survey link. Following further screening of the data, 2 responses were excluded as they were incomplete. Therefore, the were 107 observations which formed the sample of the study used for further analysis. The interviews were conducted with four respondents; 2 students and 2 programme administrators to collect qualitative data. Only students with experiences of both online and tradition face-to-face learning were included in the survey. Course administrators and students were interviewed to provide depth in the analysis of results. Demographic data collected include age of the respondents and their gender.

4.2.1 *Gender*

The following figure presents the gender distribution of the respondents.

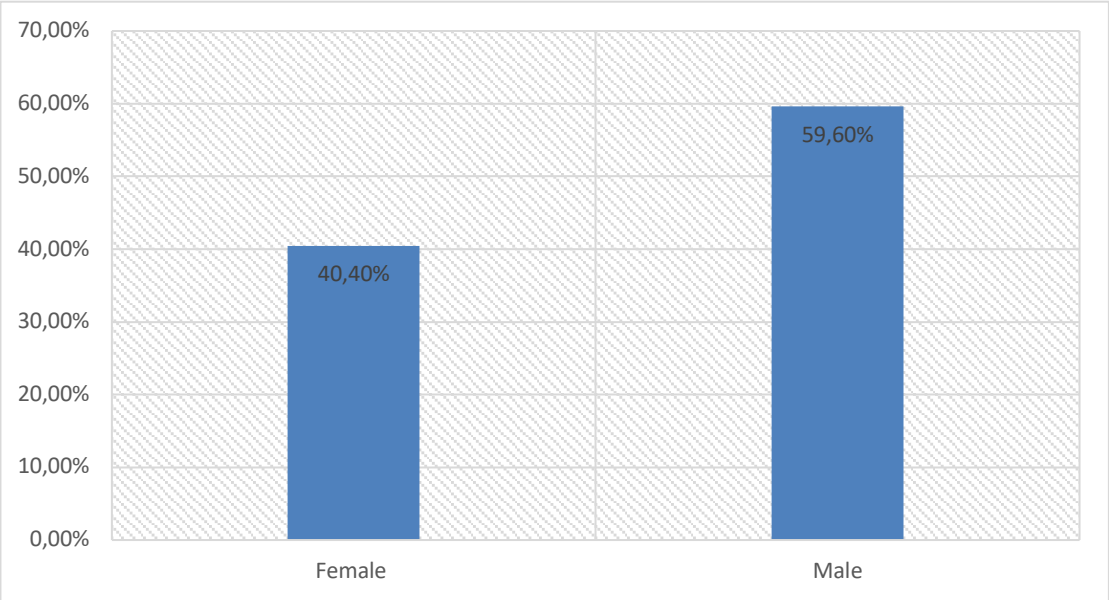

Figure 4.1: Gender

Based on the results in Figure 4.1 above, most respondents were male, accounting for 59.6% of the sample. Females accounted for 40.4% of the sample. Therefore, male students dominated the sample.

4.2.2 *Age*

The respondents' age is shown in the following table.

Table 4.1: Age distribution

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Age	107	19	52	30.94	8.314
Valid N	107				

Table 4.1 shows that the minimum age of the respondents is 19 years, and the maximum age 52 years. The average age was 30.94 years and there was low variability in the age distribution as shown by the standard deviation of 8.31. The following section presents reliability analysis.

4.3 Reliability of measurement scale

This section assesses the reliability or internal consistency of the measurement scale used. To test the reliability of each scale, the Cronbach alpha was used. A Cronbach alpha greater than 0.7 indicates internal consistency while an alpha between 0.5 and 0.6 is lower but continues to be reliable (Field, 2013).

There were 6 scales in this study. The 6 measurement scales assess are attitude towards online learning (ONLINE), attitude towards traditional learning (TF2F), student-student interaction (SSI), student-instructor interaction (SII), student-content interaction (SCI) and experience with traditional face to face learning (EXF). The following table presents a summary of reliability analysis.

Table 4.2: Summary of reliability analysis

Scale	Code	No. of items	α(before adjustment)	Items deleted	α(after adjustment)

Learners' attitude to online learning	ONLINE	8	0.722	None	0.721
Leaners' attitude to classroom learning	TF2F	8	0.647	1	0.729
Student interaction with other students	SSI	6	0.717	None	0.717
Student interaction with lecturer	SII	7	0.840	None	0.840
Student interaction with content	SCI	6	0.758	None	0.758
Experience with TF2F learning	EXF	5	0.855	None	0.855

Based on the results presented in Table 4.2 above, for all the measurement scales, the Cronbach's alpha was greater than 0.7. The Cronbach's alpha if item is deleted indicated that in all scales except the TF2F scale, there was no need

to delete any item since there was not any case where the alpha improved if an item was deleted, thus the measurement scales were consistent and highly reliable and there was evidence of internal consistency (Field, 2013).

4.4 Factor analysis

Exploratory factor analysis (EFA) from SPSS version 27 statistical package was used to test for validity of the scale of measurement. In general, factor analysis provides methods for examining the structure of interrelationships (correlations) among many variables by establishing sets of strongly correlated variables known as factors. These clusters of variables (factors), which are highly inter-correlated, are considered to represent data dimensions.

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was employed for this analysis. If the KMO statistic is above the 0.5 cut-off, it suggests that the sample size is suitable for factor analysis. Results of the KMO test are reported in the following table.

Table 4.3: Sample adequacy test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.568
Bartlett's Test of Sphericity	Approx. Chi-Square	3129.165
	Df	780
	Sig.	.000

Based on the results in Table 4.3, the KMO statistic is 0.568, which is greater than the 0.5 cut-off. This result suggests that the sample size of this study was adequate to conduct factor analysis. Therefore, proceeding to conduct factor

analysis in this case produces invalid results which can be relied on for further analysis (Field, 2013).

After confirming sample adequacy, EFA was conducted by first choosing the method of extracting the factors. The Principal Components Analysis (PCA) was chosen. The number of factors or components to extract was based on the eigenvalue rule which states that components with eigenvalue greater than 1 are extracted. This can be illustrated by the following scree plot.

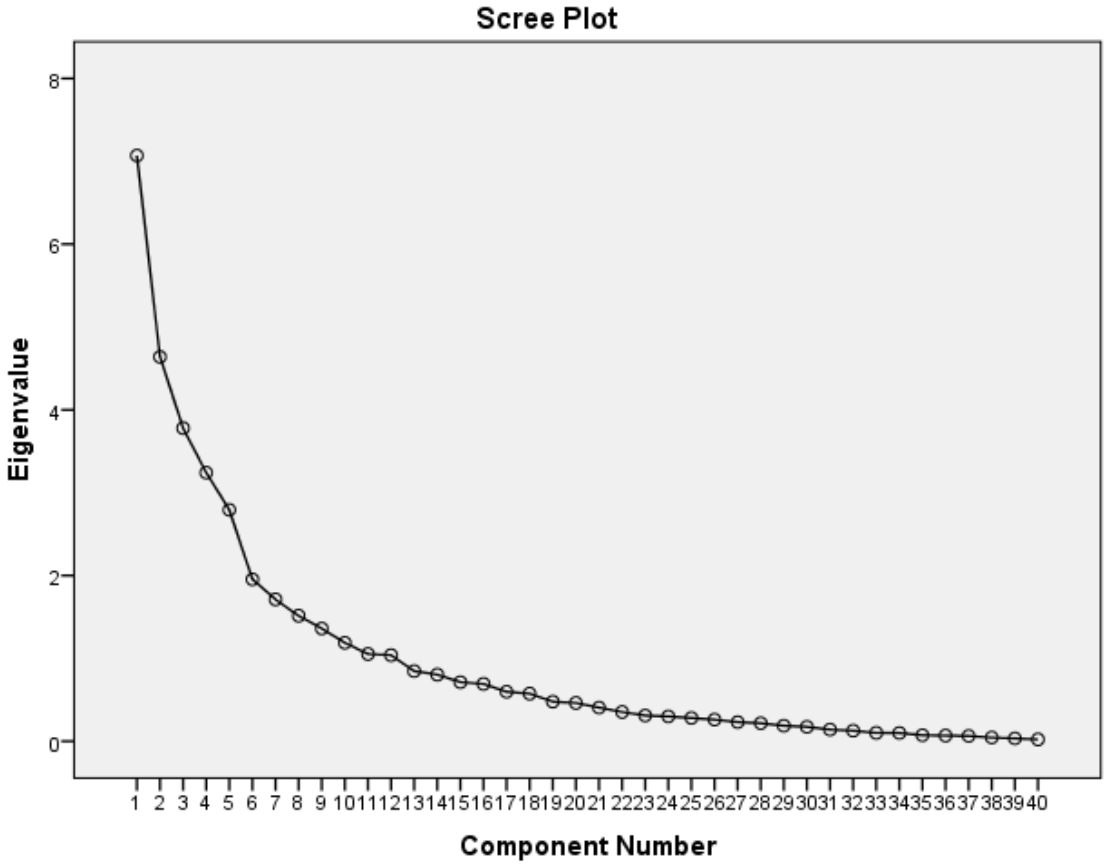

Figure 4.2: Scree-plot

The eigenvalue is shown on the vertical axis in Figure 4.2 above. It is shown that 6 components were extracted since there are 6 small circles above the eigenvalue 1. The extracted components explain some variation in the data set, and the percentage of variation explained shows this. This is shown in the following table.

Table 4.4: Total Variance Explained

Total Variance Explained							
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	7.07	17.674	17.674	7.07	17.674	17.674	4.707
2	4.64	11.6	29.274	4.64	11.6	29.274	4.918
3	3.779	9.447	38.721	3.779	9.447	38.721	4.897
4	3.242	8.104	46.825	3.242	8.104	46.825	5.052
5	2.792	6.981	53.806	2.792	6.981	53.806	4.298
6	1.955	4.886	58.692	1.955	4.886	58.692	2.649

The cumulative percentage of the total variance is 58.96%. This suggests that the 6 factors extracted explained about 59% of the variation in the data set. The following step was to choose the factor rotation method so that highly correlated variables are grouped together according to their respective factor loading. According to Field, (2013), items with factor loading which are at least 0.4 are retained. The idea is to retain only items which high factor loadings which shows high correlations. Thus, items that are measuring the same concept are group together. The rotated component matrix is shown in the following table.

Table 4.5: Rotated component matrix

Pattern Matrix[a]						
	Component					
	1	2	3	4	5	6
Online learning enhances learning experience		.787				
Online learning enhances communication skills		.524				
Online learning helps attain new knowledge		.651				
Online learning better than traditional learning method		.720				
Online learning increases the quality of learning		.899				
Adopting ICT and E-learning allows for increased student satisfaction		.843				
I would be interested in studying online in future		.564				

I feel positive towards online learning		.677				
I get feedback from my classmates				.753		
We hold group discussions with classmates				.604		
I share my thoughts with classmates				.620		
I comment on other students' thoughts and ideas				.844		
Group activities give me a chance to interact with classmates				.684		
Overall, I do interact with fellow students				.632		
I communicate with lecturers	.561					
Lecturers respond to my questions	.726					
I receive prompt feedback from lecturers	.817					

Lecturers are available whenever I need them	.752					
Lecturers help with learning resources	.894					
Lecturers help with personal emotional guidance	.855					
Lecturers help with academic counselling	.443					
I have received all the study units in advance					.617	
Objectives in the course are clear					.564	
Adequate learning activities are provided for in the course					.682	
Course content is easy to understand					.679	
Illustrations in the study units are clear					.742	
Media diagrams illustrations are clear					.809	

Traditional face to face learning enhances my learning experience						.623
Traditional face to face learning enhances my communication skills						.545
I believe that traditional learning gives me the opportunity to understand better						.537
Face-to-face contact with the instructor is necessary for learning						.468
Traditional learning is more motivating than online learning						.559
I am comfortable communicating face to face						.583
I would be interested in studying courses that use face to face						.564
Overall, I feel positive towards traditional face to face learning						.412

I feel that the face to face courses I took were well presented in terms of course content			.706			
My experience with my classroom courses has been great			.776			
The face to face student-student interactions met my expectations			.718			
The face to face student-instructor interactions met my expectations			.751			
The classroom course student-content interactions met my expectations			.688			
Extraction Method: Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization.						
a. Rotation converged in 7 iterations.						

Table 4.5 above shows the rotated component matrix, showing the number of components extracted and the factor loadings. For there to be evidence of convergent validity, highly correlated items should load highly on a single factor or component. As shown in Table 4.5, the first component consists of items that

measure student-instructor interaction. Component 2 loaded with items that measure attitudes towards online learning, Component 3 is loaded with items measuring experiences with traditional face-to-face learning, Component 4 is loaded with items measuring student-student interaction, Component 5 is loaded with items measuring student-content interaction, and lastly, Component 6 is loaded with items measuring attitudes towards traditional face-to -face learning.

Therefore, factor analysis has confirmed that there is convergent validity. EFA contributed to dimension reduction, thus, the extracted components can now be treated as single variables for further analysis in this study.

4.4 Descriptive analysis

A descriptive statistical analysis was conducted in this study, focusing on the per item mean and standard deviations. The composite mean per scale was also considered to assess the extent to which respondents agreed or disagreed with the questions asked. The scale used to measure the responses was the 5-point Likert scale. Therefore, the mean responses were considered in this case.

4.4.1 *Attitudes towards online learning*

Respondents were asked questions relation to how they perceive online learning and the level of satisfaction with online learning. The following table summarises descriptive statistics per item.

Table 4.6: Attitudes towards online learning

Descriptive Statistics			
	N	Mean	Std. Deviation

Online learning enhances my learning experience.	107	4.04	.949
Online learning enhances my communication skills	107	3.58	1.054
I believe that online learning gives me the opportunity to acquire new knowledge	107	3.65	1.219
Online learning is more efficient than traditional learning method	107	3.67	1.004
Online learning increases the quality of learning because it integrates all forms of media	107	4.08	.904
Adopting ICT and E-learning allows for increased student satisfaction	107	4.10	.799
I would be interested in studying courses that use E-learning	107	4.24	.837
Overall, I feel positive towards E-learning	107	4.25	.836
Composite	**107**	**4.00**	**0.95**

The table above shows that the highest rated item was: Overall, I feel positive towards e-learning (M= 4.25, SD=0.836). The composite mean score is 4.00 and standard deviation is 0.95. This shows that the average response to questions regarding the students' perception of online learning was "agree". Therefore, respondents had positive attitudes towards online learning.

4.4.2 *Attitudes towards traditional face to face learning*

Respondents were also assessed on their perceptions and satisfaction with traditional face to face learning. Questions were asked and the following table summarises descriptive statistics of the responses given.

Table 4.7: Attitudes towards traditional face to face learning

Descriptive Statistics			
	N	Mean	Std. Deviation
Traditional face to face learning enhances my learning experience	107	3.12	1.263
Traditional face to face learning enhances my communication skills	107	3.65	.590
I believe that traditional learning gives me the opportunity to understand better	107	3.27	.689

Face-to-face contact with the instructor is necessary for learning	107	3.35	.738
Traditional learning is more motivating than online learning	107	3.33	1.279
I am comfortable communicating face to face	107	3.65	.738
I would be interested in studying courses that use face to face	107	3.12	1.041
Overall, I feel positive towards traditional face to face learning	107	3.62	.820
Composite	**107**	**3.38**	**0.89**

The table above reports low mean scores for the items, with all the mean score below 4. The composite mean for the scale is 3.38 and standard deviation is 0.89. There was low variability in the responses. However, the mean response was “neutral”. Thus, most respondents had attitudes towards face-to-face learning that are less favourable compared to online learning.

4.4.3 *Student-student interaction*

The students’ experience with online learning was assess based on the student-student interaction. Per item descriptive statistics for the scale are presented in the following table.

Table 4.8: Student-student interaction

Descriptive Statistics			
	N	Mean	Std. Deviation
I do get feedback from my classmates	107	3.35	.814
We do hold group discussions with classmates	107	3.44	.826
I do share my thoughts with colleagues	107	3.02	1.321
I do comment on other students' thoughts and ideas	107	2.88	.855
Group activities give me chances to interact with my classmates	107	3.33	1.232
Overall, I do interact with fellow students	107	3.63	.950
Composite	**107**	**3.27**	**0.99**

Based on the results presented in Table 4.8, the highest rated item is: Overall, I do interact with fellow students (M= 3.63, SD= 0.95). Overall, the mean score for the scale is 3.27, suggesting that most responses were “neutral”. The low mean scores suggest that respondents perceive their student-student interaction as average, or less favourable.

This result is also consistent with findings from the qualitative analysis. For example, in expressing concerns over low student-student interaction, one student interviewed had the following to say:

> "*There was lack of interaction with all of the students in the class, any relationship formed, did not last long as they are module specific, and a different group of students is introduced each time so it's difficult to keep up and build relationships each time" Participant 2*

However, some students were happy with the student-student interaction in online learning. For example, one student had the following to say

> *"Though there was no face-to-face interaction, I made e-friends, with the people in my syndicate group which allowed for networking and social interactions. There was mutual help amongst peers to help complete on modules completed by others prior". Participant 3*

The perspectives of course administrators regarding students' interaction were also analysed. From those interviewed, results show that the course administrators believe that the design of the online learning caters for social interaction among students. For example, one participant had the following to say:

> "*With our online learning system, you have that feeling that human contact is there through the discussion forums. Lecturers are able to respond to queries on here so can other students and you find a lot of students ask one another questions and give each other support online" Participant 1*

Further, another participant also supported that the online system allows networking among students. The participant had the following to say:

> "*Through discussion forums and syndicates, students ask each other and discuss pertinent issues. Students support one another, so the networking potential on the online I think is much greater than you would maybe find on the content". Participant 2*

In addition, one participant also supported the issue of networking in online learning, highlight the important role of the developments in the digital ecosystem. The participant had the following to say:

"*The type of students we now have are fast paced lifestyles and embrace technology seamlessly. I'm sure each one of our students has a smartphone and if you can engage on social media, then you can engage using all other types of technology". Participant 1*

4.4.4 *Student-instructor interaction*

The study also assessed the experiences of students concerning their interaction with their course administrators in online learning. Descriptive statistics are summarised below.

Table 4.9: Student-instructor interaction

Descriptive Statistics			
	N	Mean	Std. Deviation
I communicate with my teachers all the time when I need help	107	4.38	.867
My teachers often respond to my questions	107	4.46	.779
I receive prompt feedback from my teachers	107	4.38	.911
My teachers are available whenever I need them	107	4.25	1.007
my teachers help me out with learning resources	107	4.42	.997
my teachers help me with personal emotional guidance	107	4.23	1.198
My teachers help with academic counselling	107	4.21	1.054
Composite	**107**	**4.33**	**0.97**

Per item means reported in Table 4.9 show high mean scores and the item with the highest score is: My teachers often respond to my questions (M=4.46, SD= 0.779). Overall, the average score for the whole scale is 4.33, with standard deviation of 0.97 indicating less variability. The result implies that on average, students have positive experiences with their interaction with instructors in online learning.

However, the analysis also revealed that some students had issues with their online learning experiences concerning interaction with instructors and course delivery. For example, one student bemoaned limited time for interaction highlighting that

> "*The class sessions were short, and more time was spent debating on administrative issues as we spend bulk of the year without any course administrators, we relied on lecturers to answer majority of our queries, to the detriment of teaching or course content specific queries". Participant 3*

In addition, another student highlighted the issues of administration processes of the online courses, stating that

> *"The administration process was chaotic. Over 400 students in an online class made it difficult to deal with all queries in class and no opportunity to learn or have follow up questions to better understanding on certain concepts". Participant 2*

From the perspectives of the course administrators, it was revealed that the course administrators had no issues with interaction with their students because of the role of technology. For instance, one of the participants noted that:

> *"I think our online students are fine with the interaction with their lecturers using online platform. I have never had any online student that says to me can we meet in person? I've never had that, and I've seen that with COVID we took contact students and we had to teach them online and they appreciated it. They found benefit in it, so I don't think we are at a point now where networking has to be in person". Participant 4*

4.4.5 *Student-content interaction*

The study also assessed the experiences of students with their interaction with course content in online learning. Responses are summarised in the following section in terms of per item descriptive statistics.

Table 4.10: Student-content interaction

Descriptive Statistics			
	N	Mean	Std. Deviation
I have received all the study units in my course	107	4.19	.864
Objectives in the course module are clear	107	3.60	1.272
Adequate learning activities are provided for in the course	107	3.60	1.125
Course content is easy to understand	107	3.73	1.157
Illustrations in the study units are clear	107	4.08	.926
Media diagrams illustrations are clear	107	4.04	1.154
Composite	**107**	**3.87**	**1.08**

As reported in Table 4.10 above, respondents highly rated the statement that: I have received all the study units in my course (M=4.19, SD= 0.864). Overall, the mean score is 3.87 and standard deviation is 1.08. Thus, most respondents indicated that they have favourable experiences with their interaction with course content in online learning.

The students interviewed shared their thoughts on learning material, as online students, they understood the role this paid in them being well prepared for effective learning.

"Course material was shared ahead of time, we would have ample of time to go through the content before class, allowing us time to formulate questions in preparation for class and to prepare for upcoming assessments" Participant 3

4.4.6 *Experiences with traditional face to face learning*

Students' experience with face-to-face learning was also assessed based on course interaction, student interaction and student-teacher interaction. Responses are summarised below in form of per item descriptive statistics.

Table 4.11: Experiences with traditional face to face learning

Descriptive Statistics			
	N	Mean	Std. Deviation
I feel that the face-to-face courses I took were well presented in terms of course content	107	4.00	1.103
My experience with my classroom courses has been great	107	3.90	1.257
The face-to-face student-student interactions met my expectations	107	4.62	.690
The face-to-face student-instructor interactions met my expectations	107	4.50	.754
The classroom course student-content interactions met my expectations	107	4.40	.693
Composite	**107**	**4.28**	**0.89**

The results show that most respondents highly rated the statement that: The face-to-face student-student interactions met my expectations (M=4.62, SD=0.69). This is a stark contrast with the low rating given to student-student interaction in online learning as shown in Table 4.8. Thus, results show that respondents have more favourable experiences of student-to-student interaction in traditional face-to-face learning than in online learning. Overall, the composite mean is 4.28, indicating favourable experiences with traditional learning. However, in table 4.7, it is shown that students had less favourable attitudes towards traditional learning compared to online learning. Thus, even though students have less favourable

perceptions of traditional learning, results show that their experiences with it have been positive.

From the perspectives of course administrators, there was also consensus that face-to-face learning promotes social interaction among students, and this improves the social aspect of learning. For example, one participant had the following to say:

> *"I don't dispute the fact that traditional learning is more social than online learning on the part of students. Social relationships are better in a classroom learning environment than the traditional one". Participant 1*

Further, one participant also highlighted students are more comfortable to interact with the instructor when they are in classroom learning environment than in online environment. The participant had the following to say:

> *"As for me, students are interacting with me more if they're in class. They feel more comfortable to request something from the administrators than the lecturers as there is a relationship formed over time". Participant 4*

4.4.7 *Course* administrators' *perceptions on improving traditional learning environment.*

Following the finding that students had more positive attitudes towards online learning compared to traditional learning, the study also collected data on the views of course administrators on how the traditional classroom learning can be enhanced to become more aligned with the digital ecosystem. From the analysis, it was found that participants recommended a hybrid system of learning. For example, one participant had the following to say:

> *"For traditional learning to make it better for students experience or to be aligned with the digital world outside, I think what we can improve as Wits Business School is the implementation of a hybrid learning model. This will ensure flexibility of the learning environment. With the hybrid model, I think even lecturers are not able to make it to class, they can do work anywhere. The student can be here, and the lecturer can be wherever*

that they are and facilitate the class. I think we are in a stage where we need that." Participant 4

The suggestion of a hybrid model was further supported by another participant who had the following to say:

"COVID-19 presented the need for more online migration and we as WBS we can embrace more of a hybrid structure. There will be flexibility of when you cannot physically attend class and still be afforded an opportunity to still log on and attend class. Lecturers can also be able to be afforded the same, this way we are able to get global standard of lecturer." Participant 1

Correlation, regression analysis and hypotheses testing are presented in the following section.

4.5 Correlation analysis

Following the presentation of descriptive statistics, a correlation analysis was performed to evaluate the strength and direction of the correlations between the variables under consideration. This is significant since it allows the researcher to assess the model's linearity and the problem of multicollinearity in linear regression analysis. The Pearson correlation matrix was used for correlation analysis, and the coefficients range from -1 to 1, with absolute 1 representing perfect collinearity. Negative coefficients indicate negative correlations between variables, whereas values less than 0.3 indicate weak relationship. The table below shows the results of a correlation analysis performed on the variables utilised in this research.

Table 4.12: Correlation analysis

	Satisfaction	SSI	SCI	SII	EXF

Satisfaction	Pearson Correlation	1				
	Sig. (2-tailed)					
SSI	Pearson Correlation	.461**	1			
	Sig. (2-tailed)	.001				
SCI	Pearson Correlation	.632**	.743**	1		
	Sig. (2-tailed)	.000	.000			
SII	Pearson Correlation	.645**	.518**	.556**	1	
	Sig. (2-tailed)	.000	.000	.000		
EXF	Pearson Correlation	.488**	.444**	.356**	.582**	1
	Sig. (2-tailed)	.000	.001	.010	.000	
**. Correlation is significant at the 0.01 level (2-tailed).						

As reported in Table 4.10 above, the variables are significantly correlated, with positive relationships. The dependent variable (satisfaction) is significantly correlated with student-to-student interaction (r= 0.46, p<.01), student-content interaction (r= 0.63, p<.001), student-instructor interaction (r=0.64, p<.001) and

experience with traditional learning (r= 0.48, p<.001). All the correlations are medium, with the student to instructor interaction presenting higher than others. Further, it also shown that the correlations between the independent variables are all less than 0.8 (r< 0.8).

4.6 Regression analysis

The regression model was run to assess how experiences with online learning and traditional learning influence the perceived learning satisfaction of students. Thus, the satisfaction variable was derived from students' perceptions or attitudes towards traditional face to face learning and online learning. Experience with online learning was assessed based on three aspects of transactional distance theory, which views students' satisfaction with online learning as based on the student-instructor interaction, student-content interaction, and student-student interaction. Experience with traditional face to face learning were also assessed based on aspects of the transactional distance theory but were reduced into a single variable.

Therefore, the multiple linear regression model consisting of 4 independent variables was estimated. In multiple linear regression, the model should be specified as a linear function. This assumption was tested using the correlation matrix which shows that all the correlations were statistically significant, confirming that the model was linearly specified (Field, 2013). Additionally, the assumption such as homoscedastic variance and normality of residuals were tested.

4.6.1 *Normality of residuals*

The plot of residuals was used to assess the normality of the distribution of residuals. The figure below shows the P-P plot of residuals.

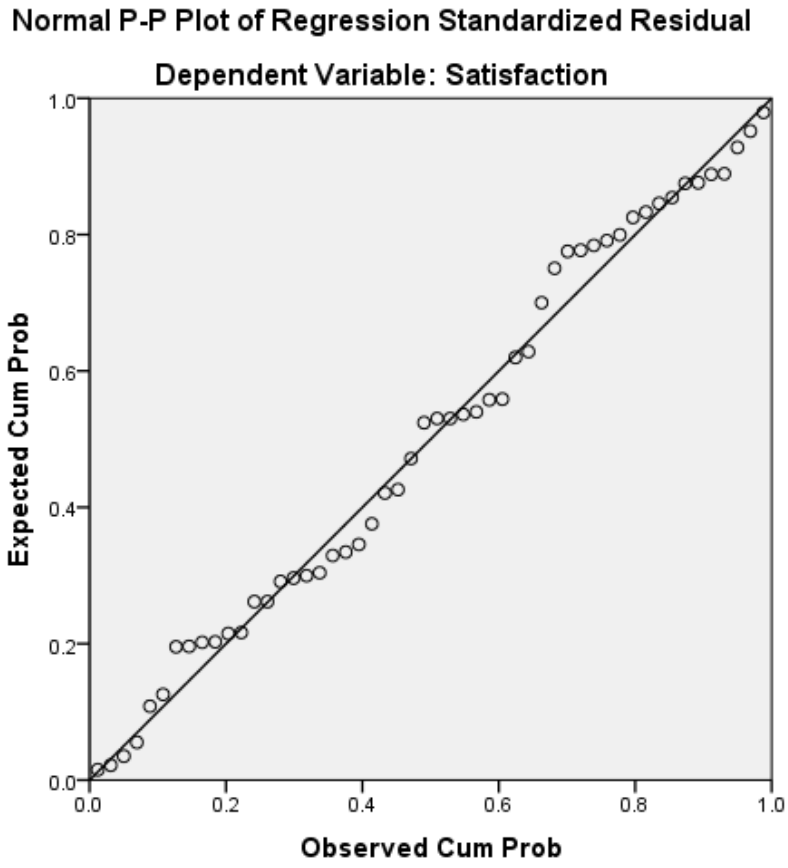

Figure 4.3: Normality test

According to Field (2013), the residuals are normally distributed if the plot of residuals fall within the diagonal line as shown in Figure 4.3 above. Therefore, there residuals were normally distributed.

4.6.2 *Homoscedasticity*

Residual scatter plot was used to test for equal variance and results of the scatter plot presented in Figure 4.4 below shows that the plot of residuals falls within the -3 to 3 range which suggests that the variance of the residuals was constant (Field, 2013).

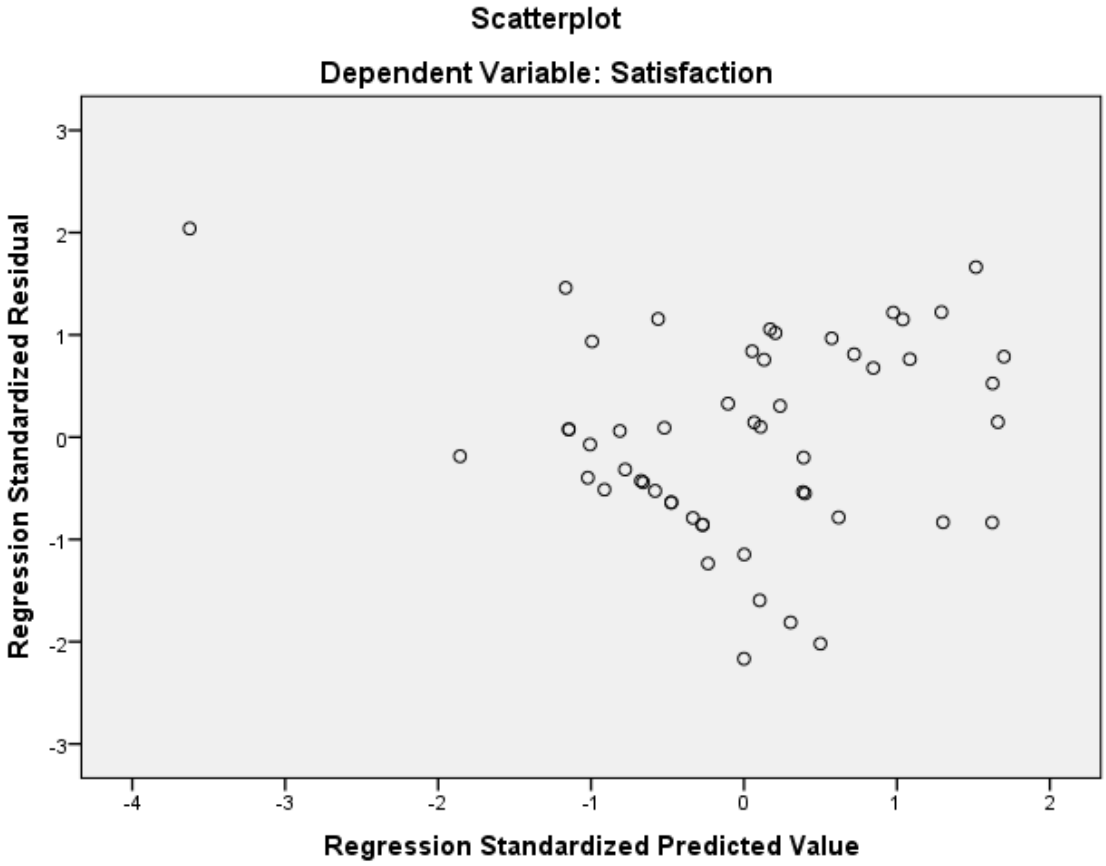

Figure 4.4: Homoscedasticity test

Results of the model are presented below.

4.6.3 *Regression results*

The model summary is shown in the following table.

Table 4.13: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.743[a]	.553	.514	.367
a. Predictors: (Constant), EXF, SCI, SII, SSI				
b. Dependent Variable: Satisfaction				

It is shown in Table 4.13 that the R-square of the model was 0.553. The R-square shows the explanatory power of the model. In this case, the independent variables explained about 55.3% of the variations in the dependent variable. Therefore, the model was of good fit. Overall validity of the model is assessed using the Analysis of Variance (ANOVA) as shown in the following table.

Table 4.14: ANOVA

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6.325	4	1.581	4.107	.004[b]
	Residual	38.886	101	.385		
	Total	45.211	105			
a. Dependent Variable: Satisfaction						
b. Predictors: (Constant), EXF, SCI, SII, SSI						

The F-test assesses the validity of the whole model. The F-statistic id 14.51 which is statistically significant ($p<.01$). Therefore, the whole model was valid. Regression coefficients are reported in the following table.

Table 4.15: Regression coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.750	.450		1.667	.102
	SSI	-.177	.152	-.177	-1.160	.252
	SCI	.508	.155	.505*	3.283	.002
	SII	.253	.098	.349*	2.579	.013
	EXF	.179	.120	.185	1.497	.141
a. Dependent Variable: Satisfaction						

Regression results in Table 4.15 show that only student-content interaction and student-instructor interaction had statistically significant coefficients ($p<.05$). The coefficients of student-student interaction and experience with traditional face to face education were not statistically significant ($p>.05$). Therefore, students' perceived satisfaction with learning is significantly influenced by favourable experiences with their interaction with the course content and the instructors in online learning. Experiences with interaction with other students was found to have no influence on the perceived satisfaction of students in online learning. However, the coefficient was negative, confirming the unfavourable experiences of students with student-student interaction in online learning. There was also no evidence to conclude that students' experiences with traditional face-to-face learning influence their satisfaction with learning.

4.7 Results and hypotheses

Hypothesis 1a (H1a): Favourable perceptions of learner-to-learner interaction increases students' satisfaction with online learning.

It is show in Table 4.15 that the coefficient of SSI is negative and statistically insignificant (β=-0.17, p>.05). This result means that the hypothesis that favourable perceptions of learner-to-learner interaction increases students' satisfaction with online learning was not supported. Therefore, the study concludes that perceived satisfaction of students was not influenced by their experiences with interaction with other students in online learning.

Hypothesis 1b (H1b): *Favourable perceptions of learner-instructor interaction increases students' satisfaction with online learning.*

Results in Table 4.15 reveal that the coefficient of student-instructor interaction is positive and statistically significant (β=0.349, p<.05). This result suggests that Hypothesis 1b was supported by the data. Therefore, it can be concluded that favourable experiences of students with their interaction with their instructors positively influences their satisfaction with online learning.

Hypothesis 1c (H1c): Favourable perceptions of learner-content interaction increase students' satisfaction with online learning.

Regression results reported in Table 4.15 show that the coefficient of student-content interaction is positive and statistically significant (β= 0.505, p<.01). This implies that Hypothesis 1c was supported. It can therefore be concluded that students' experiences with their interaction with course content positively influences their satisfaction with online learning.

Hypothesis 2 (H2): *Favourable perceptions of traditional face to face learning increases student satisfaction with face-to-face learning.*

Traditional face-to-face learning was found to have a positive but statistically significant coefficient (β=0.185, p>.05). This implies that there is no evidence to support that experiences with traditional face to face learning improves the

satisfaction of students with in-person classroom learning. Therefore, Hypothesis 2 was not supported in this case.

4.8 Chapter Summary

The study sampled 107 WBS students with experiences with both online learning and in-person classroom learning. Two course administrators and two students were also sampled to explore their perceptions of the modes of delivery. Descriptive analysis and a deductive approach were conducted, and it was found that students have more favourable perceptions of online learning compared to traditional face to face learning. However, it was revealed that students had less favourable perceptions with online learning in terms of student-to-student interaction. Findings from deductive analysis reinforced the results from the quantitative analysis, with course administrators agreeing with students that there is lack of social interaction in online learning. Course administrators recommended hybrid leaning models to improve both online and traditional learning.

Further, regression analysis was also conducted, and results confirmed findings from descriptive analysis. It was revealed that experiences of students with the course content and their instructors positively influence their satisfaction with online learning. Results are discussed in the following chapter.

Table 4.16 Hypotheses outcome summary

Hypothesis	**Outcome**
Hypothesis 1a (H1a): Favourable perceptions of learner-to-learner interaction increases students' satisfaction with online learning	Reject
Hypothesis 1b (H1b): *Favourable perceptions of learner-instructor interaction increases students' satisfaction with online learning*	Supported
Hypothesis 1c (H1c): Favourable perceptions of learner-content interaction increase students' satisfaction with online learning	Supported
Hypothesis 2 (H2): *Favourable perceptions of traditional face to face learning increases student satisfaction with face-to-face learning*	Reject

CHAPTER 5. DISCUSSION OF RESULTS

5.1 Introduction

This chapter focuses on how the results of the study relate to the theoretical and empirical literature discussed in chapter 2 of this study. The discussion will lead to conclusions on the objectives of the study.

5.2 Discussion pertaining to objectives

This study sought to explore WBS students, alumni and course administrators' perceptions of online learning compared to traditional classroom learning experiences. Guided by the transactional distance theory, this study was largely quantitative and sought to assess how students are satisfied with traditional learning and distance learning based on the student-instructor interaction, student-content interaction, and student-student interaction.

5.2.1 *Student-student interaction and satisfaction with online learning*

This study hypothesised that favourable perceptions of learner-to-learner interaction increases students' satisfaction with online learning. From the regression analysis, it was found that student perceptions of student-to-student interaction had no significant influence on students' satisfaction with online learning. This result is consistent with descriptive analysis which revealed that most respondents perceived their student-student interaction as average, or less favourable. Qualitative data analysis also showed that students had unfavourable perceptions of student-student interaction.

The result that student-student interaction improves satisfaction is supported in literature. Martin and Bolliger (2018) found that interaction between students benefits online learning and increases student engagement. Further, Dumford and Miller (2018) found that when a larger percentage of the course assessment was based on discussions, students were satisfied and believed they had learnt more from student engagements. In their studies students received better

engagement with their colleagues when doing classroom or traditional face to face learning.

5.2.2 *Student-instructor interaction and satisfaction with online learning*

This study also hypothesised that favourable perceptions of learner-instructor interaction increase students' satisfaction with online learning. From the results, there was evidence to support this hypothesis and concluded that favourable experiences of students with interaction with their instructors positively influences their satisfaction with online learning.

The result is consistent with Martin and Bolliger (2018) who found that interaction between students and instructors increases student engagement in online courses. Further, Lee and Yeong (2018) found that student involvement may be strongly related to utilising several student-instructor communication channels. In addition, Ouyang, Chen, and Li (2021) also found that rapport and collaboration between students and instructors in an interactive and cohesive environment, including group work and instructional feedback, are critical for student engagement and learning achievement.

5.2.3 *Student-content interaction and satisfaction with online learning*

It was also hypothesised that favourable perceptions of learner-content interactions increase students' satisfaction with online learning. Regression results revealed evidence to support the hypothesis and it was concluded that students' experiences with interaction with the course content positively influences their satisfaction with online learning. This result conforms to the transactional distance learning theory and is also consistent with prior studies.

Das, Birendra, Singh, and Das (2022) found that highly organised course content has a positive impact on students' perception of their learning experiences in an online programme. Further, Alqurashi (2019) found that positive student outcomes are largely a result of the course content they are given. Moore

(1993)notes that learner-to-content interaction is engaging with knowledge intellectually, which can influence a learner's understanding and perceptions. According to Alqurashi (2019), learner-to-content engagement can take place when watching instructional videos, engaging with multimedia, or looking for information. Thus, students are likely to be more satisfied with course content that is informative and instructional in a way that is easily understood. Ghaderizefreh and Hoover (2018) propose employing suitable technology to bring the information to life, which increases student engagement.

5.2.4 *Traditional face to face learning and student satisfaction*

The study hypothesised that favourable perceptions of traditional face to face learning increases student satisfaction with face-to-face learning. Thus, students appeared to prefer online learning to traditional face to face learning. This contradicts findings from previous researchers. Several researchers contend that when comparing online and traditional learning satisfaction, students are more satisfied with face-to-face interactions (Li, Qi, Wang & Wang 2019). In this context, Chang (2020) claimed that interactions between students and teachers contribute to satisfaction However, results of this study showed that students singled out high interaction with other students as a key positive to take from traditional learning.

The result that traditional classroom learning has no influence on students' satisfaction contradicts findings from prior studies. Various authors highlighted that interaction is the most significant aspect of traditional learning which has a positive influence on students' satisfaction. For example, Lazarevic and Bentz (2021) contend that social contact is critical to explaining the link between social presence and the social learning concept. Classrooms become lively places when social interaction becomes an element of classroom dynamics.

5.2.5 *Perceptions of course* administrators

To achieve this objective, interviews were held, and qualitative data was collected and analysed. It was revealed that the course administrators' perceptions of

online and traditional learning were the same, highlighting that the only difference in the administration of online and face to face learning is on the number of assessments and form of assessment. The administrators also demonstrated how they value encouraging the student interactions between the students (Moore, 2013). In terms of interaction of students, it was revealed that online students utilise online platforms to engage, therefore, it was not a challenge in the perspectives of course administrators. The study also collected data on the views of course administrators on how the traditional classroom learning can be enhanced to become more aligned with the digital ecosystem. From the analysis, it was found that the course administrators recommended a hybrid system of learning (Johnson et al., 2016).

5.2.6 Findings on the transactional distance theory

The transactional distance theory is an effort to explain the relationship between students, instructors, and course structure, as well as how that interaction influences the learning environment. This study was based on the transactional distance theory, and it was hypothesised that favourable perceptions of students' interaction with other students, instructors and the course content positively influences students' satisfaction with the online learning environment (Moore, 1993). Results of the study found evidence that conforms to the transactional distance theory. Thus, it was found that student-instructor interaction and student-content interaction significantly predict students' satisfaction with online learning (Moore, 1993). This suggests the relevance of the transactional distance theory in assessing students' satisfaction with their learning environments.

5.3 Chapter Summary

This chapter discussed the results as presented in Chapter 4, with the objective of integrating the findings with literature discussed in Chapter 2 of the study. There were consistencies, noted, therefore the study is largely consistent with literature consulted. In the next chapter, conclusions and recommendations are presented.

CHAPTER 6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter concludes the findings of the study. The first section summarises the study, emphasising major findings and summarising the whole research. The findings are then used to make recommendations to policymakers and academics. The chapter concludes with areas for further research study limitations.

6.2 Conclusions of the study

This study sampled 107 WBS students with experiences of both online learning and in-person classroom learning to explore their experiences in the two learning models. In addition, two course administrators and students were also sampled to explore their perceptions of the two forms of course delivery. The study also intended to assess how these experiences influence students' satisfaction with learning. The study utilised descriptive analysis, deductive analysis, and inferential statistics to analyse the qualitative and quantitative data collected.

Based on the study results, it was concluded that students have become admirers of online learning compared to traditional face to face learning. However, this study noted that interaction is pivotal in deeming remote learning successful. In online learning, student satisfaction is determined by the instructor's immediate availability of material, support, and feedback. Effectiveness of an online learning is dependent on the degree of contact necessary between instructors and students to encourage positive results.

This study concludes that students place a high importance on learner-content interaction. Given that they are learning remotely, they need to spend more time with learning content, this can be achieved by sharing additional resources for students to interact with, sharing online learning outcomes early, before classes commence to allow for interrogation of the content This necessitates a concerted

effort to ensure successful course design, the availability of enough information in the form of study learning tools, and effective connectivity in cases when courses are delivered online.

In this study, student-student interaction was rated low, as a result, providing students with various opportunities for interactive learning is critical.

6.3 Recommendations

The following recommendations can be made, based on the results:

- According to the findings of this study, instructor-student interactions and student-content interactions affect learner satisfaction in an online learning environment. It was also found that there was little interaction among students. As a result, creating more social interactions for students not only to deal with course content but to grow their networks and collaborate effectively with other students.

- Course administrators recommended hybrid learning or blended learning to address the challenges of both online and traditional learning. Hybrid learning involves face-to-face instruction blended with additional offline or distant learning approaches, like experiential learning and digital course delivery. The objective is to use the optimal combination of learning strategies to convey the content and suit students' learning needs successfully.

- It is also recommended that the online programme's design should foster increased interaction among students. Martin and Bolliger (2018) recommend using social media in online courses, allowing for increased participation through social interaction.

- It is recommended that instructors and administrators learn more about how to structure classroom and online courses more effectively, including design elements that enhance positive emotion, resulting in higher student satisfaction (Martin & Bolliger, 2018).

- According to the research, course interaction has a significant positive impact on student satisfaction. As a result, it is recommended that online course design provides essential details such as course content, educational goals, course structure, and course output in a consistent manner so that students find the e-learning system efficient to use.

6.4 Suggestions for further research

Further, student satisfaction with learning can be affected by several factors such as course design, quality of the instructor and demographic factors among other variables (Gopal, Singh, & Aggarwal, 2021). However, this study only focused on variables of the transactional distance theory. Therefore, further research could include other variables that affect student satisfaction with learning.

6.5 Limitations

- The study only focuses on the perceptions of PDBA students and alumni at WBS and course administrators in selected faculty. This may limit generalisations of the findings to other students across different higher education institutions and programmes.
- The study is cross-sectional, focusing on perceptions at a point in time. However, people might change their perceptions over time, which is overlooked in this study.

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APPENDIX A: RESEARCH INSTRUMENTS

QUANTITATIVE DATA COLLECTION

SECTION A: DEMOGRAPHIC INFORMATION

1. **GENDER**

Please indicate your gender

Gender	Tick
Male	
Female	
Prefer not to say	

2. Age

Please state your age____

3. Please indicate format of programme of study

Online		Traditional	

QUESTIONNAIRE A: ONLINE LEARNING

SECTION B: Attitudes towards online learning

Please indicate the extent to which you agree or disagree with the following statements concerning your attitudes towards online learning.

1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5 = strongly agree

Item	1	2	3	4	5
Online learning enhances my learning experience					
Online learning enhances my communication skills					
I believe that online learning gives me the opportunity to acquire new knowledge					
Online learning is more efficient than traditional learning method					
Online learning increases the quality of learning because it integrates all forms of media					
Adopting ICT and E-learning allows for increased student satisfaction					
I would be interested in studying courses that use E-learning					
Overall, I feel positive towards E-learning					

SECTION D: Students' experience with online learning

Students' experience with online learning are assessed based on three dimensions as follows:

Student-student interaction

Item	1	2	3	4	5
I do get feedback from my classmates					
We do hold group discussions with classmates					
I do share my thoughts with colleagues					
I do comment on other students' thoughts and ideas					
Group activities give me chances to interact with my classmates					
Overall, I do interact with fellow students					

Student-instructor interaction

Item	1	2	3	4	5
I communicate with my teachers all the time when I need help					
My teachers often respond to my questions					
I receive prompt feedback from my teachers					
My teachers are available whenever I need them					
my teachers help me out with learning resources					
my teachers help me with personal emotional guidance					
My teachers help with academic counselling					

Student-content interaction

Item	1	2	3	4	5
I have received all the study units in my course					
Objectives in the course module are clear					
Adequate learning activities are provided for in the course					
Course content is easy to understand					
Illustrations in the study units are clear					
Objectives in the course units do match exams					
Media diagrams illustrations are clear					

QUESTIONNAIRE B: TRADITIONAL FACE TO FACE LEARNING

Please indicate the extent to which you agree or disagree with the following statements concerning your attitudes and experiences with traditional face to face learning.

1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5 = strongly agree

SECTION E: Attitudes towards traditional learning

Item	1	2	3	4	5
Traditional face to face learning enhances my learning experience					
Traditional face to face learning enhances my communication skills					
I believe that traditional learning gives me the opportunity to understand better					
Face-to-face contact with the instructor is necessary for learning					
Traditional learning is more motivating than online learning					
I am comfortable communicating face to face					
I would be interested in studying courses that use face to face					
Overall, I feel positive towards traditional face to face learning					

SECTION F: Students' experience with traditional face to face learning

Item	1	2	3	4	5
I feel that the face to face courses I took were well presented in terms of course content					
My experience with my classroom courses has been great					
The face to face student-student interactions met my expectations					
The face to face student-instructor interactions met my expectations					
The classroom course student-content interactions met my expectations					

QUALITATIVE DATA COLLECTION

STUDENTS

Introduction

My name is Sibongile Horo, I am in the process of completing my MBA with WBS and the purpose of this meeting is for me to complete my Research Project, whose aim is to establish what your experiences on a number of aspects during your time at the institution in pursuit of completing your PDBA qualification.

Which type of PDBA intake were you a part of?

Are you a current student?

Did your PDBA experience meet / exceed your expectations, elaborate

Give me an overview of your class experience

Did you interact with your peers outside of school curriculum

Give me a brief outline of the programme:
- Communication processes
- Administrative support
- Teaching support / quality

PROGRAMME ADMINISTRATORS

Introduction

My name is Sibongile Horo, I am in the process of completing my MBA with WBS and the purpose of this meeting is for me to complete my Research Project, whose aim is to establish what your experiences on a number of aspects of students on the PDBA programme.

Give me a brief background of the programme and what differentiates the online and the traditional programme

What has been your experience in interacting with students in each of these mediums?

- Online
- Traditional

What is your assessment of interaction between students?

What challenges have you faced with the administration of online / traditional learning?

In an ideal world, how would you address those challenges?

In your view, how can the traditional classroom be enhanced to become more aligned with the digital ecosystem?

APPENDIX B: RESEARCH TITLE APPROVAL LETTER

UNIVERSITY OF THE WITWATERSRAND JOHANNESBURG

Private Bag 3 Wits, 2050
Fax:
Tel:

Reference: Ms Jennifer Mgolodela
E-mail: jennifer.mgolodela@wits.ac.za

06 January 2023
Person No: 1839805
PAG

Ms SL Horo
7 Ashton Manor
80 Mulbarton Road
Fourways
2191
South Africa

Dear Ms Sibongile Horo

Master of Business Administration: Approval of Title

We have pleasure in advising that your proposal entitled *Online and in-person experiences of the PDBA programme students at the Wits Business School* has been approved. Please note that any amendments to this title have to be endorsed by the Faculty's higher degrees committee and formally approved.

Yours sincerely

Mrs Marike Bosman
Faculty Registrar
Faculty of Commerce, Law and Management

APPENDIX C: ETHICS CLEARANCE CERTIFICATE

Graduate School of Business Administration
University of the Witwatersrand, Johannesburg

Wits Business School Ethics Committee
Constituted under the University Human Research Ethics Committee (Non-Medical)

Ethics Clearance Certificate

Ethics protocol number: WBS/BA1839805/258
This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (bel

This certificate is only valid if accompanied by formal permission from the relevant stakeholder(s).

Project title	Online and in-person experiences of the PDBA programme students at the Wits Business School
Investigator / Researcher	Mrs Sibongile Horo
Nature of Project	MBA (Research Article)
Decision of the Committee	Approved, provided stakeholders and participants are guaranteed confidentialty.
Issue Date of Certificate	24 11 2022
Expiry date	Date of submission of the project / research report
Chairperson	Prof Anthony Stacey ☎ +27 11 717 3587 +27 82 880 4531 anthony.stacey@wits.ac.za

Declaration by Researcher

One copy must be signed by the Researcher and returned to the Chairperson of the Wits Business School Ethics Committee.

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I undertake to resubmit the protocol to the Committee.

Signature

24 NOVEMBER 2022
Date: