

University of KwaZulu-Natal

The management of digital education and blended learning within a South African independent high school

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College of Law and Management Studies

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DECLARATION

I, HALISHA RAMLALL, declare that

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Signed:  Date: 13 April 2026

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In the quest to attain the red gown and the prestigious title of Doctor, pursuing a PhD qualification is an exceptionally lonely journey filled with self-doubt and a series of challenges. My initial motivation for further studies was to upgrade my teaching diploma to a bachelor's degree. However, once that journey began, I discovered a passion for the Management Sciences, and I felt so strongly about it that I switched faculties when I chose to pursue my postgraduate studies. It's amazing what happens when you discover your true calling. For the most part, advancing in the postgraduate space was a straightforward process – that is, until I decided to pursue a doctoral degree. There was no urgency or compulsion for me to complete this level of studies, but I was encouraged by a circle of very special academics and friends who believed in my abilities, more than I did. Based on that encouragement, I decided to take the leap of faith. I was sure that it would be a familiar journey since honours and master's had been relatively manageable. This was not the case at all, and I am so grateful to have had the opportunity to be academically challenged at this level. In addition to learning so much more about the blended learning space and digital education itself, I have learnt a lot about myself. It takes an incredible amount of strength to navigate an unknown space, and critique is never easy to hear, but it was so critical to my achieving success on this journey. When you are studying for a PhD, you often experience impostor syndrome and wonder if you will ever make it to the other side, especially while trying to achieve a work-life balance. It was an exceptionally challenging task to manage the time allocations required for this level of study, and I found the use of a study or writing timetable invaluable for writing the chapters. To those considering a PhD, my message is that self-doubt is normal and to be expected.

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ABSTRACT

A study on the adoption and management of blended learning practices was conducted within a South African independent high school. The research problem centred around the massive disparities within the South African education system. Blended learning aimed to reduce these disparities, by leveraging increased access to digital platforms to ensure ongoing learning. However, it was also important to ensure that the implementation of blended learning was being effectively implemented and managed within the school itself. This placed responsibility onto both the school management team and the educators. The gap in the literature that was addressed with this study was that many previous studies on blended learning had been conducted at tertiary institutions within an international context, and none had focused on blended learning within an independent secondary school in South Africa. Therefore, an existing blended learning model from an international university setting was now applied to a South African high school context to determine the outcome. The research methodology approach that was used was qualitative and the research paradigm was interpretivist. School principals, deputy principals, and heads of departments were selected to participate in the study, as they formed the management team of the school. Due to the COVID-19 restrictions, interviews and focus group sessions were conducted via Zoom. It was concluded that whilst blended learning was used during the pandemic, this began to fade into the background when classrooms returned to the normal face-to-face instruction. This suggested that blended learning was only adopted as a temporary measure to continue with teaching and learning, and both students and teachers were generally more comfortable with traditional classroom instruction. The results of the study also suggested that during the difficult period of the COVID-19 pandemic, policy responsiveness and management support were important elements that contributed towards the successful implementation of blended learning. The originality of the PhD study derived from the fact that the conceptual model by Risdianto (2019), which was initially applied within a tertiary context at the University of Bengkulu in Indonesia, was now being used within an affluent secondary, independent school in South Africa.

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LIST OF ACRONYMS

- **AI** – Artificial Intelligence
- **BBU** – Blackboard Unlimited
- **BL** – Blended Learning
- **CAT** – Computer Applications Technology
- **COVID-19** – Coronavirus
- **Ed-Tech** – Educational Technology
- **EFL** – English Foreign Language
- **ESD** – Education for Sustainable Development
- **4IR** – Fourth Industrial Revolution
- **GDP** – Gross Domestic Product
- **HOD** – Head of Department
- **ICT** – Information, Communications and Technology
- **IT** – Information Technology
- **KPI** – Key Performance Indicators
- **LMS** – Learning Management System
- **LO** – Life Orientation
- **LTMS** – Learner-teacher Management System
- **MD** – Managing Director
- **MI** – Multiple Intelligences
- **NAS** – Faculty of Natural and Agricultural Sciences
- **NQF** – National Qualifications Framework
- **OBE** – Outcomes-Based Education
- **RP** – Research Proposal
- **SDGs** – Sustainable Development Goals
- **STEAM** – Science, Technology, Engineering, Art, and Mathematics
- **TIMSS** – Trends in International Mathematics and Science Study
- **TRI** – Technology Readiness Index
- **UKZN** – University of KwaZulu-Natal
- **UN** – United Nations
- **UPS** – Uninterruptible Power Supply
- **UWC** – University of the Western Cape

CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1 Introduction

Education for Sustainable Development has been linked to the 2030 United Nations (UN) Sustainable Development Goals (SDGs) and involved adopting a strategic approach in aligning educational practices with the long-term goals of the United Nations. Sustainable Development Goal 4 (SDG4) is quality education, and as indicated by the United Nations Educational, Scientific and Cultural Organisation, is meant to *"ensure inclusive and quality education for all and promote lifelong learning for all"* (UNESCO, 2021). The diagram below outlines the 17 SDG goals that the United Nations developed. SDG4 (quality education) was explored in greater detail in the present study through the review of the management of blended learning as a pedagogical approach within an independent school in South Africa.



Figure 1: Categorisation of the SDGs (Vinuesa *et al.*, 2020)

To achieve the SDGs, various approaches were adopted in contemporary classrooms. One approach that received considerable attention is blended learning. Blended learning may have had its origins in the 1960s when technology-mediated options became available to support existing instructional approaches (Caird and Roy, 2019). In its simplest definition, blended learning combined face-to-face instruction with technology to improve the learning process.

1.2 Background of the Study

The challenge that faced all educational institutions (schools and universities) was the alignment of their current pedagogical tools or teaching methods to the SDGs as specified

by the United Nations, particularly regarding SDG 4. A few difficulties that already exist in providing quality education is a lack of resources and general infrastructure and the infographic below highlights these difficulties in relation to the COVID-19 pandemic.

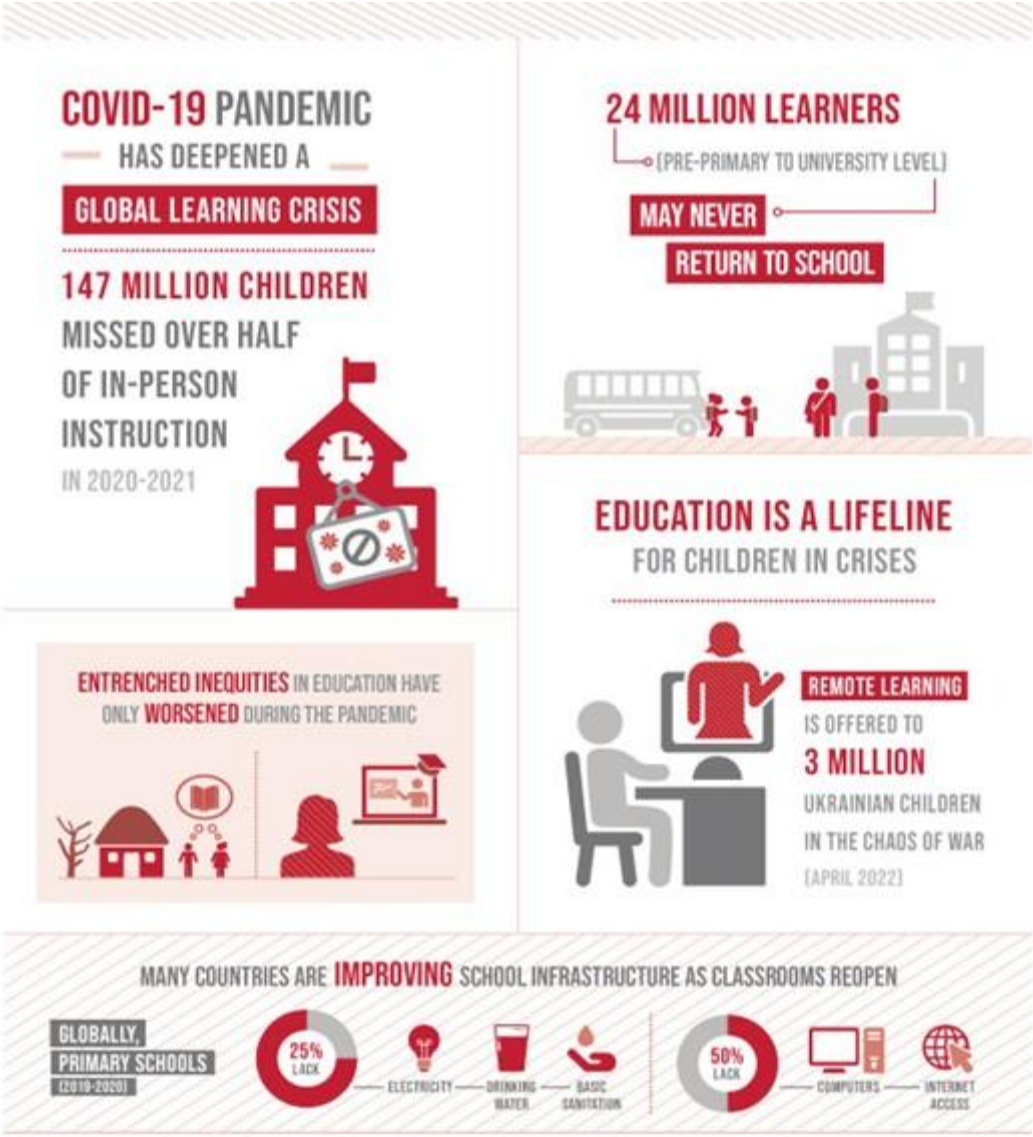


Figure 2: Infographic on Quality Education (SDG4) - United Nations Statistics Division (UN, 2025)

The infographic above, supplied by the United Nations Statistics Division, highlighted the very real issues that presented a challenge to achieving the goal of quality education. The COVID-19 pandemic further highlighted the disparities in access to quality education, thus exacerbating the global learning crisis. Remote learning was also offered to children in Ukraine to continue learning during that uncertain time. Further, it was

stated that 24 million learners, from pre-primary to university, might never return to school, which was expected to have a significant impact on global literacy levels. Although the pandemic was an uncertain and volatile time in global history, it compelled educational institutions to become innovative and reassess their educational approaches to ensure that learning continued uninterrupted during the pandemic. While many approaches were used in the classroom, of particular interest was blended learning. Yao (2018) described a study with adult learners that had adopted a blended learning approach, which combined the advantages of both online and offline learning, enabling learning to occur in both classroom settings and virtual spaces.

Therefore, those who were unable to attend a lesson in a physical classroom were not completely disadvantaged; instead, they had the option to continue their learning in the online space. In addition, the results of the study by Yao (2018) suggested that a blended learning setting could also help to promote an eco-friendly learning environment and directly help to conserve the planet. An eco-friendly environment offered a "paperless" learning option, thereby helping to conserve natural resources. In the absence of paper, technology would be used to enhance the learning process. This implied that the blended learning approach had direct environmental benefits and, as such, could help achieve some of the other SDG goals, as specified by the United Nations.

However, blended learning did not work in all educational institutions and came with a series of challenges. In a study conducted by Tshabalala *et al.* (2014) within a developing South African university, it was observed that not all academic staff members adopted blended learning when their institutions introduced it, as staff had negative perceptions of blended learning, which had a direct impact on the adoption of the blended learning strategy. It was also noted that the computer skills of both staff and students, as well as the students' inadequate access to computers, presented a further challenge, serving only to heighten the negative perceptions towards blended learning. Negative perceptions led to resistance to the new educational strategy, and it was crucial that institutions reviewed and addressed the challenges to enable blended learning to be utilised to its full capacity.

As indicated by Janse van Rensburg and Oguttu (2022) it was also suggested that the understanding of blended learning was not homogeneous and was instead left to individual academics to determine the approach they adopted. This implied that the

management teams were not providing the required structure necessary to implement blended learning, in accordance with the institution's academic policies.

Despite the reported challenges with blended learning, there have also been great successes with blended learning initiatives in international higher education contexts. Therefore, the focus of this study was to investigate the work that was being done within an independent secondary school in South Africa to achieve quality education. While many institutions, both schools and universities, in international contexts also experienced challenges due to a lack of access to resources and the internet, this issue was more dire in South Africa, primarily because of load shedding and a lack of funding for the necessary resources and infrastructure. These socio-economic challenges further exacerbated the lack of access to quality education.

1.3 Research Problem/Statement of the Problem

Education systems need a variety of strategies to improve school-based learning (Meneviş and Özad, 2014). The current education system faces numerous challenges, primarily due to a lack of access to quality education, which is attributed mainly to a shortage of funding, inadequate resources, and general infrastructure. It was therefore critical for teachers and management to investigate the strategies or approaches that would yield the most effective results.

The research problem was the lack of access to what was deemed as quality education via traditional learning methods. The education system needed to implement additional learning techniques and strategies to fully achieve the desired learning outcomes and strive for quality education. The unprecedented COVID-19 pandemic in 2020 presented further challenges to the provision of education due to the countrywide lockdown and Level 5 restrictions that were imposed.

Educational institutions had to draft urgent, albeit temporary, academic strategies to continue providing education during the pandemic. Therefore, it was essential to examine the currently available digital educational tools, as well as their implementation and management. In doing so, the study also examines how digital education is manifested in the academic environment.

Additionally, educators were tasked with creating learning experiences that catered to the individual skills and abilities of their students. While many national and international studies have been conducted on the implementation of blended learning, a study on the efficacy and management of the blended learning model has not yet been conducted at an independent school in South Africa. Therefore, this study aimed to observe the management of blended learning practices at a South African independent school. The school advertised blended learning as its main competitive advantage, which would naturally have appealed to parents and students alike, given that this offering was made during a very turbulent and uncertain time in the country's history, namely the COVID-19 pandemic.

Constant load shedding also presented a challenge in the country, as it disrupted the connection to the online platform, further delaying the learning process. To alleviate that problem, there was an increasing demand for solar panels and uninterruptible power supply (UPS) devices[1] and inverters[2] to minimise the regular interruptions predominantly caused by Eskom[3]. While the more affluent households were able to afford the costs of solar panels, UPS devices, and inverters, many households were unable to do so.

Therefore, affluent households continued to receive a higher quality of education due to having constant access to online learning platforms. Consequently, this placed impoverished households at a distinct disadvantage, exacerbating the educational divide in the country. Before the onset of COVID-19, the Department of Education had noted this access challenge and had developed a strategy to address the financial limitations that were hampering the provision of education (van Dyk and White, 2019). This was done through the development of quintiles within schools.

Quintiles enabled the Department of Education to see where the most financial assistance was needed. Exceptionally impoverished schools were categorised as Quintile 1, and the more affluent schools were categorised as Quintile 5. Therefore, more financial resources were then allocated to Quintile 1 instead of to Quintile 5, and in doing so, it was envisaged

[1] UPS device – A UPS (Uninterrupted power supply) is a device that allows a computer to continue running for a period in the event of an interruption to the power supply.
[2] Inverter – It is a device that converts direct current into alternating current which may be used by the electrical grid
[3] Eskom – It is a state-owned company in South Africa that is responsible for electricity generation, transmission and supply of the country’s electrical needs.

that this would have a greater influence on the overall attainment of educational objectives. An independent school in South Africa catered for students from pre-primary to secondary school and had undertaken a blended learning approach. In terms of the quintile ranking provided by the Department of Education, this school was categorised as Quintile 5, which is considered one of the more affluent schools with easier access to financial and educational resources. This independent school was committed to crafting meaningful learning experiences for all learners. Therefore, a study on the practices adopted helped inform the practices of other private, independent, and public high schools. It was also crucial to investigate the role of the management team in enforcing and overseeing the implementation of blended learning. Based on the preliminary literature review, studies conducted in both national and international educational contexts have yet to present an account of the involvement of their management teams in the blended learning process. This study was guided by the research questions and objectives below, and the results were limited to the context of the independent secondary (high) school. In formulating the research questions, it was noted that digital or online education was part of the blended learning model, and that this study focused on the implementation and management of the digital aspect of blended learning.

1.4 Research Questions

1. What are the current digital education and blended learning pedagogical tools being implemented within the school?

   This question examined the current South African landscape regarding digital education and its integration into the schooling system. This question focused on the tools and mechanisms used to engage in digital education practice.
2. How was digital education and blended learning as a pedagogical tool being implemented within the school?

   This question examined the educational and assessment policies and frameworks that had been applied, as well as the management of blended learning at the specific institution.
3. Why did digital education and blended learning as a pedagogical tool manifest in specific ways within the school?

This question delved into a critical reflection on how the independent school had employed specific approaches to digital education and debated the relevance and contestations that arose within the South African schooling system.

1.5 Research Objectives

1. To identify the current digital education and blended learning pedagogical tools that were being implemented within the curriculum.
2. To understand how digital education and blended learning were being implemented and managed as a pedagogical tool.
3. To recognise how digital education and blended learning as a pedagogical tool manifested itself.

1.6 Aim and Significance of the Study

This study aimed to research both the implementation and management of blended learning practices within an affluent South African independent school. It also examined whether the higher standard of living impacted the success of their blended learning initiatives, since impoverishment and lack of access was not a factor. Several studies conducted within South African schools often cited impoverishment and lack of access as the main contributing factor or hindrance in being able to implement new teaching and learning methodologies, and a few of these cases have been evidenced in the next chapter. In addition, most studies to date have been conducted within universities, and very few have been conducted specifically in schools. The aim was to review the practices that the institution was adopting in managing the implementation of blended learning. This research was significant to the secondary education landscape in South Africa, as it informed practices that other high schools could adopt.

The significance is also linked to examining whether the initiative adopted by the selected institution was successful in achieving the United Nations' SDG goal number 4, namely, quality education. Access has been noted as one of the primary hindrances to receiving quality education, and blended learning could have been used as a tool to minimise the access barrier. In addition, the study contributed to management knowledge and practice by identifying the challenges that occurred with implementation of strategies, and it also identified the strategies that were needed to address those challenges. As managers, one of the main tasks was overall strategic planning, and some managers may have assumed

that the implementation of strategies would be executed without challenges. However, since the plan originated with the top-level team, time should be spent on regular debriefing sessions as the plan was being implemented to ensure that all parties understood their respective roles in the attainment of the strategic goals. The ongoing support and guidance that is required throughout the implementation of a plan is often only realised in the control step of management, which is the last step in the basic management tasks, and the purpose of this step was to identify deviations from the original plan, as well as steps that could be implemented going forward. At the control stage, it was also important to note that considerable time would have been lost, resulting in subordinates generally being left to implement the plan as per their own frame of reference; whereas if ongoing guidance had been offered from the start, the chances of the overall strategy being successful might have been higher. Therefore, the study investigated not only the implementation of blended learning, but the role that the management team played in guiding and supporting the academic staff.

1.7 Contribution of the Study

The research gaps that were addressed with this study were:

- **Empirical gap** – There was a lack of studies on blended learning in an affluent secondary school context in South Africa. Studies to date were conducted internationally and within impoverished primary schools in South Africa.
- **Knowledge gap** – There was a gap in understanding the implementation of blended learning in affluent schools in South Africa.
- **Evidence gap** – There was also a lack of research evidence on the phenomenon being studied, specifically the implementation of blended learning within an independent South African school.

While this study was conducted within an affluent independent school, the results are applicable to all secondary schools in South Africa, as well as to educators, students, and future researchers undertaking studies related to digital education or blended learning, as it could inform practices that other high schools could adopt, and it could also identify pitfalls and challenges that may have arisen, as well as strategies of how to deal with these. The results of this study should be particularly significant to both department heads and principals at all secondary schools, as they describe the processes followed and the

tools used for successful implementation. The study also identified the challenges experienced during implementation and described the strategies used to overcome them.

1.8 Overview of the Research Methodology

A qualitative research design, employing an interpretivist lens, was applied to the study. This allowed the researcher the opportunity to explore the lived experiences of the respondents in relation to the phenomenon being studied. An affluent school was selected for this study. However, the study was limited to the three college campuses within the Gauteng region, as those were the only sites for which permission to access was granted. The reason for selecting an affluent school was to see whether affluence had an impact on the efficacy of the digital education component of blended learning, since the affluence precluded them from the access challenges to the internet and to resources in general. In addition, studies on the implementation of digital education and blended learning have been conducted primarily within universities or in impoverished communities. Interviews were conducted with the top management team and focus group sessions were held with department heads. It was decided to conduct interviews with the top management team to gain an understanding of how the overall academic strategy was being managed. The heads of departments were invited to focus group sessions, as they formed part of middle management and were responsible for both implementing the top management strategy and ensuring that the teachers within their departments effectively implemented the strategy.

Examining responses from both levels of management provided a representative overview of the general management principles that were being adopted at the school. The interviews and focus group sessions were conducted over Zoom due to the COVID-19 restrictions. An additional reason for including these specific individuals within the target group was that they held the most decision-making power regarding the curriculum and its management. The study also aimed to review the management of digital education and blended learning within the various campuses. The adoption of a qualitative approach enabled the extraction of rich data, as participants were able to share their viewpoints on the research questions and their experiences with both digital education and blended learning.

1.9 Limitations and Delimitations of the Study

To allow for the successful completion of the study, the following delimitations were applied:

- **Geographical** – Respondents from the Johannesburg area were selected for the study. Furthermore, permission was not granted to interview respondents in other geographical areas. According to the managing director (MD), respondents in different areas had already indicated an extensive workload. As such, the MD felt it would not be appropriate to ask them to participate in this study.
- **Historical** – The study essentially only covered the period from when COVID was declared (2020–2024). Therefore, the information was applied to the digital strategies that had been used during that period to ensure uninterrupted learning.
- **Methodological** – The study employed a qualitative approach, utilising an interpretivist paradigm, which allowed the lived experiences of the research participants to provide an accurate account of the implementation of the blended learning approach. There was also the potential to consider other paradigmatic lenses and sample sizes.

A limitation of the study was that, as it employed a qualitative research design, the interpretation was generally subjective in nature. Both focus group sessions and interviews were used. To address these limitations, a range of respondents at different post levels within the school were selected to provide their views on the research questions. Additionally, the elements beyond the researcher's control included respondents who declined to participate in this study, resulting in data based on a smaller sample of the intended population.

1.10 Researcher Assumptions

The researcher's lens was crucial to this study. That being the case, it was necessary to include the following assumptions:

- A qualitative research design was considered the best approach for this study, as it provided an opportunity to understand the lived experiences of the respondents regarding the topic under investigation.
- Blended learning was needed to bridge the gaps in the educational divide.

- Digital education may have been a challenge, especially in a country like South Africa that had already experienced many socio-economic challenges.

1.11 Definition of Key Terms

a. **Blended learning** – Refers to a method of instruction that combines face-to-face instruction with online learning instruction (Caird and Roy, 2019).
b. **Digital learning/education** – Refers to any instructional practice that can effectively improve a student's learning experience through the use of technology (Kumar *et al.*, 2018).
c. **Quintiles** – Refers to the categories that the Department of Education mapped out to work investigate schools from the least to the most affluent schools in South Africa, where Quintile 1 was impoverished, and Quintile 5 was affluent (van Dyk and White, 2019).
d. **COVID-19** – Refers to the coronavirus pandemic that began in 2020, which was the catalyst for the sudden shift to the embracing of online platforms, and while it does not have a direct bearing to the topic being researched, it was often cited as the main reason for a shift to blended learning, hence it provided a contextual backdrop.

1.12 Organisation of the Thesis

This thesis comprises seven chapters, and a brief outline is provided below:

Chapter 1 – This chapter introduced the study, outlining the background, research objectives, and research questions. It also provided a brief overview of the research methodology employed in this study.

Chapter 2 – This chapter examines the literature that informed the research topic. By referring to both local and international authors, the study was able to determine what was known and what research gaps remained to be studied.

Chapter 3 – This chapter examines the research methodology employed in the study. It describes the rationale for a qualitative research design and the use of an interpretivist approach. The characteristics of interviews and focus groups for data collection are also discussed.

Chapter 4 – This chapter presents the initial findings of the research. It represents the first level of analysis, based on thematic categories derived from participant responses concerning the conceptual framework they operated within.

Chapter 5 – This chapter discusses the second set of initial findings, representing the first level of analysis in terms of thematic categories based on participant responses related to the research questions.

Chapter 6 – This chapter discusses the themes that emerged from participants' responses to the conceptual framework presented in chapter 4 and the research questions presented in chapter 5. It represents the second level of analysis and abstraction.

Chapter 7 – This final chapter provides conclusions and recommendations for further research. This chapter also provides insights into the development of a framework for the adoption of digital education and blended learning in a South African high school[4] context.

The next chapter identifies the various sources of literature consulted for the study. The literature provided details on the historical origins of blended learning, as well as the developments that occurred during the pandemic, the challenges experienced with the implementation of blended learning, and the role managers needed to play in implementing academic strategies.

[4] The terms high school and secondary school refer to schooling for learners attending Grades 8 -12 and the terms are used interchangeably.

CHAPTER 2

LITERATURE REVIEW

In conducting the preliminary literature review, the foundational concepts for this study included digital education and blended learning. In the following subsections, a detailed explanation of both concepts is provided, along with examples of how these concepts have been applied in previous studies. The research questions that guided the study were not only derived from the literature, but were also aimed at examining the current educational landscape regarding digital education and its integration into the schooling system, namely research question one (RQ1); examining the educational and assessment policies that had been applied, namely research question two (RQ2); and delving into a critical reflection of how the independent school had employed specific approaches to digital education, namely research question three (RQ3). In trying to answer these questions, the literature review was organised into thematic sections. The first theme discussed was traditional teaching and learning, followed by digital education, which addressed RQ1, and the connection between COVID-19 and the impact of digital education on this approach, which addressed RQ2. This was followed by an introduction to blended learning, including implementation of blended learning, which also addressed RQ2 as well as RQ3. Last, was the role of management in applying this approach; this addressed RQ3 as it examined the specific ways that digital education had manifested and the unique focus on the role of management in arriving at this manifestation. The conceptual framework on blended learning, as presented by Risdianto (2019) guided the topics discussed in this chapter, and the framework itself was discussed in detail at the end of the chapter. The two elements of blended learning in this model were face-to-face learning and online learning. The next section commenced with a discussion of the historical or traditional teaching and learning practices, followed by digital education practices (especially during the COVID-19 pandemic), and this was followed by a discussion on the new type of learning that was being explored, namely, blended learning. In addition, the role of management in strategy implementation and monitoring was also explored in trying to obtain an accurate account of how blended learning had manifested.

2.1 Traditional Teaching and Learning

Before understanding digital education and the practices involved in blended learning, it was essential to comprehend the traditional teaching and learning practices and philosophies adopted in the classroom; this subsection related to RQ1 as well as to the face-face-learning component of the conceptual framework as espoused by (Risdianto, 2019). In 1983, Howard Gardner outlined eight categories of skills and abilities for learners, which he referred to as multiple intelligences (MI). These categories were linguistic, logical-mathematical, spatial, bodily-kinaesthetic, musical, interpersonal, intrapersonal, and naturalist intelligences (Baleghizadeh and Shayeghi, 2014). Therefore, it was essential for teachers to understand their learners' learning styles and MI to design effective learning experiences (Sener and Çokçaliskan, 2018).

For example, a musical learner would achieve maximum results using lyrics in learning, whereas a logical-mathematical learner would achieve maximum results through conducting experiments or solving equations. Teachers needed to respect every learner's specific learning style and provide learners with opportunities to try different ways of learning. Blended learning could have helped learners with varying learning styles to achieve their maximum academic potential.

The traditional classroom environment was undergoing a transition, necessitating a revaluation of the roles of both the teacher and the student. Education in South Africa was marked by significant inequalities, with some students benefiting from quality education, while others did not. In contrast, most students had to bear the brunt of the disparities in the education system (Schmidt, 2017). In addition, the socio-economic challenges faced by South Africans did not always prioritise education. Many South Africans were focused on survival; hence, paying school fees was not prioritised.

While many individuals within the education space were advocating for a digital approach or blended learning, it was essential to note that technology would only be effective once students and teachers knew how to use it and had access to a device and the internet. Therefore, it was imperative to prioritise the upskilling of teachers in integrating digital technologies into the classroom (Sikhakhane *et al.*, 2020). Blended learning studies were limited to a few institutions or in different countries with differing demographics. For example, Franco and McCowan (2020) described a study that was conducted at the University of Veracruz in Mexico. SDG4 was being addressed through

providing access for marginalised populations. This was an example of making education accessible to all.

Every individual had a right to education, and this right was emphasised in the Constitution of South Africa. However, it was evident that during Apartheid, there was a massive divide in the way education was being provided. The government had drafted legislation entitled the Bantu Education Act 47 of 1953, as well as the Extension of University Education Act 45 of 1959 (Rathbone, 2020). Ultimately, both these acts ended up providing a lower quality of education for individuals of colour. The government spent a sizeable portion of the Gross Domestic Product (GDP) on education provision. However, it was unclear whether the investment in education was making a significant difference in the quality of education being provided (Rathbone, 2020).

In the 1990s, the South African education system was in disarray, with significant inequalities evident within it. It was further noted that there would be substantial changes to assessment practices, teaching methods, and the support materials being provided (Botha, 2002). There was also an expectation of greater parent involvement, and the concept of *"lifelong learning"* was being emphasised (Botha, 2002). Educational disparities were evident, especially in rural schools (Nkabinde, 2016). Schmidt (2017) affirmed that the South African education policy ultimately failed to provide social justice in schools. As a result, education has continued to be under constant review from all stakeholders. Therefore, the institution selected for this study had remained committed to providing education that was aligned with both policy and the changing South African landscape, and this related to RQ1 which aimed to investigate the current digital education and blended learning tools that were being implemented within schools. The affluence of the school was also noted as a contributing factor to its ability to deliver quality digital education, and it was not impacted by the plethora of political issues that plagued most schools at the time.

Athiemoolam and Vermaak (2021) stated that the pre-1994 Apartheid era in South Africa also saw a segregation of education across the various racial groups, which meant that students attended school in their own designated areas and in accordance with their racial grouping. This saw the introduction of Model C schools, which were defined as state schools that could only be attended by white students (Athiemoolam and Vermaak, 2021), and such segregation would have led to further disparities related to the quality of

education that was being received. As a result, the segregation of education would have made a stronger case for blended learning as a means to minimise the inequalities in the provision of education.

Later, the admission criteria were expanded to include students of colour. Still, they had to accept the traditional culture of the school and adapt to the standard language for teaching and learning. Further, the teachers continued to teach in the same way they had done in the past, even though the demographics had changed considerably. At the selected independent school, the admission criteria have always been inclusive of a wide range of demographics, including all racial groups, as well as a more affluent category of students. The level of affluence may have, in turn, created differences in the quality of education that was being offered, but the teaching was still taking place in a multicultural classroom.

Athiemoolam and Vermaak (2021) stated that, while teachers were in favour of multi-ethnic classrooms, they were divided on whether to change their teaching practices. The majority continued as normal, and a minority of teachers made minor changes to their teaching practices. The findings suggested that a collaborative effort was needed for teachers to overhaul their teaching strategies. Levels of literacy have long been a concern, and a study conducted by Chetty (2019) suggested that several key factors contributed to underachievement in literacy, including a lack of resources, inadequate parental involvement, and insufficient teacher knowledge. It was also concluded that low-performing primary schools should have been prioritised as this was their foundational phase, and teachers should have been monitored regularly. It was also essential to maintain a national register of schools lacking resources, which remained the primary responsibility of curriculum advisers and district officials. As noted by Barkhuizen (1998), teachers made daily decisions on how to deliver lessons in the classroom, but students never became involved in that decision-making process. Using multi-method, qualitative research procedures, Barkhuizen (1998) investigated the extent to which students were satisfied with the quality of the lessons and activities provided by their teachers, and the results surprised the teachers. There was an apparent disconnect between the lessons that teachers thought they were providing and the students' perception of the same lessons (Barkhuizen, 1998).

Therefore, it was suggested that teachers should consider the feedback from students and incorporate these methods in the classroom. This could have improved the quality of

education that was being provided to students (Barkhuizen, 1998). In considering the feedback from students, learning experiences could have been tailored to address the individual challenges of each student. In the selected school for this study, it was noted and emphasised that learning experiences were created around the needs and challenges of the students.

Mouton *et al.* (2012) described the period from 1994 to 2011 as a "historical era" for schools in South Africa, stating that the reason for moving towards an outcomes-based approach was to focus more on the skills, knowledge, and values that should be incorporated into the post-Apartheid curriculum. The post-Apartheid era was characterised by transformation, and teachers played an essential role in this transformative process. There was an expectation that a teacher would act as a *"moral agent"* and transfer not only the lesson content and outcomes, but also the values that embodied post-Apartheid South Africa (Griffiths and Prozesky, 2020).

To that end, in 1997, the Department of Education developed a teaching model called Outcomes-Based Education (OBE) (Botha, 2002). In the post-Apartheid era (from 1994 onwards), schools underwent desegregation, new language policies were adopted, and an NQF was developed. However, many educators were still clinging desperately to the assessment and teaching practices of the past system. Vandeyar and Killen (2007) stated that they were either unwilling or unable to change their practices.

Traditional education or teaching and learning had relied heavily on "*chalk and talk*" versus true engagement with students. There had never been an expectation for students to be actively involved in lessons. Hence, they were simply receivers of the curriculum. This phenomenon was true for both affluent and non-affluent schools. Rathbone (2020) stated that one of the criteria used to measure the quality of education was the Trends in International Mathematics and Science Study (TIMSS). This study compared the quality of education in South Africa to that of other countries. The TIMSS study revealed that between 1995 and 2011, South African students showed improvement year on year. However, their progress was significantly slower than that of international students. Their performance, or lack thereof, was also a source of great concern, as evident in Table 1 below (Mouton *et al*., 2012).

Country	Overall Mean Score	All Science Content Areas	Physics	Chemistry
Singapore	607	70	69	69
Japan	571	65	76	71
Netherlands	560	62	60	65
Austria	558	61	62	58
England	552	61	62	55
Australia	545	60	60	54
Russia	538	58	57	57
Israel	524	57	57	53
France	498	54	54	47
Iran	470	47	48	52
Colombia	411	39	27	26
South Africa (lowest score)	326	27	27	26

Table 1: Selected Scores from the TIMSS (Mouton *et al.*, 2012)

There was a notable performance difference among students with different backgrounds. Students who attended public schools performed worse than those who attended private or independent schools, and students from better socio-economic backgrounds performed better than those from impoverished backgrounds. In terms of the selected independent school, this statement held true, as the overall results were generally higher than those of the surrounding government schools. The reality was that many students attended public schools, which were often understaffed and lacked adequate resources for teaching and learning. Therefore, this presented a series of ongoing challenges in the teaching and learning process (Rathbone, 2020).

In a qualitative study conducted at a secondary school by Sikhakhane *et al.* (2020), it was discovered that teacher-centred pedagogies prevailed and students remained passive in the learning process. It was argued that students were not being adequately prepared for the changes that digital technology would bring, and it was equally important to ensure that the teachers were trained on how to use digital technology as part of classroom instruction. This was a critical aspect to consider, regardless of whether teaching was happening in a public or independent school, since digital technology is a crucial component of education today. Furthermore, support was required from various stakeholders, including the education department, parents, non-governmental organisations, and trade unions, to ensure the successful integration of Information and Communications Technology (ICT) in schools (Sikhakhane *et al.*, 2020). Universities and higher education institutions also played a crucial role in educating the next generation of professionals for the workforce. However, with the increase in student enrolments over the years, the appointment of faculty was not congruent with the growing number of students.

Rathbone (2020) also stated that approximately 70% of students registered at public universities were African, and it was noted that African students were less likely to complete their studies within the suggested timeframe, compared to white students. The student-led "*Fees Must Fall*" campaign in 2015 also caused significant disruptions to the learning process and further compromised students' ability to complete their studies within the allocated timeframe. This necessitated a review of the teaching and learning practices being adopted to determine whether they were achieving the desired outcomes.

The United Nations (UN) recognised a need for change across society, environments and the economy and then drafted the SDGs for 2030. One of the prominent goals that was featured under "*society*" was Goal 4 – Quality Education. Therefore, the provision of education across schools and higher education institutions had to be aligned with the UN's 2030 goals (Vinuesa *et al.*, 2020). In reviewing the literature on both pre- and post-apartheid education, it was clear that educators were not prepared or equipped with the necessary skills to effectively mobilise the benefits of digital education. Training had to be prioritised, and resources had to be made available to fully comprehend the reach of digital education. It was therefore important to first understand the concept of digital education and its value in the classroom. The following section focuses on the meaning and application of digital education in education.

2.2 Digital Education

In this subsection, the discussion on digital education related to RQ2 as it focused on examining the educational and assessment policies and frameworks that were being applied and digital education related to the online learning component of the conceptual model by Risdianto (2019). The Fourth Industrial Revolution (4IR) was characterised by a digital revolution as well as automation. Developing countries began to realise the potential of the 4IR for education, as well as for achieving the UN's SDGs. Technology has had an impact on students (Blewett, 2017), and as such, policymakers in developing countries have focused on introducing ICT or digital technologies to enhance teaching and learning. However, the gap between internet or broadband usage between developed and developing countries was widening, which was a cause for concern (Passey *et al.*, 2016). Skills development and education are ranked among the most critical focus areas for developing the workforce for the Fourth Industrial Revolution (4IR). However, as indicated in Figure 3 below, many students in Sub-Saharan Africa were not connected to

the internet. This lack of access to the internet hindered the progress of students, and when compared to the international landscape, Africa lagged behind in the digital revolution. The figure confirms a significant difference in access to an internet connection at home, which would have explained why many schools in South Africa were also being placed at a distinct educational disadvantage. Due to the level of affluence at the selected school, internet access did not present a challenge, and students were easily able to continue their learning in the virtual space.

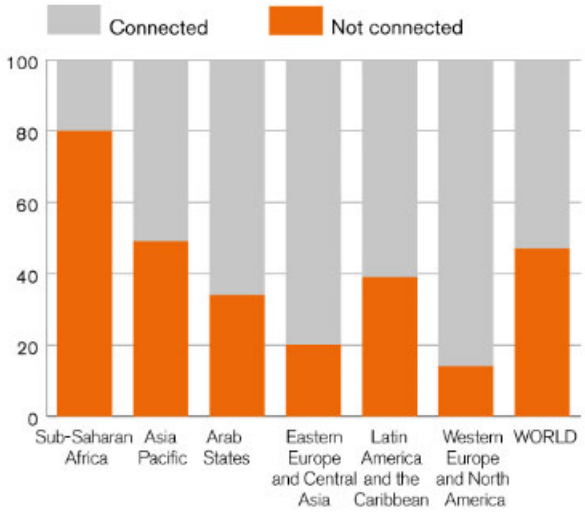


Figure 3: Share of Students with Internet Connection at Home, in Countries that Mandated Countrywide School Closures (Langthaler and Bazafkan, 2020)

A range of factors contributed towards the lack of internet access. Table 2 below shows the percentage of schools that had access to both electricity and the internet, as well as computers. This table highlights the reasons behind the limited internet connectivity in Sub-Saharan Africa. Once again, it was noted that Africa lagged in all these indicators. Therefore, international countries had a distinct advantage in terms of accessing online learning platforms to ensure ongoing learning. However, in Sub-Saharan Africa, learning would have been limited to a classroom setting with no opportunities for further enrichment and engagement via online platforms. In some cases, the resources available within the classroom were limited, which did not allow students to extend their learning.

	Electricity	Internet	Computers
Sub-Saharan Africa	29	6	14
Northern Africa & Western Asia	100	90	95
Central and Southern Asia	100	46	42
Eastern & South-eastern Asia	99	97	99
Oceania	100	63	33
Latin America & Caribbean	100	61	83
Europe & Northern America	100	100	100

Table 2: Percentage of Schools with Access to Electricity and ICT Facilities (Langthaler and Bazafkan, 2020)

Over time, the education sector in South Africa gradually began to embrace the digital education space and the changes brought about by the Fourth Industrial Revolution (4IR) (Nel and Kayembe, 2019); this provided insight into how digital education was being implemented in the South African context. In attempting to implement this change, the education sector in South Africa encountered several challenges in adapting to the 4IR, including a lack of infrastructure, and insufficient funding and skills to enable graduates to participate in the 4IR (Nel and Kayembe, 2019). These challenges affected all schools in South Africa. Technical problems arose due to the instability of the internet, and the lack of reliable equipment and computer-literate staff (Holiver *et al.*, 2020). The Fourth Industrial Revolution (4IR) has the potential to enhance students' learning experiences and presents an opportunity for the education sector to leverage the innovations associated with 4IR. However, Lautenbach (2010) stated that lecturers faced a range of challenges when attempting to integrate educational technologies into their regular instruction, including the restrictions imposed on academic staff by the university and the impact these restrictions had on the creation of new knowledge.

Lautenbach (2010) stated that the '*inhibitory nature of the larger activity system*' at universities could affect expansive or professional learning. This implied that the various processes at a university had imposed hindrances that impacted the direction and success of professional learning. It was noted that individual activity systems were seen as a zone of proximal development for many lecturers. However, it was more important to focus on building a community where lecturers could share, think, and grow. That would, in turn, promote further transformation through expansive or professional learning. While

the online space had great learning potential, it was argued that specific subjects required face-to-face engagement. For example, Louw and Thukane (2019) argued that the nature of science necessitates detailed explanations in a classroom setting to ensure that students retain the content being taught. In terms of an affluent institution within a South African context for blended learning, Louw and Thukane (2019) stated that the University of Pretoria experienced disruptions due to student protests on campus. Although lecturers were innovative in using the learning management system, Blackboard[5], students felt that they wanted more personal interaction with their lecturers. Furthermore, online communication had drifted between being too much and too little. This indicated that there was no established best practice to refer to, and that institutions were operating based on what they deemed appropriate for their students. This study uncovered discrepancies in the practice and application of blended learning, as evidenced in the analysis section of chapter 4. Table 3 below shows that students in universities used the LMS significantly more in 2016. This was due to the disruptions experienced on campus. Figure 4 below indicates the level of preparedness to use the LMS of Blackboard from both the students and the lecturers. From this information, it can be inferred that lecturers were generally well-prepared, while students were divided in their level of preparedness.

Aspect of the LMS	**2015**	**2016**	**% growth**
Count of content items (Learning materials uploaded to the LMS i.e. videos, audio, files etc.)	17 900	21 591	20.6%
Count of assessment items (Created using Assessment tools i.e. test, assignment etc.)	1 387	1 779	28.3%
Count of tool items (On average, how many course items exist in a Blackboard course)	182	330	81.3%
Average student logins/user (On average the number of logins per student user)	209.2	261.6	25.0%
Average instructor logins/user (On average the number of logins per instructor user)	32.7	43.8	33.9%

Table 3: The Usage of the LMS in 2015 and 2016 in the Faculty of Natural and Agricultural Sciences (NAS) (Louw and Thukane, 2019)

[5] Blackboard – This is a learning management system that is used by educational institutions to provide learning material, conduct lessons and to keep track of a student's academic progress.

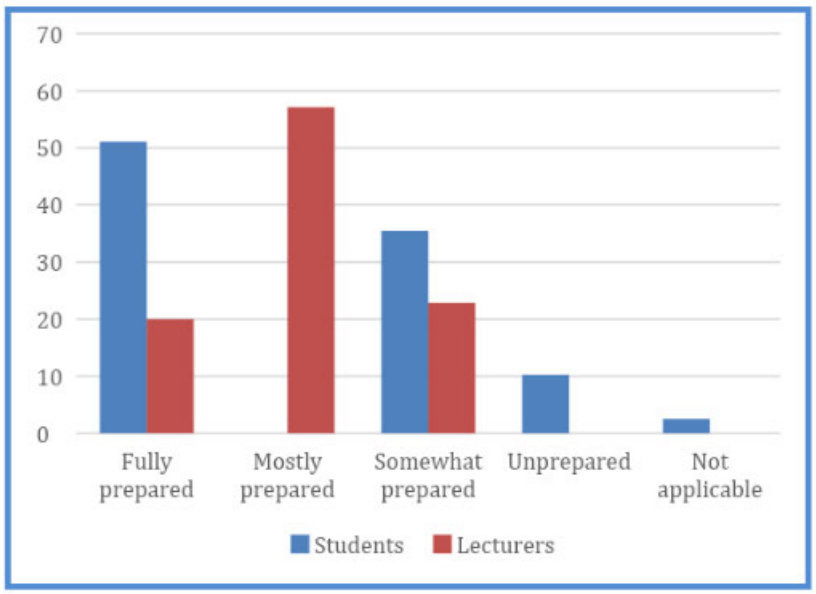


Figure 4: Preparedness for LMS Use (Louw and Thukane, 2019)

According to Taufiqurrochman *et al.* (2020), students' perceptions of the learning management systems were investigated. A sample of 150 students was selected, and the ten most popular platforms were chosen, e.g., Google Classroom and Edmodo. Students indicated that they understood how to use the platforms and that their preferred platform was Edmodo. However, the most popular platform was Google Classroom. Additionally, the students believed that the platform could be effectively used to develop language skills. Figure 5 below indicates students' perceptions of blended learning. It was interesting to note that 112 students preferred the blended learning approach versus going fully online. Additionally, it was apparent that support for the conventional mode of instruction was dwindling, which may have indicated that a new mode had to be considered. Students had directly communicated their need for a blended learning mode of instruction, which provided a strong argument to move away from the conventional mode of instruction.

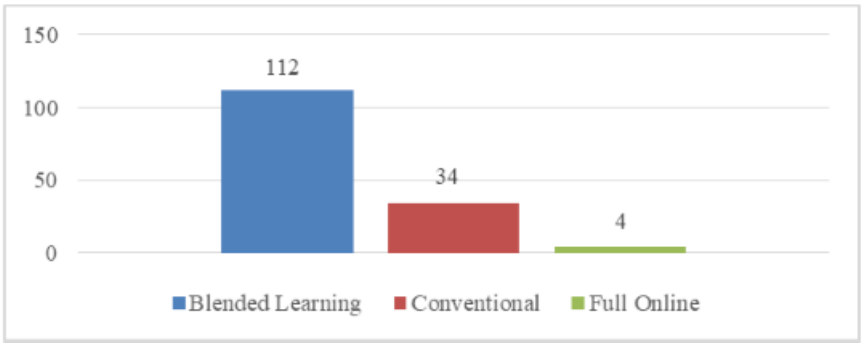


Figure 5: Perception of blended learning (Taufiqurrochman *et al.*, 2020)

Seale and Cooper (2010) stated that the success of e-learning was dependent on a range of factors and that both teacher and learner agency were important. It was equally important to ensure that accessibility was not denied, meaning that students should have been able to access various technologies and resources.

In addition, a study was conducted at a university in Ukraine by Holiver *et al*. (2020) to investigate the efficiency of Moodle as a platform for teaching English as a second language to university students and teachers. Figure 6 below confirms that students interacted more with the course view than with the quiz view, suggesting that they were more focused on accessing the course content than on the quiz activities. It emphasised that students were more concerned with going through the core course content and that the additional quiz activities were not a priority. The perception was limited in terms of the purpose and relevance of blended learning.

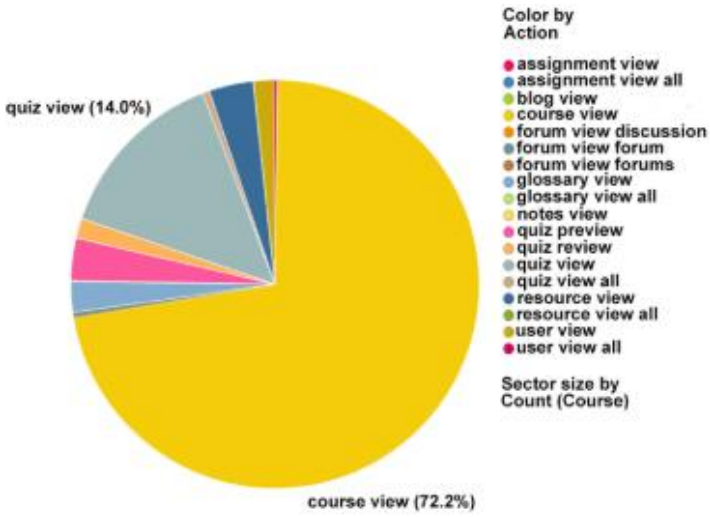


Figure 6: General Analysis of Students' Viewing Resources (Holiver *et al.*, 2020)

While a significant emphasis was placed on students accessing digital platforms for uninterrupted learning, it was also essential to understand whether teachers or lecturers were ready to embrace this change in traditional teaching methods. Before the COVID-19 pandemic, Dlamini *et al.* (2019) investigated the extent to which teachers have adopted ICT in rural schools. A total of 24 schools were selected, and the Technology Readiness Index (TRI) was used as the theoretical lens. Most teachers were excited about the prospect of using ICT in the school setting; however, it was also noted that students were not allowed to use any personal digital devices, except for a standard calculator. There was a notable discrepancy between South Africa's Connect Policy and the school's regulations regarding personal digital devices. While it was a challenge to manage how learners used their devices in the classroom, it was suggested that policies be amended to allow for the use of devices in the teaching and learning process. Findings indicated that the use of digital devices should be limited to educational purposes only. However, there was a definite need to change the way education was being delivered in the classroom. Affecting educational change in Post-Apartheid South Africa also meant enabling access to digital informational resources.

Higgs and Nyahodza (2017) stated that the electronic services provided by the library at the University of the Western Cape (UWC) were perceived as acceptable and adequately met the needs of students. The findings also suggested that UWC was seen as an agent of democracy in the post-Apartheid era through the provision of their electronic services, access to the internet and information-related skills programmes. However, there were challenges, including slow internet access, accessibility issues (especially with language), and an unwillingness to interact with technology that was unfamiliar to the students. Some students were still reliant on the devices loaned to them by the university, and slow internet speeds continued to be an ongoing challenge.

In this section, the meaning and application of digital learning was explored. It was noted that great potential existed for the use of digital education (in light of the Fourth Industrial Revolution). There were many challenges within the South African context that made the implementation of digital education very challenging. For example, access to the internet, as well as the readiness of both academic staff and students to embrace the digital space remained a persistent problem for schools and institutions of higher education.

Taufiqurrochman *et al.* (2020) showed that that the first attempt at using a blended learning approach in classroom instruction was well-received, based on the opinions of the surveyed students, with many preferring the blended learning method. The following section focused on COVID-19 and digital education across different educational contexts.

2.3 COVID-19 and Digital Education

This subsection examined the role that the COVID-19 pandemic played in the provision of digital education. This subsection related to RQ2 which aimed to examine the education and assessment policies and frameworks that had been applied. This section also related to the online learning component of the conceptual model by Risdianto (2019). The recent COVID-19 pandemic revealed the gross disparities in the education system that came about because of Apartheid. The government was advocating for online teaching and learning to minimise the educational challenges that arose as a result of the pandemic. However, this approach did not take into account the technology readiness of first-year students who had attended rural institutions (Mawere *et al.*, 2021). While many students were able to continue with teaching and learning via the use of online platforms during the pandemic, several case studies noted that universities or other educational institutions only reverted to the online space in the event of a disruption, such as COVID-19 or student protests. Mafenya (2022) stated that technology could have been used as an enabler for sustained teaching and learning, and they emphasised that technology could provide immediate feedback.

The COVID-19 pandemic prompted institutions to turn to digital platforms to continue their regular businesses. Mhlanga *et al.* (2022) stated that, despite significant strides made within the digital landscape, the digital technology gap remained wide. Therefore, the onus was on the country to build digital capabilities. Due to the pandemic, the transition to online platforms was swift and required extensive learning over a short period and it had to be noted that not all institutions may have been equipped to make such a rapid transition regarding their teaching methodologies or platforms.

Access to technology and the internet was still limited, especially in rural areas. During the pandemic, a digital revolution occurred, and platforms such as Zoom and Microsoft Teams became widely used. Those students who could not manage to access the online instruction would, unfortunately, remain marginalised as the country moved ahead.

Furthermore, since the outbreak of COVID-19, all educational institutions had been instructed to shut down and transition to the online space (Mpungose, 2020).

Mpungose (2020) confirmed that several challenges still plagued disadvantaged students, and as such, they were unable to harness the full benefits of the e-learning alternative. For example, students did not have access to data or devices, and in certain instances, loadshedding presented a problem. In addition, Mpungose (2020) stated that, despite disadvantaged students communicating their challenges in accessing the online platform, lecturers still expected students to submit assessments and engage on the Moodle learning platform, and this had placed the student at an academic disadvantage; it was suggested that alternatives be investigated to assist the disadvantaged student in realising the full value of e-learning. More affluent students would have had an advantage, as they would have had access to the platform, and their learning and progress would not have been placed on hold. The common thread between the advantaged and disadvantaged student was that they were both expected to submit their assessments and engage on the platform, regardless of their underlying challenges or factors.

Additionally, it was noted that the recent COVID-19 pandemic led to a significant shift in the structure of learning environments. A key factor that instructors should have been aware of and should have implemented was flexibility and interaction in the blended learning space (Müller and Wulf, 2022). The COVID-19 pandemic disrupted traditional learning, prompting the selected institution to investigate and implement digital learning, as well as introduce relevant platforms. While COVID-19 presented opportunities for implementing blended learning after the pandemic, a host of challenges arose, including a significant digital divide, resource constraints, and a skills shortage (Mhlanga, 2021).

Fullard *et al.* (2022) investigated how a secondary school responded to the impact of COVID-19 and how it continued to deliver quality education. The school was an average income institution with a small number of students from impoverished backgrounds, so whilst the access to digital education presented a challenge, it did not affect the majority of students. Study results confirmed that the learner-teacher management system (LTMS) established at the school was successful. This demonstrated that LTMS could be utilised to enhance productivity at the school and also improve teaching and learning at other secondary schools. Within the selected institution, the use of teams had become a crucial

tool in improving the digital learning experience, which confirmed the view that having an LTMS would enhance productivity.

The COVID-19 pandemic prompted institutions to reassess their practices to ensure continued teaching and learning. Okoro *et al.* (2021) conducted a study at a higher education institution in South Africa to identify the challenges that were faced during COVID-19 with online tutoring. It was discovered that a lack of internet connectivity, as well as unclear guidelines for tutors, and a disconnect between teachers and students on a personal level, presented the most significant challenges.

The absence of clarity on these matters presented a challenge to both the implementation and overall success of digital learning. It was suggested that more innovative strategies should be employed in the professional development of tutors, and that there should be more regular interactions between tutors and students.

Knoetze and du Toit (2022) showed that students' access log data from Stellenbosch University was selected from four undergraduate modules. This came from the 2019 face-to-face environment, as well as the 2020 emergency remote teaching periods. Figure 7 below indicates the timelines that led up to the adoption of remote teaching at Stellenbosch University.

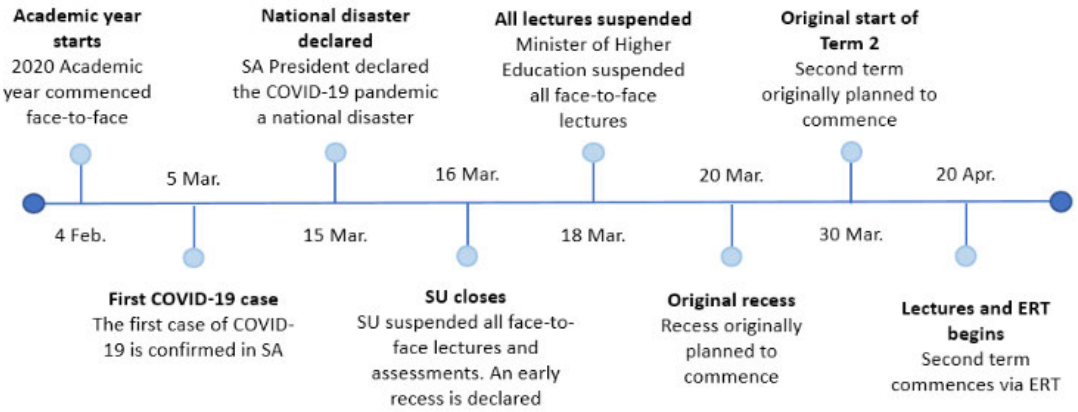


Figure 7: Timeline of Events Leading up to the Start of Emergency Remote Teaching at Stellenbosch University due to COVID-19 (Knoetze and du Toit, 2022)

The timelines indicated a rapid shift towards embracing digital platforms, highlighting the swift transition that students needed to make to adapt to the new mode of learning. A study at Stellenbosch University suggested that students were more likely to fall behind

during emergency remote teaching compared to face-to-face instruction, indicating that higher education institutions needed to incorporate increased digital content into their current practices. It was also noted that this South African university was also seen as a fairly affluent higher education institution.

Table 4 below summarises the number of students who accessed the respective undergraduate modules in 2019 versus 2020. It was clear that there was a lack of engagement with emergency remote teaching. That suggested that students were not comfortable with this mode of engagement or were unsure of how to use the platform. Either way, a lack of engagement would have meant that students would have fallen behind in their academic progress. The lack of engagement was not linked to affluence, as this was a common occurrence among students from all socio-economic backgrounds.

Module	2019 No. of students	2020 No. of students
MA288	196	161
MA388	194	157
MA278	564	510
MA378	650	650
Total	**1 604**	**1 478**

Table 4: Participants per module (Knoetze and du Toit, 2022)

In this section, the impact of COVID-19 on digital education was discussed, along with the shift to adopting digital learning platforms. The following section explains blended learning and its application in various learning environments.

2.4 Introduction to Blended Learning

In this subsection, the conceptual model of blended learning by Risdianto (2019) was introduced. This section also related to RQ2 and RQ3 which looked at the educational and assessment policies and frameworks, as well as how blended learning had manifested in different institutions. In its simplest form, blended learning was seen as the combination of face-to-face and online instruction (Risdianto, 2019). Valiathan (2002) and Hrastinski (2019) confirmed that there were many definitions of blended learning, including an offering that looked at incorporating different methods of delivery, for example, knowledge management practices, and web-based courses. In addition, Hockly (2018) and Cronje (2020) stated that while this approach was the combination of any face-to-face teaching with computer technology, it was also understood that the use of

computer technology took place outside the classroom environment, and usually during the students' own time. However, the '*blend*' that was adopted was dependent on the needs of the students and the contexts in which blended learning could occur.

Those individuals who wished to adopt blended learning strategies were looking to harness the power of both online and face-to-face methods of instruction (Osguthorpe and Graham, 2003). Blended learning was seen as combining both teacher instruction and online learning, which allowed the learning to be student-centred. Teachers were able to promote their institution's vision, and in doing so, they were able to offer students engaging and meaningful learning experiences (Lim and Wang, 2017). However, it was also essential to consider which aspects of the course needed the internet, and which aspects needed face-to-face engagement (Osguthorpe and Graham, 2003). Therefore, Figure 8 below outlined a strategy for incorporating blended learning.



Figure 8: Shewhart cycle for blended learning (Serrano *et al.*, 2019)

The Shewhart cycle showed the initial interventions, evaluation of performed actions and future improvements in respect of blended learning (Serrano *et al*., 2019). It demonstrated how blended learning could be effectively integrated into traditional teaching systems. In the *planning* stage, it was crucial to identify areas for improvement and determine the necessary changes. In the *applying or doing* stage, the changes were being implemented. Thereafter, it was essential to assess the outcome. Lastly, *improving or acting* was necessary when the results were not as desired, and revisions had to be made to the blended learning experience.

Designing for blended learning required examining the content that was challenging to deliver through a traditional approach. For example, watching a video or completing a quiz for enrichment could have been done asynchronously, allowing class time to be used more actively and engagingly. In doing so, this would also have encouraged students to take more accountability of the digital learning component. Marie (2021) stated that the process of incorporating blended teaching and learning methods should have been introduced at teacher training colleges, and workshops should have been held with current teachers to promote self-directed learning. This, in turn, would have enhanced the pedagogical performance level of student teachers.

In short, blended learning offered new ways of considering the teaching and learning process (Blewett, 2016). In the context of the selected institution, this meant carefully considering the pedagogies and methods that would need to be applied to continue improving teaching and learning.

The blended learning approach also offered opportunities for achieving goals related to sustainable education (Miguez-Alvarez *et al.*, 2020). In addition, blended learning aimed to bridge both the geographical and educational gaps within the education sector. Fresen (2018) stated that for this to happen, institutions needed to ensure consistency in the learning experiences of their students. Blended learning also required being both flexible and adaptable to the various needs of students (Herman *et al.*, 2019), and therefore required intentional consideration of student needs (McKenna *et al.*, 2020).

For example, a group of researchers chose to examine the effects of blended learning on the grammar performance of Jordanian English Foreign Language (EFL) learners. The results suggested that the blended learning approach had a positive impact on the learners' academic performance, and this approach could have been used to facilitate the teaching of English grammar (Bataineh *et al.*, 2019). In the context of the institution studied, mixed reviews were reported, as many found it to be positive, while some individuals saw a significant disconnect with blended learning. It was also noted that this University was seen as a developing, mid-tier or average income institution.

It was noted that blended learning could have improved academic performance. There was further evidence which suggested that the blended learning model improved the interest level of students, which subsequently resulted in positive learning outcomes

(Zafirah *et al.*, 2021). Blended learning was also an effective strategy for accommodating a diverse range of students within the education space.

Figure 9 below outlines the elements that were required for face-to-face and self-paced/asynchronous learning. It was generally understood that face-to-face learning would have comprised elements such as lectures and quiz-type tasks. In contrast, self-paced learning requires the use of additional resources, including open educational resources and self- or peer assessment tasks. Utilising the various elements as indicated would have enabled a learning environment that incorporated both synchronous and asynchronous features, thereby embodying the true essence of a blended learning environment.

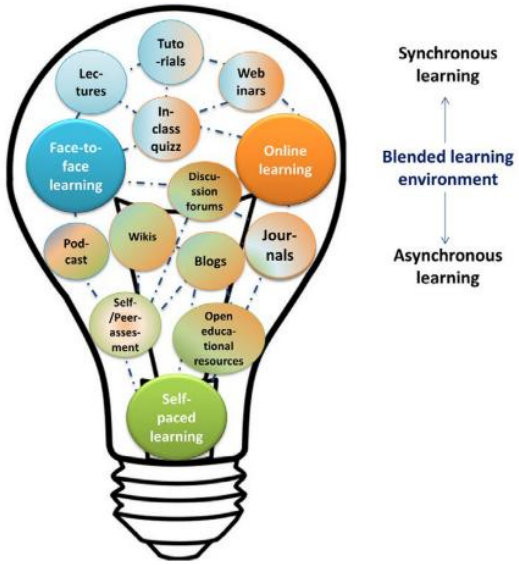


Figure 9: Blended learning environment (Serrano *et al.*, 2019)

While the elements of blended learning were essential to the blended learning experience, models were also being developed to assist with its implementation. In examining the various blended learning models, six blended learning models were identified (Thompson, 2016b). The face-to-face driver model resembled a traditional school structure, and online instruction was decided on an ad-hoc basis. This model closely resembled the practices implemented at the selected institution for this study, as online practices were being conducted infrequently by the selected teachers. The *rotation model* involved students rotating between different stations on a fixed schedule – this essentially involved some time online and contact time with the teacher.

In a study conducted by Truitt and Ku (2018), students' perceptions of learning through the use of a *station rotation station* blended learning were explored. This was a public

school that received funding because it served a high percentage of students from low-income families. In this exercise, the 31 elementary school students were divided into three groups. One group worked with the teacher, a second group worked independently or in groups, and the last group worked on computers. Students rotated among these three groups daily over a one-semester period, and the results confirmed that, while there were challenges with computers freezing up and load shedding, students enjoyed the variety of activities and learning through technology. The study conducted by Truitt and Ku (2018) took place at an elementary school during the pre-COVID era, when there were far more teachers available to assist with this mode of blended learning, and it was also noted that many South African public high schools were generally under-staffed, which did present an additional challenge to the provision of education. In the selected institution, the blended learning mode was adopted only during the COVID-19 era, and consequently, no face-to-face instruction could have taken place.

The *flex model* involved delivering learning materials online and guiding learners through the learning process. There was limited evidence to suggest that the selected institution for this study had used these practices. Students interacted with learning materials and answered questions based on the content. The online lab was when students learnt on their own but needed to travel to a dedicated computer lab to complete their coursework. In this model, adults supervised the learning, but they were not trained teachers. Due to the onset of COVID-19, this method was not implemented.

The *self-blend* model involved students attending a face-to-face school environment while also choosing to enrich their learning through remote, online courses. Lastly, the *online driver* was when students worked remotely, and the course material was delivered online. In this model, face-to-face interactions were optional, and students could engage with teachers online if they had queries. This model would have been ideal for students who needed more flexibility and independence in their daily routine (Thompson, 2016a). To some extent, many students had inadvertently adopted this mode and seldom logged on to lessons scheduled via Teams. In the selected institution, this model would not have been effective, as both educators and students preferred the structure created in a traditional classroom setting.

One strategy adopted to change the traditional classroom setup and improve student engagement was the *flipped classroom* (Serrano *et al*., 2019). The flipped classroom

executed blended learning by combining online activities with face-to-face engagements in class. For example, students would study concepts outside of class, watch a video, or complete a learning activity, and then come to class to present or discuss their findings with other students. Students were asked to complete an assessment on the autonomous learning they conducted outside the classroom. This provided an opportunity for autonomous and interactive group learning to take place. The *flipped classroom* was an attempt to change the traditional classroom structure by allowing students to proactively engage in their learning and thereafter, engage in peer learning in the classroom (Serrano *et al.*, 2019). An example is illustrated in Figure 10, below. Allowing for this learning empowered students and teachers to take ownership of the learning process. Therefore, it was no longer the sole responsibility of the teachers to drive all the learning experiences.

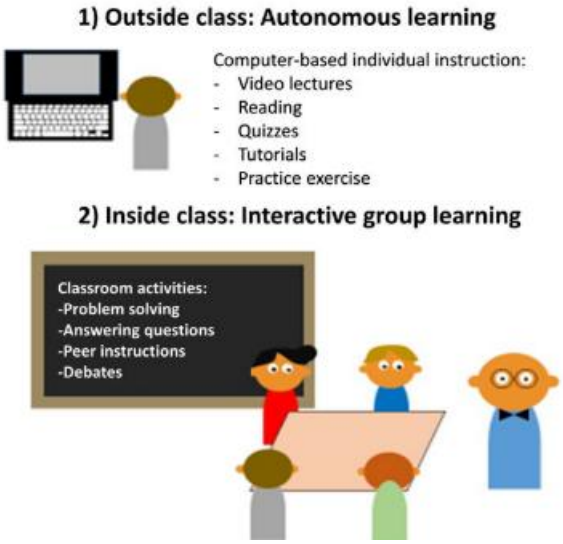


Figure 10: Flipped Classroom Model (Serrano *et al.*, 2019)

Visagie (2020) also conducted a study which investigated the *flipped* versus the *traditional* classroom. A large number of students confirmed that they had enjoyed the lecture and classroom experience in a flipped classroom, and they believed that it helped to improve their communication skills. Cilliers and Pylman (2022) attempted to determine university students' perception of the flipped classroom. The study confirmed that, although students found they needed technical assistance and that it involved more work, they also found it enjoyable and would opt for it in the future.

The study also reinforced the fact that students felt that the flipped classroom improved communication and provided them with real-life experiences that could be applied to

problems in the workplace. It also allowed students to review the most optimal time for their learning, which encouraged them to learn at their own pace, thereby making the learning process more individualised. Kjaergaard (2017) noted that much attention had been directed towards online activities and opportunities in blended learning, rather than providing opportunities to rework face-to-face engagements to complement blended learning. There should have been a balanced focus on both elements of blended learning. Table 5 below represents the various blended learning approaches that could have been adopted to enhance the traditional classroom offering.

Approach	Distinguishing feature(s)	Balance
Flipped classroom	Complementary design in which the structure of a traditional classroom is reversed. Lectures and presentations are completed online and homework-like assignments are approached in the classroom with instructor assistance.	Equal
Replacement model	Replaces in-class time with online. Balanced approach that leverages the best uses of F2F and online.	Equal
Blended face-to face (F2F)	Online activities supplement traditional F2F activities. F2F time focuses on higher order learning experiences.	Majority F2F
Blended online	Inverse of Blended F2F. Some F2F time is required for hands-on or interactive components.	Majority online
Intensive learning	Predominantly independent online with a few full-day or weekend meetings.	Majority online
Blended MOOC	Access content via publicly available massive open online courses (MOOCs). Meet F2F for additional activities.	Majority online
Self-blend model	Program level blend of online and F2F by course.	Student driven

Table 5: Selected Blended Learning Approaches (McKenna *et al.*, 2020)

There was no doubt that blended learning had become very popular over the past 20 years, and that designing for blended learning required the integration of specific elements into a course (Serrano *et al*., 2019). Kalin *et al.* (2017) proposed that teachers were seen as both promoters and moderators in the learning process. Teachers were responsible for creating suitable learning conditions and motivating students to engage in active cooperation and peer learning. That process would have ensured progress toward SDG Goal 4, namely, quality education. Thus, coordinated activity within a department was shown to be a valuable resource (Koretsky *et al.*, 2018). The implication was that educators needed to work together to create a standardised learning experience that would help to achieve the learning outcomes. In this section, the definition of blended learning was provided, along with several practical case studies of different blended learning models, including the *flipped classroom* and the *Station Rotation Model*. Additionally, the perceptions of both students and student teachers regarding online versus face-to-face instruction were discussed. While some of the challenges were briefly described and

detailed, the following section focused on the specific and detailed challenges that blended learning presented to the traditional classroom.

2.5 Implementation of Blended Learning

In this subsection, the conceptual model espoused by (Risdianto, 2019) was discussed in further detail. The discussion in this section related to both RQ2 and RQ3, which focused on the educational assessment policies and frameworks as well as looking at the manifestation of blended learning at different institutions. One of the challenges to the implementation of blended learning was the lack of resources and internet connectivity at many institutions (Okoro *et al.*, 2021). Another ongoing challenge to the digital space was loadshedding. As stated by Dube and Moyo (2022), access to electricity was seen as a common law right, and being deprived of electricity via load shedding, as well as other interruptions by Eskom, violates citizens' fundamental right to electricity. Regardless, loadshedding continued to plague the country, thereby limiting the instructional time that was meant to be completed online. It was important to gauge the perceptions of online practices versus traditional practices.

Moodley and Makonye (2022) conducted a study to determine student teachers' perceptions of online versus face-to-face teaching practices. Student teachers confirmed that they faced a range of challenges with online practices, including a lack of connectivity, the scarcity of media related to teaching and learning, and difficulties in using existing equipment effectively. The study confirmed that unless schools were adequately resourced, these aspects would continue to present challenges. Tularam (2018) reiterated that the teacher usually directed traditional approaches in the classroom, while previously, students had grown accustomed to sitting back and listening to the lesson. Educators should focus on encouraging students to take responsibility for their learning, as well as promoting creative thinking and problem-solving opportunities within their lesson content. South Africa also lacked funding to access the educational resources necessary to achieve educational outcomes (Mhlanga, 2021). The more affluent schools could have assisted the less affluent schools through donations of resources that would have assisted with digital learning.

To allocate funding effectively, the Department of Education divided schools into quintiles to determine where the most funding was needed. To ascertain how funding

should have been allocated in the South African context, the basic education sector had categorised schools into quintiles[6] or groups (van Dyk and White, 2019). This differentiation allowed the education department to see where financial assistance was most needed. Quintile 1 was an impoverished school, whereas Quintile 5 was affluent. As such, impoverished schools should have received more funding, as this had an indirect influence on the attainment of overall objectives (van Dyk and White, 2019). However, research suggested that there was a decline in academic achievement in Quintile 1-3 schools (Ogbonnaya and Awuah, 2019). Bloom's taxonomy represented the cognitive levels that each student should have been able to achieve. Table 6 and Figure 11 below present the results of a study conducted by Ogbonnaya and Awuah (2019) in one province of South Africa. The following cognitive levels were identified: Level 1 represented the fundamental knowledge that students should have acquired, whereas Level 2 involved higher-order or critical thinking skills. In the selected area, there were no Quintile 5 schools, so the achievement average of Quintile 4 students was higher than that of students in Quintiles 1 through 3. The absence of Quintile 5 schools in this area presented a research gap for this study.

Quintile	Quintile 1 (n = 143)		Quintile 2 (n = 107)		Quintile 3 (n = 92)		Quintile 4 (n = 148)		Total (n = 490)	
Bloom's cognitive level	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Knowledge	66.39	19.33	60.55	23.12	51.32	15.56	91.17	8.30	69.78	22.69
Comprehension	37.34	19.66	36.76	17.75	18.12	10.64	60.84	14.72	40.73	22.18
Application	50.11	21.27	35.24	28.79	17.84	19.57	51.67	21.06	41.28	26.12
Analysis	37.49	12.15	27.52	13.36	11.51	11.35	50.76	11.25	34.44	18.34
Synthesis	17.65	20.60	22.43	25.91	14.4	28.76	22.47	16.69	19.54	22.71
Evaluation	9.44	20.70	8.56	17.79	5.43	18.01	21.74	28.48	12.21	23.21

Table 6: Means and Standard Deviations of the Learners' Scores at Blooms' Taxonomy Levels According to Quintile (Ogbonnaya and Awuah, 2019)

[6] Quintiles – The system of quintiles classified South African public schools from the poorest income group to the least poor and in doing so, the Department of Education was able to see where the most financial resources was needed, or which schools could be exempt from being charged school fees (van Dyk and White, 2019)

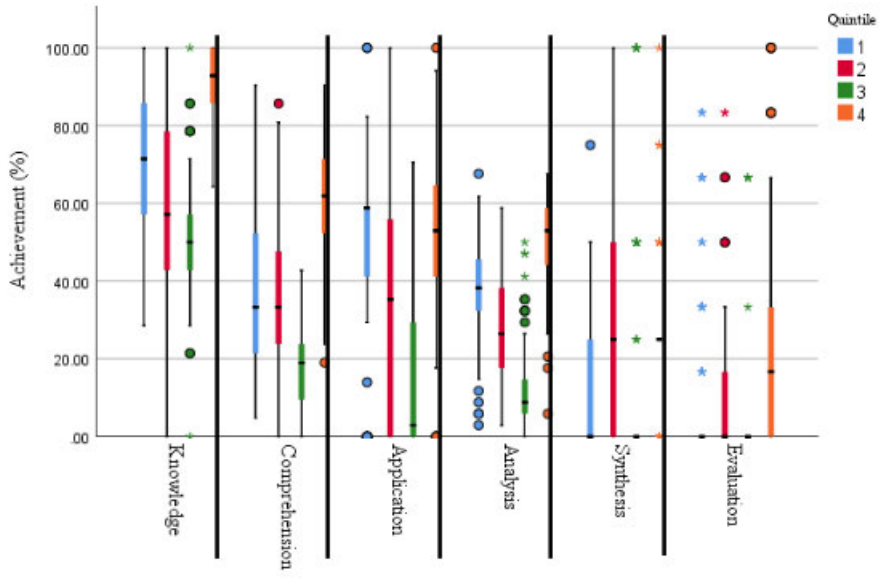


Figure 11: Quintile Scores According to Levels of Bloom's Taxonomy (Ogbonnaya and Awuah, 2019)

Additionally, the evaluation skills of Quintile 4, as shown in Figure 9 above, were below 40%. Evaluation was part of the higher-order skills as outlined by Bloom's taxonomy, and it allowed students the opportunity to apply their knowledge to practical situations. Since this metric was relatively low, it was essential to revisit the purpose behind the quintile system. Quintiles were created to see where financial assistance was needed, and as such, these scores provided a clear indication that financial assistance was required in Quintiles 1-3.

If financial assistance was granted to schools in the lower quintiles, it could have enabled schools to acquire the necessary technology to facilitate blended learning. Therefore, blended learning could have then been seen as a learning solution for the 4th industrial revolution (Risdianto, 2019). It may have also resulted in the production of high-quality graduates. Maistry and Africa (2020) stated that there was a significant differentiation in terms of funding within the South African education landscape, and that the state's quintile system was a way to address the needs of impoverished schools. In the same study, the principals of eight schools in the greater Durban area confirmed that they regularly faced financial constraints and struggled to manage their schools.

The blended learning approach did not work in all learning contexts or environments. According to Simonova (2018), the results suggested that the blended learning model did

not improve students' language skills or their motivation to study. Motivation to study appeared to be self-driven and did not depend on the mode of learning adopted. Schechter *et al.* (2017) stated that the number of classrooms using the blended learning model was rising, and thus, it was essential to have engaged teachers. Furthermore, it was emphasised that teachers committed to the blended learning approach could help to create better student outcomes. Therefore, it was noted that as much as the blended learning approach could have been used to minimise the education divide, the success of the initiative was dependent on the participation and commitment of both the teacher and the student.

Kamalluarifin *et al.* (2018) stated that the use of technology, the lecturer's skills, and students' acceptance of blended learning all impacted students' satisfaction with the blended learning approach. These variables were independent of each other and would affect the success of blended learning. Zainol *et al.* (2018) confirmed that the perceived ease of use, as well as the learning climate, impacted student satisfaction regarding the blended learning approach. If individuals perceived that the interface was complicated, it deterred students from using the platform, which in turn affected their learning experience.

Müller and Wulf (2021) confirmed that the personality of the instructors, as well as their view and control of technology, were essential characteristics of the blended learning space. Another key success factor for effective learning in the blended learning space was time management. Students who managed their time effectively were able to engage in learning activities and complete their assignments on time.

Erkan (2022) explored the relationship between students' course engagement and time management in a completely online programming course. The results confirmed that there were varying levels of participation and engagement, which were directly related to students' ability to manage their time. It was noted that students with good time management skills performed a little better than those who exhibited poor time management skills (Erkan, 2022). The study also concluded that students with poor time management skills could be identified earlier in the semester, thereby allowing interventions to be implemented to help them engage regularly with the course content and learning activities. Therefore, it was essential for educators to not only promote the blended learning environment but also to educate their students on how to manage their

time effectively. Having access to an array of digital learning materials would not impact academic performance if students were not managing their time well.

Baragash and Al-Samarraie (2018) investigated student engagement using three modes of learning, namely *face-to-face*, the *learning management system*, and *web-based learning*. It was confirmed that students' engagement in the face-to-face mode paved the way for their engagement in learning management systems and web-based learning modes. Therefore, this highlighted that the use of multiple learning delivery modes was effective in students' learning development at higher education institutions. In this section, the challenges associated with the blended learning approach were discussed. The South African education system faced numerous challenges, including limited access to basic resources, internet connectivity, and electricity, which in turn hindered the full adoption of the online space.

Studies that were conducted post COVID-19 by (Florah, 2024) supported the partnerships between schools and higher learning institutions to empower teachers on the use of technology. Within this chapter, there were a number of studies that had been conducted within tertiary institutions, and as such, a collaboration between schools and higher education institutions would have helped in harnessing the power of technology to deliver quality education, as university lecturers would have been able to provide some guidance to the high school teachers on the technological aspect of online delivery. In addition, (Sharon and Mncedisi Christian, 2023) emphasised that the pandemic brought about a shift in education worldwide, necessitating a rapid transition from traditional classroom teaching to remote and blended learning modalities. This was supported by the findings of (Muhuro and Kang'ethe, 2021) who indicated that the prospects of blended learning entail providing opportunities for flexible learning, enabling access to a wide range of educational resources and limiting alienation associated with purely online delivery. It was noted that quite a few schools and tertiary institutions have now seen the benefits of online education, and many are using either a hybrid (face-to-face and online) or an exclusively online mode of delivery. As suggested by (Topping et al., 2022), blended learning was considerably better than online learning, and (Christopher, 2023) also indicated that there was a positive impact on student outcomes, but it was also important to ensure flexibility, interactivity and teacher support when implementing blended learning.

It was again noted that were a significant number of studies that had been conducted at universities, both national and international, versus secondary schools, and this illustrated the need to conduct a study at secondary school within South Africa. In addition, studies had not been conducted at affluent secondary schools and this led to the gap in the literature on blended learning.

The following section focused on the role that management plays in the adoption and implementation of blended learning at educational institutions.

2.6 The Role of Management in the Application of Blended Learning

The purpose and rationale of this study was to look at how the implementation of blended learning was being managed. Therefore, it was essential to gain a fundamental understanding of management itself and then review how this understanding was crucial for managing the school's implementation of the blended learning model. In doing so, management's role in the manifestation of blended learning, which related to RQ3, could also be examined and in doing so, it would provide the necessary criteria to conduct the critical reflection that was required for the third research question. Management could be seen as the processes that managers need to follow to achieve the organisation's goals and objectives. The basic management tasks involved planning, organising, leading, and controlling (Peek, 2023).

Planning provided a strategic direction for the company; while organising looked at what resources were required to achieve the plan. Leadership guided the achievement of desired plans using available resources, and control assessed whether the plans were being implemented successfully. Control was vital as it allowed managers to reflect on what practices were successful and which needed to be reviewed (Erasmus *et al.*, 2016).

Sharma (2010) stated that an organisation that led without worrying too much about the title of principal would experience less competition and potentially be exposed to more opportunities for growth and could build better teams. Therefore, if a school were more focused on developing an academic strategy aligned with its resources and capabilities, it would be able to discover more developmental opportunities, which would indirectly foster effective teamwork. Badenhorst *et al.* (2005) believed that every person had values, and that having goals was positive, as it made us want to achieve certain things within the parameters of these values.

Regarding this study, the primary goal of educators had always been to achieve educational objectives, and this approach would have facilitated the preparation necessary to create compelling digital learning experiences.

Hough and Hough (2011) stated that a company's strategy was viewed as the plan of action that management had crafted to run a business and its associated operations. The vision was seen as the company's future, and the mission described both the current business and its purpose. The adoption of a digital business model had gained popularity (Zentner *et al.*, 2022), and research has shown that managerial competencies, combined with management education and digital skills, significantly influenced the effectiveness of digital business models. This implied that the more comfortable managers were with their digital skills, the more advanced the adoption of the digital business model would be for their businesses. This was an essential aspect for the selected institution of this study, as their level of comfort within the digital space would have had a direct impact on the success or failure of the blended learning model.

Shet and Pereira (2021) felt that the Fourth Industrial Revolution was creating a paradigm shift, and that both leaders and managers needed to start thinking more proactively. Managers were expected to attend training in digital programmes to become acquainted with changing digital technologies. Becoming digitally literate had both individual and organisational dimensions. As such, managers (both top-level managers and teachers) needed to become familiar with digital technologies which assisted with basic communication.

Managers had to understand the impact that digitalisation had on the processes within their organisations (Neumeyer and Liu, 2021). Harnessing the power of technology in conjunction with traditional teaching methods could help bridge the income gap and provide access to quality education. Therefore, schools in general were compelled to investigate digital education to increase access to education. Lara and Salas-Vallina (2017) confirmed that managers needed to possess specific competencies to be engaged at work, as well as to be connected to the people they managed and worked with. These competencies were business vision, customer orientation, negotiation, delegation, creativity, optimism and time management (Lara and Salas-Vallina, 2017).

Having a customer-directed orientation ensured that students' best interests were considered in all strategic endeavours. It was also essential for principals to exhibit creativity when designing their plans and to be able to negotiate with respective stakeholders during the strategy development process. Implementing any strategy was time-consuming and would likely encounter a certain degree of resistance. Therefore, principals had to remain optimistic. Since staff would look to principals for guidance on the strategy, principals had to be good role models and exhibit not only positivity, but also practical time management skills.

It was important for leaders to have specific competencies or skill sets, as this would ensure their effectiveness as managers (Kozminski *et al.*, 2022). A school principal occupied a managerial position and, as such, needed to be aware of the processes, characteristics, and competencies required for the role. Therefore, the principal needed to have these competencies as a prerequisite for executing the role.

Sepuru and Mohlakwana (2020), investigated the perceptions of newly appointed school principals. They discovered that no formal certification existed for appointment to the role of principal, and that most newly appointed principals relied on their teaching knowledge to guide them through the responsibilities of their new management role. Consequently, newly appointed principals did not always have the required competencies for the role and were relying on their experience as a level 1 educator[7] to guide them through their new role. This presented a disconnect, creating an unfavourable situation for schools. In such cases, it might have been better to insist that newly appointed principals attend a compulsory management development programme to ensure that they are adequately prepared for their new role. As per the results of the study above, newly appointed principals confirmed their lack of preparedness for their role, especially in the areas of human resources, school finance and legislation. It was suggested that teachers should also be exposed to management and leadership responsibilities, and that school principals should complete a training programme before accepting their appointment (Sepuru and Mohlakwana, 2020).

Regarding the chosen institution for this study, this was not a challenge, as principals were provided with the necessary ongoing training upon their appointment to their roles.

[7] Level 1 educator – An entry level teaching position within a school

It was also a requirement to have significant experience in a similar role before being considered for this pivotal academic role. In a separate study conducted by Naidoo (2019), it was found that the poor leadership qualities exhibited by school principals contributed to the poor academic performance of students. It was argued that principals had the potential to be exemplary leaders if they were exposed to training and professional development programmes. The study's findings also confirmed that leadership development was essential for principals. As such, the Department of Basic Education should consider making it a prerequisite qualification for all principals to complete a development programme before their appointment to the post.

It was further emphasised that this course should be taken within two years of being appointed to a school management role, and that the qualification should have been made available to all active members of the school management team as part of their ongoing professional development (Naidoo, 2019). In the drive to offer high-quality education, resource allocation was as crucial as effective school leadership (Janse van Vuuren and Van der Bank (2023).

The results of the study confirmed that it was essential for school principals to establish a clear vision and strategic direction, along with specific goals and expectations. It was also necessary to communicate effectively, influence others, make informed decisions, manage oneself, and manage teaching and learning. The implication was that principals needed to display strategic vision in their academic strategy for their respective schools. Lastly, leading with compassion and maintaining a student-centred learning environment was also important (Janse van Vuuren and Van der Bank, 2023).

COVID-19 certainly presented challenges in teaching a global mindset. However, three institutions in South Africa, India, and Bangladesh were exploring how to instil a global perspective into their students' thinking. While a global mindset would have been a valuable managerial skill on its own, teaching students about how to think globally not only enriched their own education but also prepared the next generation of managers to think globally (Arora *et al.*, 2022). Education aimed to prepare students for the world of work, and one of the essential managerial skillsets was thinking globally, which presented a strong argument for the implementation of digital learning.

Another essential skill for managers was delegation. Delegation was seen as the assigning of duties to subordinates by a manager. As crucial as this skill is to the effective coordination of workplace activities, not much attention has been given to the importance of delegation. Often, managers felt apprehensive about assigning duties to subordinates, as it was sometimes seen as a relinquishing of power or an admission that they could not handle the assigned duties themselves. However, managers needed to delegate responsibilities to subordinates so that they could focus on their high-level priorities (Rees and Porter, 2015). Focusing on high-level priorities would allow principals to focus on the long-term academic vision of schools. By delegating duties to the teachers, the principal not only empowered the staff but also allowed them to buy into the academic strategy of the school.

The school administrator typically supported the school principal, and as such, school administrators also played a crucial role in the overall organisational climate of an institution. Therefore, it was essential to ensure that administrators fostered an open environment at school and communicated effectively with the teaching staff. It was suggested that administrators also needed to possess management skills, and that these skills had to be regularly audited to ensure effective and consistent communication (Avunç and Çelik, 2021).

It was essential to understand why administrators were required to possess these skills, as they were not directly involved in either the development or implementation of the school's academic strategy. However, since administrators were the primary point of contact with parents, they needed to have a comprehensive understanding of the strategy the school was implementing, so they could effectively communicate it when asked by parents or other stakeholders.

Regardless of the support structures in place at a school, the principal was responsible for leading and managing the school. Heystek (2022) stated that the characteristics of principals at schools with a deprived socio-economic context should be investigated.

The researcher discovered that motivation and creating a vision were important characteristics for a school principal. Motivation was essential, especially when launching a new strategy. Staff needed to understand the reasons behind the strategy, as well as their role in it. To effectively answer these questions, the principal himself or

herself had to have a clear vision of what he or she wanted to achieve, as well as the necessary resources to accomplish his or her desired goal. When confronted with a lack of resources, school principals had to adopt a people-centred approach to encourage and motivate staff to achieve academic results, thereby emphasising the importance of building trust and relationships within organisations.

Collaboration between the school management team and the school governing body, particularly in underperforming schools, was essential (Setlhodi, 2020). The governing body had to collaborate with the school management to identify the necessary needs and resources. Collaboration was imperative to ensure that student needs were being met. In a study conducted by Setlhodi (2020), three underperforming schools in the Gauteng West area were selected and interviews were conducted with principals, governing body members, management team members and teachers.

It was confirmed that collaboration was needed between the school management team and the governing body to improve the overall performance of the school (Setlhodi, 2020). Therefore, the selected school for this study needed to collaborate with the head office and school management teams to brainstorm ways to improve the school's overall performance. Lastly, a crucial management competency was self-management, which meant taking responsibility for our actions and behaviours (Zandri and Louis, 2018). It was also noted that those managers who were unable to manage themselves could not possibly manage an organisation.

Zandri and Louis (2018) stated that positive relations, integrity and ethical conduct, as well as personal drive and resilience, had to exist in organisations. It was also crucial that managers had to be self-aware and commit to self-development (Zandri and Louis, 2018). This approach would have helped improve not only personal performance but also business performance. This section focused on the managerial characteristics and competencies that school principals needed to exhibit, as well as providing an outline of the basic management tasks and processes that needed to be followed.

The researcher noted that principals were generally underprepared for their appointment as school managers and that significant training was needed to ensure that they understood the expectations of the role. Additionally, school principals were required to

realise the importance of building trust and relationships with their staff, which helped keep the staff motivated and enabled them to achieve good academic results.

A useful theory to be applied in this context would be stakeholder theory as it helped to manage value creation for all stakeholders in an enterprise (Bridoux and Stoelhorst, 2022). This meant that all stakeholders within a school context, e.g., teachers, students and parents, had to be included, which suggested that the stakeholders had to be considered during strategy formulation, with the end goal being the creation of value for each stakeholder. For example, it was important to consider how the academic strategy of a school would affect or impact a student, teacher and parents alike. It was also important to consider the impact of dynamic capabilities for digital transformation; a study conducted by (Ellström et al., 2022) highlighted the direction that managers should follow to approach digital transformation. With the selected institution, access to the latest technology and equipment was given, and as such, provided the participants with the necessary resources to use towards achieving digital transformation. Lastly, resource based view theory (RBV) explained the importance of VRIN/O resources and characteristics for achieving a sustainable competitive advantage (Mailani *et al.*, 2024). Resource based view looked at the tangible (e.g., physical assets like laptops and other devices) and intangible resources (e.g., reputation of the institution) as means to achieve a sustained competitive advantage. The VRIN/O referred to those resources that could be leveraged by the organisation that were valuable, rare, inimitable, non-substitutable and can be applied by the organisation. By virtue of the affluence aspect as well at the commitment to being aligned with educational initiatives as they happened, the school was also ideally placed to be able to leverage digital education to continue with learning even during the COVID-19 pandemic, thereby allowing them to sustain a competitive advantage in relation to other high schools.

When implementing change, a widely accepted framework to be adopted was Kotter's change management model. This model was applied by (Ha and Thanh, 2024) to a high school management team in Hanoi who discovered that there was potential of adopting this approach in the current context. (Carreno, 2024) also highlighted the usefulness of this model when applying it to contemporary challenges such as technological disruption and market volatility. The 8-step model is represented in Figure 12 below, and comprised of the following steps:

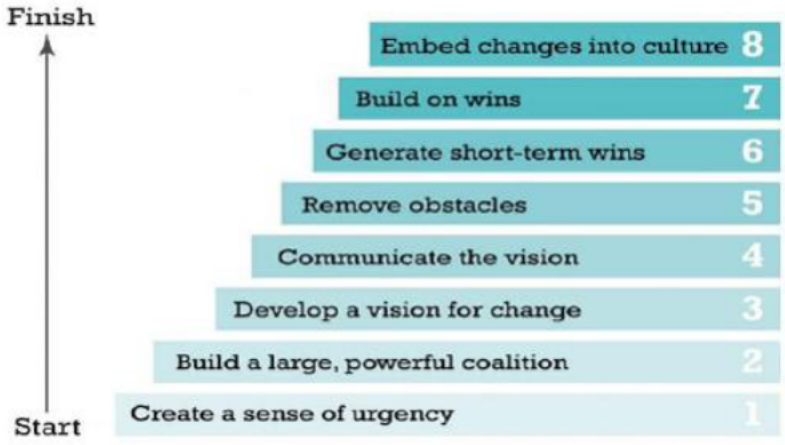


Figure 12: Kotter's Change Management Model (Ha and Thanh, 2024)

The diagram above could be further explained through the table below:

No	Steps in Kotter's change management model	Explanation
1	Recognize the need for change	Big changes necessitate a lot of dedication, and alerting people about the urgent need for change can help them prepare for it. To accept change, organizations require a "mitigate" to eliminate complacency and inertia0.
2	Build a working group/experts on change management	If the first phase is effective, people with the necessary knowledge, skills, and authority will be more willing to participate in the transformation process (Kotter & Cohen, 2002) 0. Success hinges on having the appropriate people on your team, especially competent leaders.
3	Define a vision and strategy for change	Create a strategic vision that will direct the change process toward a new shared, known, and desired state. This vision must be accompanied by relevant, feasible, and effective measures to realize it 0.
4	Communicate the vision for change	Big changes can only be successful when everyone in the organization is pulling in the same direction. The plan and vision for change must be communicated to the stakeholders.
5	Eliminate difficulties and barriers	Before substantial change can take place, potential barriers to change must be recognized and removed 0. Encourage and help people to make sensible changes.
6	Set short-term change goals	During a transition, appreciating tiny victories along the road can act as an emotional reward, motivating for success 0, 0.
7	Develop and analyze tactics based on successful outcomes.	When change arrives, members may lose their feeling of urgency, become fatigued, or revert to previous patterns 0. To avoid these scenarios, short-term successes must be leveraged into broader initiatives, and change must be constantly assessed and modified to ensure that everyone is enthusiastically engaged 0.
8	Apply and maintain changes	A success can be defined as when change is institutionalized and becomes a habit for people, as well as when knowledge, skills, and attitudes are distributed 0.

Table 7: Kotter's 8 step change management model (Ha and Thanh, 2024)

Therefore, in trying to implement a change in academic strategy, management teams could use Kotter's change management model as it provided a systematic way to introduce and manage the change and ensure that the change would be embedded or institutionalised into the strategy of the organisation.

This section explained the importance of the management function in achieving outcomes and strategies, specifically with the implementation of blended learning. The section also highlighted frameworks and theories that could have been applied to manage change as it happened in institutions. The following section focuses on the conceptual model used in this study.

2.7 Conceptual Framework

The previous discussion highlighted the importance of digital education and blended learning as pedagogical tools. Since digital education formed the overall umbrella under which blended learning falls, the conceptual model of blended learning espoused by Risdianto (2019) serves as the theoretical framing of this study. This author suggested that blended learning may have been an effective way to extend learning time, thus enabling students to achieve college and workplace readiness standards. It was also seen as an appropriate way to provide learning that could not be achieved in a face-to-face environment. Blended learning also made it easier to monitor student progress.

This study was applied in a tertiary context at the University of Bengkulu, which was a public, mid-tier University or average income institution. The conceptual model represented in Figure 13, below, was used in the context of a secondary school environment. The conceptual model in Figure 13 represents the two elements of blended learning, i.e. face-to-face and online learning components. Certain aspects of the syllabus were covered in class, while others required students to complete work on a virtual platform. The elements in the model were used to determine which aspects would be covered during classroom instruction and which would be completed online or viewed as part of online learning. In an independent school, access to online platforms was easier due to the availability of technology.

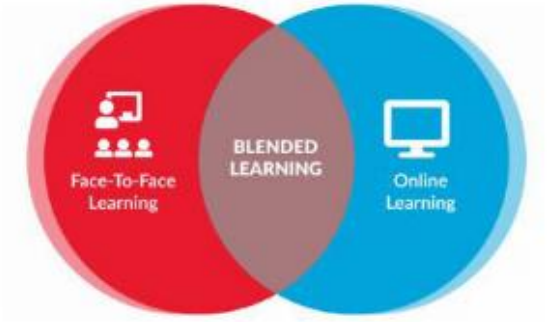


Figure 13: Conceptual Model of Blended Learning (Risdianto, 2019)

In further analysis of the literature, the additional elements that constituted face-to-face and online learning within the South African context were noted below. These elements were extracted from the literature consulted for this study, and the contributing authors are mentioned accordingly. It was also noted that the face-to-face learning aspect related to RQ1, as the question investigated the current South African education system, whereas the online learning aspect related to RQ2, as it looked at the educational and assessment policies. Lastly, the resulting outcome from merging online and face-to-face learning was blended learning and this aspect related to RQ3, which focused on delving into a critical reflection of how the school had employed specific approaches to digital education. Whilst the model above did represent the fundamental elements of blended learning and was applicable for the study, a more comprehensive analysis of the components that made up each of the elements was essential, especially in the South African context considering the array of challenges that face the South African education landscape. Therefore, to re-iterate, whilst Risdianto's model did provide the basic elements for the conceptual model, to be fully applicable to the South African context required analysis of a range of additional elements, specific to the South African context. In doing so, it did extend and challenge the fundamental model that was provided above. The table below provides a summary of the elements or components that were derived from the literature for both face-to-face and online learning. Thereafter, a detailed discussion on each component of both face-to-face and online learning was provided below:

Face-to-face learning	Online learning
Learning styles and multiple intelligences	Access to resources
Parental involvement	Internet connection and accessibility
Student involvement in learning	Level of preparedness and willingness to change
Assessment and teaching practices	Learning management system
Personal engagement with teachers	Dependent on student needs
Interactive group learning	Autonomous learning

Table 8: Components of face-to-face and online learning

Face-to-face learning:

a) **Learning styles and multiple intelligences**

Students have various learning styles; for example, some learn through visual aids, while others learn through listening or actively participating in the lesson (Sener and Çokçaliskan, 2018). This was referred to as visual, auditory and kinaesthetic learners, respectively. Consequently, learning experiences had to cater to different types of learning styles, which might not always have been possible in a traditional classroom setting, as the sheer volume of students in a classroom might have prevented a teacher from being able to convey learning content that catered to individual needs. Additionally, MI (multiple intelligences) were present in the same classroom. Some students might have been gifted in languages, whereas others had their skill set in the fields of science or mathematics. Therefore, students who were talented in a scientific field would benefit the most from learning by conducting experiments or solving equations.

In a face-to-face learning environment, catering to differing learning styles and MI may not have always been possible, so, as noted in the literature, many teachers were still comfortable with traditional teacher-led classroom instruction, which allowed for little to no student involvement. Additionally, as mentioned earlier, the volume of students in a classroom, combined with the general lack of resources in most departmental schools, would have presented a challenge in this regard.

b) **Parental involvement**

It was noted that in the 1990s, significant changes to the educational landscape occurred, as policies were changing (Botha, 2002), and there was a greater expectation for parental involvement. It was also stated that the underachievement in literacy could have been due to (amongst a range of other factors) a lack of parental involvement. Historically, it became evident that parents played a minimal role in their children's education (Chetty, 2019), and the responsibility for learning was placed exclusively on the teacher.

Teachers only saw their respective students for a few hours a day, and additional homework or enrichment tasks needed to be done at home. If parents had not been supervising this process, the further extension in terms of students' learning would not have occurred. In the current educational system, greater parental involvement has become a requirement, achieved through regular parent-teacher meetings and frequent communication on student progress via mail or other forms of correspondence to parents. This change undoubtedly made the learning journey one of joint responsibility, and it had to become a partnership among the teacher, student, and parent. In a face-to-face environment, arranging these meetings was somewhat easier, especially before the COVID-19 era. However, during the pandemic, this engagement became significantly more challenging, as noted in this study.

c) **Student involvement in learning**

For a long time, students were not required to become active participants in the learning process. There was almost an expectation that teachers would craft meaningful learning experiences, and that students would be passive recipients of the same (Barkhuizen, 1998). This practice has received criticism in recent years, and greater efforts have been made to ensure that students have some agency over their learning. One example of this was blended learning, which included the use of the flipped classroom. This form of blended learning involved students completing "pre-work" in advance of attending the lesson the next day. This practice virtually forced students to engage with the learning material, as they inevitably needed to comprehend the work in advance of the lesson. In a

traditional classroom setting, it also became easier to ascertain student involvement, as students were seated in a classroom and the teacher could observe whether they were completing the assigned work.

d) **Assessment and teaching practices**

It was also noted that, despite education undergoing several changes post-Apartheid (Botha, 2002) , teachers were unwilling to change their assessment and teaching practices (Vandeyar and Killen, 2007). In particular, the "*chalk and talk*" technique was a familiar practice, and in its absence, it was understood that educators felt a sense of loss of locus of control. In part, this could have been attributed to the training that teachers received at the various teacher training colleges at the time. Little to no training or consideration was given to alternative assessment or teaching practices at the time. However, since then, several new developments and initiatives have emerged, as documented in this chapter. Being in a physical environment allowed for experimentation with various assessment methods, such as peer assessment. This type of assessment was conducted by the students' peers, allowing them to evaluate their peers' learning. It also allowed students to gain an understanding of the assessment process itself. In terms of teaching, it was very possible to allow students to prepare and present certain sections of the work, and in that process, the teacher would be there to guide the learning and clarify concepts that the students found challenging. Although blended learning was being used across many institutions, summative assessments or final examinations are still conducted via traditional pen and paper exams. As such, it can be deduced that the digital evaluations were not being given the same level of credibility as the traditional examinations.

e) **Personal engagement with teachers**

In studies conducted at tertiary institutions, the consensus was that students preferred personal engagement with their lecturers (Louw and Thukane, 2019).
It almost served as a source of comfort to know that there was a physical individual with whom students could engage in the event of queries on content, etc. Over time, students build relationships with their teachers or lecturers, and it is this familiarity that allows them to feel more comfortable in the physical classroom and confident enough to engage with their teachers during lessons.

Students in a high school environment were generally less mature than those in a university environment. If tertiary students still preferred personal engagement with lecturers, it was even more imperative for younger students to have the same engagement with their teachers. It was also noted that, in the absence of personal engagement, students tended to disengage from the lesson, which negatively impacted the learning that was intended to occur. It was also easier to establish these relationships in a face-to-face environment as students were in a physical classroom daily.

f) **Interactive group learning**

The flipped classroom was one of the most popular methods for blended learning, as it enabled interactive group learning through classroom activities such as problem-solving, answering questions, peer instruction, and debates (Serrano *et al.*, 2019). At times, students may have learnt concepts more easily through their peers and the many groupwork activities assigned to them. By working in a group, not only can the work be divided, but the collaboration also teaches students valuable skills for when they enter the workforce. Group work also allowed students the opportunity to take agency over their learning, thereby enabling them to assess their understanding of the topics being taught, i.e., self-assessment. Therefore, interactive group learning had definite benefits for the students.

Online learning:

a) **Access to resources**

South Africa has consistently faced challenges related to limited access to general educational resources (Chetty, 2019), a problem that is also evident in the online space. Besides not having physical resources, access to digital resources was even more difficult. A lack of access to resources not only restricts the learning process but also dissuades students from wanting to learn. In terms of education, the government prioritised the allocation of resources through the creation of quintiles. Quintile 1 was identified as comprising the most impoverished schools, and as such, most of the educational resources were allocated to these schools. Despite these initiatives, little change was observed at the schools, and they continued to be disadvantaged. In the online space, being unable to access

resources places students at a distinct disadvantage compared to those who have the financial means to acquire resources. Based on this, equality in education remains an issue.

b) **Internet connection and accessibility**

Through studies documented in this chapter, it was also observed that while many countries found it a challenge to connect to the internet, South Africa and many other African countries experienced this phenomenon in a much more extreme manner (Langthaler and Bazafkan, 2020). This was partly due to infrastructure and a lack of access to devices, but also because internet connections proved to be costly. As South Africa is a developing country, a significant number of students could not afford to pay for data and internet connections. This left the financially challenged student at a distinct disadvantage in comparison to students who had the financial means to pay for an internet connection. This would mean that the financially advantaged student would receive "additional" learning, and the financially disadvantaged student would be left behind. Having an internet connection at home meant that there was uninterrupted learning and access to educational resources via a learning management system or platform (Seale and Cooper, 2010).

c) **Level of preparedness and willingness to engage**

Based on the studies consulted in this chapter, the level of preparedness and the willingness to engage from both teachers and students also played a crucial role in the success of online learning. As stated earlier, teachers felt significantly more comfortable with traditional instructional practices, and the advent of technology in teaching and learning came as a revolutionary change. The learning basis to support this change was also not being offered, and this added to the feelings of apprehension among academic staff. Therefore, the level of preparedness varied, with some academics being well-prepared and others being completely unprepared for their lessons (Louw and Thukane, 2019). They were also unwilling to engage with the various learning management platforms and tools that had been decided upon, and this also impacted the success of online learning. In addition, students themselves were both unprepared and unwilling to engage at times (Higgs and Nyahodza, 2017). This was seen during the COVID-19 pandemic

when both tertiary and high school students were forced to move from "known" systems and practices to going online and having to embrace the online space. The known space being referred to was the traditional classroom environment with teacher-centred instruction (Tularam, 2018). Students were used to this mode and, as a result, may have been both unprepared and disengaged when these lectures and lessons took place. In the online space, when students were unwilling to engage with the material and the systems in place, learning was inevitably lost, resulting in a gap in their understanding.

d) **Learning management system**

A learning management system is a platform used to support teaching and learning, typically including all the necessary learning materials for a course, as well as the assessments that must be completed through the platform (Fullard *et al.*, 2022). When the COVID-19 pandemic occurred, students were forced to transition to a learning management system to ensure that their learning was not interrupted. This rapid transition to a learning management system was not accompanied by rigorous training on how to navigate the new system. As a result, some students only engaged in the core activities required for the course. Due to the pandemic, most training and instructions were conducted through virtual meetings and/or instructional manuals. Therefore, if students did not undergo these teachings, they were at a disadvantage when navigating the system.

e) **Dependent on student needs**

Blended learning was seen to be dependent on the needs of the students. Some aspects of the content lent themselves to a blended approach. For example, certain elements of the content might have required students to complete independent research, which could then be presented in class or form part of their enrichment knowledge (Cronje, 2020). Teachers were still responsible for teaching the core content, and therefore, a large amount of required learning came from teacher-led instruction. Additionally, not all students preferred conducting their independent studies and research. Some still expected and preferred the learning to be guided and provided exclusively by the teacher. Although blended learning has received a great deal of positive feedback since its introduction, it has been noted that it does not meet the learning requirements of all students. During the pandemic,

many students did not utilise the additional resources that were made available on various learning management systems. Although there were great opportunities for enriched learning during a very challenging period, this did not happen very often. On the other hand, some students were very keen on harnessing the power of the blended learning space and took full advantage of the resources offered. The blended learning space combined teacher instruction with online learning, thereby allowing the learning to be more student-centred. Therefore, it was noted that the needs of students were certainly varied at that time and remain so in general. Consequently, it was even more important that both teachers and lecturers considered the needs of students when crafting learning experiences, especially those that took place online.

f) **Autonomous learning**

Autonomous or independent learning comprises video lectures, reading, quizzes, tutorials and practical exercises. Therefore, the success of this learning was heavily dependent on students engaging with the provided platforms and learning materials (Serrano *et al.*, 2019). Through the studies documented in this chapter, it was noted that not all students excel in autonomous learning, as it is a system with which they are not accustomed. Additionally, there was no teacher present to guide the students on what needed to be done, as would be the case in a physical classroom. Students may have then felt uncertain about whether they were learning correctly or whether their understanding of the concepts was correct. However, autonomous learning was a significant factor in the online space, and to succeed, students needed to commit to a regular learning schedule, especially during the COVID-19 pandemic. Self-regulation was important for students to grasp the content and achieve academic success. Lecturers and teachers had placed a significant number of materials online, and the expectation was that students would be able to navigate through all this material since they were at home during the pandemic. In comparison to the work typically covered during a face-to-face lesson, the online assignments were sometimes unnecessarily extensive.

The elements outlined above describe the aspects of both face-to-face and online learning, as informed by the literature consulted in this chapter. These elements were incorporated

into the conceptual framework, and a new model for blended learning was subsequently developed. This model would be utilised in the study, and the elements of the conceptual framework would then inform the formulation of research questions for the instruments. In applying this framework to the selected institution, the intention was to identify the similarities and differences experienced by participants. Figure 14 below represents the new model that was used for the study.

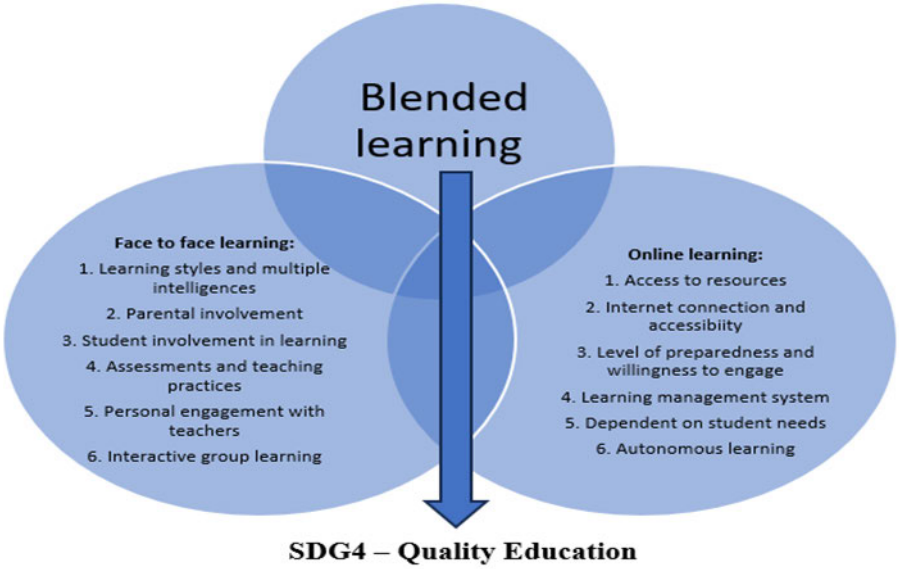


Figure 14: Blended Learning Model for Schools (Author developed)

As stated earlier, the elements noted above were researched with the selected institution. The basic model was further enhanced by examining the various components that comprise both face-to-face and online learning. Additionally, while previous authors have identified these elements as fundamental to both modes of learning, no reference has been made to the involvement of management staff in monitoring the implementation of both types of knowledge, i.e., face-to-face and online learning.

In addition, one of the gaps in the literature review was that many studies on blended learning were conducted at tertiary institutions and impoverished schools. In this instance, the environment used in the study was more affluent and was not hindered by challenges related to access to the internet or online platforms. The conceptual framework was applied to the entire study, and the research questions aimed to examine the specific tools employed in the implementation of blended learning, as well as how blended learning has been implemented at the school. As indicated earlier, one aspect that had not been considered in the conceptual model above was the impact and role played by the

management team in the successful implementation of blended learning practices in schools or tertiary institutions. Any good manager had to consider the fundamental management steps of planning, organising, leading, and controlling. While the conceptual model examined the two features that defined blended learning, the application thereof was highly dependent on the manager's ability to apply basic management steps to the implementation of new learning pedagogies or learning systems. Many managers generally issued the academic strategy that needed to be followed. However, very few would step in to support the educator or to verify whether the academic strategy was being implemented. Introducing a new academic strategy would have required significant planning to determine whether it would align with the institution's vision and mission. Thereafter, it would have been essential to organise the resources required to achieve the outlined plans. Once resources had been assigned, it was crucial to guide academics towards achieving their academic goals and provide guidance and support where necessary. Lastly, it was essential to control whether the desired results were achieved. If this had not been the case, the school management team needed to employ an introspective process in which they examined the reasons for the deviations (if this had been the case) and then introduced corrective measures to address the deviations. Upon reflection, the model presented by Risdianto (2019) might not have been suitable for the South African context, as there are far more extenuating variables that posed challenges to the delivery of quality digital education – for example, access to the internet and devices, as well as the nationwide problem of loadshedding.

The next chapter outlines the exact research methods employed in the study, describing the research design, questions, sampling methods, and the researcher's lens used in the study.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research methodology employed in this study. The study aimed to gather subjective details on participants' experiences regarding the management and implementation of the blended learning model at their school. Therefore, it was crucial to select a research design and lens that aligned with the nature of this research and addressed the primary research questions. As such, an epistemological approach to the research questions was adopted, which corresponded with a qualitative research design and an interpretive lens for the study. Additionally, this chapter provides details on the research design employed in the study, including the sampling plan, data collection, and analysis process. The research onion proposed by Saunders *et al.* (2019) was used before deciding on the research approach, design and methodology. The research onion ensured that all aspects of the research process were considered before the research itself began.

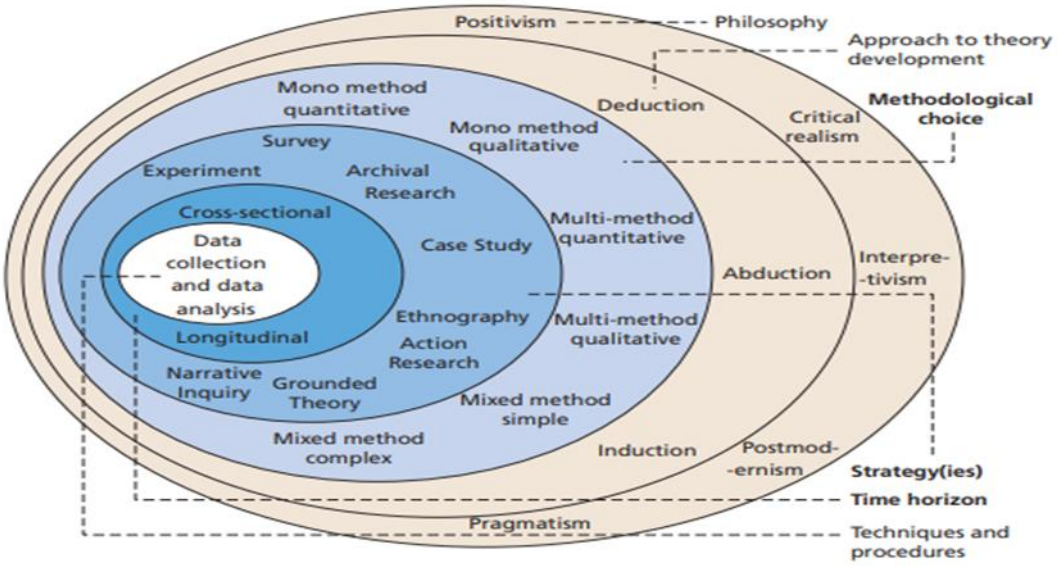


Figure 15: The Research Onion (Saunders *et al.*, 2019)

3.2 Research Paradigm

Before approaching research paradigms, it was important to consider three types of research assumptions. These assumptions would, in turn, help distinguish the research philosophies and paradigms. These assumptions were ontology (which referred to the nature of reality or being), epistemology (what constituted acceptable knowledge), and

axiology (the role of values) (Saunders *et al.*, 2019). Ontology examined how the researcher viewed the world and business, epistemology considered how knowledge could be communicated to others, and axiology referred to the role of values and ethics in a study (Saunders *et al.*, 2019). In summary, epistemology provided researchers with knowledge, and ontology examined whether it existed; lastly, axiology looked at whether the ethics and values were correct or not. Based on the research questions posed for this study, an epistemological assumption was adopted, as the researcher sought to gain subjective knowledge on the topic being researched.

Now that the assumption had been finalised, the researcher needed to view the research paradigm. A research paradigm could be seen as the fundamental assumptions that underwrite the frame of reference, the mode of theorising and ways of working (Saunders *et al.*, 2019). The research paradigms that could have been considered for the study were positivism, where the researcher aimed to acquire pure data and facts, and pragmatism, which emphasises the role of human beings in the research process. The other option was critical realism, which focused on what was seen and experienced. Next, postmodernism highlighted the role of language and power relations, aiming to question accepted ways of thinking. Then there was pragmatism, which underscored that concepts could only be seen as relevant where they supported an action; for the pragmatist, research started with a problem, and the researcher then attempted to contribute practical solutions that informed future practice (Saunders *et al.*, 2019). Lastly, interpretivism is focused on how people understand their experiences (Kankam, 2019). Since the objectives of this research project were to understand the lived experiences of the research participants, the most suitable paradigm for this study was the interpretivist research paradigm. In adopting this approach, the experiences of the research participants could be understood as human experiences were also very subjective in their nature.

Du Plooy-Cilliers *et al.* (2014) stated that the concept of interpretivism was derived as a response to the limitations of positivism. The primary tenet of interpretivism is that individuals differ from objects, and as such, we cannot study human beings in the same manner we study objects. There was also evidence to suggest that interpretivism had its origins and roots in symbolic interactions, and this specific paradigm motivated researchers to consider different interpretations of specific social contexts to gain more depth of understanding into the phenomenon that was being studied. It was further

suggested that interpretivists focused on adding an element of richness to the data that was collected, and that humans could not be separated from the knowledge that needed to be acquired (Junjie and Yingxin, 2022). Therefore, an interpretivist lens needs to be applied to the study, allowing for the understanding of the "human" perspective. In short, interpretivists wanted to understand human behaviour instead of trying to discover and explain relationships, which was characteristic of a positivist approach. (Du Plooy-Cilliers *et al.*, 2014).

Furthermore, Saunders *et al.* (2019) emphasised that not only are humans different from physical phenomena, but interpretivists also aimed to study these meanings. The purpose behind interpretivist research was to develop new and deeper understandings of social worlds and contexts. Some have also stated that the interpretivist lens was well-aligned with both business and management research, as business contexts are both complex and unique. Due to this complexity, the use of an interpretive lens in the study would enable the extraction of data that is both non-unique and comprehensive.

There was an emphasis on insiders' viewpoints in trying to understand social reality. The researcher's role was to develop rapport and empathy. Interpretivists believed that the human experience of the world was subjective, and these researchers generally relied predominantly on the views of the research participants about the subject being studied. Interpretivism was more sensitive towards individual meanings and contributions (Alharahsheh and Pius, 2020).

That being the case, the participants' experiences would be examined to identify the conflicts and contestations that may have arisen during the adoption of digital education and blended learning. These unique experiences helped uncover a depth of meaning and differing interpretations that the various participants may have held. Consequently, this approach allowed multiple perspectives to emerge. The research instrument used is discussed in detail in the next chapter.

However, the basis for developing the research questions was the conceptual model espoused by Risdianto (2019), which was also described in the previous chapter. The two aspects of blended learning involve face-to-face and online learning. Based on these concepts, the main questions aim to gain a fundamental understanding of digital education and the blended learning tools used. The questions also explored how digital

education had manifested in this specific institution, as well as why it had taken the particular form it did. Lastly, the study aimed to examine not only the application and manifestation of blended learning but also to investigate how school management managed the blended learning process.

The main research questions for the study are:

1. What are the current digital education and blended learning pedagogical tools being implemented within the school?

   This question examined the current South African landscape regarding digital education and its inclusion in the schooling system.

2. How was digital education and blended learning as a pedagogical tool being implemented within the school?

   This question looked at the actual tools and mechanisms used to engage in the practice of digital education.

3. Why did digital education and blended learning as a pedagogical tool manifest in specific ways within the school?

   This question delved into a critical reflection on how the independent school had employed specific approaches to digital education and debated the relevance and contestations that arose within the South African schooling system.

3.3 Research Design

According to Anderson *et al.* (2009), qualitative research places meaning on contextual data, rather than numerical data. Additionally, qualitative studies employ methods such as interviews, surveys, and focus group discussions as research tools. Considering that the study focused on digital education and the implementation of the blended learning model, a qualitative case study design was deemed most appropriate for this study. This allowed the researcher to obtain detailed reviews and open-ended responses from the respective stakeholders regarding the processes being implemented. A case study approach was chosen because it involved a researcher conducting an in-depth analysis of an activity, process, or individuals (Creswell and Creswell, 2018). Cases were bound by time, and researchers also employ varied data collection techniques. In addition, the

researcher was studying the case of an independent school in South Africa. Therefore, in the study, a descriptive case study method was used as this approach describes an intervention or phenomenon in addition to the real-life context where it took place (Maree, 2020).

Some of the characteristics of qualitative research include a natural setting, multiple forms of data, reflexivity, and an emergent design. It is best to use qualitative research when a particular phenomenon needs to be studied or explored, or if we require an in-depth understanding of an issue (Creswell and Poth, 2018). The data produced by the qualitative research design was not quantifiable and allowed the researcher to comprehend issues by investigating them in their specific context and meaning (Asenahabi, 2019). Consequently, it allowed for the collection of rich data by understanding the lived experiences of research participants, and it helped in understanding human behaviour in certain situations.

3.4 Research Instrument

Based on the revised conceptual framework presented in Figure 14 from the previous chapter, the elements of face-to-face and online learning were examined using the research instrument. These elements were derived from the literature that was consulted for this study. When combined, face-to-face and online learning make up the concept of blended learning. The various elements investigated in this study are summarised in Table 9 below.

Face-to-face learning	**Online learning**
Learning styles and multiple intelligences	Access to resources
Parental involvement	Internet connection and accessibility
Student involvement in learning	Level of preparedness and willingness to change
Assessment and teaching practices	Learning management system
Personal engagement with teachers	Dependent on student needs
Interactive group learning	Autonomous learning

Table 9: Elements of Face-to-Face and Online Learning

The elements above were applied to see whether the strategy being applied was truly a blended approach. For example, in terms of face-to-face learning, was consideration being given to students with different learning styles and MI? This was identified as an essential feature of face-to-face instruction. Additionally, was there active involvement from parents in their children's learning journey, and if so, how did this take place? In terms of student involvement, was there an insistence or an expectation that students would be involved in their learning, or were students still passive recipients of learning, as was the case in traditional schools?

Lastly, the research examined whether interactive group learning had occurred, and if so, what the students' experience of such learning was. In terms of online learning, it was essential to determine whether there was access to resources. This school had been identified as affluent and, as such, was recognised as a Quintile 5 school. Therefore, it was understood that a lack of resources may not have been a significant challenge for this institution.

When it came to the internet connection and accessibility, the success of a blended learning approach relied on reliable internet connections and constant access. Therefore, the study aimed to investigate whether this was the case in this scenario. In terms of the level of preparedness and willingness to engage, the study aimed to examine whether both students and teachers were prepared and willing to engage in blended learning, and whether they had received sufficient training in this regard. A learning management system was essential for providing online education; therefore, the study aimed to examine the learning management systems being used to determine whether they were successful in achieving the desired educational outcomes. The responses also attempted to confirm whether the blended learning approach was dependent on the students' needs. The researcher aimed to establish which aspects of the content were well-suited for blended learning and whether students felt a need to utilise the blended approach. Lastly, online learning was understood to be a form of autonomous learning. This meant that students were predominantly responsible for their own online learning experiences. The researcher aimed to discover whether students were taking advantage of the opportunities that autonomous learning presented, and if so, how they were achieving this. In all the investigations being conducted, it was also essential to examine whether the end goal was being achieved, namely SDG4, which is the goal of quality education. Since the study

investigated both the implementation of blended learning and its management, the researcher opted for the use of interviews and focus group sessions, as this allowed participants to share details about their lived experiences. The interview schedule consisted of a set of eight questions for each group of respondents. The research questions were also derived from the research objectives. There was a separate interview schedule for the management team and a different schedule for the HODs. While most of the questions were similar, some were explicitly designed for the research participants. These questions, referenced in Appendices J and K, were addressed to both groups.

The focus of the interview schedule for the management team was to determine the management of the blended learning process at the schools. In contrast, the focus for the HODs was more on implementing blended learning. In doing the interviews, the researcher gained a holistic and detailed understanding of the implementation and management of blended learning from two distinct sets of stakeholders. Additionally, probes and follow-up questions were asked in each set of interview questions. This allowed the respondent to provide more detail on the aspect being researched. Since a few participants had expressed their unwillingness to take part in the focus group session, the questions were emailed to them. Therefore, the data collection method employed in this study consisted of interviews, focus groups, and email surveys.

3.5 Study Site

The study site comprised the three school campuses in Gauteng, as well as the head office, also located in Gauteng. Sites 1 and 2 were in the northern suburb of Gauteng, while Site 3 was situated in Pretoria. Some of the interviews were conducted online, and participants attended the virtual interviews from the school campus. This was because COVID-19 regulations were still in place, and hence, online interactions were deemed the most appropriate.

3.6 Target Population

The target population consisted of the academic strategist at the head office, as well as principals, academic deputy principals, and core subject HODs (head of department) within the respective campuses. These individuals were selected as they represented both the top and middle management teams. The core subjects were English, Afrikaans, Mathematics, Mathematics Literacy, isiZulu, and Life Orientation. It was also stated that

the researcher had previously worked for the institution, which formed part of the rationale for choosing the school. The other reason behind the choice of school was that it had adopted digital education and the blended learning model. An additional criterion for selection was that the school was part of Quintile 5, which is an affluent income bracket. Most studies to date had been conducted in either impoverished or average-income institutions, and this was a perfect context for the study on blended learning.

3.7 Sampling Strategies

Using the interpretivist lens, participants or institutions were selected based on whether they aligned with the phenomenon that was being studied. Therefore, it was essential to choose an institution that had implemented blended learning to understand how it was implemented and how it was managed. Purposive or judgement sampling was used to extract the sample, as this method of sampling is employed when a specific purpose and participants were selected for a study (Maree, 2020). With this type of sampling, participants who can provide detailed and in-depth information about the phenomenon being studied are recruited to participate in the research. The participants formed part of both the school management team and the head office management team. Purposive or judgement sampling helps the researcher to identify and select sources that would aid in answering the research objectives, and these samples are generally small in size (Pradhan and Ranajee, 2019).

Purposive or judgement sampling is also employed when research requires input from individuals with extensive experience in the field or topic being studied. Due to the seniority of their position and the level of academic responsibility, these individuals were best placed to provide detailed information on the implementation and management of blended learning. In this case, having been previously part of the institution provided a form of insider access to suitable participants.

3.8 Sample Size

The sample size consisted of three principals, the academic deputy principal at each campus, the six HODs per core subject (English, Afrikaans, isiZulu, Mathematics, Mathematical Literacy, and Life Orientation) at each of the three Gauteng campuses, as well as the managing director and academic strategist. Therefore, 26 respondents were invited to take part in the study. Table 7 below lists the participants selected for the study,

along with the data collection method employed. There were three principals, three deputy principals, one academic strategist, the managing director, as well as some of the respective heads of department for the core school subjects. The original data collection was quite extensive. However, upon commencing the data collection process, it was essentially replaced with a slightly smaller sample of participants due to both availability and some participants' unwillingness to participate in the study.

Interviews were conducted with the three principals and the three academic deputy principals per campus, as well as the academic strategist and managing director. These individuals formed the senior management team for the school. Focus group sessions had been conducted with the HODs per campus. The data collection process is described below by campus.

Gauteng Campus 1:

The interview was conducted with the principal and academic deputy principal, but the HOD for isiZulu had declined to participate. There was general hesitation about this campus, but on the day, the HODs for English, Afrikaans, Mathematics, and Mathematical Literacy attended the focus group interview. The plan was to conduct focus group sessions with six HODs; however, only five HODs agreed to participate. This was a very relaxed session for me, as the researcher, mainly because I had worked with most of these individuals for the past six years. However, I had to maintain my objectivity, as I had been doing in previous interviews, to prevent investigator bias from setting in. The respondents were candid and detailed in their responses, and I thanked them for their participation and cooperation at the end of the session.

Gauteng Campus 2:

Interviews were conducted with the principal and the academic deputy principal. All the respondents were very willing to assist. The initial plan was to conduct focus group sessions with six HODs. However, only four HODs were on site. The Afrikaans/isiZulu HOD did not want to be recorded but was still keen on participating in the study, so the questions were mailed to them when the focus group session with the other HODs commenced. On the day of the focus group interview, only two HODs were able to attend the scheduled session (English, Mathematics/Mathematical Literacy). The HOD for Life Orientation had been called into another meeting, but the researcher mailed the questions

to the individual. From the start of the research, this campus had been exceptionally responsive and willing to assist with the research task, so I felt very comfortable before conducting the focus group session. The two HODs I engaged with in the focus group were very welcoming and engaging, providing detailed responses to my queries. I appreciated their honesty and reflection on blended learning practices.

Gauteng Campus 3:

Interviews were conducted with the principal and deputy principal. There was no HOD for English - just senior teachers. I invited the senior teachers to specified interview slots. The initial plan was for six HODs, but there were only two HODs on this campus. There was one Afrikaans HOD, and isiZulu was only being offered in 2023. The Maths HOD was responsible for Core Mathematics, AP Maths and Mathematical Literacy. The Life Orientation HOD had recently moved into a management position and would be interviewed as the academic deputy instead. All HODs declined to attend the interview as they were either busy with school matters or simply declined to participate in the study. However, I invited a senior English teacher to attend an interview. The outgoing academic deputy had also declined to participate, as she felt she lacked sufficient experience in the role, having been appointed only in April 2022. The original plan of 18 HODs for focus group interviews had now been condensed to only 11 active HODs across the three campuses. Thereafter, only eight HODs consented to participate in the study; however, all principals, deputies, the managing director (MD), and the academic strategist attended the interview session. Based on the above response rates, only two focus groups were held for the HODs at two of the campus sites.

The rationale for selecting the core subject HODs is that these subjects were compulsory from Grades 8 to 12. As such, the HODs interacted with the entire student population daily. As a result, their insight and reflections would be more representative of the whole student population. Due to the limitations on face-to-face interactions, all interviews were conducted using the Zoom online platform. Table 10 below lists the actual respondents who participated in the research, along with the pseudonyms used in the analysis process, gender and years of teaching experience. Although the original number of participants envisioned for this study was reduced, the qualitative and interpretivist nature of the study allowed rich data to emerge during the interviews and focus group sessions. These results will be discussed in the next chapter.

Site	Respondent title	Pseudonym	Gender	Teaching experience in years
1. Head Office	Managing Director	Zoliswa	Female	None
2. Head Office	Academic strategist	Rachel	Female	None
3. Campus 1	Principal	Patrick	Male	20+
4. Campus 1	Deputy principal	Theresa	Female	20+
5. Campus 1	HOD Afrikaans	Karen	Female	20+
6. Campus 1	HOD English	Renata	Female	20+
7. Campus 1	HOD Mathematics	Rebecca	Female	20+
8. Campus 1	HOD Mathematical Literacy	Edie	Female	20+
9. Campus 2	Principal	Tabitha	Female	20+
10. Campus 2	Deputy principal	Rekha	Female	20+
11. Campus 2	HOD English	Mary	Female	20+
12. Campus 2	HOD Mathematics/Mathematical Literacy	Amanda	Female	20+
13. Campus 2	HOD Life Orientation	Thomas	Male	20+
14. Campus 2	HOD Afrikaans/isiZulu	Alice	Female	20+
15. Campus 3	Principal	Cynthia	Female	20+
16. Campus 3	Deputy principal	Carol	Female	20+
17. Campus 3	Senior English teacher	Savi	Female	20+

Table 10: Respondents for Interviews and Focus Groups

The table above indicated that the respondents selected for the study were not only in senior roles at the school, but they had also been in the teaching profession long enough to see the changes within the South African educational landscape. It was noted earlier in the study that by virtue having worked at the institution, the researcher had also engaged with quite a few of the respondents through school events and conferences and as such, relied on their expertise to provide the detail required to answer the research questions. As such, judgemental/purposeful sampling was used to select the research participants. In addition, these individuals by mere virtue of their age, may have experienced

technological challenges in trying to offer the blended learning experience through the implementation of digital education, so their insights were invaluable to this study.

3.9 Interpretivist Lens Regarding Research Participants

The MD was very willing to assist and keen to take part in the research. Initially, I was very nervous about this interview, as it had been cancelled and then rescheduled. During the interview, the participants showed very little emotion, making it difficult to read their feelings. However, the MD was very vocal about not offering enough support to the teachers. Instead, the MD said that they do what they feel teachers need in terms of support, rather than determining what they need. She seemed genuinely concerned about the well-being of the teachers, and it was during this discussion that I could gauge her empathy. She felt that more could be done to support the teachers.

With the academic strategist, it was not easy to schedule an interview. Therefore, the interview had to be done over three days. It had been challenging to get in touch with this participant, as they were evasive in all forms of communication, including email, WhatsApp messages, and calls. Therefore, I was also quite apprehensive about interviewing as the participant had a reputation for being somewhat difficult. It was much easier to schedule an interview with the MD, and the participant was far more responsive and willing to assist. Finally, when the interview was scheduled, the academic strategist decided to be interviewed while the car was in traffic. Due to the traffic in Gauteng, maintaining a stable internet connection proved challenging, and certain sections of the interview were unclear. Halfway through the interview, the Zoom meeting ended, and I re-joined the meeting, but the participant did not answer. I stayed on the second Zoom call for about 20 minutes, but there was little interaction with the participant. To make matters worse, I was only able to answer half of the interview questions, as the allotted time was insufficient to conduct the interview. The participant then subsequently confirmed that they would only be able to meet with me in December to perform the second half of the interview. Thereafter, the academic strategist wanted to invite another individual who was not part of the original sample to attend the interview to listen to the research questions. I had declined this request because the individual was not part of the original sample and was not directly involved in the blended learning process.

The principal at Gauteng Campus 1 was very knowledgeable about the Ed-Tech space, as the participant had personally been involved with the implementation of Ed-Tech initiatives at two previous schools. With the Deputy Principal at Gauteng Campus 1, the interview was short as the participant had only been at the school for just over a year. Based on that engagement, the impression being created was that the digital education/blended learning initiative was far more prevalent in the earlier days of COVID-19, 2020 to mid-2021, than with current practices. It gave the impression that traditional teaching practices were being used now that COVID-19 restrictions had been lifted.

The principal at Gauteng Campus 2 was very sick during the interview. She was recovering from COVID-19 at home, yet she was keen to participate in the study. The commitment to see the interview through, despite being so sick, was admirable. However, the principal had the teacher's best interests at heart and believed that they had reached the limit of their capacity to change. The principal also thought that the teachers were hard-working and resilient. However, the older teachers were less willing to accept and adapt technology to their teaching, whereas the younger teachers were more open to using technology in their classrooms. The Deputy Principal at Gauteng Campus 2 strongly believed in the staff's ability to offer the highest quality of education to learners.

For the principal at Gauteng Campus 3, answers to the research questions were succinct. The participant was eloquent and had control mechanisms in place to ensure that teachers were doing BL (blended learning). However, the teachers on this campus were quite reluctant to participate in the study, and many had declined to participate. Therefore, it was challenging to get an accurate picture of how the campus truly felt about BL. For the Deputy Principal at Gauteng Campus 3, securing an interview slot with this participant took a considerable amount of time, as they were unresponsive to email requests for an interview. However, when I conducted the interview, the participant was very warm and gracious, new to the school, and impressed by the way the school was handling blended learning in general. They were happy to be part of the school. The participant held the position of HOD for Life Orientation (LO).

Still, they were also involved in the duties of the academic deputy, hence the inclusion in the capacity as deputy principal. One of the senior English teachers at Gauteng Campus 3 was interviewed, and the participant was also new to the school, having worked there

for less than a year. The participant had moved over to this school from a government school. This participant was quite impressed with how blended learning is being conducted. The participant also felt that blended learning could have been quite advantageous and praised the support provided by the management team. However, in general, there was a sense of unwillingness among the teaching staff to participate in the study, which may have indicated that they were either disinterested or apprehensive about disclosing information about the study.

A few participants had requested to be excused from the focus group session and had instead completed the questions as part of a normal questionnaire. While the participants did not cite precise reasons for not wanting to participate in the study, this could have indicated that the participants feared victimisation and did not want to provide an opinion on a platform where their responses would be recorded. While anonymity was emphasised, the apprehension was still apparent, so a questionnaire was emailed to those participants.

Future research implications or suggestions may highlight the authority issues or power dynamics that schools face. There was an inequitable distribution of power at this institution. Considering this context, I was careful to maintain a calm and encouraging tone during the focus groups and took the time to clarify questions as needed. In this specific situation, a balanced approach was required. Since I had previously worked for the institution, I was careful not to pose any leading questions or influence responses in any way.

3.10 Data Collection Methods

As a researcher, it is crucial to adhere to good interview practices (Creswell and Poth, 2018). It was also essential to ensure that data were collected through adequate recording techniques, and consent for the interviews needed to be obtained before conducting the research. Additionally, the logistics surrounding transcription need to be decided (Creswell and Poth, 2018). To prepare for this, I received the necessary ethical clearance and a gatekeeper's letter to conduct the research. The university had granted ethical clearance, and thereafter, I approached the personal assistant of the MD to obtain the gatekeeper's letter. I had drafted an email to the MD detailing the research that I wanted to conduct. Thereafter, I sent out an informed consent letter, which detailed the research

plan and invited participants to participate in the study. Once participants had confirmed their interest and willingness to participate, I scheduled interviews and focus groups according to their availability. The researcher conducted a focus group interview with the participants. This method also allowed the researcher to have control over the line of questioning. (Creswell and Creswell, 2018).

The advantages of interviews were that they were a valuable method to use when participants could not be directly observed, and participants could share historical information on the phenomenon being studied. Before conducting an interview, it was essential to have the questions planned (Creswell and Poth, 2018) and to ensure that a relaxed atmosphere and environment had been created for the interview itself. To do this, the research questions were well thought out, and probes had also been decided upon. Therefore, I opted to conduct a semi-structured interview since the questions were planned. As the interviewer, I was able to control the pace since the interview questions were administered in a standardised and straightforward manner.

However, there was also room for answering open questions where probes were provided (Maree, 2020). In terms of the probes used, I employed detail-oriented probes, which were designed to understand the 'what' aspects of the questions. I also utilised elaboration probes, where participants were asked to provide further details on an example or answer that was provided (Maree, 2020). At the start of the interview, participants were informed of the basic outline, which put their minds at ease.

During the interview itself, a researcher should not attempt to lead the subject or participant to a particular answer (Hofstee, 2006). For example, as a researcher, you must be both respectful and considerate of the study's boundaries. During the interviews and focus groups, participants were treated with respect, and questions were re-explained if necessary. The researcher also avoided asking leading questions. The research questions were open-ended, but clarification was also provided in the form of probes. While probes were used for some questions, participants were not forced to continue if they were not comfortable answering a question. In addition, when there was no response to the questions, a non-response was recorded, and the researcher proceeded to the next question.

The key to successful interviewing is to ensure that interviews have a structured approach with pre-defined questions. To that end, the researcher had the questions drafted but also provided opportunities for participants to provide further details based on their interpretations of the questions. Other essential elements were to ensure that interviews were systematic, credible and transparent. This meant that the researcher had to be careful not to select responses that justified any pre-conceived ideas about the answers, and it also meant asking reasonable questions and being clear about the methods that were used to collect and analyse the data (Maree, 2020).

Individual interviews were beneficial when the research participants were willing to engage and provide rich information on the phenomenon that was being researched. In cases where participants were hesitant to provide information or when time to collate information is limited, a focus group interview might have been the most effective approach, especially if the interviewees were similar and worked cooperatively. (Creswell and Poth, 2018).

As stated by Maree (2020), the focus group interview strategy was based on the assumption that group interaction will be productive in widening the range of responses, activating details of experience and releasing inhibitions that may otherwise discourage participants from disclosing information (Maree, 2020). In this case, it made sense to conduct a focus group with the HODs, as they all occupied similar positions at the respective schools, ensuring they would share a similar frame of reference.

Additionally, the separation of management and HODs at the selected institution allowed participants to freely express their views, enabling complementary and conflicting discussion points to be raised. Additionally, their HOD role provided them with increased exposure to students and the practical implementation of teaching and learning practices, as well as managing a team of teachers. Due to their level of management, these individuals would have had a more hands-on experience with blended learning implementation and were able to comment on the advantages and pitfalls. For example, the HOD for English was responsible for managing the team of English teachers, as well as taking ownership of the implementation of the syllabus and subsequent assessment.

The HOD had to ensure quality assurance and monitor compliance from the respective teachers in their team as well. Therefore, they were the best people to engage with in

trying to confirm the implementation and management of blended learning, as well as determine the efficacy of blended learning within their subject.

Likewise, with the senior management roles, these individuals would have had strategic oversight of what the school intended to do, and it made sense to conduct an interview, as these participants provided detailed information on the academic strategy being employed.

3.11 Data Quality Control

Generalisability is usually a concept that is applied to a quantitative study and as such, this was not a consideration for this study since everything cannot be applied due to the complexity of the real world and associated scenarios, and this study was also qualitative in nature. In a qualitative study, it is essential to ensure that the research instruments are trustworthy and credible. Therefore, as one measure to ensure trustworthiness and credibility, the same research questions were posed to every individual who took part in the study, and no "*leading*" questions were asked. Participant responses emerged naturally and without researcher influence. Credibility addressed the question of how congruent the findings were with reality, and it could also have been established by developing a sense of familiarity with the research participants and the institution used in the study. As declared earlier in the chapter, the researcher had previously worked for the institution and was a familiar face to some of the individuals being interviewed, as well as those participating in the focus group session. Therefore, this aspect of credibility had been addressed in this study.

Credibility was also achieved through the researcher's reflective notes (Maree, 2020) and the researcher utilised the qualitative data analysis software NVivo to ensure that reflective practices had been considered. This software, provided by the university, enabled data entry into the system and allowed themes to be highlighted. It also allowed for the capturing of reflective notes during the research process, and these were referred to as "memos" within the NVivo system. Credibility reflected the confidence that could be placed in the research findings, while transferability referred to the degree to which the results of the research could be applied to other contexts or settings (Korstjens and Moser, 2018). Some of the additional measures that might have been used to ensure credibility included triangulation, which involved using a variety of methods, sources,

and theories to gain a deeper understanding of the phenomenon being studied (Maree, 2020).

As an interpretivist, the use of triangulation adds depth and richness to the study. The idea behind using different data gathering methods is to confirm the efficacy of the data generated within a single research project (Saunders *et al.*, 2019). Therefore, both interviews and focus groups were used to address the triangulation criteria. Additionally, the situational context and the nature of this qualitative research study's emergence led to the inclusion of a self-administered interview questionnaire, which was emailed to some participants. This was the result of various problems that arose during the data collection process.

As was stated by Gunawan (2015), to ensure trustworthiness, qualitative researchers need to employ triangulation, detailed transcriptions, member checking, and coding. Member checking involved participants reviewing the actual transcripts from the interviews and focus groups to confirm their accuracy.

Trustworthiness was all about establishing credibility, transferability, confirmability, reflexivity and dependability (Stenfors *et al.*, 2020). Maree (2020) stated that transferability is a process that involves inviting readers of the research to make connections between the elements of the study and their own experiences or research, and examines whether the research findings are similar to those of previous studies (Junjie and Yingxin, 2022). Therefore, to adequately address the transferability aspects of the study, the researcher needed to provide details of the setting and the events that occurred, as this would have allowed readers to examine these details and determine whether the research could be applied elsewhere (Junjie and Yingxin, 2022). In both the interviews and focus group sessions, the duration was approximately 45 minutes, allowing respondents sufficient time to respond to the eight research questions.

Dependability was displayed through the research design and implementation, and confirmability refers to the degree of neutrality in the study and to the research being free of researcher bias (Maree, 2020) To achieve this aim, themes were identified via the NVivo application and the interviews and focus groups were transcribed into a Word document from the Zoom platform. Furthermore, confirmability required that a comprehensive description of the research process was provided to assess the

confirmability, and it was seen as a vetting process in the study (Maree, 2020). To ensure confirmability, the research process was documented both on NVivo and manually by printing out and analysing each interview and focus group transcript. The idea behind having a hard copy of the interview and focus group transcripts was to ensure a second level of analysis, in addition to the use of NVivo. Reflexivity was achieved through the researcher capturing notes within NVivo. Once the interviews and focus groups had been conducted, the transcription process started. I had downloaded the Zoom transcript and copied it into a Word document. Microsoft Word had a transcription feature which populated the Word document directly from the Zoom recording. The coding or thematic analysis process was then followed. To avoid errors in the transcription, I listened to each recording while double-checking the first draft of the transcription. Some words were not correct due to issues such as pronunciation, inflexion and accents, and these were corrected accordingly.

The central themes that had emerged from the participants were categorised accordingly using the NVivo application. Dependability was regarded as the stability of findings over time, involving participants' evaluation of the results, while confirmability was the degree to which other researchers could corroborate the study's findings (Korstjens and Moser, 2018). As indicated earlier in the chapter, the researcher completed the reflective practices after each interview and focus group was finished. The researcher had written down their views using the notes and memo features in NVivo and incorporated them into the analysis process. Due to some participants being hesitant to participate in the focus group session, a copy of the focus group questions was sent to them as soon as the session began with the other research participants. The written and emailed responses were saved on my computer, and the data from the document was analysed using both NVivo and thematic analysis. Reflexivity can be seen as the ongoing process of engaging with the researcher's position and the context in which the research was conducted (Stenfors *et al.*, 2020).

For this study, I focused on clarifying researcher bias and engaging in reflexivity, which fell under the researcher's lens category, as well as prolonged engagement and persistent observation in the field, which fell under the participant's lens category. This was achieved through the disclosure of the researcher's understanding of the biases, values, or experiences they brought to the study at the outset, as well as making decisions about

what aspects were crucial to the research and relevant to its purpose (Creswell and Poth, 2018). As the researcher, having previously worked for the institution, I had to address any potential elements of bias to avoid skewing the data. For example, my experience at the institution was very positive, so I view all initiatives as beneficial and positive. However, for this study, I employed an objective approach during the interviews and focus group sessions, refraining from providing my own opinion on the questions being asked.

3.12 Data Analysis

Qualitative data analysis involved reviewing text segments and assigning a label for each theme. Thereafter, the researcher searched the database to identify similar texts and assigned them the same theme. In this way, similar themes or topics were identified, and a computer programme provided an easy and structured filing system for the data. As stated earlier, the computer software program used for this analysis was NVivo. Additionally, the computer program provided visual representations of codes and themes, and also helped link memos to codes, themes, or documents, ultimately facilitating a more straightforward review process (Creswell and Poth, 2018). To ensure that no data was omitted, the themes from the data analysis software were also compared to hard copies of the transcripts. Given that qualitative studies are rich in text, it was a good idea to "winnow the data" (Creswell and Creswell, 2018). This involved focusing on specific data while disregarding other data, as this would help shape the research responses. Table 11 below provides an overview of the data analysis process, broken down into its constituent steps.

Prepare and organise the data for analysis	During this initial phase, Zoom interview recordings were saved, and notes were being typed up. Transcription of the interviews was also being conducted, and the researcher had begun to input the transcripts and notes from general observations into the NVivo programme. Emailed responses were analysed by printing out the responses and manually highlighting the comments to identify preliminary themes.

Look at or read all the data	In this step, the researcher reviewed the answers provided by the respondents to gain an understanding of the general themes emerging. It was here that commonalities were identified.
Begin to code all the data	During the coding process, data was organised by categories or themes. The overarching commonalities were identified and grouped accordingly, using NVivo. The researcher also made hand-written notes to ensure that all the data had been double-checked and included for the thematic analysis process.
Generate a description and themes	In this step, the setting was described, and the themes for analysis were determined. The codes were identified and linked to the respective interview transcripts. This would have enabled a more complex analysis and discussion of the findings later.
Description and themes are represented	Specifying coding or thematic analysis procedures could have been used, such as identifying expected, surprising, and unusual themes. The expected codes or themes refer to topics that the readers would anticipate finding, whereas surprise themes were findings that could not have been expected or anticipated.

Table 11: Data Analysis Process

Unusual themes were those that were not anticipated to present themselves in the study and may have been linked at times to past experiences or incidents. For example, the assumption was that all students and teachers would be adept at the application of blended learning. However, in the study, the unpreparedness on both sides became apparent. Due

to the standardised set of research questions among all participants, the themes and topics derived from the interviews were analysed. Data was analysed using thematic analysis. The data that was derived from the interviews was identified and categorised into specific themes. Those themes are interpreted and discussed as subsections in the results chapter of the research. Furthermore, using the inbuilt tools within NVivo, I was able to generate a word frequency cloud, which indicated the most common words that emerged during the interview and focus group sessions. By presenting a set of frequently used words, I was able to identify the general codes or themes that emerged during the data analysis process, which indicated the overall feedback provided by the research participants.

3.13 Ethical considerations

It was noted that ethical considerations came into play when interacting with other people, especially in cases of conflict of interest (Mouton, 2001). None of the participants were harmed during the study, and their confidentiality, anonymity, and privacy were maintained (Salkind, 2012). Participants were treated with respect. To ensure that these aspects were considered, participants' names were not included, instead, pseudonyms were used to maintain confidentiality and anonymity. As per Appendices J and K, participants were provided with an outline of the research aims to ensure that informed consent was obtained. Participants were made aware of the research's objectives before they agreed to participate. Ethical clearance for the study was obtained before conducting interviews and focus group sessions. Data were stored electronically through recorded interviews. Data would only be retained for as long as necessary; thereafter, it would be destroyed.

3.14 Conclusion

This chapter describes the interpretivist research lens and approach used in the study. The interpretivist lens aimed to understand the lived experiences of participants, and it was also based on the assumption that reality was subjective. In addition, the rationale for using this type of study was identified and explained. Based on the phenomenon being studied, a qualitative study was the most suitable approach to meet the research outcomes. Ethical clearance was obtained for the study, and the gatekeeper’s letter was also requested from the MD. This process took a few weeks, but once permission was obtained, the selected campuses were contacted to arrange the interviews and focus

groups. Permission was only granted to the chosen campuses due to limited permissions. The interviews and focus group sessions were conducted according to the scheduled time slots. Many participants who had been invited to participate declined to take part in the study, citing a range of reasons for non-participation, including general disinterest and additional work commitments. It was also noted that, despite the reduction in the number of participants from the original to the actual research plan, the data had reached a saturation point, as responses became standardised among the various participants. The data collected was stored in the respective Zoom files, and the original transcripts for both interviews and focus group sessions were also uploaded to NVivo to ensure that the data was stored securely with restricted access.

The next chapter discusses the responses and general themes derived from the interviews and focus group discussions.

CHAPTER 4

PRESENTATION AND DISCUSSION OF FINDINGS (PART 1)

4.1 Introduction

This chapter outlines the preliminary findings from both the interviews and focus groups. As stated in the previous chapter, the researcher was able to conduct eight interviews with the management team and two focus group interviews with the HODs. There were three sites in Gauteng, and for the sake of anonymity, participants were assigned pseudonyms.

The data provided was then sorted into themes. Table 12 on the next page outlines the participants in terms of their specific roles, sites, and pseudonyms. Pseudonyms were used for each research participant to protect their confidentiality.

Participants were asked a series of semi-structured questions based on the conceptual framework, and their responses were recorded. The responses have been grouped according to the research question that was being investigated. Thereafter, the responses from both the management team and the HODs were discussed within the respective subject categories. A set of five different themes and topics emerged during the interviews and focus groups through thematic analysis, which formed part of the preliminary data analysis.

The quotes were used to denote the exact responses of the participants. This was done to avoid skewing the data in any way, and to analyse only the exact data as derived from the interviews and focus groups. Additionally, a separation was made between the management and HOD responses, to differentiate the responses to the elements of the conceptual framework.

The responses from both sets of participants highlighted whether there was a difference in the perception of how blended learning was being implemented or the success thereof during the implementation phase. The main research questions focused on the pedagogical tools being used and how blended learning had manifested within the school, which was discussed in the next chapter. Upon closer analysis of the responses, the main themes emerged, and these meta-themes were explored in chapters 4 and 5. Table 12 below refers to the previous chapter and shows the research participants who participated in this study.

Site	Respondent title	Pseudonym
1. Head Office	Managing Director (Top management) - Interview	Zoliswa
2. Head Office	Academic strategist (Top management) – Interview	Rachel
3. Campus 1	Principal (Top management) - Interview	Patrick
4. Campus 1	Deputy principal (Top management) – Interview	Theresa
5. Campus 1	HOD Afrikaans (Middle management) – Focus group	Karen
6. Campus 1	HOD English (Middle management) – Focus group	Renata
7. Campus 1	HOD Mathematics (Middle management) – Focus group	Rebecca
8. Campus 1	HOD Mathematical Literacy (Middle management) – Focus group	Edie
9. Campus 2	Principal (Top management) – Interview	Tabitha
10. Campus 2	Deputy principal (Top management) - Interview	Rekha
11. Campus 2	HOD English (Middle management) – Focus group	Mary
12. Campus 2	HOD Mathematics/Mathematical Literacy (Middle management) – Focus group	Amanda
13. Campus 2	HOD Life Orientation (Middle management) – Focus group	Thomas
14. Campus 2	HOD Afrikaans/isiZulu (Middle management)- Focus group	Alice
15. Campus 3	Principal (Top management) – Interview	Cynthia
16. Campus 3	Deputy principal (Top management) - Interview	Carol
17. Campus 3	Senior English teacher (Lower management) – Interview	Savi

Table 12: Respondents for Interviews and Focus Groups

The top management team was responsible for setting the strategic direction of the school, and the middle management team was responsible for unpacking these strategies and crafting tactical plans to achieve these goals. It was therefore crucial to ensure alignment between these two levels, so that the correct strategy was communicated to the

operational level of the school. Such alignment was achieved through regular meetings between the top and middle management teams to address any concerns on academic strategy.

The following section presents the demographic details for the study and provides a brief discussion of the accompanying graphs. A detailed explanation was provided within the chapter using the interpretivist lens. Thereafter, the conceptual framework was described, and participant responses based on the framework were discussed.

4.2 Demographic Details

Figure 16 below indicates the composition of the management team. There were eight respondents in total, comprising one African, five White, and two Indian individuals. It is a fact that white individuals have historically had more privileged access to educational resources and managerial opportunities. There was a significantly higher number of white individuals in the management team, which led to a racially skewed representation of the management structure. As this is an affluent school and given the historical nature of a divided education system in a prior Apartheid led country, the management team is characterised by this aspect. White individuals form the majority representation in the management team.

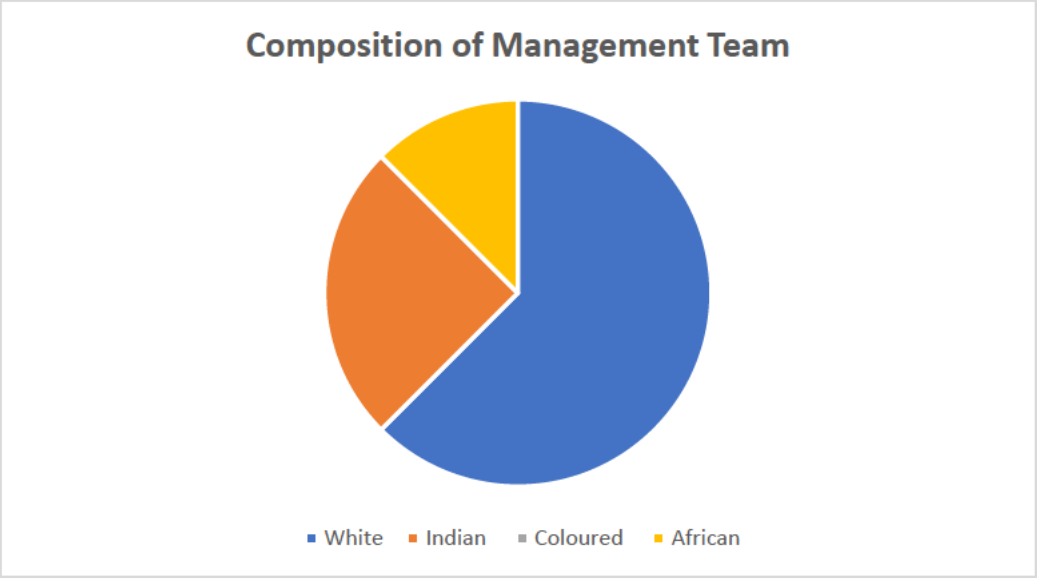


Figure 16: Composition of Management Team (Race)

Figure 17 below indicates the composition of the HOD and teacher team. There were nine respondents in total, of whom eight were white and one was of Indian descent.

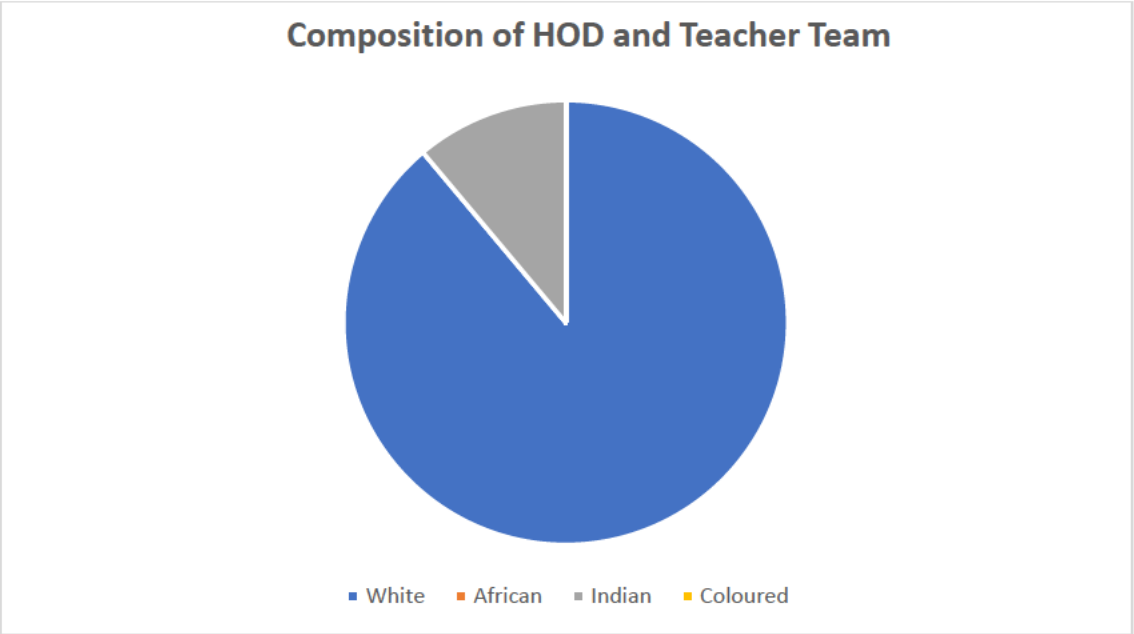


Figure 17: Composition of HOD and Teachers According to Race

Figure 18 below illustrates the composition of the management team by gender. There were eight respondents in total, comprising seven females and one male. As such, the composition of the management team was dominated by female managers.

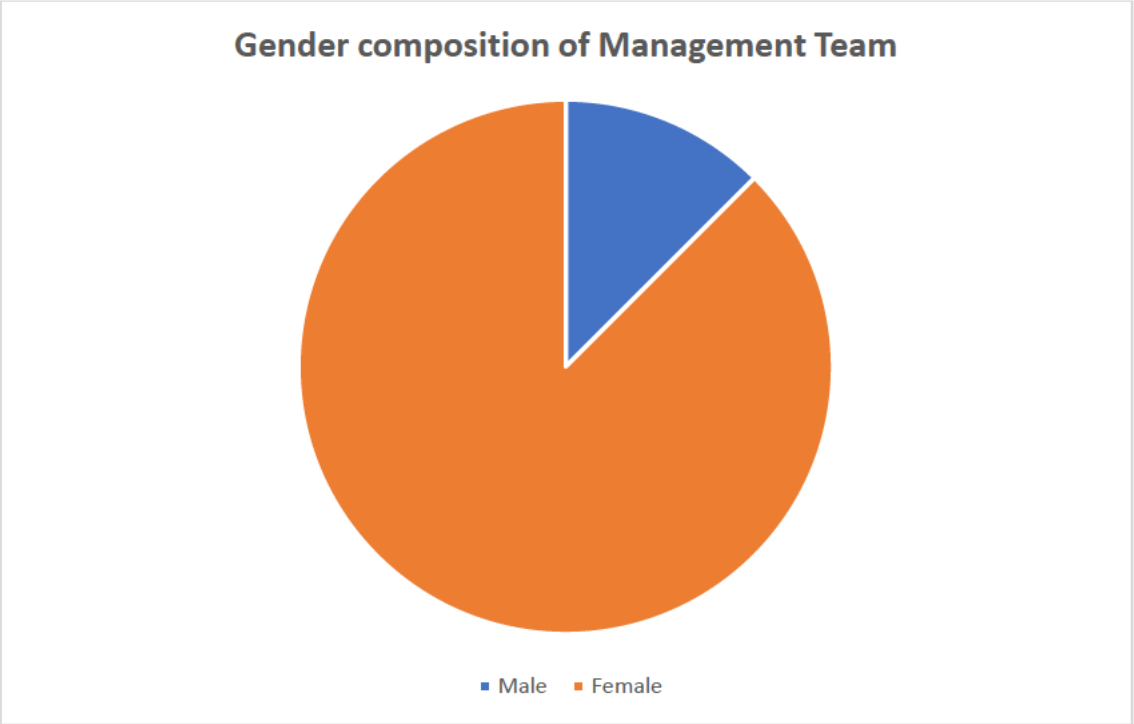


Figure 18: Composition of Management Team (Gender)

Figure 19 below illustrates the composition of the HOD team by gender. There were nine respondents in total, comprising eight females and one male.

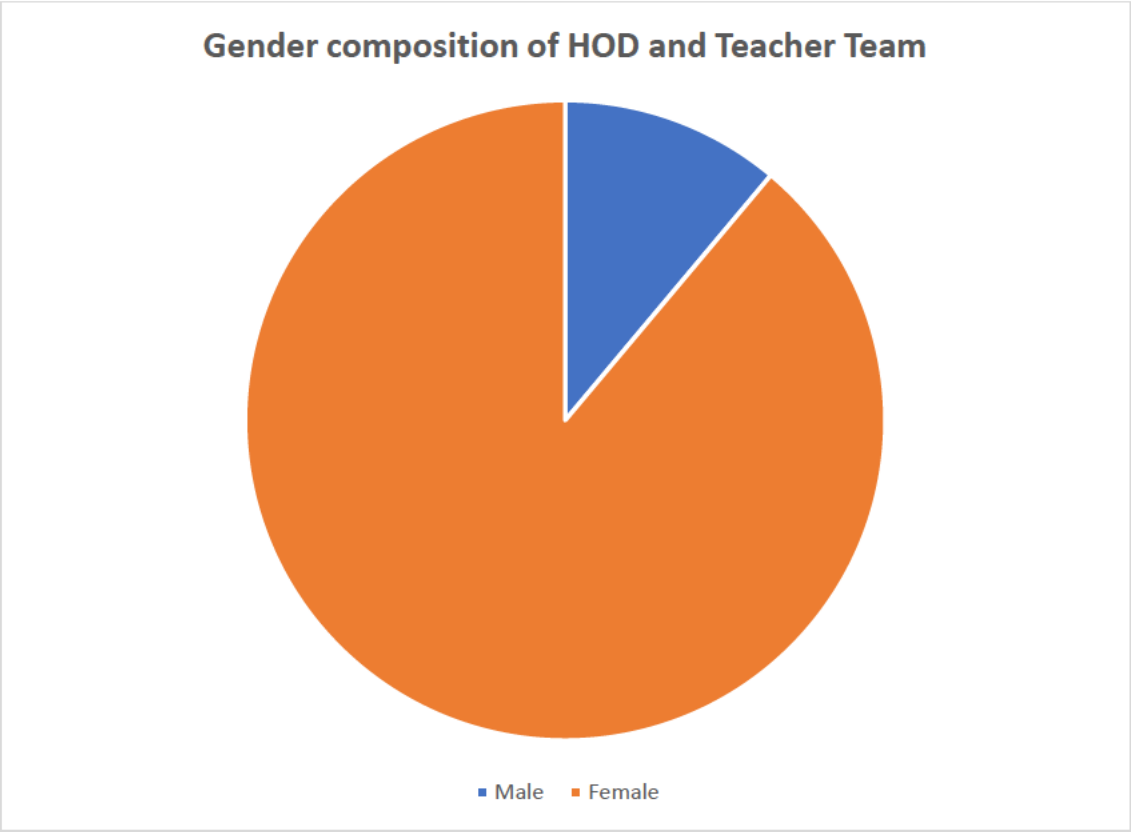


Figure 19: Composition of HOD and Teacher Team

In using the interpretivist lens for this study, it was essential to analyse the demographic details above. From a racial profiling standpoint, the management team comprised 62% white, 25% Indian, and 13% African individuals, with no representation from other racial or ethnic backgrounds. The literature review discussion revealed that white individuals have historically been identified as having more privilege in terms of education opportunities. These individuals may not have fully grasped the challenges experienced at the lower quintile schools. In doing racial profiling, the HOD team comprised 89% white individuals, 11% Indian individuals, and 0% of individuals from other racial and ethnic backgrounds.

The school strongly represented white individuals in positions of power. The principal and deputy principals, as well as the academic strategist, formed part of top management, and the HOD formed part of middle management. There was very little representation from historically disadvantaged groups, and it is worth noting that these groups may have had a better understanding of the inequalities that arose from inadequate access to quality education, as they were denied managerial opportunities and access to quality education. The management team was predominantly female, comprising 88% of management, with

females occupying 89% of the middle management positions, while males occupied only 11% of these positions. This can be viewed in a positive light, as women were historically denied opportunities to join the management group, and the changing narrative was reflected in this demographic.

It was also positive that an African female was placed in a top management position, as this demonstrated the effective implementation of Black Economic Empowerment. However, this only reflects cautious positivism as the underlying racial dominance of the white designated group still prevails. The next section of this chapter examines the conceptual framework, as well as the responses from each participant. The responses were separated into management responses and HOD responses to illustrate the reactions from different management levels. The conceptual framework, introduced in chapter 2, identified the concepts of face-to-face learning and online learning, and the research questions were derived from this framework. The framework used for analysis is Figure 20 from chapter 2, as indicated below.

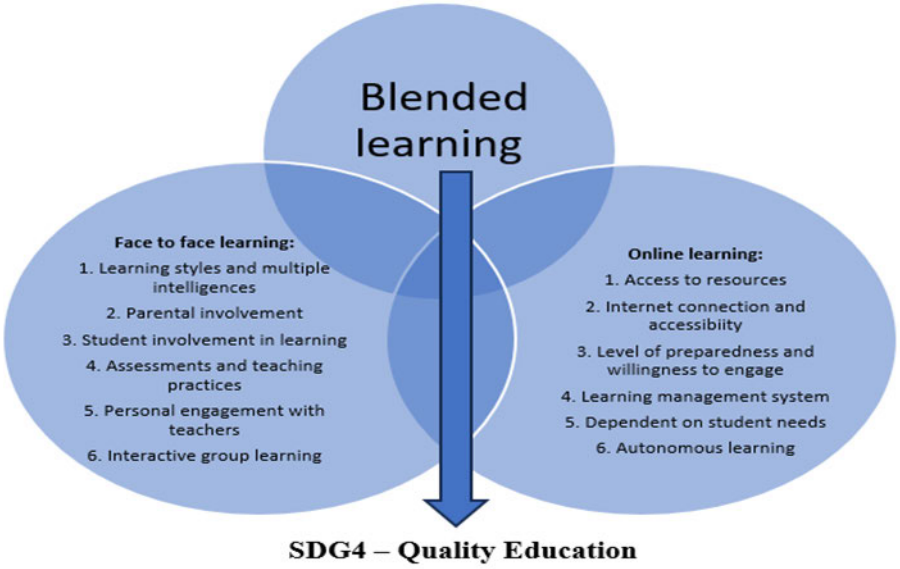


Figure 20: Blended Learning Model for Schools (Author developed)

The framework above has been used for this study, and the elements of both face-to-face and online learning were analysed as shown below. Section 4.3 addressed the face-to-face aspect of the Risdianto (2019) model whereas Section 4.4 addressed the online learning aspect of the model. Both sections below also provided guidance on the research questions for this study, namely research question one (RQ1); examining the educational and assessment policies that had been applied, namely research question two (RQ2); and

delving into a critical reflection of how the independent school had employed specific approaches to digital education, namely research question three (RQ3).

4.3 Face-to-face Learning

4.3.1 Learning styles and multiple intelligences

In considering learning styles and MI (multiple intelligence), it first meant that educators would need to take cognisance of the fact that these learning styles and MI existed and then cater to them by creating individualised learning experiences.

Learning styles referred to the way students learnt information, and MI acknowledged that students might have talents in different learning areas. The institution in question had committed to this by stating that students' individual needs were being catered for in the classroom instruction.

In terms of a deeper analysis, this meant catering for every student's unique needs in a class that had just over 25 students, and this was not always possible in a traditional classroom. While independent or private schools are generally noted for having smaller classroom sizes, this presents a bigger challenge to consider this type of customised instruction in a government school, as it requires additional resources and planning for each learning experience or engagement.

4.3.1.1 Responses from the management team

Tabitha, *"As a Maths teacher, I did a lot of investigation on how to use a flipped classroom to try and drive teaching and learning, particularly in the content that took a little longer to grasp e.g. Euclidean geometry, but it was difficult to find resources that were tailor made for the South African curriculum. We use Python in our STEAM classrooms to introduce coding, and our own technology is taught as part of STEAM – Science, Technology, Engineering, Arts, and Mathematics. Part of the curriculum involves introducing Python in pieces to younger grades, aiming to gauge their interest in coding and determine if they are interested in pursuing IT in Grade 10. We are also encouraging e-sports and gaming."*

Rekha, *"We offer a subject called STEAM for Grades 8 and 9, and they have fully integrated subjects. With that, we actually bring the Ed-Tech in with the coding, robotics, designing, etc."*

From the responses above, it was clear that an effort was being made to accommodate MI through the subject offerings presented to the students and this spoke to face-to-face

aspect of blended learning. It would also allow those students with different learning styles to benefit, as some subjects were more theoretical and some were more practical. It was also noted that whilst provision was being made for the younger grades to be exposed to a range of different subjects, this was not being offered to the older grades, and this may have been a disadvantage to the students.

4.3.1.2 Responses from the HOD team

Edie, *"I am just thinking about our ages – we were all taught by the way we teach, because that's how I was brought up, so maybe all these millennial or new teachers being employed, they may do a better job, We are a bit stuck in our ways and we do what works for us, and what works for me is not blended anything."* The response suggested that teachers have not made many changes to the way teaching and learning are provided in the classroom setting, which contradicts the top management's views above. There was a disconnect regarding the actual instruction being provided to the students, which already began to look like a case of miscommunication and misalignment between different levels of management. It seemed as though there was misalignment between the management and HOD team on what needed to be done in terms of the academic strategy.

Findings regarding learning styles and multiple intelligences
• Research was done on how to use a flipped classroom, but it was difficult to find resources that catered to a South African curriculum. • Efforts were being made to incorporate digital technologies through the use of Python in pieces. • STEAM was being offered as a school subject to allow for Maths and Science options.

Table 13: Findings regarding learning styles and multiple intelligences

4.3.2 Parental involvement

When examining parental involvement, there was an expectation within independent schools that parents would be participants in their children's learning journey. As such, they were invited to parents' evenings and included in email communications regarding their child's performance. This required a commitment from the parent to be involved in the school's activities and to play an active role in their child's learning journey. Increased

involvement meant prioritising any school-related activities while also working to support the family and balance all other aspects of family life. Traditionally, this had not been the case, and parents had a far more passive role in their child's learning journey.

4.3.2.1 Responses from the management team

Tabitha, *"Parents and teachers are the ones who require more support."*

Tabitha had implied that students were managing their educational journey, and it seemed that it was only the parents and teachers who needed support in navigating the learning journey. In this instance, it may have been a good idea to assess the support needed by both teachers and parents and provide it accordingly. This could have been achieved through regular engagements with the parent body as well as the teaching staff through online meetings or perhaps surveys or questionnaires.

4.3.2.2 Responses from the HOD team

Savi, *"Parents are not constantly engaged to provide that motivation, and our role as a teacher surpasses that in that we have to motivate them and provide them with constant assistance. Some parents look to us or see us as parents."*

Amanda, *"Parent body were not happy because they had just learnt how to cope with Teams and online teaching, and they were suddenly thrown in the deep end – even the phone app wasn't working and that also created a whole lot of other problems…and some children can manage on their own and some will need that parental guidance and help at home."*

Savi had implied that parents were not fully engaged and involved, and Amanda had said that parents were also upset by a sudden change in learning management systems, especially since it had taken them a while to understand how to navigate it. Undoubtedly, this would have caused a rift in the parent-teacher-school relationship, as parents may have felt that the school was unclear on the strategies that needed to be applied in this context. This feedback coincided with the feedback from the management team when they stated that the parents needed more support.

Findings regarding parental involvement
• Parents are not constantly engaged to provide that motivation. • Parents and teachers require support. • Parents did not enjoy having to learn how to navigate new learning systems.

Table 14: Findings regarding parental involvement

4.3.3 Student involvement in learning

Students had been known to occupy a far more detached role in their learning, and there had never been an urgency or requirement for students to take ownership of their learning. In recent years, this narrative has changed, and there is an expectation for students to share the responsibilities for their learning. In analysing this, it forced students to examine the extent to which they were helping themselves to understand the content being shared during classroom instruction. There was also an expectation for students to become involved in the cultural and sporting programmes, especially at independent or private schools, and this meant that students needed to balance their academic and co-curricular commitments as well.

4.3.3.1 Responses from the management team

Tabitha, *"We also do a lot of surveys with our students where they give their opinions on what they would like to see happening in the school or to give some input. Having every child having a cell phone allows students to communicate quite effectively on their opinions and using forms on Microsoft."*

Rekha, *"Unfortunately, the kids don't focus at home. Post COVID-19, we see the implications of this with their marks and development."*

Patrick, "*Students need to participate quite significantly, or else it won't work."*

It was reassuring to note that students had agency in their learning and were given a platform to raise their concerns or provide input on aspects that they would like to see changed in school. In that way, when students are involved in their learning, it may be assumed that they take a more active role in their learning journey. It was also noted by Rekha that students needed the structure of a school environment to focus entirely on their learning, and that limited learning took place at home. As stated by Rekha, the lack

of focus at home had meant that students had not performed as they normally would have, and this had in fact held back their development, which implied that more remediation might have needed to be done post COVID-19. In doing so, this would have placed a lot of pressure on both the academic staff and the students.

4.3.3.2 Responses from the HOD team

Savi, *"For English, students wanted to create their own videos and allow it to be voice-scripted, which I thought was a massive transition, and I enjoyed it."*

Edie, *"You know, University is a bit older, and maybe our babies are too young to understand how to use blended learning properly."*

According to Savi, some students enjoyed the ability to take control of their learning through creating videos. However, Edie felt that students were far too young to handle that type of agency and were not aware of how to use blended learning properly. It was also clear that students were more actively involved in their learning at one site versus the other site. It may also have suggested that teachers on one site may have been more insistent on the use of online platforms during the COVID-19 pandemic versus the other, and that may have accounted for the differentiated outcomes in terms of student involvement on each site.

Findings regarding student involvement in learning
• Kids don't focus at home. • Students are too young to understand how to use blended learning properly. • Students need to participate significantly or else it won't work.

Table 15: Findings regarding student involvement in learning

4.3.4 Assessment and teaching practices

Traditional assessment and teaching practices have been noted as still preferred over more modern approaches. This meant that teachers were generally closed off to embracing the tools that had recently been introduced, and in doing so, this could have served as a hindrance to students' attainment of learning objectives, especially considering the differences in learning styles and the various intelligences prevalent in the classroom situation. Teachers also still viewed themselves as the dispensers of

knowledge and were comfortable with teacher-led instruction, rather than allowing students to take control of their own learning.

4.3.4.1 Responses from the management team

Rachel, *"We defined nine practices for authentic blended learning, and these practices will be visible in using the platform and in the design of your learning experiences. When teachers design their lessons, they would cross-reference that to at least three of those components that were evident in the learning engagement."*

Zoliswa, *"Teachers are also too afraid to use the Smartboards – prefer their notes in a file and don't want to shift to different ways of delivering the content."*

Tabitha, *"Those teachers entrenched in their style have to be inspired to change. We are also coming out of a great post-traumatic stress, and once the staff come out of it, they will be more open to learning about it or facing anything they perceive as new."*

Patrick, "*In 2023, blended learning plays a far greater role than just "chalk and talk"; but it's also about maintaining the focus of writing the exit exam, so without compromising a child that still needs to write an essay on a piece of paper cos as much as we want it to be digital and blended, we are still writing a matric exam that requires students to put pen to paper."*

Cynthia, *"I think COVID-19 really forced people out of their comfort zones, and it was a real enabler."*

As outlined above, considerable effort was made to align teaching practices with the changing needs of education. However, it was also acknowledged that teachers themselves were far too entrenched in their traditional practices and that this had perhaps held them back from fully embracing and implementing the practices that had been outlined. Cynthia had stated that COVID-19 had allowed teachers to review their teaching practices. Despite the uncertainty that surrounded the pandemic period, it served as an enabler, encouraging teachers to step out of their comfort zones. The management team had also alluded to the teaching practices of the staff and not the assessment practices that had been used during this time. Due to prior employment at the institution, the research could confirm that assessments had taken place via Google forms and took the format of a quiz or worksheet. Very few teachers had taken to the formal assessment practices as the rigour and credibility was brought into critique.

4.3.4.2 Responses from the HOD team

Karen, *"You know you can do whatever style of learning you want, but at the end of the day, you are sitting down to write a 3-hour paper, so it's like using two different platforms. Unless that changes in the way that we assess, then I would say that blended learning is far more worthwhile."*

Karen had emphasised that assessment practices were still rooted in traditional methods. Students still needed to write a "*hard copy*" exam, and they required practice to do so. Therefore, there will be no changes to assessment setups at present, as this is the norm for delivering rigorous assessments. To an extent, it implied that online evaluations did not provide the rigour that was required for an examination.

Findings regarding assessment and teaching practices
• Teachers are too afraid to use smartboards. • Teachers are entrenched in their teaching style. • Regardless of whatever learning style was being used, assessment was being done in the traditional setting.

Table 16: Findings regarding assessment and teaching practices

As stated earlier, there was the notion that online assessments did provide the appropriate level of complexity required for an assessment to be regarded as worthy of inclusion in a mark book, and as such, simple assessments were conducted to ensure that some form of assessment or evaluation was being conducted during the COVID pandemic.

4.3.5 Personal engagement with teachers

Students developed a relationship with their teachers and felt a sense of comfort through daily engagement with them. Being comfortable allowed them to raise questions easily and to seek help directly when needed. This engagement aspect meant that teachers also needed to be available beyond classroom instruction time, and it had been noted that many teachers often spent hours after school providing the support lessons that were needed for students to help them achieve learning objectives.

4.3.5.1 Responses from the management team

Tabitha, *"Our teachers offer a lot of support to our students outside the classroom, e.g., video meeting or chat, but a quick and efficient way to do that."*

4.3.5.2 Responses from the HOD team

Edie, *"Students need those words like 'Hello, my angels, how are you?'"*

Rebecca, *"They are very routined children and actually they like to know what is happening – especially the babies, they do actually need to be told, please just literally do this and if you give them an inch, they're not really going to do any of what is expected of them."*

Tabitha had said that teachers offered a lot of support to students and that personal engagement served as a quick and efficient way of resolving any student queries. Edie further suggested that students needed the comfort of personal engagement with the teacher, and that could only really have happened in a face-to-face setting. Rebecca suggested that students preferred direct engagement and guidance and would not function well when left to take their own initiative in the learning process. Therefore, it further confirmed that students needed personal engagement with their teachers to thrive.

Findings regarding personal engagement with teachers
• Teachers offer a lot of support to students outside of the classroom. • Students need reinforcing words and be given direction on what to do.

Table 17: Findings regarding personal engagement with teachers

4.3.6 Interactive group learning

Traditionally, it was students that had experienced the group learning with teachers being facilitators of that learning experience. Students often learnt more effectively when they work with their peers on completing assignments and tasks. This meant that teachers also had to allow students the space to work collaboratively and handle any conflict situations as they arose within the group. Students sometimes felt less intimidated when engaging with their peers, as it was perceived as a safer space without the authoritative presence of a teacher. However, despite being with peers, group learning has also been noted to create

a range of additional challenges, the main one being a situation where some students step back from completing the work and then one or two individuals step forward to complete the remaining work. Based on that, group learning has received a negative connotation over the years. It was also noted that due to the restrictions on engagement during the COVID pandemic, group work may not have worked as well with the students, who were used to engagement within the traditional classroom context. Nonetheless, even though students were exempted from having to work in groups, the staff was not given this option and instead, had to attend training sessions to ensure that as a team, they were able to deliver the best learning experiences to the students. In addition, the school had made use of Blackboard champions – these were individuals that were highly proficient in the use of Blackboard technologies and could have assisted the rest of the staff with any challenges they may have experienced. It was also worth noting that the emphasis of this study was on management and teaching and not focused on the student's experience. As such, the focus was on the management team putting in place the necessary measures to ensure that teaching and learning was in fact taking place during the pandemic.

4.3.6.1 Responses from the management team

Tabitha, *"We had blanket training and individual training. We have always had digital champions – those teachers just seem to have a knack for it, and we've tried to get their enthusiasm and positivity to spread among the rest of the staff to see how valuable it can be in their classroom."*

4.3.6.2 Responses from the HOD team

Mary, "*We had those teachers who were comfortable and had knowledge sharing with teachers – the basics of how to use it (Teams) in that environment, and the same with Blackboard. We had a few training sessions in the mornings and afternoons for that."*

The responses above alluded to the interactive group learning that took place amongst the academic staff, and not the students. Due to the restrictions of COVID-19, interactive group learning would not have been possible, nor would training via an online platform have been successful, as some students lacked the discipline and maturity to gain from the training that would have been provided. However, training appeared to have been effective with the academic staff, as enthusiastic individuals were willing to share their journey and learning experiences.

Findings regarding interactive group learning
• A few teachers were comfortable in sharing their knowledge with the rest of the academic staff. • Training was provided to the staff.

Table 18: Findings regarding interactive group learning

4.4 Online Learning

4.4.1 Access to resources

Online learning gained significant popularity during the COVID-19 pandemic, enabling students and teachers to continue their educational journey during a challenging time in South African history. Access to resources was a non-negotiable factor in the success of online learning. If resources could not be accessed, it meant that students would fall behind in their learning journey. This meant that schools had to make resources available to students to ensure that learning continued.

4.4.1.1 Responses from the management team

Tabitha, *"We are doing a lot of digital media to drive the content and additional information and support what is being taught in the classroom. YouTube is widely used by all our students to supplement their own learning. In Maths and AP Maths, our textbook is supported by our videos, so students can access them out of the classroom to support their understanding."*

Patrick, *"We are partnering with a company that's going to really vamp up our Maths space as well. It's AI, so homework is completed on an online platform, and the data collected is then used to inform the teacher of areas where weaknesses exist or where additional work is needed. AI designs the coursework in such a way that if you're struggling, it starts to introduce elements that help students strengthen their Maths gaps. We've seen the results from our pilot studies, and the Maths marks per grade increased by some grades up to 300% improvement."*

Tabitha had suggested that a lot of work was being done in the background to ensure that digital media was being offered in the classroom, and Patrick had further confirmed plans to use artificial intelligence (AI) in Maths. This implied that access to resources was being

granted at the site level, allowing students to engage with digital platforms without many restrictions.

4.4.1.2 Responses from the HOD team

Savi, *"The South African education system could benefit from blended learning, considering that we are a developing country. However, it will be a significant challenge for under-resourced schools, but I think it's something that the Government should consider in their planning. Under-resourced government schools could benefit, even the underprivileged schools. At this school, we are able to go beyond what is a bare minimum, and the children are very fortunate. They're getting the best of everything. It is allowing our current situation topics to actually be enforced in the classroom. Children's critical thinking is enhanced, which prepares them for life outside the school context."*

The affluence of the school was further emphasised through Savi, alluding to the fact that the school went way beyond the bare minimum, and students were quite privileged in this way. By not having restrictions on access, students' critical thinking skills were being enhanced, thereby preparing them for a life outside of the school context.

Findings regarding access to resources
• A lot of digital media was being used to drive the content. • At this school, they are able to go beyond the bare minimum. • Partnering up with a company to improve the Maths averages.

Table 19: Findings regarding access to resources

4.4.2 Internet connection and accessibility

Another hurdle to providing online learning was the stability of internet connections and access to the internet via various devices. Students were required to have access to both the internet and a device to continue their learning. Although the institution was affluent, consideration was not given to the fact that many students were not wealthy, and thus gaining access to digital learning platforms via the internet was a significant challenge.

4.4.2.1 Responses from the management team

Patrick, *"The Wi-Fi connection was quite good. We've got a big enough bandwidth speed that all our students could be online at the same time."*

4.4.2.2 Responses from the HOD team

Thomas, *"Bandwidth and Wi-Fi are also a problem for multiple users."*

From a management perspective, it was understood that internet access for management was not a challenge, as the bandwidth was reasonably sufficient. Having previously worked at the institution, the bandwidth on site did not present a challenge for either the staff or the students, as there was ample provision made for the number of users. However, based on Thomas's response, the bandwidth proved insufficient, presenting a challenge for the teachers responsible for providing online lessons from home, as many of the staff did not have access to extensive WiFi networks with uncapped data etc. It was also discovered through discussions with the HOD team, that many of the students did not have the technological resources at home to be able to continue with online learning during the pandemic. In reflecting on this point, it was noted that as much as the school was affluent, the families or students that were not affluent were disadvantaged to an extent since they had intermittent access to learning resources. The lack of affluence could be attributed to the fact that some students were at the school on bursaries and scholarships and may not have been able to afford the additional costs of WiFi, data or devices that had been placed on them during the pandemic. It was also worth noting that constant loadshedding had also presented an additional set of challenges. Without access to power, or a USP, it became even more difficult to continue with online learning.

Findings regarding internet connection and accessibility
• It was not a problem to access digital resources at school. • However, access problems existed at home due to a lack of resources and as such, that presented a challenge to the student's learning journey as well as the teacher's ability to be able to provide the lessons.

Table 20: Findings regarding internet connection and accessibility

4.4.3 Level of preparedness and willingness to engage

4.4.3.1 Level of preparedness

The level of preparedness referred to the readiness of individuals to embrace the change or learning that had to happen. Students were conditioned to learn in specific contexts and had become accustomed to the traditional classroom setup, having grown up receiving this form of instruction. Therefore, many students were unprepared for the sudden shift from traditional to online systems, and this change left them less willing to engage in the teaching and learning process.

4.4.3.2 Willingness to engage

Individuals have been known to disengage from change as it is happening; it presented an unknown set of variables, and they were comfortable with the current status quo. Change was a fear factor, and the unknown brought with it a series of uncertainties. According to case studies consulted for the literature review chapter, students had only engaged in the essential aspects of learning instruction and were not undertaking any additional activities. Additionally, students did not want to engage with the teacher in the same way they would have done in the classroom itself, which meant that teachers had to become more creative in how they provided their online lessons, to foster engagement.

4.4.3.1 Responses from the management team

Zoliswa, *"It's very sad to see the general academic sector seem very comfortable going back to how things were before COVID. People were applauding at the shutdown of Blackboard. We need to make sure that we don't accept the status quo of going back. Even if we make small moves forward, it's better than going backwards. We are going to push to ensure that we pull things forward."*

Rekha, *"Unfortunately, our kids of today have so much technology at their disposal, they would rather play a game or be on social media. Blended learning requires the right level of commitment and the correct attitude, and it will work. It would probably work here because parents are paying a fortune for school fees."*

Patrick, *"Usage stats on this campus are quite high. I believe we could have done more training with the new staff coming in – maybe 6 months of training to be effective."*

Theresa, *"Blended learning is beneficial, but without effective training and the teacher's confidence about its ability to add value, it detracts from what you are trying to achieve as a school. There's no quick fix; you have to learn how to use it by doing the training, and you've got to be comfortable as an educator. There's not really time for it in the business of what school is."*

Zoliswa stated that many participants were happy to return to traditional modes of instruction, which had almost negated all the work that had been done to date, and this was a source of disappointment considering the investments that had been made. Students were also not fully engaged and would rather use social media than a learning management system. Training was identified as a crucial initiative that could have been utilised to enhance the adoption of blended learning.

4.4.3.2 Responses from the HOD team

Savi, *"You found that students who wouldn't usually participate in class, found this more engaging – allowed themselves to get more involved, and there was more engagement with the digital…"*

Rebecca, *"You talk to anybody about what happened during lockdown, and you can be guaranteed that every child in the country who was taught online, when teachers said go and watch this video, they didn't, because who was there and checking? Who was going to show them if they couldn't do it? Also, I don't have the time to learn it (blended learning) because you also want me to get 48 distinctions in my class, and you have got children at home and a family, and we've got all that other stuff."*

Amanda, *"For it to be successful, whatever platform you are using needs to be user-friendly, because there are some children that do struggle with tech, and if you are expecting every child to learn digitally, then we have to be very careful about what we choose to give out to them."*

Savi noted that some students were more engaged in the online activities than in the regular classroom instruction, which suggested a partial adoption of the academic strategy, which spoke to the different learning styles of students. However, Rebecca believed that the online instruction was ineffective, and students were not completing the work as they would have in a traditional classroom environment. It was also suggested that, although it is assumed that students are generally tech-savvy, some may not know how to effectively engage with technology. It is the responsibility of teachers to select the technology issued to them.

Findings regarding level of preparedness and willingness to engage
• Most of the academic staff is happy that teaching and learning has returned to the traditional instruction. • More training could have been done with staff. • Platforms have to be user friendly to get buy-in.

Table 21: Findings regarding level of preparedness and willingness to engage

4.4.4 Learning management system

Most students had not been exposed to a learning management system before the COVID-19 pandemic, and due to the urgency with which the country had to transition from traditional to online learning, there was little time to learn how to effectively navigate the learning management system. Therefore, students were only engaged in the essential aspects of the learning management system to complete the work necessary for assessment purposes. The learning management system had been used as a portal to store resource material and to complete online assessment activities, e.g., quiz tasks. Each learning management system also provided a learning experience for the educators, who were required to understand how to set online tasks.

4.4.4.1 Responses from the management team

Rachel, *"Academic pillars have been identified, and the concept of inquiry. Teachers were initially just doing 'chalk and talk'. They weren't forced into a situation where they had to rethink pedagogy and strategies. Therefore, there will be bi-weekly training – using Teams in a far more structured way, inquiry-based learning. This led to learning modes that actually have applications behind them and that people can actually use."*

Carol, *"Our staff is going back to Teams. I'm in two minds because I know that Blackboard is used by universities, so I think it would be good for students to continue using the platform."*

4.4.4.2 Responses from the HOD team

Amanda, *"I think when we were on the Teams platform, we were very secure, happy, confident, and we mastered it. Then we changed over to Blackboard, which we were very unfamiliar with, and we had a short time to learn, and that created anxiety. I would get a Teams notification from*

a student while I was in the queue at Woolworths. It was a Math query, and they had been struggling with this question for a long time. I quickly answered the child and sent it off, and that's an awesome experience."

Mary, *"My experience was that for the students and teachers alike, we mustn't constantly switch over. Once you have a system in place, rather than continually improving and perfecting it, it is often more effective to change it, as this can be frustrating for parents, students, and teachers. I could literally upload everything from my phone via Teams, whereas Blackboard was too complicated."*

Regarding the learning management system, Teams was noted to be the platform that worked best on this site, and further training would have been provided to improve confidence with the platform. The user-friendliness of Teams was also noted, as it allowed teachers to respond quickly to queries. Teams was an app that could be downloaded onto a cell phone, whereas Blackboard required teachers to log in. The move to Blackboard may have served to dissuade the academic staff and students alike from using the online learning platform, due to their complicated interface. This may have also given all stakeholders i.e., the teachers and the students a negative impression of online learning.

Findings regarding learning management systems
• Staff and students were happy with the Teams platform and did not enjoy switching over to a new system.

Table 22: Findings regarding learning management systems

4.4.5 Dependent on student needs

Online learning was also dependent on student needs, as some students did not benefit from independent learning, a fact documented in the studies highlighted in chapter 2. Some students required additional enrichment, and as such, enjoyed the online tasks and activities that were provided. Some sections also still required direct instruction from the teachers. It stemmed back to the element of face-to-face learning, which indicated that students still felt very comfortable with traditional classroom instruction and enjoyed the personal engagement with their teachers.

4.4.5.1 Responses from the management team

Rachel, *"Teachers are responsible for setting up the learning experience, so if the kids are disengaged, the same principle applies. We are the leaders, so we need to revisit our practices. Teacher is the driver, and if you don't make it authentic, challenging, engaging, relevant - both teachers and students are just going to comply because it is something that they have to do."*

Zoliswa, *"Kids are more intuitive when it comes to technology, and teachers also need to be more open-minded at some point – they need to take a step back and allow that process to learn from the kids."*

4.4.5.2 Responses from the HOD team

Thomas, *"Students often perceive it as a waste of time and gravitate towards earning marks in class, 'formal' style teaching."*

While teachers were responsible for setting up learning experiences, students often saw these as a waste of time and, as such, did not engage fully, which also negated all the planning that had gone into creating the learning experience. It also contradicted the earlier findings, which suggested that students had agency in their learning through the submission of their viewpoints via Google Forms, among other methods. Therefore, there was some irregularity in the actual practices being adopted, and this may have been a difference across the sites.

Findings regarding dependency of student needs
• Many students saw it as a waste of time and gravitated towards earning marks in class. • Kids were more intuitive regarding technology. • Teachers were responsible for setting up learning experiences.

Table 23: Findings regarding dependency of student needs

4.4.6 Autonomous learning

Autonomous learning meant that students had to take full ownership of their learning for certain sections of the work. Self-disciplined students thrived in this new scenario and benefited from the independent learning aspect. However, some students needed the

guidance and instruction of their teacher to negotiate that development. Therefore, during the COVID-19 pandemic, although learning took place online, there was an expectation for teachers to be available for consultation or guidance during the day, as they would have been in a typical classroom environment. This meant that support was no longer restricted to just school or business hours, as students could then contact their teachers outside of school hours. Consequently, teachers had to increase their availability to provide this support.

4.4.6.1 Responses from the management team

Rachel, *"Kids are in this tech world anyway. In the blended learning space, I would love to see pre-learning taking place – happening at home. More than just knowledge, take the time to read up on these notes, refer to this video, and explore it as part of your home learning. Then, when you get to school, engage in debates and discussions."*

4.4.6.2 Responses from the HOD team

Karen, *"I think there is space for blended learning, but with just more training and with us knowing exactly how to do it. Universities are doing it digitally, and our role is more nurturing, helping students enjoy our subject. So perhaps the blended learning is more challenging for them versus a university student."*

Rebecca, *"I think 99% of schools in South Africa do not lend themselves to blended learning because of the time and energy that is demanded from both the students and the teachers. We would like guidance and support for the children."*

The top management team had suggested that students were comfortable with the tech space and that using Blackboard was a good practice. However, the HOD team felt that using Blackboard was more suited to a tertiary setting as secondary school students required a more nurturing approach, and teachers were focused on getting the students to love their subject. Therefore, there is another communication disconnect regarding this aspect of autonomous learning. At this point it was also noted that whilst autonomous learning meant accountability for one's own learning, the general impression was that students did not want to take ownership of the same, and this may have implied that they still preferred the traditional classroom instruction instead which placed the teacher as the dispenser of the teaching and learning process.

Findings regarding autonomous learning
• Blended learning is more challenging for secondary school students versus university students. • Guidance and support were required for the children.

Table 24: Findings regarding autonomous learning

4.5 Main Themes from the Conceptual Framework and Participant Responses

Upon analysing the responses from the participants, several themes emerged. Two of the less frequent themes that emerged were the use of AI in education and the stability of the internet. Only one participant described the institution's intention to use AI in Mathematics.

AI usage in mathematics was unique to only one of the sites. At the time of completing the interview, the project was still in the discussion phase, as the site had only just begun the consultation phase with a company that would help them enhance their Mathematics offering using AI. Another theme was the stability of the internet, which was a challenge experienced at some of the sites. One of the sites said that their internet signal was quite strong, so a stable connection did not present a significant challenge to the online learning process. While AI in education and the stability of the internet had featured as infrequent themes, a range of common themes had emerged from the participants' responses.

The following five themes were identified as most relevant and will therefore be focused on in more detail.

Theme 1: Personal engagement with teachers

It was demonstrated that students required the personal engagement that occurs in the traditional face-to-face environment. The school management team confirmed that a significant amount of external support was being offered to students. In contrast, the HOD team stated that students liked the familiarity of engaging with their teachers. Students also needed the routine structure that came with a traditional classroom environment, as opposed to being in a space where they had to take ownership of their learning journey.

Theme 2: Miscommunication between the levels of management regarding policy and practices

Another aspect that has become clearer is that the actual strategy that needed to be implemented was not communicated to all sites. At some point, each teacher applied the approach according to their understanding and at their discretion. Active monitoring regarding strategy implementation had taken place at specific sites, but this was not consistent. The top management team had identified the practices they wanted to see implemented at the sites; however, the teachers stated that they were entrenched in their style.

Theme 3: Student needs with online learning

It was understood that teachers were responsible for setting up these learning experiences and driving the use of digital platforms. It was also noted that some students perceived this initiative as a *"waste of time"* and gravitated towards more formal learning practices. It was also pointed out that students did not want to work from home, and one of the participants stated that this mode of learning was probably more suited to university students, as they may have a higher level of maturity that enables them to study independently of a teacher.

Theme 4: Traditional teaching and assessment practices

The MD stated that teachers still preferred traditional teaching styles, and having notes in a file worked for many of the teachers. As such, they did not want to change their teaching practices. Many of the teachers also stated that their age may have played a role; as Edie had said, they were *"stuck in their ways,"* and they did what worked for them. It was noted earlier in the chapter that rigorous assessments were not being applied. Instead, teachers were making use of the built-in tools available on Teams, e.g., Quiz and forms. In addition, worksheets were also being used. Very few teachers were making use of formal assessment practices during the pandemic era.

Theme 5: Parental involvement in learning

It was noted that the parents also needed support and assistance, especially since they had only just recently become accustomed to a new platform. Due to the ongoing challenges,

they were now required to learn how to navigate a new learning management system. Participants also stated that parents were sometimes not present to provide the ongoing motivation necessary for their children, and some parents relied on teachers to provide that type of support. These themes are discussed in further detail in chapter 6. That ensured that the data was abstracted to further levels by scrutinising the data to answer the research questions. Hence, chapter 5 delves deeper into how the participant responses are linked to the research questions which underpinned this study.

4.6 Conclusion

This chapter looked at the participants' responses to the conceptual framework. Participants were reviewed and subjected to scrutiny through the interviews and focus group engagements. Reactions from participants were categorised into top and middle management to present the exact responses from each level of management. Thereafter, a set of five main themes was identified, based on the participants' responses. These themes are further unpacked in chapter 6, in comparison to the results obtained in chapter 5. In doing so, it provides a deeper understanding of how the blended learning strategy could be implemented and managed.

CHAPTER 5

PRESENTATION AND DISCUSSION OF FINDINGS (PART 2)

5.1 Introduction

This chapter presents the findings in response to the research questions. These findings were derived from the interviews and focus groups. In terms of the gaps in the literature review, it was noted that many teachers were divided on whether they wanted to change their teaching practice. Further, due to the apartheid era, there were huge disparities within education (Athiemoolam and Vermaak, 2021) and this led to distinct disadvantages for certain racial groups. Blended learning was a way to minimise these gaps and allowed greater access to education. In addition, there had never been an expectation for students to become involved in the learning process (Barkhuizen, 1998) and due to the ongoing challenges at public schools, students were often devoid of committed and skilled teachers. It was also noted that teachers were responsible for crafting learning experiences based on the needs of their students (Sener and Çokçaliskan, 2018).

According to Baleghizadeh and Shayeghi (2014) students had multiple intelligences (MI), and this was what the selected school was known for. In the next section of the chapter, the research instrument was discussed in more detail, and the main research questions were also outlined. In presenting the findings from the data collection process, the results from both interviews and focus group sessions, as well as emergent themes, were also highlighted.

5.2 Research Instrument

In crafting the research instrument, the research questions were guided by both the conceptual framework and the literature review. As stated, the conceptual framework examined the concepts of face-to-face and online learning, and the literature review chapter alluded to the challenges and strategies employed during the implementation of blended learning. Therefore, questions were designed to address the aspects highlighted by the various studies conducted.

The main research questions for the study are indicated below:

1. What were the current digital education and blended learning pedagogical tools being implemented within the school?
   This question examined the current South African landscape regarding digital education and its integration into the schooling system. This question focused on the actual tools and mechanisms used to engage in digital education practice.
2. How was digital education and blended learning as a pedagogical tool being implemented within the school?
   This question examined the educational and assessment policies and frameworks that had been applied, as well as the management of blended learning at the specific institution.
3. Why had digital education and blended learning as a pedagogical tool manifested in specific ways within the school?
   This question delved into a critical reflection on how the independent school had employed specific approaches to digital education and debated the relevance and contestations that arose within the South African schooling system.

There was a separate interview schedule for the management team and a different schedule for the HODs. The focus of the interview schedule for the management team was to determine the management of the blended learning process at the schools. In contrast, the focus for the HODs was more on implementing blended learning. In doing so, the researcher gained a holistic and detailed understanding of the implementation and management of blended learning from two distinct sets of stakeholders.

Additionally, probes and follow-up questions were asked in each set of interview questions and focus groups. This would enable the respondent to provide more detailed information on the aspect being researched. The first level of data extraction involved a discussion of the research questions and responses from management. In contrast, the second level of extraction focused on the research questions and reactions from the HOD team.

The next section of this chapter focuses on the findings of the interviews and focus group sessions. Participants' detailed responses are included below, and a general summary or overview of the preliminary conclusions concerning the conceptual model was also

discussed at the end of each research question/topic being investigated. The detailed responses were included accordingly to provide full context and detail for the question being asked, and to capitalise on the rich data provided through qualitative analysis.

Whilst three main research questions had been posed for this study, to get more insight and detail into the main questions being asked, a series of sub-questions had been posed, and have been categorised accordingly. Section 5.3 evidenced the responses from the management team, whereas Section 5.4 evidenced the responses from the HOD team. Question 5.3.1 and 5.4.1 related to RQ1, question 5.3.2 and 5.4.2 related to RQ1, and questions 5.3.3 to 5.3.10, as well as questions 5.4.3 to 5.4.9 related to RQ3. In terms of the conceptual model by Risdianto (2019), Section 5.3 and Section 5.4 below provided details on both the face-to-face and online learning component of the blended learning model.

5.3 Responses from the Management Team

5.3.1 Current digital education and blended learning pedagogical tools

Research question: What are the current digital education and blended learning pedagogical tools that are being implemented within the curriculum? The first research question aimed to gain a broad perspective on the pedagogical tools currently being used.

Zoliswa, *"I make sure that we've got a strategy in place and that that strategy, obviously, is cascaded down, so I would not have those kinds of details."*

Rachel, *"Teams was an LMS that continued to allow us to work through the pandemic – it wasn't blended, but it allowed us to continue. We then moved to Blackboard. Within the Blackboard LMS, we have a range of tools, including quizzes. The LMS included tools that facilitated collaboration and discussion. The kids could use those tools to create a video or a snapshot. This process made the teachers consider how to use the inbuilt tools that led to learning engagements, and those engagements thus lent to a better version of what blended learning was happening within and beyond the classroom."*

Tabitha, *"There is a difference between digitally supported learning and blended learning. I don't think that we are doing blended learning. I think that Blackboard Ultra, Teams, Kahoot, and Quizizz are forms we are using to perhaps enhance teaching and learning. It is to make use of the technology available to make things easier in the classroom."*

Theresa, *"There are several staff members who are using Kahoot quite a lot and in specific phases – we certainly are not doing much of it as we used to. There's definitely a kind of select people using the quizzing structure that BBU has."*

Rekha, *"We have used Kahoot for a few years now, and then on the Microsoft platform we have used quizzes and forms, and then we went on Blackboard, and they had the equivalent of quizzes and that kind of thing. Our staff used the Microsoft tools. It's a very big part of what we use. We transitioned to blended learning and online instruction due to COVID. Teams itself became our big platform to use."*

Based on the responses above, the management team indicated that the schools used the tools within Blackboard, as well as Kahoot. An interesting observation was that the MD was not entirely sure of the exact tools and strategies being used; instead, this was left to the academic strategist. It indicated a sense of disengagement regarding the school's academic strategy. As Theresa mentioned above, it was suggested that a select number of staff should use the Kahoot application. This indicated that the entire staff might not have been fully committed to using the mentioned tools, or they may not have been effectively incorporating them into their daily classroom instruction. It was understood that the true success of a strategy could only be measured by every staff member adopting it. Additionally, Teams was identified as the platform to be used for continued teaching and learning during the pandemic. Patrick had mentioned that they would be moving to Teams next year, which indicated that there might have been a challenge with the Blackboard platform.

Additional responses to this research question are indicated below:

Cynthia, *"There is an expectation of all teachers – we did a workshop on Kahoot, and our pedagogical stance was inquiry-based learning. Therefore, all teachers have been trained, and they use it in their classes. Teachers have to come up with dynamic methodology and strategies to cater for the interests of students."*

Carol, *"We definitely use Kahoot, and we also use Blackboard – we would post assignments and quizzes – we also encourage students to use their devices if they need to. We're open to ideas and constantly upskilling in this blended learning approach. It is our plan for the year ahead. The primary goal is to foster innovation and utilise project-based learning. We want to try out new things and encourage people to step out of their comfort zones. In terms of teaching, I am not always successful, but I am always aiming to do that – blended learning."*

Based on the responses above, it was further confirmed that the primary pedagogical tool used was Kahoot, as the school appeared to be quite comfortable with the application. It was used much more extensively in the junior grades, as they recognised the value in these initiatives. In terms of the revised conceptual framework, the responses addressed the elements of a learning management system, utilising both Blackboard and Teams. The concept of MI was addressed using Kahoot, as this allowed for the use of alternative assessment methods for the students.

Findings regarding current digital learning and blended learning pedagogical tools
• An academic strategy was in place and Kahoot was the main tool that was being used. • The staff also used the tools and applications on Teams and Blackboard.

Table 25: Findings regarding current digital learning and blended learning pedagogical tools

5.3.2 Implementation of digital education and blended learning

Research question: In your opinion, how are digital education and blended learning as a pedagogical tool being implemented within the curriculum? With this question, the researcher aimed to determine the "how" of implementing digital education and blended learning.

Zoliswa, *"We've got an Ed-Tech framework that we work based on, so we just ensure that for each phase and each particular grade, we've got milestones that kids should have reached in terms of them being able to use digital platforms, you know, for their learning activities."*

Rachel, *"There is an Ed-Tech framework – it really is a skill-building framework, and we are building capacity for the kids to be on the edge of tech-savvy skill sets. Technology is a language of learning. We have champions and early adopters at schools, and there's also talk of creating innovation hubs at all campuses. When using technology for teaching and learning, it has to be for a purpose mindset – it has to change from "this is just an outside thing that is added on." At the end of the day, I need to learn how to use it, and therefore, we are putting together units of inquiry or learning engagements. The underlying pedagogy is inquiry-based learning, and for*

the implementation of blended learning and digital education, we are using the LMS. Teams has evolved, but doesn't have authentic blended learning. Our take on blended learning is a learning engagement or experience that involves an outcome or idea, structured to achieve conceptual understanding. Blended learning is about bringing together digital and face-to-face capacities, merging them in the middle, where learning takes place. We have walked away from Blackboard for the interim as it was seen to be more for a tertiary institution, but Blackboard is going to come back to us with a version that is suitable for schools, because you want to be doing a rock hard LMS that the teachers can navigate and use effectively and that the kids are inspired to engage in."

Theresa, *"With all the hassles we've have with Blackboard this year, there's been a lot less of it and they're not using the structures as much as they could or as the potential that they offer, but I think it is more the fault of the tool than the unwillingness of the teachers."*

Patrick, *"There is an Ed-Tech framework, and it is built into our Grade 8 and 9 timetable. There are two lessons per cycle, during which students engage with various components, including coding with Python in pieces. There's obviously Microsoft Word, a little bit of PowerPoint and then also digital citizenship. They are considering adding to the programme, and the curriculum will likely expand a bit. There's talk about how we can integrate Minecraft and actually the coding aspect around it more significantly into the Ed-Tech framework."*

Rekha, *"It was obviously very prominent during COVID – we streamed our lessons to the kids, but unfortunately, the students don't focus at home, and we see the implications are in terms of marks and their development. It would be ideal if every lesson could be recorded, but layouts aren't lending themselves to it. For example, teachers write on the board, and then you have to turn around or use a webcam; therefore, there are a lot of logistics involved. However, at this stage, things are back to normal. However, if we really put our minds to it, we can get it right."*

Tabitha, *"I think it's age specific – younger teachers are very keen to introduce technology into their classrooms in terms of doing Kahoot, quizzes and voting online, whereas I think the older teachers are a little more hesitant, but we do encourage them from a managerial perspective to engage their learners on that front. The younger teachers – it's how they grew up, with a device as an extension of themselves. We have a Python programme in pieces in our STEAM (Science, Technology, Engineering, Art, and Mathematics) classrooms to introduce students to coding. For our students, that is the way they communicate and engage. We are utilising a variety of digital media to drive content and support the material being taught in class. As a Maths teacher, I conducted extensive research on how to implement a flipped classroom to enhance teaching and learning, particularly in content that required more time to grasp, such as Euclidean geometry. However, I found it challenging to find resources tailored to the South African curriculum. I*

believe there are more resources available now, especially with the advent of online learning. YouTube is widely used by all our students to supplement their own learning. In Maths and AP Maths, our textbook is supported by our video, so students can access it out of the classroom to support their understanding. The Ed-Tech framework is not supported by all different subjects; it's very relatable to certain topics. Part of the curriculum involves introducing Python in pieces to younger grades, aiming to gauge their interest in coding and determine if they would like to pursue it in Grade 10. We are also encouraging e-sports and gaming."

Carol, *"We have taken technology from Grade 8 and 9, and we are calling it Digi-tech, and we're going to be starting with the drone flying programme – just to get students on board with a new way of doing things. We've a new lab with enough computers to fill it up. Teachers are encouraged to use as much technology in the class as possible. We are not currently using a framework; instead, we are still relying on traditional textbooks. We have uploaded all our content, e.g., PPTs, to Blackboard, but our staff is returning to Teams. Teachers find it far more user-friendly, perhaps because they used it during lockdown. I am torn because I know that Blackboard is widely used by universities, so I think it would be beneficial for students to continue using that platform. Teachers are encouraged to use as much tech in the classroom as possible. Students can also complete certain formal assessments via their phone, e.g., a quiz*."

Cynthia, *"So when we conducted workshops, it was for all subjects and all teachers, so you have got to bring the tools to enhance your teaching and learning. So, despite having trained staff who provide us with feedback, we also asked them to record videos, and it has become part of our inventory that blended learning is happening in our school. While there is an Ed-Tech framework, I basically looked at the needs of my school and developed my own areas to workshop."*

The responses above referred to an Ed-Tech framework that had been extrapolated in an attempt to implement digital education at the site level. This framework was understood by a few members of the management team, but not by all of them. Unfortunately, since the Ed-Tech framework was considered part of the company's strategy, the researcher was unable to obtain a copy of the framework and, hence, could not determine the criteria that had to be followed for authentic blended learning to occur. The responses above addressed the elements of assessments and teaching practices – there seemed to be more variation with these aspects in the lower grades. An emerging theme that was being identified was the fact that Blackboard had started presenting a challenge, and Rachel had stated that they realised that Blackboard was perhaps more suited to a tertiary institution. However, there was talk of developing a Blackboard platform that would be more suitable for schools.

Findings regarding implementation of digital education and blended learning
• An Ed-Tech framework was in place. • There were lots of challenges with using the Blackboard interface.

Table 26: Findings regarding implementation of digital education and blended learning

5.3.3 Application or manifestation of digital education and blended learning

Research question: Why has digital education and blended learning as a pedagogical tool manifested in a particular way? This question was aimed at gaining a broad perspective on how digital education has been applied or presented at the school.

Zoliswa, *"I don't know the answer to that."*

Rachel, *"It manifested out of COVID-19, and we needed to redefine our brand and our USP. We had to walk everyone through this to upskill them on what Blackboard was. We defined nine practices that were indicative of blended learning. These practices would be visible in the use of the platform, so when teachers design their lessons, they would cross-reference at least three of those components in their learning engagement. Nobody is actually doing blended learning; they are actually doing glorified projects, e.g., PPT. They are using Teams video to broadcast a lesson or engage with students – it is not a blended learning approach. Instead, what you have is a technology base of some sort that led you to a space where you are using it in a blended fashion, but it's just replacing face-to-face and written with technology – it's not blended."*

Rekha, *"We went full force because we were using Teams before that as our online platform. I think we are brilliant at embracing it. We offered an excellent online option, but unfortunately, the pitfall was that the students did not focus to the extent that they should have – they could not learn. It is hard to believe that a student can learn from 8 am to 3 pm in front of a computer, without deviating from the system and listening to their teachers. Our current 2022 matrics were at home for the longest due to COVID regulations, and we brought the various grades back using a staggered approach, but we have seen the pitfalls because their foundation is lacking, because they did not focus for those 3 – 4 months."*

Patrick, *"The Ed-Tech framework has been followed very closely by the Computer Applications Technology (CAT) and IT teachers on campus."*

Cynthia, *"The whole idea is that you need to enhance learning, and it's cutting edge. It's about the child's experience of learning, blended learning allows for that enhancement of learning, and it gives you the edge – it's current, progressive, and modern. It speaks the language of the student – and I think if you are confident in yourself as a teacher, you will always find ways to grow and learn and improve your methodology."*

Carol, *"When we had the lockdown and everyone went online, it changed everyone's way of thinking about how they could move forward. We have our smartboards, Wi-Fi, and the ability to livestream YouTube videos. I always look for additional tools and ways to teach them. Sometimes it's ad-hoc, and not always planned – we also flip it the other way around, for example, when students present their orals. External moderators completed the Grade 12 speeches by clicking on a link to their video. It is really important for teachers to consider the digital way of collaboration. The school has always been progressive in its approach, and we have incredible Wi-Fi. Even in my own Geography class, I can look for tools or extra ways to teach them. If we continue with our "chalk and talk" approach, we are losing them, so we have to add value and listen to them. Kids also say what they need more of, and you pick up on things that you were doing unconsciously."*

Theresa, *"It's manifested that way cause that's what we are told to do, and we always do what we are told, but I also think we have more staff who like the opportunity that online spaces offer to the students to sit alongside their face-to-face meeting. So, more teachers are using that platform to help facilitate how they get the curriculum across, so in line with the global movement, really, post COVID, so that we can use online platforms more effectively – gets the curriculum across."*

Tabitha, *"We are giving our students the best possible footing into tertiary and into the career of their choice – developing a love for learning and the implementation of the tools would manifest more so in that area- there are subjects that just lean towards being supported by digital technology."*

Rachel had confirmed that blended learning had emerged as a result of the COVID-19 pandemic. While most of the management team acknowledged that the online space had been beneficially utilised, there were differing views on its efficacy. Rachel also confirmed that what teachers were doing did not necessarily qualify as blended learning but was equivalent to completing a glorified project. Rachel's response indicated that she did not consider the actions taken by teachers as blended learning, and this was concerning as she was the academic strategist for the school. If this had been the case, a more proactive approach should have been taken at this stage to ensure alignment with

what the strategist wanted the schools to achieve. This response was also aligned with Theresa's response as it suggested that blended learning had taken place because that is what they had been told to do, which began to indicate a sense of authority coming from the head office. Rekha also stated that, despite these initiatives being implemented, the pitfall of the strategy was that students did not focus the way they should have.

Both Cynthia and Carol believed in the positive changes that blended learning could bring. The responses related to the elements of the learning management system and student involvement in learning are in the conceptual model. It was also noted that specific subjects lent themselves to being supported by digital technology, which would have made blended learning easier to implement.

Findings regarding application or manifestation of digital education
• COVID-19 changed the way in which education could be provided. • The Ed-Tech framework was being applied. • Different tools could also be used to enhance the learning experience.

Table 27: Findings regarding application or manifestation of digital education

5.3.4 Challenges during the implementation of digital education

Research question: What are the challenges that were experienced during the implementation of digital education, and what strategies were employed to overcome them? This question was posed to gain insight into the challenges the school had faced while implementing digital education.

Zoliswa, *"Connectivity has been a problem, so unless we had connectivity, Wi-Fi at our schools, we've spent probably more than 10 million in the last two years, just getting sure that all our schools are connected, cause without connectivity, obviously there is a problem. So, again, without devices, the kids struggle with their digital activities. The kids all have phones, but sometimes, some of the programmes or apps that we wanted were not necessarily friendly for them to use their phones. We also had to ensure that we had innovation or multimedia centres right across, so that the kids could have access. Teachers being comfortable with technology – although this is largely student-led, there are aspects that are teacher-led, and unfortunately, we have found that the digital literacy or understanding of the teachers wasn't always on the same*

path. Therefore, we have put programmes in place where we try to train, develop, and give them skills to be able to do digital literacy."

Carol, *"Well, there are constant challenges, and we are on a path, so we are constantly learning. The challenge is that some teachers are reluctant to adapt to the times, and as a result, children have limited access to their devices. I believe this is a cultural issue, and there are also external challenges, such as Eskom. Then there are children with too much access via their devices – devices get lost or stolen, so that's a concern. Upskilling of teachers, which isn't really a complaint, as we receive training as needed. Then there's Eskom and loadshedding, but we have a generator, so we don't see them as challenges every time."*

Tabitha, *"We moved from Google Classroom to Teams. This was a pilot project before COVID even began, and so we all did training and were actually familiar with Teams. Then, Blackboard was introduced, and it was a completely different platform that presented many challenges. The teachers were actually quite distressed about moving to a new platform, and there was considerable resistance to the change – people and the kids loved Teams, and we were a bit unsure of why we were switching to this (BB) platform. There was considerable negativity surrounding the concept of blended learning. To overcome these challenges, we implemented Blackboard Champions at our schools. They were specialists in Blackboard, and they were able to meet with other Blackboard Champions at our schools."*

Patrick, *"The challenge here was that there weren't enough devices for your Grade 8 and 9 students to have an opportunity to work on the devices. It's no point having this lovely framework and then nothing to actually do it on. Since the laptops are mobile, if the Ed-Tech teachers wanted to utilise time on their laptops, they actually share the time amongst the CAT teachers. These things don't work if you don't have the right technology in place."*

Rachel, *"Lack of, or variance of skill and then fear – and then fear hooks itself back into lack of skill and lack of understanding. One of the challenges was that I've now got to cope with managing this technology. It meant preparing all night. We acknowledge the fear of teachers, but let's look at the opportunity to complement what teachers have achieved and understand the massive change and demand. 99% of them are now able to access a system and present themselves and their plans, but it is an ongoing process to incorporate all the elements into the digital learning tools and platform. Training had to be layered – there was an LMS champion on campus. We trained them, and they trained the teachers, creating a shared experience through mutual learning. Teachers are still battling to overcome this change hurdle, changing pedagogy and shifting practice. Mindset has got in the way, and teachers are far more comfortable doing what they have always done. They wanted to use Teams and the LMS as a repository where they could simply upload documents. From 2023, numerous training sessions will be held, with*

regular checks and oversight of the implementation. There's a superb background of support, but when mindset, fear, comfort zones, etc., block you, it's hard."

Cynthia, *"The biggest challenge we had was Wi-Fi, then we had to actually ensure that we get buy-in from the teachers, and some teachers were initially hesitant and reluctant. We had to upgrade the Wi-Fi because you can have big dreams, but you need the facilities. Even the older teachers were afraid, but once they got hold of it, they really…and then once others saw the older teachers getting it, and then it's everybody."*

Theresa, *"Post the rollout and training, there hasn't been that general support, so it's gotten harder to use the chosen platform effectively – the challenge was definitely not having support, and then the kind of hiatus on training. If people could have grown and trained more, they could use more."*

Rekha, "*Kids not listening, and cameras not turned on, and then you get excuses like devices don't have a webcam. Administering assessments initially was quite hard – we used the assignment feature quite heavily. We also faced our usual country challenges, such as load shedding. Staff had loadshedding when they had to teach. Fibre contract – most people don't have it, use the internet at school and then the internet at home for Netflix, etc. COVID revolutionised things for us, and everyone started going the fibre route and getting a permanent line in. However, unfortunately, there was load shedding, and if you don't have a UPS or generator, you can't teach. Students used the excuse of no connectivity – with BB, it could have shown the internet strength for each person."*

The management team felt that connectivity, the platform, loadshedding, and the fear of teacher skills presented a challenge in the digital space. Zoliswa stated that over R10 million had been spent to ensure connectivity across the sites, which addressed access to resources. An interesting observation from Rachel was that fear caused teachers to lack understanding and skills, and their mindset, as well as being in a comfort zone, had hindered their acceptance and management of this technology.

Both Rachel and Cynthia stated that teachers were very comfortable with the way they had been doing things in the past, and this related to both the elements of teaching practices and the willingness to engage. Another theme that was revisited was the students' disinterest and unwillingness to fully engage with the digital space, which relates to student involvement in learning. Although teachers had become comfortable with doing things in a certain way, it was also noted that students were comfortable within

their traditional classroom environment, and this view from both the students and staff had started to become a recurrent and prominent theme.

Findings regarding challenges during the implementation of digital education
• Connectivity. • Loadshedding. • Constant problems with the Blackboard platform and then the subsequent move back to the Teams platform.

Table 28: Findings regarding challenges during the implementation of digital education

5.3.5 Strategies employed to address the challenges with digital education

Research question: Do you feel that the strategies that were employed were successful in addressing the challenges? Why? With this question, the researcher aimed to determine whether the school had explored and/or implemented solutions to address the challenges outlined above.

Zoliswa, *"I think it's a journey… maybe we need more speed and more agility, we will always want to be at the forefront of knowing first and actually trying to evolve as the technology is also evolve; I don't think all the problems were resolved; However, I'm quite comfortable that where we are, we've got a good base for us to keep launching further developments as they come through."*

Rachel, *"The upskilling had to be strategic – where you go online, walk people through the platform and do it as a whole. There were also short video bites that allowed people to learn different elements of the digital learning required. The third part was just having a conversation, complimenting and celebrating what they have achieved. We also have LMS champions at the school, and I upskill them, and then they take those conversations to school."*

Patrick, *"We've managed to roll out laptops in both the IT and CAT spaces, and so those laptops are mobile. Some kids do bring in their own devices – we don't have a minimum prescription, and we strongly suggest to parents that if they do get a device, it should be a laptop or a MacBook. It is far better to engage with the material through a laptop than through a phone."*

Theresa, *"There was a rollout and training – it worked."*

From a management perspective, the general solution to the challenges was to train and review existing resources to identify where an upgrade was needed. Additionally, learning management champions or experts were available at the school to assist with any challenges that may have arisen with the learning management platform. Teachers were also being complimented and celebrated for their achievements.

Tabitha, *"We implemented Blackboard Champions – they were specialists in Blackboard, and so we had blanket training for all staff, and we also had individual training. The Blackboard champion would take time to investigate the different functionalities and then develop how-to guides. We've tried to get their enthusiasm and positivity spread amongst the rest of the staff to see how valuable it can be in their classrooms."*

Rekha, *"We use Exam.net for our testing, and I found that to be one of the most secure systems, because once you're in the test, you can't click out – you need to be unlocked by the administrator. COVID was a revolutionary change for us, and everyone started going the fibre route and getting a permanent line in."*

Cynthia, *"We had to upgrade the Wi-Fi, and then it was the mindset – why is this supposed to be done and get them more excited and motivated. The amazing thing is the ones that were most reluctant were the ones that eventually got it and just blossomed – and now it's a way of life at school."*

Carol, *"The upskilling of teachers – that's my favourite part about teaching here. Say we're having upskilling – we got a new speaker."*

Patrick had also stated that new devices had been acquired, and Tabitha also confirmed the implementation of Blackboard Champions. These champions also assisted with the development of how-to guides and, more importantly, they were able to spread a positive energy around blended learning. Cynthia confirmed the upgrade of Wi-Fi, and Rekha confirmed the use of Exam.net for their assessment processes. These responses related to the assessment practices, as well as internet connection and accessibility aspects of the conceptual model. Due to the school's affluence, most of the challenges had been addressed, and the required resources had been obtained to ensure that learning continued. Zoliswa acknowledged that not all problems had been resolved, but they were on a journey, and this was an important statement as it further confirmed the school's commitment to educational excellence, and their willingness to implement any additional measures that were deemed necessary to achieve the academic goals.

Findings regarding strategies to address the challenges with digital education
• Upgrading the Wi-Fi. • Rolling out of laptops and devices. • Training for the staff.

Table 29: Findings regarding strategies to address the challenges with digital education

5.3.6 Managing the implementation of blended learning

Research question: How is the implementation of blended learning as a pedagogical tool being managed? With this section, the researcher aimed to determine whether the management team was actively managing the implementation of blended learning and, if so, how this was being accomplished.

Zoliswa, "*One of the things that we now have, which I think places us in a very fortunate situation, is that we deployed LMSs or learning management systems. You can track user Stats or usage stats. You can track how long people spent in an activity, how engaged they were, and so on. We initially deployed Blackboard. So, because we were not getting the right support, we decided to go back to MS Teams, so with MS Teams, unfortunately, you can't track the usage."*

While the MD acknowledged that a system was in place to monitor the implementation of blended learning through the provision of learning management systems, she also acknowledged the limitations of the processes being followed.

Zoliswa, *"I actually don't think it's the right way to manage it, but I do think that it provides a start. I think the best way to manage it would probably be to be in the classroom, where you have experience, so you can see your spot audit. You can observe class visitations first-hand, allowing you to see it in action. The kids don't have a problem with generally using these platforms, but it comes from the teacher, so unless the teacher is loading stuff you know, then the whole thing just collapses."*

Another point that resurfaced in the responses above was that the school was moving back to Teams because they were not receiving the proper support from Blackboard. It was also said that one of the positive aspects of Blackboard was the ability to manage

usage statistics, which was not the case with Teams. She also stated that she didn't feel it was the correct way to manage the implementation of blended learning, and a better approach would have been to conduct a spot audit through class visitations, allowing the implementation to be observed in action.

Rachel, *"Now we've got to train and embed, and the disconnect initially was because teachers were just doing traditional 'chalk and talk' – they weren't forced into a situation to actually have to rethink the pedagogy styles, or the strategies they were using. I'm now asking under collaboration, what are all the tools and apps we can use – and that is where that bi-weekly training is coming in – to show them, what does that look like. Even though we had champions and implementers, it didn't work but that was the Blackboard journey and we understand why it didn't work. It is not the success that was hoped for, but not a failure; rather, it is a mindset factor. The system wasn't working on BB, which led to anger, and I don't want to deal with this anymore, and you have had enough."*

Patrick, *"I would say we're sort of halfway there. Unfortunately, due to the challenges we've had with Blackboard this year, that blended learning approach hasn't fully materialised. The staff became frustrated, so we didn't implement the blended learning as planned. We are transitioning to Teams, where we need to ensure that we design interactive lessons that incorporate multiple strategies for formative assessments, such as quizzes and feedback. On Teams as well, anyone that pops in can actually see here's your lesson breakdown and these are your calendar entries in the week to come. Students then having access to the planning, PPTs, notes, and students can also submit their work through Teams – that's something they engaged with during lockdown, and it would be a continuation from there."*

Theresa, *"We're not checking anymore because BBU doesn't work nicely anymore, and we no longer have someone at ITEC or the IT department who checks that, and there isn't someone who manages BBU specifically. Specifically, this year has been very much at the discretion of the teacher."*

Another point noted by Rachel was that teachers were accustomed to the traditional chalk and talk approach, and they were not forced into a situation where they were required to rethink their pedagogies or teaching strategies. This also confirmed the findings in chapter 2, which suggested that teachers were comfortable with the traditional forms of instruction. Due to the constant challenges with Blackboard, teachers also no longer wanted to deal with it. Patrick also confirmed the Blackboard challenges and the move to Teams. Theresa stated that the management team was no longer checking, as Blackboard

was not working correctly, and the implementation of blended learning was left to the teachers.

Tabitha, *"With new things, it takes a lot of time. There are a number of initial teething problems, and you go through a process, but we are transitioning back to Teams from Blackboard Ultra. I think we are moving into the acceptance that digital technology and blended learning are part of our teaching, and we really need to embrace it. I think having a user-friendly platform is always a good way to encourage teachers to use that. We've always had access to Teams, and some of the teachers and students just prefer to communicate that way. There was great jubilation when our teachers heard that – our teachers offer a lot of support to students outside the classroom, and that platform has given them an opportunity to do so – either in a video meeting or via chat.*"

Rekha, *"Well, I don't think really now we are implementing it effectively, because we so used to and entrenched in face-to-face. Blended learning, in most people's minds, involves uploading worksheets, notes, assignments, etc., and chatting with students on Teams, sending them materials, and interacting with them. They view blended learning in this way, but what they are actually doing is communicating and creating a portal. We are not yet fully engaged in blended learning."*

Cynthia, *"The HODs are the ones that have to see that it's implemented in their areas. I am the principal, and my academic head conducts class visits. Then, it's the HOD, followed by the teacher and peer assessment, so that has to happen all the time. Apart from informing me that it's happening, I request evidence (videos and worksheets), and during mid-year appraisals, I discuss it with them. So, they are constantly being assessed against the evidence that they provide."*

Carol, *"One of the ways to do it is the teacher report back forms, where the children get to write, and you see it straight away. With our principal, if she picks up a flag, she will call the teacher in, ask them questions and offer support. We have recently created an innovation post so that the HOD can review innovations and focus on generating ideas. The principal doesn't like to police but rather encourages teachers and shows them how it works. She provides teachers with a platform where they can showcase their best practices. I find that teachers are more inclined to try something that one of their colleagues or peers has tried out. I think the way of using digitally savvy teachers to mentor other teachers – that's the way forward for us."*

Based on the responses above, Campuses 1 and 2 were not actively monitoring the implementation, implying that the implementation was at the discretion of the teacher. However, Campus 3 did have structures in place for checking. The responses drew attention to the elements of the learning management system as well as the willingness

to engage within the revised conceptual framework. In terms of the management processes being applied, management was inconsistent across the different sites, varying from being at the discretion of the teacher to actively monitoring and checking implementation.

Responsibility for implementing blended learning was assigned to the HODs, and it was understood that they were responsible for ensuring that this was taking place. Rekha also stated that she did not believe that they were implementing it effectively, as they were so used to and entrenched in face-to-face instruction. Rekha also noted that teachers were unsure what blended learning entailed, as they were primarily communicating and uploading worksheets and assignments through a portal. Tabitha had also said that Teams was a platform they were used to.

Findings regarding managing the implementation of blended learning
• Learning management systems. • Training. • Students had access to the planning, as well as the PPT presentations.

Table 30: Findings regarding managing the implementation of blended learning

5.3.7 The role of both the teacher and the student in blended learning

Research question: What is the role of both the teacher and the student in the blended learning classroom? This question sought to examine the respondents' viewpoints on the role that both the teacher and the student would play in a blended learning classroom.

Zoliswa, *"I think it's a two-way street, but within schools, you do need the teacher to kind of play the leading role by uploading information. Technology comes intuitively to the kids, but we store the learning component of it because we are not uploading. Even if we say that skill we want to learn is collaboration, we must give them something to collaborate on. I do think that teachers can learn a lot from the kids, then the engagement experience is enhanced. Kids are more intuitive when it comes to technology. I think that both teachers and students play a role, and both roles, I think, are equally important, and the teachers also need to be open-minded so that at some point they need to take a step back and allow that process to learn from the kids."*

Rachel, *"It's not the sole responsibility of the teacher - everybody should be involved in this journey – the teacher sets the provocations, context, and the learning experience, and the student*

responds. Based on that, the teacher revisits everything. The teacher is the driver and if you don't make it authentic, challenging, relevant, both teachers and students are just going to comply cos it's something that they have to do – so it's a collective responsibility - that's where we need to put a lot of support in around how they're setting it up. The teachers loaded and delivered, but there wasn't an engagement or buy-in. They really just went onto Teams to collect and upload documents and to complete tasks, but it wasn't blended at all. Teachers are responsible for setting up the learning experience, so if kids are disengaged, the same principle applies – we're the leaders, so we need to revisit our practices."

Patrick, *"No, it can't just be the sole responsibility of the teacher. I think initially making sure that all the structures are in place for the student to engage with. However, that blended approach only becomes significant if the student participates in their own journey around it. If they're not engaged in it, then the whole purpose of the blended approach is not going to be viable. If we look at it in terms of the flipped classroom, then the teacher becomes more of a facilitator than an actual teacher. Students would be responsible for watching their 5 – 8 min video clip, that which they have prior knowledge for. So, whether it is to engage through accurately completing a little quiz and submitting through whatever LMS platform, the teacher then has significant data to work with. Or even if you have video lessons on the LMS and students do some pre-teaching before they come to class. Either way, students need to participate in that quite significantly or else it won't work."*

Theresa, *"I think it has to be the responsibility of the teacher. Children can't implement their own learning strategy – it is the purview of the teacher, and they must show the children how they want it to work, and what it looks like, and how it fits into what they're trying to achieve."*

The management team had confirmed that it was the responsibility of both parties to ensure that blended learning took place. Teachers were required to design the learning experiences, and students were encouraged to engage in the learning process. Theresa, however, believed that the teacher has a greater role in crafting a learning strategy for their classes. Students were also conditioned to follow instructions, and for the most part, they relied on the teacher's guidance in the learning process. Considering this, it was also noted that teachers needed to be enthusiastic about blended learning, as students definitely picked up on negative energy and reacted accordingly. Additional responses were also indicated below:

Tabitha, *"With any system, you have got to have both users being willing and keen, but I think that the teacher is the driver. I don't think the students perhaps feel confident enough to say this*

is what we would like, or even that they know. The kids are able to give feedback on the teachers, perhaps that would be an opportunity for them to say we would like more of this, etc."

Rekha, *"Dual responsibility because it's equal responsibility to create lessons that are blended – it's not an easy job and requires a lot of work from the teachers."*

Cynthia, *"No, not at all - I think it's a partnership. Blended learning is exactly what we're about, and that helps me deliver on the school's big vision and mission. I think the moment that the teacher gives off that power of being the ultimate controller of events in the classroom… rather engage in more participation and collaboration, then the blended learning will work in the classroom, but if you stand as an authority figure… blended learning is all about empowering our students."*

Carol, *"I always tell my children to blame is to be lame. Children need to take ownership of their learning and come back to say, 'But it actually makes no sense to me.' A lot of kids don't even know how they learn."*

Other management team members acknowledged that blended learning was a shared responsibility; however, the consensus was that the teacher was responsible for driving the blended learning experience. The responses above related to the elements of level of preparedness and willingness to engage, as well as student involvement in learning. This also implied that the teacher needed to be willing to engage with the learning management systems and platforms.

Findings regarding the role of both the teacher and student in blended learning
• Collective responsibility. • Teacher was however responsible to create the conditions for blended learning to take place. • Students also had to take ownership of their learning.

Table 31: Findings regarding the role of both the teacher and student in blended learning

5.3.8 The role of learner motivation and self-management in blended learning

Research question: What role does learner motivation and self-management play in blended learning? This question aimed to shift the focus away from the teacher's

responsibilities in creating the blended learning experience and instead focus on the impact of students' motivation and self-management on the success of blended learning.

Zoliswa, *"For the students, as much as they are tech-savvy, without support, the students aren't there – they also just give up."*

Rekha "*Our kids of today have so much technology at their disposal and everything else – they would rather play a game and be on social media chatting. If the commitment and maturity is there, I think it will work beautifully. I think it's also a culture and mindset for our children*".

The management team acknowledged that, despite the tech-savvy nature of students, they needed support, as well as maturity and commitment, for the blended learning experience to be successful. Therefore, it had once again been noted that the role of the teacher was significant to the success of blended learning. Within this conceptual framework, this was related to teaching practices and the teachers' willingness to engage in these practices. It was also noted that the students' mindset is strongly geared towards technology. Based on this, the adoption of digital learning platforms might have been a little easier for the students. Nonetheless, support was needed for students to thrive in this space.

Findings regarding the role of learner motivation and self-management in blended learning
• Even though students are tech-savvy, if they did not receive the support required, they would give up. • Commitment and maturity was required for blended learning to work.

Table 32: Findings regarding the role of learner motivation and self-management in blended learning

5.3.9 Benefits of blended learning

Research question: Discuss the benefits of blended learning (if any). This question aimed to determine whether the school believed there was merit in implementing the blended learning approach.

Zoliswa, *"I think balance is required because we are still social beings, it's not because technology is bad, but human nature says that I need my social interaction as well."*

Rachel, *"If teachers don't understand the purpose, they are not going to respond. There absolutely is a benefit. The benefit is around the engagement and interest of the kids. In the blended learning space, I would love to see almost all pre-learning happening at home, and then when you arrive at school, we engage in debates and discussions. I'd like to see that become more the norm. There's importance to this, but it's gotta be done right, and that's the challenge. The benefit is also that, should we get shut down again, people can continue – it's a dynamic element. It gives the kids options, and that's what you want, to give them ways to show what they understand."*

Patrick, *"It's the time constraint for staff – staff is pretty capable of putting very cool and exciting things together, and it's more about us creating the time and space for them. We don't have classroom assistants like they have overseas to help with administrative tasks, such as marking, so that you can then spend time creating content that works well in a blended learning approach. So, teachers take the fallback position and see what videos they can scrounge up off the internet, or communities that are willing to share. The teaching load is hectic and leaves little free time. Blended does bring in that unique aspect where the child takes an active role in their own journey. It has massive value, but it needs to be done right, because otherwise we're just ticking boxes. We as a country are behind the curve in this quite significantly, and COVID's given a lot of schools the big fat wakeup call – we need to be more in this space than what we've been previously."*

Theresa, *"Currently, I think it's more of an add-on than an add-to. I think blended learning, if implemented effectively, is an enhancement to it. It grows the space within which the kids can access the learning environment. When it's not implemented effectively, which is where I think we sit, it's the add-on – makes it too hard for the kids and the teachers."*

Based on the responses above, while there are benefits to conducting blended learning, additional challenges prevented those benefits from being realised.

Tabitha, *"There are only benefits if done properly. Everybody has a different way of learning, and so exposing our students to various ways of engaging with class material and information will be to their benefit. Information can be distributed much more easily on a small platform. You can then actually maximise the face-to-face interaction. Instead of watching a video in front of you, students can watch it at home and then come to the classroom to engage in a debate, where real learning occurs. Blended learning offers a straightforward way to collect data on learning. This data can be beneficial to the teacher to make decisions around how they are going to adapt or change their instruction, to support what the data is giving them."*

Rekha, *"No, there were some benefits. When your lessons are recorded, students go back and listen to the recordings. Just going back and watching the recordings means that they probably got it the second time around, which is not the same as we do in class."*

Cynthia, *"The advantage is that I can reach students with all different learning abilities, e.g., visual, auditory – for me, that's very important. I think it creates lots of excitement and interest in something new. The disadvantage, if anything, would be loadshedding, and you can't use something that you had planned for – but to me the good outweighs the few little things that may just crop up."*

Carol, *"I think it definitely benefits. You can escape the boredom of everyday things, and there are various innovations. There are new apps constantly being released, and new things are always happening. The kids learn in so many different and brilliant ways. I try to go through learning styles at the beginning of my class. If you find your best learning style, you can study in the quickest way possible, because you actually spend less time studying and more time enjoying your life. So, if you can tap into your way of learning, you are sorted."*

The management team confirmed that there are benefits if it is done properly. However, time constraints with a teaching load made it a challenge to create these deliberate learning experiences. Cynthia also highlighted the ability to reach students with different learning styles, such as visual and auditory learners, and encouraged students to identify their preferred learning style.

This response addressed the learning styles element of the conceptual model. Carol also acknowledged that it allowed teachers to move away from the boredom of traditional methods, and it presented a different way for students to learn. Theresa has noted that it was more of an add-on than an addition, and when it is not implemented effectively, it becomes difficult for both students and teachers. Patrick also acknowledged that blended learning allowed students to be an active part in their learning journey.

Findings regarding the benefits of blended learning
• It's more of a time constraint for staff and appears more of an add-on than an add-to. • If done properly, there could be benefits. • Students could go back and watch the recorded lessons.

Table 33: Findings regarding the benefits of blended learning

5.3.10 Support being offered to the teachers and HODs

Research question: Is support being provided to the teachers and HODs? This question aimed to examine the level of support being provided to both teachers and HODs by the management team in terms of the blended learning strategy.

Zoliswa, *"We don't give enough support - even during COVID, when change management was happening, we were more interested in the kids rather than the teachers. I believe we could do more for teachers. I don't know whether we've stopped to ask the teachers what support they need; we always assume what they need. Teachers have faced a great deal of challenges over the last three years. We always assume what they need, e.g., Counselling. Maybe it's something different that they need - what that is, I don't know, but we've never asked, so we'll never know."*

Rachel, *"We've got training around set up, so it can be some how-to guides. When we return in January, it will be upskilling; then it will be embedding and monitoring and removing the assumption altogether. Accountability in this whole thing is massive. From the tracking and checking, we can identify which schools require additional support, such as creating quizzes or forms. – The investment is massive. The high school was not our success point, and the experience was complex for several reasons. However, the high school was a tiny component of the work that is going on – some people at the high school were rock hard, and there were some that were not."*

Patrick, *"So, we did the training – it was just the support that we should have received from Blackboard that hasn't materialised. What we are looking at now is a whole new set of training for Microsoft Teams, in terms of what our expectations are. We've already got people that's designing the scope and sequence – then we are going to train staff."*

Theresa, *"No, not at the moment. We still have people who will help, but there's no active guidance coming from higher up – there are no longer any training sessions. So, no, I'd say that it's not happening effectively at this point."*

Tabitha, *"I don't think we have people to come out and support every different learning area. English teachers feel it's much more accessible, whereas Maths teachers don't know how to use it. I think that as time progresses, people will become experts and be able to offer more individualised training. I think that when subject-specific training becomes available, teachers will really understand how valuable these tools are and be in a position to engage with them more regularly."*

Rekha, *"We have many talented tech-savvy teachers, and we call them champs. We train the academic staff, and we have six different groups. Each teacher did one small task, such as administering quizzes. The next group showed them how to join a Team and start a lesson. But when you do it hands-on with someone, you can actually do it and see that I have mastered this skill, rather than to lecture them."*

Cynthia, *"Every Tuesday, we have a staff development day. Our teachers and HODs' workshop focused on blended learning and various teaching and learning methodologies, outlining our expectations. I do class visits once a term; they know what I'm looking for – can't do more than one class visit per term."*

Carol, *"There is amazing support, and you can ask for anything – it's phenomenal. If you don't get help via the tickets, you can reach out to other schools or the head office. Honestly, I have never experienced anything like this."*

The responses from the management team varied, ranging from those who believed there was excellent support and training to individuals who suggested that support was not being offered. Therefore, this indicated that the support varied from site to site. This may also have explained the adoption (or lack thereof) of the blended learning strategy. Zoliswa had explicitly stated that the school had assumed what teachers needed and had never really stopped to inquire about their actual needs. Perhaps they needed another type of support. However, since the question was never asked, she was not sure what support was required.

Zoliswa also stated that during the COVID-19 pandemic, the focus was more on the students than on the teachers, and Rachel had also noted that the high school was not their point of success. The support initially promised with the Blackboard platform did not materialise, which may have presented a negative outlook towards the digital platform in general.

Training was noted to be the most common level of support being offered. These responses addressed the learning management system and began to highlight a new critical success factor: management team support. There was a direct correlation between the success of blended learning and active management support.

Findings regarding support being offered to the teachers and HOD's
• Not enough support was being offered but training was being provided. • No tech support being offered anymore.

Table 34: Findings regarding support being offered to the teachers and HOD's

The second level of extraction involved the research questions posed to the HODs. The HODs were the second level of middle management, overseeing and monitoring teachers within their respective departments. The questions are discussed in the next section of this chapter.

5.4 Responses from the HOD Team

5.4.1 Current digital education and blended learning pedagogical tools

Research question: What are the current digital education and blended learning pedagogical tools that are being implemented within the curriculum? The first research question aimed to gain a broad perspective on the pedagogical tools currently being used.

Focus group – Campus 1 – Renata: *"It's just Kahoot plus forms."*

Focus group – Campus 1 – Edie: *"Plus, we use Survey Monkey."*

Focus group – Campus 2 – Amanda: *"Basically, our junior Maths teacher is using that (Kahoot), at a senior level, we really don't have time to use that in class – we have such a large syllabus to complete."*

Focus group – Campus 2 – Mary: *"We do use it a lot, but to a lesser extent for the Grade 11s and 12s. For the juniors, we use it to a large extent, and they even get to set up their own Kahoot. We use Flipgrid – the students upload their orals there, and teachers can view them. We also use Teams – students can access resources there, and we use Team chats to get instant feedback."*

Campus 2 – Thomas: *"We use Quizlet and Teams breakaway groups."*

Campus 2 – Alice: *"Yes, I also use Flip Grid for submission of orals, Kahoot, Teams, etc."*

Campus 3 – Savi: *"At the moment, we are using Kahoot with our junior classes (Grade 8 and 9), but we will be using it with our senior classes in 2023 for literature. We try to incorporate it with visual literacy and current affairs. With Tech, we are making use of YouTube videos, Blackboard Learn… but next year, we are back to Teams."*

Based on the responses above, both the HODs and teachers were comfortable with Kahoot, as well as other applications like Teams, Flipgrid, and Quizlet. The responses suggested that teachers have also been exploring other applications. The responses also related to the students' learning styles and the use of MI. Amanda, Mary, and Savi also confirmed that Kahoot is mainly used with her junior classes, which implied that, despite differentiated applications being used, they were only applied to the junior students. This meant that the seniors were not being exposed to these assessments due to time constraints.

Findings regarding current digital education and blended learning pedagogical tools
• Kahoot, Forms and Survey Monkey were used in instruction. • Flip Grid was used for oral submissions.

Table 35: Findings regarding current digital education and blended learning pedagogical tools

5.4.2 Implementation of digital education and blended learning

Research question: In your opinion, how is digital education and blended learning as a pedagogical tool being implemented within the curriculum? With this question, the researcher was trying to determine the "how" regarding the implementation of digital education and blended learning.

Focus group – Campus 1 – Renata: *"One particular teacher in Grade 8 does the Kahoot quite often, and her Grade 8 and 9 students would like for her to continue with Kahoot. I thought it might be something that could be beneficial for Grade 10 – 12, but I just don't see where we would fit it in because there is so much literature content that we pump in."*

Focus group – Campus 1 – Karen: *"We used it a lot with the juniors, and they love it cos it's a fun activity to reinforce the vocab. I think the kids love it cos it's competitive, so they can see where they are and how it's going. They are helpful for drilling sorts of things and to recap on vocabulary and drilling with knowledge with regards to literature, but not in the senior grades. With the seniors, we don't get the time to do it."*

Focus group – Campus 1 – Rebecca: *"For Maths, we basically don't even do it for the juniors – it takes a long time to set up a Kahoot, and we are so busy teaching that we don't have time to look for a Kahoot or set it up."*

Focus group – Campus 1 – Edie: *"We sometimes play equation bingo for Maths, but that kind of thing was quite easy and ready to use."*

The responses from the first focus group session suggested that digital education was only being incorporated into the junior phase, i.e., Grades 8 and 9. This was based on the fact that the syllabus is not as content-intensive as the senior grades, and as such, there was time to experiment with various tools and have "breakaway" time from traditional classroom instruction. Renata felt that there was so much literature content to cover that she was unsure where Kahoot would fit in. Karen also said that the time element prevented them from using these tools with seniors. An interesting point was that blended learning was only being applied within the junior grades, and it was not being utilised throughout the high school, as initially advertised. In doing this, the differential application of blended learning was noted as the seniors were exempted from the blended approach due to the limited time within the syllabus and class time was instead being prioritised for teaching of the syllabus, and subsequent assessments.

Focus group – Campus 2 – Mary: *"When we used hybrid/online teaching, it was something we used a lot more, but now with the students being fully back, it's something that's more in the background. 90% of them want face-to-face instruction, and they don't enjoy us saying, 'We're going to do a flipped classroom.' It worked with online and hybrid, but now if we send them a task or try to include technology, and say present it, it's not well-received, and we don't get as much participation."*

With the second focus group, it was suggested that while the applications were used much more frequently during the lockdown period, they were now more in the background. It was evident that students were more comfortable with traditional classroom instruction and did not enjoy the "flipped" classroom mode.

Campus 2 – Thomas: *"Digital Education has been problematic and not entirely taken advantage of due to problems relating to BBU and loading of student delays relating to teams. These platforms are potentially excellent but have not yet been fully implemented. Bandwidth and Wi-Fi are also a problem for multiple users."*

Campus 2 – Alice: *"We use Teams and various other platforms all the time. In my subject on literature, there are YouTube seminars on the prescribed book, which the author presents (Fanie Viljoen on his novel - Donker Web – prescribed for Grade 12)."*

Campus 3 – Savi: *"I find that it is being used effectively in the sense that, for example, with using more digital resources – for example, a video that is relevant to teaching a current affair or visual literacy. You find that students are more engaged, interactive, and it also enables them to have a different perspective on the topic that is being discussed."*

The responses from Campus 2 and 3 indicated that platforms were used, but they sometimes presented a problem. However, it was clear that there was value in utilising the online platforms. Thomas suggested that the platforms had not yet been fully implemented, and connectivity seemed to present a challenge. These responses related to the learning management system, internet connection and accessibility, student involvement in learning, as well as their willingness to engage. However, both Alice and Savi confirmed that they had used the platforms.

Findings regarding implementation of digital education and blended learning
• Implementation was mainly with the junior students using Kahoot. • Platform did not work properly. • Now that the school is back to traditional instruction, it is not being used as much.

Table 36: Findings regarding implementation of digital education and blended learning

5.4.3 Application or manifestation of digital education and blended learning

Research question: Why has digital education and blended learning as a pedagogical tool manifested in a particular way? This question was aimed at gaining a broad perspective on how digital education had been applied or presented at the school.

Focus group – Campus 1 – Renata: *"To be frank, it hasn't been applied in any meaningful way. Our reference point is COVID, and that wasn't blended learning; that was teaching online. When you are building an argument or doing a literary essay, there are no quizzes. It is essential to*

note that creating something specifically tailored for a particular grade or class can take a considerable amount of time, and then we must consider whether it actually facilitates meaningful learning. But in all honesty, our students don't have the time and I could very well add in a question and expect them to respond and I also think that students need to be educated about it and how to manage time and the benefits of it, and I absolutely haven't spent any time doing that."

Focus group – Campus 1 – Rebecca: "*Blended learning to me is supposed to be a variety of different methods, not just the teacher sitting there talking. They are quick to bandy the term blended learning around at head office, but I don't think they really know what it means. I think a lot more training is needed to clarify exactly what blended learning entails. Yes, we've used tools in our classroom, but at the end of the day, I want to know if they got the answer right, which I can't access on Kahoot or forms, but the kids do love Kahoot. It's like I'm just going to tick a box and say yes, I did some form of blended learning, but actually, you know what, actually I really didn't know what I was doing, and I thought what I was doing was blended learning, but it wasn't. I don't think there's any true blended learning happening, or any blended teaching*".

Focus group – Campus 1 – Karen: *"So if they (the students) don't get training and practice to actually go and sit in those 2–3-hour exam and write something down...a child has to practice this or else they really bomb out with that and they battle to cope with writing it down."*

Focus group – Campus 2 – Mary: *"It's positioned teachers perhaps not as open to the platform because of external factors like loadshedding and the internet, some students not having as much access, and it's not necessarily a glitch-free system. There are constant problems with signing in or with usernames not working. Over the past two years, we've tried using Blackboard Ultra, which hasn't worked well. As a result, I think we're constantly finding that we're fixing more problems for them to access, rather than being able to use it ourselves. Even though I like using technology, it is more of a difficulty than an enhancement. In terms of sharing resources and students being able to access resources via Teams and in chatting and communicating, it works very well."*

Campus 2 – Thomas: *"Teams was used successfully until the advent of BBU. Students reported that they could not relate to the BBU platform and found it difficult to access. There are still negative perceptions, however, with full re-embracing of Teams, students are likely to have a much more positive experience."*

Campus 2 – Alice: *"It is a requirement to deliver cutting edge education, preparing students to compete in an international environment for further studies."*

Campus 3 – Savi: *"It has been implemented very successfully, and every colleague has implemented digital resources, and they are also trying to make it part of everyday lessons. The training that has been provided to us is very effective because it provides us with a background as to how to implement it in the curriculum."*

The HODs and teachers from Campuses 1 and 2 did not believe that blended learning had been implemented in any significant way, whereas Campus 3 thought that the implementation had been quite successful. Renata stated that what had been done during lockdown was not blended learning, but rather online teaching, and she also felt that quizzes did not facilitate meaningful learning. Rebecca concurred with this view and stated that she thought that significantly more training was needed to determine what constituted blended learning. Karen also felt that students were still required to sit down and write a proper 2- to 3-hour exam, which they would struggle to complete. This response is related to assessment and teaching practices. The challenges with load shedding and internet access also resurfaced, and general issues with the learning management system, based on that technology, were perceived as more of a hindrance than an enhancement to learning.

Findings regarding application or manifestation of digital education (blended learning)
• It hasn't been delivered in any meaningful way. • Teachers were unsure of what they were doing. • Some believe it was implemented very successfully.

Table 37: Findings regarding application or manifestation of digital education (blended learning)

5.4.4 Challenges during the implementation of digital education

Research question: What are the challenges that were experienced during the implementation of digital education, and what strategies were employed to overcome them? This question was posed to gain insight into the challenges the school had faced while implementing digital education.

Focus group – Campus 1 – Rebecca: *"If there's load shedding, students can't access the platform, and then if they didn't have access to Wi-Fi or if there was only one computer in the family, there was a barrier to access. From a teacher's point of view, there was still load shedding, and there was poor Wi-Fi, and then we weren't shown how to use Teams."*

Focus group – Campus 1 – Renata: *"On a personal front and on behalf of the students, it was the challenge of managing time in a profitable way, so time management. I found that I was living in my head 100%, but I think most people were during lockdown. Students had trouble motivating themselves, and then there was the issue of making a connection with the students over a platform – it was no true and meaningful connection that I thought really stifled the learning experience. There's no teacher sitting there saying take the notes, and I think that was the fundamental issue."*

Focus group – Campus 1 – Edie: *"No one knew what we were doing, let's be honest. So, we were like learning on the job. Students found it very difficult to ask questions, which was terrible, and eventually, many of them just gave up. Without the teacher's physical presence to actually help, a lot of them just gave up, and I think that was the problem."*

Focus group – Campus 2 – Amanda: *"The main negative was that we wasted 15 minutes to connect with the students, and then Wi-Fi would play up, and we wasted time reconnecting, and in the physical classroom, we would have got through a whole section of work and never mind all the load shedding."*

Focus group – Campus 2 – Mary: *"Even before COVID and online, we had started using Teams six years ago, where we had folders and shared resources, so our students are very familiar with the platform. When online started, we had training the day before we went into lockdown.*"

Campus 2 – Thomas: *"IT worked tirelessly to improve bandwidth for multiple users, but was never fully successful in making it seamless."*

Campus 2 – Alice: *"Students cannot always log in and [8]BBU had limitations."*

Campus 3 – Savi: *"Some of the students were unable to transition quickly with digital transformation, and connectivity was also an issue. Student didn't have the resources available in terms of your facilities – laptops and so forth."*

The HODs and teachers felt that loadshedding, the platform and time management were some of the challenges that presented themselves in this space. This was becoming a

[8] BBU – Blackboard Unlimited. Blackboard is a learning management system that was used by tertiary institutions, but this institution adopted BBU at high school level to prepare students.

recurrent theme regarding the implementation of blended learning and related to internet connection and accessibility. A system plagued by constant challenges would not be successful. Renata also felt that there was an issue with time management, as they were unsure of how to manage their time profitably. The connection with the students was not genuine or meaningful, and she believed that this had hindered the learning process. She implied that the presence of the teacher was essential to the students remaining engaged in the lesson. This is related to both personal engagement with teachers and teaching practices. Disengagement also began to set in as students used these factors as excuses to be "absent" from focusing or from being involved in the lesson itself. Based on the responses above, it was also suggested that students were conditioned to learn in the traditional classroom environment.

Edie also confirmed that without the physical presence of the teacher to guide the learning process, students would have given up, resulting in a learning gap during the lockdown period. Being online, students were less inclined to ask questions. Amanda also referenced the connectivity issues once again. She said that ordinarily in a face-to-face environment, they would have been able to get through large sections of content. Still, due to the intermittent connectivity issues, time had also been wasted. Thomas also stated that IT had worked hard to resolve the problem, but it persisted. An interesting point noted by Savi was that the students themselves were unable to make a quick transition to digital platforms.

Findings regarding challenges during the implementation of blended learning
• Managing time in a profitable way. • Disengagement. • Loadshedding.

Table 38: Findings regarding challenges during the implementation of blended learning

5.4.5 Strategies employed to address the challenges with digital education

Research question: Do you feel that the strategies that were employed were successful in addressing the challenges? Why? With this question, the researcher aimed to determine

whether the school had explored and/or implemented solutions to address the challenges outlined above.

Focus group – Campus 1 – Rebecca: *"Yeah, we were given the tools and the things in which to do it."*

Focus group – Campus 2 – Mary: *"Our school is outstanding – before we even had COVID, online became compulsory. We actually started with Teams about 5 years ago, so students are very familiar with using the platform, and then we had training sessions – we had those teachers who were really comfortable and had knowledge sharing with teachers."*

Campus 2 – Thomas: *"Many BBU training sessions were hosted, but as a "difficult" platform, it was never fully onboarded."*

Campus 2 – Alice: *"We moved back to Teams."*

Campus 3 – Savi: *"Our school provided online training and booklets, and there were also specific IT people, and then constantly taking register to see which students were online or weren't submitting their work via Blackboard and then we follow-up and contact the parents."*

The HODs and teachers had confirmed that the training was provided for Blackboard Unlimited (BBU), but a decision was made to revert to Teams. This was mainly because the BBU platform became problematic, and no support was being offered for the platform. Therefore, it was seen as easier to move back to Teams, as it was a platform that the teachers well understood. It seemed that training had been the consistent strategy applied across all sites, but despite the training, the Blackboard platform still presented challenges, and the system was never fully onboarded. Consequently, the decision was made to move back to Teams. Savi outlined a far more proactive approach that had been used with Blackboard, implying that it was being used as a system to monitor student submissions, and then correspondence would be made with the parents. This response addressed parental involvement in learning.

Findings regarding strategies employed to deal with the challenges of digital education
• The use of Teams. • Online training and booklets. • Some teachers had used the Blackboard platform as a tool to monitor student submission of work, and in this case of non- or late submission, parents would be contacted to inform them of the same.

Table 39: Findings regarding strategies employed to deal with the challenges of digital education

5.4.6 The role of both the teacher and the student in blended learning

Research question: What is the role of both the teacher and the student in the blended learning classroom? This question sought to examine the respondents' viewpoints on the role that both the teacher and the student would play in a blended learning classroom.

Focus group – Campus 1 – Edie: *"No, it's not just our responsibility, and they have to be educated as well – they need to understand what blended learning is. There's no way this can just be us – they also need to come to the party. I don't really think anybody understands what blended learning is."*

Focus group – Campus 2 – Mary: *"I think it's a combination of parents and students, and teachers need to buy-in. A lot of parents still see teaching as the teachers standing at the front of the classroom and teaching, and if you are not doing it that way, then they feel their children are not being taught."*

Focus group – Campus 2 – Amanda: *"I also think its subject-specific. I think that some subjects and blended learning can work better than others."*

Campus 2 – Thomas: *"The teacher's role is to fully integrate all students into the process of learning using multiple interactive methods whereby students discover the target work/information instead of being spoon-fed the work."*

Campus 2 – Alice: *"Students are empowered and guided by teachers, and parents should also share this responsibility to provide the tools and encouragement at home."*

Campus 3 – Savi: *"I think that it is the sole responsibility of the teacher if you want it to be successful – you need to ensure that adequate resources/content has been set up and it is suitable for your students, because what applies to a junior will not apply to a senior in terms of what captures their attention. We have a very diverse group, and we also need to accommodate them."*

The HODs and teachers also confirmed that it was a dual responsibility, but teachers were also responsible for crafting those learning experiences for the students. Students relied on the teachers for the academic direction and were the recipients of the learning experiences. These aspects are related to teaching practices, student involvement in learning, and parental involvement in the learning process, and it also confirmed once again that students were comfortable being the recipients of classroom instruction versus taking a proactive stance and taking accountability of their own learning journey.

Findings regarding the role of both the student and teacher in blended learning
• Joint responsibility. • Blended learning was subject specific. • Parents should also share this responsibility.

Table 40: Findings regarding the role of both the student and teacher in blended learning

5.4.7 The role of learner motivation and self-management in blended learning

Research question: What role does learner motivation and self-management play in blended learning? This question aimed to shift the focus away from the teacher's responsibilities in creating the blended learning experience and instead focus on the impact of students' motivation and self-management on the success of blended learning.

Focus group – Campus 2 – Amanda: *"I do think that if the child is not disciplined and doesn't have any management skills, then it's bound to fail. The resources were available to them, but they simply didn't open them. You know you can tell them about everything that's available, to go and watch the videos and open the worksheets, but if nothing is happening at home, we don't have control of that."*

Focus group – Campus 2 – Mary: *"As a teacher, our job is to motivate, and we do that anyway. When we transitioned to online learning and then back to hybrid, we created these super-cool*

videos, spending hours on them, only to discover that they hadn't even watched them. In terms of motivating, the students are really motivated by marks – the only way for them to get to open that video or is if you say, you're gonna get an extra 5% for opening that video, and watching and downloading, and I'm checking to see that it's downloaded – that's how they operate."

Campus 2 – Thomas: *"We feel that even the demotivated student can be motivated with the correct approach by the teacher. Students respond well to blended learning when it has been carefully implemented and well thought out."*

Campus 2 – Alice: *"The responsibility primarily lies with the educator, but students also need to take ownership."*

Campus 3 – Savi: *"It's a two-way street in the sense that you have accountability, self-management, and take responsibility for your submissions. It is imperative that the teacher constantly motivates students on a frequent basis, providing them with regular assistance. When COVID-19 took place, they lost interest."*

Focus group – Campus 1 – Rebecca: *"There are certain children who are very structured themselves and will take the initiative, and then there are other children - if they can get away with it, they won't do it. I think the structures are for their self-management – students feel safe within those structures. Our job is to motivate and teach, and to build their self-confidence. Once you've worked on that, you can only work on the content. I think we do it just instinctively in the classroom, by the way we talk to the children and teach them."*

Focus group – Campus 1 – Edie: *"I think it makes them feel safe – they need those kind words. With blended learning, students think, 'Who cares if I do this properly or not?' I don't have my teacher; she told me to just go and watch this."*

It was also noted that students preferred personal engagement with their teachers, as it helped them to establish a connection, which made students feel more comfortable about raising questions about any difficulties they were experiencing in their learning journey. In addition, it was suggested that the type of student makes a difference to the learning experience. Students who were self-motivated and disciplined would reap the benefits of this strategy, whereas students who struggled to work independently may have fallen behind. The HODs and teachers felt that students needed the structure that came with a physical classroom setting, but the teacher was also responsible for maintaining their interest in the approach. Students also needed to be accountable and mature in the online space to be effective. Mary confirmed that it was their job to motivate students and that

was taking place in any case; however, they had also spent hours making videos, only to discover that students had not watched them. She also believed that students were only really motivated by marks. However, Alice and Savi also stated that students needed to take ownership of their learning journey. Edie also stated that students felt a disconnect in the blended learning space, as they lacked the physical presence of the teacher and did not experience the safety that comes from being in a traditional classroom.

The responses above relate to several elements within the conceptual model, specifically student involvement in learning and the level of preparedness and willingness to engage. Savi reiterated the fact that teachers needed to provide continuous assistance, a point alluded to in the previous sets of findings, which suggested that teaching would not be limited to school hours but would instead require teachers to have ongoing availability, even outside of school hours.

Findings regarding the role of learner motivation and self-management in blended learning
• Without any discipline and management skills from the students, it is bound to fail. • Certain children are structured and take the initiative themselves.

Table 41: Findings regarding the role of learner motivation and self-management in blended learning

5.4.8 Benefits of blended learning

Research question: Discuss the benefits of blended learning (if any). This question aimed to determine whether the school believed there was merit in implementing the blended learning approach.

Focus group – Campus 1 – Rebecca: *"I think we're not in any position to answer that, considering quite frankly none of us are actually doing blended learning*".

Focus group – Campus 2 – Amanda: *"When it comes to posting and uploading resources, I think it's excellent – you can control what you want them to work on. They can communicate with us when they're having problems with questions that they never used to have before."*

Focus group – Campus 2 – Mary: *"For me, I liked the Teams chat…a student would share their work and I would comment on it, it was quite a nice way to not necessarily record the lesson, but as a record for the next time I see the child, I know what we did the previous time. And as a parent coming back and saying you haven't met my child, that you've claimed you've done this – it's easier to go back and say this is what I did with the child in chats – cos you teach so many kids, you lose track of who you said what to."*

Campus 2 – Thomas: *"There are massive benefits, especially for the juniors, where the teacher has the capacity to develop the materials required for this form of learning. Disadvantages are that students often perceive this as a waste of time and still gravitate towards earning marks in class and "formal" style teaching."*

Campus 2 – Alice: *"The current generation benefits from this approach. They grew up with technology, and we have to move with the times, otherwise we will not keep students inspired and motivated to learn."*

Campus 3 – Savi: *"I feel there are more advantages. With my students, I have seen a different mindset and maturity in them – they are more accountable. You're not constantly micromanaging them. There was more engagement with your digital online facilities."*

The HODs and teachers collectively felt that there was great benefit from adopting this approach, implying that they saw the value in implementing it into their teaching practices in the future, as it allowed students to become more accountable, thereby preparing them for the world of work by allowing them to become more responsible for their own learning journey, which was interesting especially since many students did not want to take on the responsibility for their own learning journey.

Findings regarding benefits of blended learning
• Good for posting and uploading resources. • Students often gravitate towards the traditional modes of learning. • There is also a different mindset and maturity with students using blended learning – they become more accountable.

Table 42: Findings regarding the role of learner motivation and self-management in blended learning

5.4.9 Support being offered to the teachers and HODs

Research question: Is support being provided to the teachers and HODs? This question aimed to examine the level of support being provided to both teachers and HODs by the management team in terms of the blended learning strategy.

Focus group – Campus 1 – Renata: *"I think we are suffering, and I think management suffers from the same thing. There have been no clear parameters set for blended learning – they, too, are trying to navigate their way through it. I don't think you can offer meaningful support if you don't know what it is yourself. One of the reasons Blackboard was sold to us was that it facilitates blended learning; now it's back to Teams after two years of using Blackboard. I don't see the logic in it at all. It seems as if everybody has given up on blended learning."*

Focus group – Campus 1 – Edie: *"I don't think they do understand themselves – they have been told here's a tick-box, your school will be doing blended learning. Like, if this were a serious thing that we had to do, there's definitely no way we could do it. They will not be able to support us get it to its full potential."*

Focus group – Campus 1 – Karen: *"I think the fact that we went from Teams to blended learning was a big sort of mistake, because even the kids couldn't adapt to it, and they found it very difficult, and I heard we are going back to Teams. It's a user-friendly platform. I think putting this spanner in the wheels, and we had so much time and effort to try to just manage Blackboard Ultra. We could have spent more time to actually get ahead with Teams, and didn't spend a lot of time just trying to get on top of Blackboard."*

Focus group – Campus 1 – Renata: *"One of the reasons Blackboard was sold to us was because it facilitates blended learning, and now it's an email saying that we will be going to Teams. I don't see the logic in it all, especially after two years of BB. It seems as if everybody has given up on Blackboard and blended learning, and that's my honest opinion."*

Focus group – Campus 2 – Amanda: *"Yes, we can't complain. We've had meetings where teacher experts have shown us all the tricks and functions on blended learning, so that has been very well done."*

Focus group – Campus 2 – Mary: *"Even when we had full online, there was just so much support as to what you do. We've had many workshops, and the minute a teacher finds something new, we incorporate what those teachers shared into our meetings, so the support is definitely there. I just think there are some external factors that are beyond our control."*

In terms of the support being offered, Renata had confirmed that both teachers and the management team were "suffering" with blended learning, especially since no exact parameters had been provided. Edie also confirmed that this may have been a tick-box exercise versus a serious strategy implementation, which created the impression that there was minimal consideration of the long-term impacts of the strategy or the intense learning that would have needed to take place to ensure that both students and staff were ready to embrace the online platform. This was understandable considering the unexpected arrival of the COVID-19 pandemic and the limitation of time in being able to craft a detailed strategy that could be embedded into company practice. Campus 1 believed that the management team had no idea of the expectations and, as such, would not be able to offer any meaningful support.

On the other hand, Campus 2 believed that there was significant support when the school transitioned online, mentioning that workshops were held and discoveries were also shared during meetings. This did not align with the practices that were adopted at Campus 1, which further strengthened the argument that support was differentiated across the various sites. Additional responses were noted below:

Campus 2 – Thomas: *"Yes, in the form of training and ongoing support where requested."*

Campus 2 – Alice: *"Yes, they provide training and workshops. It is also an expectation from management to apply blended learning."*

Campus 3 – Savi: *"We have an absolutely amazing management staff, so it's an open-door policy. So, at any given time, whether it's via WhatsApp or email, you will get a response. They are also very motivating when things become overwhelming for us as teachers. They have well-being groups, so there's continuous support and motivation from everyone."*

In addition, Campus 3 also confirmed that sufficient support and training was being offered. The support was not limited to workshops and meetings. Still, continued support was provided via WhatsApp or email, indicating a constant availability to address any challenges that may have arisen. Regarding support, it was notable that the responses from sites that experienced active managerial support had a more positive outlook on digital education and the blended learning space in general. Additionally, when the switch to Teams took place, it caused considerable upset among the teachers and HODs, as they felt that they had essentially "wasted" two years on Blackboard training.

Findings regarding support being offered to the teachers and HOD's
• Both management and HOD's are suffering since no clear parameters around blended learning were set. • Training was offered as a form of support. • Open door policy and ongoing support at one campus.

Table 43: Findings regarding support being offered to the teachers and HOD's

5.5 Main Themes from Research Questions and Participant Responses

This chapter outlined the responses to the research questions. The next chapter provides a deeper analysis of the prevalent themes that had emerged in both Chapters 4 and 5. Two recurring themes that emerged from the responses to the research questions were a misunderstanding or limited understanding of what blended learning entails and the frequent use of training as a strategy to support the strategic initiative. Firstly, it was noted that many of the teachers were only familiar with the Kahoot application, which formed the basis of their understanding of blended learning tools that could have been used. It gave the impression that not much research had gone into the number of additional tools that could have been utilised in the digital space. However, some teachers took the initiative to conduct further research into various applications. This was a sporadic occurrence, and many did the bare minimum to meet the requirements as outlined in the strategy.

The second aspect was the use of training – it seemed that training was conducted at both national and site levels. Despite numerous training initiatives, teachers remained uncertain about what was expected of them. It presented the view that not much was being done to truly understand the needs of teachers in terms of the necessary support they require. Blackboard Champions were present at school, and while it may be assumed that teachers consulted these individuals for assistance, it is also possible that many teachers felt intimidated to do so. However, neither of these aspects was common to all sites, and instead, five main sub-themes had emerged within this chapter, which were described in detail by the research participants.

These main themes were as follows:

- **Theme 1: Learning management systems and access challenges to blended learning**

  It was noted from the responses that there were ongoing challenges with Blackboard. This was the original learning management system adopted for blended learning, thanks to the built-in apps within Blackboard. However, teachers had confirmed that they had felt far more comfortable with Teams and could not understand the need to make a switch, especially when the selected platform had presented so many challenges.

- **Theme 2: Communication and support from the management team**

  Communication and support varied from site to site, with some sites being very hands-on and willing to assist with challenges. In contrast, others had left the implementation to the sole discretion of the teachers. Savi had mentioned that support was also being offered through WhatsApp, and this support was available outside of school or office hours. While communication did occur, some participants felt that top management themselves were also unsure of what needed to happen with the implementation of the strategy; therefore, it was understood that they could not offer any meaningful support.

- **Theme 3: The appropriateness of blended learning within secondary schools**

  Participants felt that, although there were good benefits to blended learning, it was not suitable for a high school or secondary school. The maturity level was an issue that was raised, as well as the fact that students required the hands-on attention that came from a traditional classroom environment. In terms of maturity, it was noted that students lacked the general discipline to work autonomously. The structure and regulation of a traditional classroom were necessary to hold students accountable and to ensure they felt they were being taught effectively. It gave the impression that students did not view the online space as a proper learning environment.

- **Theme 4: Teacher involvement and practices in digital learning**

  Teachers themselves were, in general, quite hesitant to become fully involved in understanding how to apply digital practices, as they were comfortable with their traditional practices. They believed that it worked for them, and it was something "known". Therefore, the strategy was only applied to the extent that the necessary aspects were completed, or the bare minimum required to demonstrate that digital learning interventions had been attempted and communicated. However, further action was not taken with most of the teachers. It was stated by the academic strategist that teachers were mainly using Teams as a ground to upload resources, and that was not the intention of the strategy. Teachers also felt disengaged from the students, and it was noted that they believed that, since traditional assessment practices still needed to occur to ensure rigour, the online platform was not given as much regard or credit as traditional face-to-face assessments.

- **Theme 5: Student involvement and engagement in learning**

  Students were not fully engaged in the digital learning activities, and as a result, they only did what was necessary to obtain the required marks. It was noted that there was a significant degree of disengagement during the few months of lockdown, to which the knowledge gap that exists among some students today has been attributed. Rebecca had stated that there were a few students who were able to learn independently and take control of their learning, but this was not the case with all students, as many still needed the safety and security of a classroom to remain truly engaged in learning. It was also interesting to note that, while many participants perceived students to be tech-savvy, some students were not comfortable navigating the space and required extra guidance to do so. Considering that the teachers themselves were still getting accustomed to this space, they also lacked advanced expertise to offer the type of support that students might have needed.

5.6 Conclusion

While a host of themes emerged from the findings, the five themes above were identified as the initial set of themes from the responses to the research questions, as they represented the common threads among all the responses. Participants from the top management team were interviewed, while those from the middle management team participated in a focus group session. These themes were discussed in the next chapter, as this chapter represented the second level of data analysis. Participant responses were separated into top and middle management responses, as they accurately represented the findings to the research question, which allowed for the data to be subjected to scrutiny during the analysis process. As described above, the next chapter provided a deeper analysis of the themes that had emerged from the research questions, and it also analysed the themes that had emerged from chapter 4, which presented the participants' responses to the conceptual framework. In doing so, the common themes that had emerged across both the conceptual framework and the research questions could be determined and further analysed to discuss the commonalities.

CHAPTER 6

ANALYSIS OF FINDINGS

This chapter presents an analysis of the themes derived from the participant responses in chapters four and five. Chapter four highlighted the participants' responses in relation to the conceptual framework whereas chapter five highlighted the participant responses to the research questions. A range of themes emerged, and these themes were further analysed to find commonalities across the literature review, research questions and conceptual model. The research questions that guided the study were not only derived from the literature, but were also aimed at examining the current educational landscape regarding digital education and its integration into the schooling system, namely research question one (RQ1); examining the educational and assessment policies that had been applied, namely research question two (RQ2); and delving into a critical reflection of how the independent school had employed specific approaches to digital education, namely research question three (RQ3). However, the two elements of blended learning in this model by Risdianto (2019) were face-to-face learning and online learning. The main themes that were derived from the previous chapters are indicated in Table 44 below:

Chapter Four themes (Conceptual framework)	**Chapter Five themes (Research questions)**
• Student engagement with teachers	• Learning management systems and access challenges to blended learning
• Miscommunication between the levels of management regarding policy and practices	• Communication and support from the management team
• Student needs with online learning	• The appropriateness of blended learning within secondary schools
• Traditional teaching and assessment practices	• Teacher involvement and practices in digital learning
• Parental role in learning	• Student involvement and engagement in learning

Table 44: Meta-themes from chapters 4 and 5

The following section provides a brief description of the themes identified in the previous chapters, which are also represented in Table 44 above. This background provided the foundation for the main overarching themes that were discussed later in this chapter. The themes above were extracted from the engagements with participants through both interview and focus group sessions, representing the common aspects referred to during the research process.

Chapter Four themes (Conceptual framework)

- **Student engagement with teachers**

Students formed relationships with teachers over the years, and the ability to engage with teachers daily was attributed significance as a contributing factor to student involvement in lessons. When students were more engaged, it was understood that they would learn better. However, due to the lockdown restrictions imposed during the COVID-19 period, this had not been possible. As a result, many students fell behind, feeling disengaged from their teachers, which led to them disengaging from the learning process as well.

- **Miscommunication between the levels of management regarding policy and practices**

When embarking on any strategy, effective communication is paramount to its success. Although the strategy had been outlined during the training sessions, it was noted that some teachers might have required additional training and support in adopting the necessary practices. It was also observed that some management members were unsure of what needed to happen, and this uncertainty was reflected among the academic staff, resulting in a sense of apathy towards blended learning. This had also created a negative view of digital learning in the minds of many academic staff. The policies and practices appeared to be a grey area for many participants, which led to a degree of resistance from the academic staff.

- **Student needs with online learning**

Students may have had different needs with online learning. They may have needed it as a platform for reinforcing and revising concepts, and some may have required it for additional enrichment activities. It was assumed that students had a level of proficiency with the technological space, given that the specific school was affluent and students

regularly used technology. However, it was later discovered that some students lacked the necessary skillset to navigate the learning management system, which may have caused them to lose confidence and resulted in disengagement from their studies. In addition, it was also assumed that students would naturally gravitate towards online learning, due to their tech-savvy nature. The reality was that students still preferred traditional classroom instruction and viewed online learning as an extra. With some students, it was even seen as a *"waste of time."*

- **Traditional teaching and assessment practices**

Traditional assessments referred to *"pen and paper"* type of assessments. While engaging with digital learning tools was initially quite interesting, it was noted that traditional assessment practices continued to be used for tests and examinations. These traditional practices required students to sit down and write a 2- to 3-hour paper, which could not be done online. This raised the query of whether online assessment platforms had truly been explored, because platforms like Exam.net were only used by one site. Schools that adopted Ed-Tech were aware of the various tools available to facilitate meaningful assessments, such as the Invigilator app and Exam Portal. However, in this instance, digital learning was generally only used for apps like Kahoot. This may have given the impression that digital education had no further uses beyond quizzes and similar types of activities.

- **Parental role in learning**

A parent played a significant role in their child's academic journey, as they also had a certain degree of responsibility for monitoring the completion of tasks and homework, among other things. The parental role at the sites also differed. Some sites cited greater parental involvement when parents took the time to understand how the learning management platforms worked and tried to navigate that space as well. It was also noted that some parents needed support and primarily relied on teachers to provide the necessary motivation for their students. Either way, the learning journey was viewed by some participants as a relationship among three stakeholders: the teacher, the student, and the parents. Based on this, it was understood that the parent played quite a significant role in supporting their child during this phase of learning.

Chapter Five themes (Research questions)

- **Learning management systems and access challenges to blended learning**

A learning management system is a platform used to facilitate digital learning, including resources and applications for students to utilise. As indicated by participants, the Blackboard platform had initially been adopted; however, due to a lack of support and ongoing challenges with accessing the platform, the decision was made to return to Teams. This move played a significant role in increasing the level of digital adoption among academic staff. Some viewed the move to Blackboard as unnecessary, as they were already comfortable with Teams, and it aligned with what teachers wanted to achieve in terms of teaching and learning. Teams had a lot more use for teachers at the secondary school level, and many participants stated that Blackboard was mainly meant for university students. Therefore, it was not easy to obtain buy-in from both teachers and students, as the Blackboard system did not work as intended.

- **Communication and support from the management team**

Communication and support from the management team were necessary for any change initiative, as this might have prevented participants from resisting the strategy. Across the three sites, support and communication varied, resulting in differing adoption rates of the strategy. Ongoing or consistent support and communication would have allowed the teachers to be more positive about the blended learning strategy, and they might have been more proactive in exploring different tools that could be applied on the platforms. On one site, the application of blended learning was actively being monitored, whereas on other sites it was left to the discretion of the teacher. Therefore, the success of the strategy could not be accurately measured due to differential implementation.

- **The appropriateness of blended learning within secondary schools**

Blended learning, in its simplest definition, is the combination of online and face-to-face teaching, and it is meant to minimise access challenges to quality education. As a Quintile 5 school, there were no financial restrictions on quality education, and every student was still able to continue learning even during the lockdown period. However, the level of responsibility placed on students for autonomous learning challenged students in this age group. Many participants stated that students lacked the maturity to study independently

without teacher supervision. Students needed teachers to review their work and monitor their progress during lessons. This was not possible during a live Teams session. Teachers believed that high school learners were still too immature for blended learning and suggested that this mode of instruction would have worked better with university students, given their higher levels of maturity. They also felt that teachers needed to be nurturing and that could only be done in a face-to-face classroom setting. In addition, they believed that students also preferred to have structure, which assisted with their motivation levels. Further, it was emphasised that students lacked commitment to the online space and reiterated that the online space could work if students committed to it.

- **Teacher involvement and practices in digital learning**

For the initiative to be successful, teachers had to be fully involved and believe in the merits of blended learning. While a few teachers recognised the potential for digital learning, many did not see how it would be successful with their students. They acknowledged that students could not work on their own at home, as that was when they dissociated from the work and learning was compromised. Teachers were also entrenched in their practices, mainly because they had experienced these practices throughout their teaching careers, and because they had faith that their traditional practices were more successful in producing good academic results. It was apparent that the teachers were happy to be back to face-to-face instruction and raised a critical point regarding blended learning. Age was also listed as a significant factor influencing the teacher's willingness to adopt blended learning teaching methods.

- **Student involvement and engagement in learning**

Whether students were learning in a traditional classroom or online, they needed to be involved and engaged. While students were not always attentive in class, this could have been easily addressed by a teacher reprimanding them in class and insisting that they pay attention. However, this was not possible online because many participants did not turn on their cameras, making it difficult to see what was happening in their home environments. Students expected the teacher to check in on them, and when that did not occur, they lost interest in the work they needed to do.

The themes above were extracted through the initial level of analysis, using both the conceptual framework and the research questions. After analysing the exact responses, a few common threads or themes began to emerge. Upon closer examination of the themes, it was discovered that five overarching themes were commonalities across the responses to the conceptual model and research questions. These are listed below and describe the link between the themes from the conceptual framework and the research questions.

- **Technological challenges to blended learning** – this theme encompassed both learning management system challenges and access and management communication issues.
- **The value of support from the management team** – this spoke to the miscommunication from management and the support aspect with the top management team.
- **The suitability of blended learning as a strategy within secondary schools** – this theme addressed the themes of student needs and the appropriateness of blended learning, and to a lesser extent, the influence that parents played in the learning process.
- **Teacher engagement and practices in digital learning** – this aspect addressed teacher involvement and personal engagement with the students' situation. It also addressed traditional assessment practices.
- **Student involvement and the level of preparedness in learning** – this addressed the issue of students taking ownership of their education.

The conceptual framework that was used for this study was espoused by Risdianto (2019) which stated that blended learning comprised both face-to-face and online learning aspects, and this model was further explored in the literature review and represented in Figure 21 below to discuss the elements that make up face-to-face and online learning. The main themes from both chapters 4 and 5 are discussed in detail below, as well as the findings to enhance the model and illustrate the contribution to the existing field of knowledge.

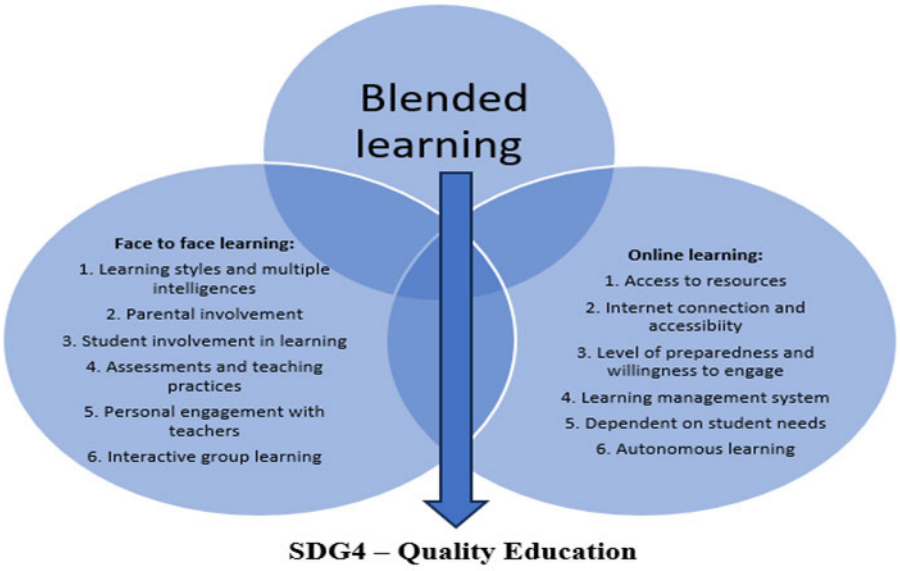


Figure 21: Blended Learning Model for Schools (Author developed)

6.1 Technological Challenges to Blended Learning

In examining the conceptual framework above, it was stated that internet connection and accessibility were essential features in the online space. Technology definitely had an impact on students, as explained by Blewett (2017), and one of the challenges to providing the online aspect of blended learning was access to electricity and the internet (Langthaler and Bazafkan, 2020), i.e. the challenge of digital equity and access. This had also been noted at the selected institution, as loadshedding, and general internet access presented a challenge. Rekha stated that load shedding was a problem for both teachers and students during the lockdown, as lessons could not be taught and students were unable to attend online lessons. Cynthia and Carol also cited loadshedding as a challenge. Zoliswa had stated that *"connectivity"* was a challenge, and this was also linked to the *"speed of the internet/Wi-Fi."* Rekha further suggested that "*fibre contracts*" were also an issue, and Cynthia confirmed that the *"Wi-Fi had to be upgraded."* Whilst not directly related to technological challenges, in a study by Dlamini *et al.* (2019), students were not allowed access to devices, so as much the teachers were excited at the prospect of using ICT in the classrooms, student were not allowed to have any personal digital devices other than a standard calculator, and this spoke to the disconnect between South Africa's Connect Policy and the school's regulations on personal digital devices. This then also exacerbated the access issue and meant that individuals did not have equitable access to the technical infrastructure that was necessary to provide a blended learning platform.

Fortunately, this was not the case with the selected institution as students had access to devices; however, connectivity presented the challenge. Additionally, the lack of internet connection was primarily concentrated in Sub-Saharan Africa. However, in a study conducted by Higgs and Nyahodza (2017), it was noted that the electronic services provided by the University of the Western Cape were useful and adequately met the needs of students. In order for resources to be useful though, it was important to consider the technological readiness of the students, especially in the case of first year students that had attended rural institutions (Mawere *et al.*, 2021). Whilst these problems were unique to the South African context, these barriers created systemic challenges, as they were problems deeply embedded in the system's structure. In the selected institution, it was also noted that students were not as tech savvy as the school had assumed, and this impacted their acceptance of the online platform.

In addition, Holiver *et al.* (2020) stated that, as technical issues arose due to the instability of the internet and the lack of connectivity and resources, this presented a significant challenge (Okoro *et al.*, 2021). It also emphasised the issue of access. To truly allow blended learning to take place, the necessary infrastructure had to be in place. Although there was a higher level of affluence at this institution, students were still subject to access challenges, and this was only realised when the school was forced to go completely online to continue with teaching and learning.

In addition to digital equity and access, the Blackboard LMS had been onboarded for the staff; however, a range of problems presented themselves, and as a result, teachers were dissuaded from using the platform. This was alluded to by all respondents and had been cited as one of the biggest challenges to implementing blended learning. It was also suggested by Fullard *et al.* (2022) that an efficient LTMS (Learning Teaching Management System) could have been used to improve productivity at a school and also enhance teaching and learning. Theresa also stated that there was *"a lack of support structures and no dedicated IT"* for Blackboard and there were also intermittent challenges with accessing the Blackboard platform.

Both the HODs at Campus 2 indicated that Teams was great, while BBU was problematic, and even the parent body was *"unhappy with the changeover."* Thomas also suggested that while the *"platforms are excellent, they have not been fully implemented as yet."* This indicated that there were challenges with the usability of both the platform

and the LMS. This topic related to the learning management system for online learning, as shown in the conceptual framework. If the platforms were not usable or there were internal challenges with the LMS, it defeated the purpose of trying to get staff on board, as they began to view both platforms and digital learning in a negative light.

To avoid this becoming a reality, a few teachers on site were selected to serve as experts and had undergone rigorous training with Blackboard to provide site level support. Rachel stated that teachers were afraid of *"managing this technology without looking foolish."* Further exacerbating the frustration with BB, as Thomas noted, *"students lacked the ability to use BB,"* and Alice said that there were *"limitations"* with BB. Rekha said that the champions would *"train the staff in small groups and the training itself was broken up into small sections, e.g., Setting up a quiz."*

Tabitha also believed that the school was offering *"digitally supported learning and not blended learning."* According to Rachel, *"The campus had deployed Blackboard Champions or implementers at each site, but the LMS was only used due to COVID."* This statement was further reiterated by Mpungose (2020), as the study had suggested; institutions were forced to shut down due to COVID and to embrace the online space. This aspect is related to a misunderstanding or misalignment of pedagogy. Pedagogy refers to the methods, techniques, and strategies employed to facilitate learning.

There was a consensus among both management and HODs that they did not feel truly engaged in blended learning, implying that the strategy may not have been communicated effectively or that the parameters needed to be followed were not clearly defined. Additionally, the forced shutdown of institutions, as stated by Mpungose (2020), implied that institutions were not given a choice in the matter. Instead, stakeholders had to navigate a massive learning curve over a short period. This is related to the forced implementation of a strategy. It was known that when stakeholders are *"forced"* to accept a significant change in a short space of time, there is bound to be resistance and limited buy-in. A plethora of challenges were identified with blended learning.

However, the biggest challenge cited by most participants was the LMS system, specifically Blackboard. While training was offered, more support should have been provided to teachers during the lockdown period to assist with digital challenges, build confidence in digital literacy, address misunderstandings of pedagogies, and facilitate the

forced implementation of the strategy. The meta-themes mentioned above were noted in the conceptual framework, the literature review, and the research findings. The analysis addressed Research Question Three, which aimed to understand why digital learning had manifested in a particular way in schools. The responses also discussed research questions one and two, which examined the tools being used and the implementation of blended learning tools within the school. It was suggested that, due to digital access and other external challenges, such as load shedding, blended learning had not been implemented to its full extent.

6.2 The Value of Support from the Management Team

In engaging with the respondents, it became apparent that many still viewed blended learning as the use of a Learning Management System (LMS). None of the respondents alluded to the actual blended learning options that could have been utilised in a classroom setting, e.g., the flipped classroom. For the most part, the LMS was primarily used to store notes, worksheets, and other materials. Therefore, it leaned towards being a system of traditional teaching that an LMS supported as a *"back-up"* in the event of a crisis or a need to access electronic notes and worksheets. Students were also encouraged to upload assignments and other tasks for assessment purposes.

Rebecca had also confirmed that during the pandemic lockdown, she *"did not feel that they were doing blended learning – they were instead just teaching online."* Renata stated that blended learning has not been applied in a *"meaningful way"* and went on to say that *"I don't see the logic in it at all – especially after two years of Blackboard"*. These findings suggest a misalignment or misunderstanding of what digital learning was intended to be, leading to general disengagement with the strategy. The crisis drove the adoption of blended learning, and it once again highlighted the superficial adoption of this approach, which had not been fully integrated into teaching practices. The implementation of blended learning practices was instituted with the junior students, as their curriculum and timetable provided more room for these initiatives. There seemed to be greater consideration for this group of students compared to the senior students of the school.

It was also suggested that the age of the educator also played a role in online teaching and learning. Edie and Tabitha believed that age was a significant factor in implementing

blended learning – younger teachers were more comfortable with it. They settled into their practices and did not perceive a need to make any changes. Most respondents stated that they were very comfortable with Teams and were unsure why they had been asked to switch to Blackboard. This implied that a generational influence had played a role in the adoption of the strategy. Older teachers were noted to be more resistant and unwilling to change their practices. In contrast, the younger teachers were willing to experiment and possibly implement the academic strategy in the intended manner.

Another challenge to be noted was the lack of variance in skills. Rachel stated that *"skills are lacking, or they vary from teacher to teacher – therefore, training was needed."* In addition, Rebecca said that *"we were given the tools, but the staff weren't."* This indicated that there was a variance in digital skills among the teachers, and they had to learn from each other instead of relying on the standardised training provided by the institution. While a community of learning would always be encouraged, it is worth noting that the teachers themselves were only at a beginner level in terms of their understanding of blended learning, which may have led to them communicating incorrect or incomplete information to their colleagues.

Students and teachers preferred the traditional classroom, and Rachel stated, *"Teachers are far more comfortable doing what they have always done"*. The mindset also plays a role: Rachel had said that *"the system wasn't working on Blackboard and that led to anger and then one does not want to deal with this anymore, or you have had enough*". Carol added that teachers did not want to *"move with the times."* Due to the extensive onboarding for Blackboard (BB), teachers were frustrated with the ongoing challenges of the learning management system. Instead, they were excited to return to their preferred platform, MS Teams. Many stated that they felt that the switch to Blackboard was unnecessary, as this LMS was more suited to a tertiary setting, where students would benefit from these tools and applications.

In trying to embark on a new change initiative, it might have been useful to consider Kotter's 8 step change management model as was done in the study by Ha and Thanh (2024), where a high school management team had applied this model and discovered the potential involved in adopting this approach in their current context. Considering the change in academic strategy and the change in learning management systems, it might have been wise to introduce the idea to create a sense of urgency for the same, until the

strategy finally became embedded into institutionalised practices. However, due to the emergency time frames with the pandemic, there was minimal time to allow for this to happen. In addition, it was also important for the school to ensure that value was being created for all stakeholders and this could have been achieved through adoption of the stakeholder theory (Bridoux and Stoelhorst, 2022). All stakeholders in the school context should have been factored into the strategic planning to ensure that they were receiving consideration, i.e. students, teachers, parents. For example, it was noted that parents also felt overwhelmed with needing to learn how to navigate a new learning management system, and the support for this had not been provided. In addition, the school could also have considered the impact of dynamic capabilities for digital transformation. In the study conducted by Ellström *et al.* (2022), it identified the direction that managers should follow to approach digital transformation. Considering the affluence of the school, it was noted that the institution had the capabilities for digital transformation, and in doing so, it would have allowed the school to sustain their competitive advantage in the education landscape.

Patrick confirmed that teachers' schedules were hectic, and as a result, there was little time to plan for blended learning. He said that *"staff are pretty capable of putting very cool and exciting things together, and it's about creating time and space for them to be able to do that."* Rebecca also stated that there was no time amidst the various commitments in a teacher's day to focus on creating blended assessments. She said *"... you also want me to get 48 distinctions in my class, and you've got children at home and a family, and all that other stuff ..."*. The time factor was previously cited in this chapter. It could now be seen as a structural barrier, making it challenging to innovate, plan, and integrate blended learning into teaching practices.

There was no denying that teachers were still responsible for the creation of appropriate learning conditions (Kalin *et al.*, 2017). The school also ensured that it provided the space for appropriate learning conditions. Cynthia added that *"we had to ensure that we get buy-in from the teachers, explain why this is supposed to be done and then get excited and motivated."* In addition, Mary and Theresa had further emphasised this statement by suggesting that teachers need to buy into creating valuable learning experiences. Rekha had pointed out that it did require more work from the teacher. The challenge of time availability in teachers' schedules had already been highlighted, and as such, it may have

hindered a teacher's ability to be creative. However, an emerging theme was the teacher's responsibility and buy-in as a critical factor in the success of the academic strategy. If teachers were not willing to adopt new technologies and platforms, they would not have been able to harness the benefits of digital education. This was also a recurrent theme across the conceptual framework, literature review and the research findings. The responses and findings above also addressed research question one, which examined the tools used for implementing digital education, as well as research question two, which investigated the management of blended learning within the institution.

6.3 The Suitability of Blended Learning as a Strategy within Secondary Schools

In its simplest definition, blended learning was seen as the combination of face-to-face and online learning (Risdianto, 2019); and there was a general understanding that it was the responsibility of both the teacher and the student to participate in the blended learning instruction (Truitt and Ku, 2018). Rachel, Patrick and Zoliswa had stated that there was *"joint responsibility"* for the blended learning process, i.e., both the student and the teacher had a role to play, but it was also the responsibility of the teacher to create and lead those learning experiences. Savi on the other hand believed that blended learning was the "*sole responsibility of the teacher*". Mary agreed that it was a "*combination of parents and students and teachers definitely need to buy in*". This led to the development of two emerging themes, namely shared responsibility and role ambiguity. While it had been noted by the various stakeholders that the responsibility for blended learning needed to be shared, the actual role that needed to be played by each of the stakeholders was unclear. For example, with students, there was no clear instruction on exactly what was expected from them during blended learning. It had been noted from previous authors that there had never been an expectation for students to become actively involved in their own learning experiences (Barkhuizen, 1998).

Theresa agreed and stated that "*it still rests with the teacher to create valuable learning experiences to guide the process*". Rekha stated that it "*requires a lot more work from the teacher*". This statement raised the issue of teacher workload coupled with the additional task of trying to be creative. Excessive workloads did not provide the best background to be creative, and teachers would instead have been prioritising the completion of essential tasks. Based on the literature review, it was noted by Botha (2002) that there was definitely an expectation of greater parental involvement and Alice had re-

iterated that "*parents also need to help*". This statement indicated that parental involvement and home support was also important in the learning process and parents had to take a more active role with their children's learning. In the absence of parental support, this system may not have worked at its optimum best. This theme was recurrent across the literature review, conceptual model and the research findings and addressed research question three, which looked at how digital education manifested at the school.

Studies that were conducted post COVID-19 by Florah (2024) supported the partnerships between schools and higher learning institutions to empower teachers on the use of technology. Sharon and Mncedisi Christian (2023) emphasised that the pandemic brought about a shift in education worldwide, necessitating a rapid transition from traditional classroom teaching to remote and blended learning modalities. Training had been offered to the teachers at the school via the external training bodies, however, a partnership with a tertiary institution may have provided the technological skills that the teachers needed to embrace the online space. In addition, this view was supported by the findings of Muhuro and Kang'ethe (2021), who indicated that the prospects of blended learning entail providing opportunities for flexible learning, enabling access to a wide range of educational resources and limiting alienation associated with purely online delivery.

In terms of the findings, Rachel stated that blended learning "*gives students options and we know what to do in the next pandemic*" and Alice believed that "*the current generation benefits as they grew up with tech*". Patrick had confirmed that the Ed-Tech framework had been followed closely, and Cynthia stated that she adapted the Ed-Tech framework to "*meet the needs of the school*". Both Patrick and Cynthia had confirmed the adoption and implementation of the Ed-Tech framework, but this had been adapted to suit the varied needs of each of the sites. Cynthia also believed that the blended approach allows the ability to "*reach students with different learning abilities/styles and it creates excitement*" and Carol added that there's "*different innovation and it gets away from the boredom of things*". This statement was re-iterated through the study that was conducted by Zafirah *et al.* (2021) as well as Visagie (2020). The results from those studies suggested that the blended learning model improved the interest of students, and they enjoyed the '*flipped*' classroom experience. This in turn helped them to improve their communication skills, which resulted in positive learning outcomes. Thomas suggested that there were "*massive benefits for younger students*". Tabitha stated that "*data can be used to inform/adjust instruction*" and whilst it was subject specific, it is mainly for

"*juniors*", and Rekha believed that it helped to "*be able to listen to recordings*". These findings related to different learning styles; this theme also presented itself across the research findings, conceptual framework and literature review.

Savi added that there was a "*different mindset and maturity*" with the students that engage in blended learning. Amanda stated that "*if a child is not disciplined and doesn't have any management skills, it is bound to fail, and some children can manage on their own and some will need parental guidance and help at home*". Whilst students were tech-savvy, Zoliswa had stated that they also needed support. Rebecca had stated that students needed structure, and it was the structure that made them feel "*safe*", as they were very "*routined*" children. She also felt that with the blended scenario, students did not know what to do – especially the younger students. These findings raised questions about the readiness of students, as well as the importance of self-regulation and structure. This statement was corroborated through the study that was conducted by Louw and Thukane (2019), who stated that students wanted more of a personal interaction with their lecturers.

It was also stated that blended learning practices have moved into the background now and, for the most part, they were never implemented in a meaningful way. This suggested that blended learning had been implemented on a superficial level and that it had not been fully integrated into teaching practices or academic strategies. Karen felt that blended learning was not suited to the school environment but was more suited to a tertiary context and said that "…. *perhaps the blended learning is more challenging for them versus a university student*". This was further supported by Edie who stated that "…*University is a bit older and maybe our babies at school are too young to understand how to use blended learning properly*". In addition, considering the challenges experienced by the teachers, it might not have been a suitable strategy for this school. The LMS as well as the general feeling of being comfortable with traditional practices provided a strong argument for maintaining the status quo with current strategies. It was also stated that blended learning had moved into the background now, which clearly indicated that it was only adopted as a temporary measure to continue with teaching and learning during the uncertainty that was created by the COVID-19 pandemic. The findings above were consistent across the literature review and conceptual model as well, and it also answered research question three regarding how digital learning had manifested.

6.4 Teacher Engagement and Practices in Digital Learning

In engaging with the respondents, it was apparent that many still viewed blended learning as the use of an LMS (Learning Management System). None of the respondents had alluded to the actual blended learning options that could have been utilised in a classroom setting, e.g., the flipped classroom. For the most part, the LMS was only used to store notes and worksheets etc. Therefore, it leans towards being a system of traditional teaching that is supported by an LMS as a "*back-up*" in the event of a crisis or a need to access electronic notes and worksheets. Students were also encouraged to upload assignments and other tasks for assessment purposes. Rebecca had also confirmed that during the pandemic lockdown, she "*did not feel that they were doing blended learning – they were instead just teaching online*". Renata stated that blended learning has not been applied in a "*meaningful way*" and went on to say that "*I don't see the logic in it at all – especially after two years of Blackboard*". These findings above suggested a misalignment or misunderstanding of what digital learning was meant to be and led to general disengagement with the strategy. It could also be said that the adoption of blended learning was driven by the crisis, and it once again alluded to superficial adoption which had not been truly embedded into the teaching practices. It was also noted that the implementation of blended learning practices was instituted with the junior students as their curriculum and timetable provided more room for these initiatives. There seemed to be greater consideration of this group of students versus the senior students at the school.

In a study conducted by Lautenbach (2010), it was noted that lecturers experienced a range of challenges when trying to implement educational technologies into their regular instruction. Müller and Wulf (2022) emphasised that it was important for instructors to have implemented flexibility and interaction in the blended learning space since blended learning offered new ways of considering the teaching and learning process (Blewett, 2016). It was one again also suggested that the age of the educator had also played a role in online teaching and learning. Edie and Tabitha felt that age was an important factor in trying to implement blended learning – older teachers were a lot more comfortable and settled in their practices and did not see a need to really change. Blended learning also offered opportunities for achieving goals related to sustainable education (Miguez-Alvarez *et al.*, 2020). Coordinated activity within a department was a valuable resource; this implied that educators needed to work together to create a standardised learning experience that would help achieve the learning outcomes (Koretsky *et al.*, 2018). In

terms of the findings, there was definite commitment and cohesion within the respective departments to help to achieve the learning outcomes.

Most respondents had stated that they were very comfortable with Teams and were not sure why they had been asked to move over to Blackboard. This implied that there was a generational influence that had played a role in the adoption of the strategy. Older teachers were noted to be more resistant and unwilling to change their practices, whereas the younger teacher would be willing to experiment and possibly implement the academic strategy in the intended manner. A study conducted by Kamalluarifin *et al.* (2018) stated that the lecturer's skills was an important factor which impacted the student's satisfaction of the blended learning approach, and to this end, it was noted by (Marie, 2021), that the process of how to incorporate blended teaching and learning methods should have been introduced at teacher training colleges and workshops should have been held with current teachers in a bid to promote self-learning.

Another challenge to be noted was the fact that there was also a lack of/variance of skill; Rachel stated that "*skills are lacking, or they vary from teacher to teacher – therefore training was needed*". In addition, Rebecca said that "*we were given the tools, staff weren't shown how to use Teams – we had to help and train one another learn on the job*". This indicated that there was a variance in digital skills amongst the teachers, and they had to learn from each other instead of relying on the standardised training that had been provided by the institution. Whilst a community of learning would always be encouraged, it should be noted that the teachers themselves were only at beginner level in terms of their understanding of blended learning, so they might have communicated incorrect or incomplete information to their colleagues.

Students and teachers prefer the traditional classroom; as Rachel stated, "*Teachers are far more comfortable doing what they have always done*". The mindset also plays a role: Rachel had stated that *"the system wasn't working on BB and that led to anger and then one does not want to deal with this anymore, or you have had enough".* Carol added that teachers did not want to "*move with the times*". Due to the extensive onboarding for Blackboard (BB), teachers were both frustrated with the ongoing challenges with the learning management system and were instead excited to go back to their preferred platform, MS Teams. Many stated that they felt that the switch to Blackboard was

unnecessary and this LMS was more suited to a tertiary setting, as those students would benefit from those tools and applications.

Patrick confirmed that teachers' schedules were very busy and as a result there was little time to plan for blended learning. He said that "*staff are pretty capable of putting very cool and exciting things together and it's about creating time and space for them to be able to do that*". Rebecca also stated that there was no time amidst the various commitments in a teacher's day to focus on creating blended assessments. She said "*…you also want me to get 48 distinctions in my class, and you've got children at home and a family, and all that other stuff…*". The time factor had been previously cited in this chapter and could now be seen as a structural barrier; it became difficult to innovate, plan and integrate blended learning into teaching practices.

There was no denying that teachers were still responsible for the creation of appropriate learning conditions (Kalin *et al*., 2017). Cynthia added that "*we had to ensure that we actually get buy-in from the teachers, explain why this is supposed to be done and then get excited and motivated*". In addition, Mary and Theresa had further emphasised this statement by suggesting that teachers need to buy in to create valuable learning experiences. Rekha had pointed out that it did require more work from the teacher. The challenge with the availability of time in the teachers' schedule had already been highlighted and as such, it may have hampered a teacher's ability to be creative.

However, an emerging theme was teacher responsibility and buy-in as being a critical success factor to academic strategy. If teachers were not willing to embrace the new technologies and platforms, then they would not have been able to harness the benefits of digital education. This was also a recurrent theme across the conceptual framework, literature review and the research findings. The responses and findings above also addressed research question one, which looked at the tools that had been used for implementation of digital education, as well as research question two, which looked at the management of blended learning at the institution.

6.5 Student Involvement and Level of Preparedness in Learning

The success of the blended learning strategy involved much more than teachers planning valuable learning experiences. It also relied on students becoming actively engaged in learning and building on their existing knowledge by accessing the resources that had

been placed on the digital platforms. During the pandemic, students did not frequently engage with the LMS, which gave rise to another challenge: a knowledge gap among students. Rekha believed that there was a gap in knowledge from the 3-4 months that were spent in lockdown, and she has seen the pitfalls because *"their foundation is lacking."* This statement represented a cause for concern as that time would never be recovered. This is related to the issue of foundational gaps and loss of knowledge.

Additionally, students often failed to pay attention. Rekha stated that the students' *"cameras weren't turned on, and they did not focus".* This also contributed to the issue of student disengagement and passive participation. Students were required to log in to the virtual meeting and engage in the lesson as they would have done in class, but this lesson was instead presented on the Teams platform. So, students did not engage, and some failed to attend the scheduled lessons. This practice implied that students did not feel that actual learning was taking place through the LMS, and this became a perfect excuse to miss classes and stray from their academic goals for the year. Teachers had stated that students did not answer questions as they would have in class and instead became quiet during the online lessons. Following the pandemic, it was noted that students missed having in-person interactions with their teachers. Engaging with teachers via a digital platform was not effective in this instance, as they had become accustomed to interacting in a physical classroom over the years.

In the study conducted by Knoetze and du Toit (2022) at the University of Stellenbosch, it was suggested that students were more likely to fall behind during emergency remote teaching versus face-to-face instruction and there was a clear lack of engagement. Therefore, blended learning has to be considerate of student needs (McKenna et al. (2020), and had to be both flexible and adaptable to the needs of students (Herman *et al.*, 2019). It was noted in the findings that students did in fact fall behind, and during the period of the pandemic there was no time to meaningfully plan for learning, as it was done on a temporary basis, to ensure that learning continued for an indefinite period.

An additional challenge was motivation. Renata felt that students were not self-motivated because *"they were not taught how to motivate themselves and there was no true connection in the online space, so that really stifled the learning experience".* This led to low student motivation and the inability of students to self-regulate. It was also posited that students needed the structure that came with a classroom environment.

While some students may have been self-disciplined during the pandemic and lockdown period, most students were unable to commit to a schedule to complete their work. Additionally, it was stated that students did not even watch the videos created by the teachers. In saying this, valuable learning was lost, as the videos were intended to supplement their learning and prevent the occurrence of learning gaps. Technical challenges were cited as a barrier to accessing these resources, and due to the intermittent technical assistance provided, students began to lose interest in the resources. Cilliers and Pylman (2022) suggested that, although students may have needed technical assistance to participate in flipped classrooms, most found it an enjoyable experience. This was also evidenced in the findings as there were some students that had enjoyed the experience.

However, based on the feedback from teachers and HODs, the students in general found it to be more work, and thus, did not fully engage in the online platforms, which was also reiterated through studies conducted by Louw and Thukane (2019) and Holiver *et al.* (2020). This revealed a discrepancy between the perceived and actual experiences of students with blended learning. The idea of blended learning seemed promising in principle. However, upon actual implementation, it became evident that a range of challenges had not been adequately addressed, including LMS and connectivity issues. In this context, there was general dissatisfaction, and engagement was poor. Students preferred the traditional mode of learning and lacked the discipline that was required for digital learning.

There was a definite mismatch between student preferences and the demands or requirements of blended learning. The blended learning strategy was adopted as a means of increasing access to education and harnessing the power of the digital space to create meaningful learning experiences. However, based on the experiences of these students, it became clear that the strategy was not something that worked for them; instead, they preferred exclusive classroom instruction. This was also stated earlier, when the participants confirmed that blended learning has taken a backseat, especially since the school resumed traditional instruction.

In summary, despite students doing what had to be done during the COVID era, they were still far more comfortable with traditional classroom practices. It was certainly out of the norm to suddenly transition to an online platform when they had been accustomed to face-to-face practices throughout their formative years of schooling.

6.6 Conclusion

This chapter identified the main themes that emerged from the interviews and focus groups with the respondents and outlined links to the gaps in the literature review. In terms of the gaps identified in the literature review, many studies were conducted in impoverished schools and universities. In this study, a model previously used at a university was now being implemented in a school setting, specifically at Quintile 5, an affluent school, within a South African context.

This original contribution was meant to add to the existing body of knowledge. In this case, an existing model within an international context was corroborated and elaborated upon in a new, local context. Within the current context, their affluent aspect enabled students and staff to continue with blended learning, despite the pandemic. Upon conducting a second level analysis of the responses, it became clear that inconsistencies existed in the management processes of each site, and it was also noted that differing views existed on the value of blended learning for this specific school. Due to the persistent and varied challenges with blended learning, the concept has been cast in a negative light. The same difficulties persist in today's technologically advanced landscape and have impacted the effectiveness of blended learning. The final chapter will focus on the conclusion, conceptual framework, research questions, and recommendations for further research.

CHAPTER 7

CONCLUSION AND RECOMMENDATIONS

7.1 Introduction

This chapter provides a summary of the study, including the findings based on the research questions, and elaborates on the conclusions drawn from this study. The research questions that guided the study were not only derived from the literature, but were also aimed at examining the current educational landscape regarding digital education and its integration into the schooling system, namely research question one (RQ1); examining the educational and assessment policies that had been applied, namely research question two (RQ2); and delving into a critical reflection of how the independent school had employed specific approaches to digital education, namely research question three (RQ3). However, the two elements of blended learning in this model by Risdianto (2019) were face-to-face learning and online learning. Lastly, the chapter also outlines recommendations for further research. The following section provides a concise overview of the previous chapters, followed by an analysis of the findings related to the research questions. These findings were also abstracted in greater detail to justify the development of a new conceptual framing with blended learning.

7.2 Summary of the Thesis

Chapter 1 described the main research problem and the background to the study. This was because education has historically faced a range of challenges, the primary one being access to education. To address these challenges, the UN has outlined 17 SDGs, and quality education is Goal 4. These goals were intended to be achieved by 2030.

In terms of offering quality education, blended learning or digital education could have been assisted in ensuring far more equitable access to education. Based on this study, the level of affluence meant that this specific school would not have received funding from the Department of Education; instead, it had to self-fund its school. This was achieved by implementing higher-than-average school fees, which enabled the school to work towards achieving its academic goals.

Chapter 2 describes the conceptual framework used in the study. This was the model provided by Risdianto (2019), which included the two core elements required for blended

learning: online and face-to-face learning. This model was further developed by incorporating elements that constitute both face-to-face and online learning, and this framework served as the basis for analysis in this study. The elements were derived from the literature used in this study and presented a more detailed view of blended learning.

Chapter 3 examined the research methodology adopted for this study. Based on the research questions and the phenomenon that was being studied, a qualitative approach was selected. Since the study focused on the management of blended learning, the top and middle management team was selected to participate in the study. Ethical clearance, as well as a gatekeeper's letter, were obtained before conducting the interviews and focus groups. All participants also acknowledged and signed the informed consent form before participating in the research.

Chapter 4 presented the findings concerning the conceptual framework, and the responses were separated into the two sections. The first section represented the responses from the top management team, and the second section described the responses from the middle management team. The chapter also examined the demographics of the participants and provided a list of pseudonyms used for the reactions from the various participants.

Chapter 5 presented the findings in response to the research questions, which were divided into two sections. The first section discussed the responses from the top management team, and the second section described the responses from middle management.

Chapter 6 provided a more in-depth analysis and discussion of the study's findings. It examined the meta-themes developed in the literature review, the findings, research questions, and conceptual framework. These themes were discussed in detail and provided the basis for creating a new conceptual framework for blended learning within a secondary or high school environment.

Chapter 7 revisited the research questions and objectives, providing an outline of the findings. The findings were also linked to the research questions and formed the basis for developing a new model based on the participants' responses in the research. A summary of key findings was also provided, along with a list of suggestions for future research within the field of blended learning.

The following section provides a brief discussion of the main findings for each of the research questions, providing the context and background for the development of new themes that were discovered. The researcher believed that providing this level of detail was essential, as it demonstrated the deeper level of analysis applied in developing the new conceptual model.

7.3 Research Objectives and Questions

1. To understand the current digital education and blended learning pedagogical tools that were being implemented within the curriculum.
2. To understand how digital education and blended learning were being implemented as a pedagogical tool.
3. To understand how digital education and blended learning as a pedagogical tool had manifested itself.

Concerning the research objectives outlined above, the results from the interviews and focus groups enabled the researcher to meet the goals. The school indicated that they were predominantly using Kahoot, but the adoption of blended learning had only become prevalent during the COVID-19 pandemic. The reasons that were cited for this temporary adoption were a problematic LMS system and a general preference for traditional classroom instruction. As an interpretivist researcher, it was essential to understand the lived experiences of the research participants. Using research instruments and probing techniques, greater insight was gained into the practices that had been implemented. The following section presents the summaries and inferences drawn from the research questions.

Main research questions:

Research Question 1: What are the current digital education and blended learning pedagogical tools implemented within the school?

Respondents confirmed that they had used Kahoot extensively, and some had also utilised Socrative and Flipgrid. The application of Kahoot has been well-received by the younger students (Grades 8 and 9) but has not been applied to the senior students (Grades 10–12). It was also noted that participants felt these types of digital initiatives were more suited to younger students, as their timetable and curriculum allowed for this level of flexibility.

It was also important to note that all educators practised the use of Kahoot, and only a few actively tried to ensure that these initiatives were implemented.

Theme:

- **Selective use of educational technology based on curriculum flexibility and age-appropriate Ed-Tech tools**

It became apparent through the findings that Ed-Tech had been predominantly adopted and utilised in the junior phase. There was a certain degree of flexibility in their timetable, which allowed for the use of Ed-Tech tools, such as Kahoot. However, this raised another essential concern. The blended learning strategy was understood to have been applied throughout the school; however, this was not the case. Not only was this a case of false marketing, but the true success of blended learning could also only be thoroughly examined if implementation had taken place across all grades. Therefore, the limited application of a fundamental Ed-Tech tool cannot be regarded as blended learning.

Research Question 2: How is digital education and blended learning as a pedagogical tool being implemented within the school?

Many of the respondents discussed how they use Kahoot as part of their lesson, and others referred to the use of Teams as their LMS to store notes and/or interact with the students, especially during the COVID period. Additional reference was made to an Ed-Tech framework, which forms the basis for their decisions on providing digital education. Although the Ed-Tech framework was alluded to by the management team, there is a level of uncertainty regarding exactly how it will factor into the blended learning practices. Some sites had done an excellent job of incorporating the Ed-Tech framework into their regular planning, whereas others had not.

Theme:

- **Limited adoption of tools based on the crisis and varied implementation based on leadership practices**

The Ed-Tech framework was noted as the document that guided the school's academic strategy and was made available exclusively to top-level management. This became apparent during the data collection phase, as none of the participants alluded to the

framework. Additionally, it was evident that the tools adopted were used on a minimal basis, with the primary reason for their adoption being the COVID-19 pandemic. It had not been fully incorporated into academic strategy and was viewed as more of an emergency measure to maintain teaching and learning. Managers also differed in their approach to implementation management, ranging from highly supportive to discretionary.

Research Question 3: Why has digital education and blended learning as a pedagogical tool manifested itself in specific ways within the school?

Reference was made to the use of Microsoft Teams as the LMS, and many teachers had tried to implement a digital component to their lessons. One group felt that digital education had not been applied in any meaningful way. This was an important statement, as it indicated that the digital aspect was incorporated more as a tick-box exercise than as a means to achieve educational objectives. Digital literacy was applied and directed towards junior students (Grade 8 and 9), rather than the seniors. It was understood and re-emphasised that the seniors did not have the time to become involved in digital education. The concept of digital education was perceived as one additional thing that needed to be done to supplement their existing teaching preparation, rather than something that had become an ingrained part of their daily practice.

Theme:

- **Digital burden and blended learning as a contingent academic strategy**

Teachers viewed digital education and blended learning as an additional administrative burden, given their already intense workloads. It was also further stated that it became more of a tick-box exercise than a means of achieving educational objectives. This point once again reinforced the fact that the strategy had been implemented on a superficial and temporary basis to overcome the educational impediment posed by the COVID-19 pandemic. It was also reiterated that initiatives were only implemented with the juniors, highlighting disparities in the implementation of the overall strategy across grades. This further illustrated the fact that the academic strategy was not core to their pedagogy but instead was being implemented as an enhancement to teaching and learning activities.

Additional research questions:

What are the challenges that were experienced during the implementation of digital education, and what strategies were employed to overcome them?

There was a host of challenges, and the most significant challenge cited by all participants was the use of Blackboard. The LMS lacked the desired functionality, causing considerable frustration among the academic staff. Additionally, access to the internet, load shedding, students not actively engaging on the platform, and general apprehension among teachers to adopt technology presented further challenges. However, due to the school's affluence, there was uninterrupted access to the digital learning platform, thanks to UPS devices, solar panels, and fibre connections. Participants had also confirmed that ongoing training had been provided, which had helped them navigate the necessary learning during the COVID-19 period.

Themes:

- **Technological misalignment and resistance to digital transition**

The findings also confirmed that the selected learning management platform was not suited to the institution, and due to the multiple issues, stakeholders began to develop resistance towards any form of digital tools or implementation. The transition from Blackboard to Teams created further negativity in the digital space, as teachers felt that the two years spent on Blackboard had been a waste of effort.

- **Infrastructure versus engagement divide**

The institution's affluence was also noted, and the CEO stated that R10 million had been spent on infrastructure. Despite the substantial investment in the initiative, engagement with the platform was divided among the participants. This meant that affluence did not exempt individuals from experiencing the same socio-economic challenges, nor did affluence guarantee success or effectiveness in the digital education space.

How is the implementation of blended learning as a pedagogical tool being managed?

Only one of the sites was actively managing the implementation of blended learning by ensuring that checking takes place at various managerial levels. The other sites had

indicated that it was left to the teacher's discretion, and it was no longer happening as frequently. Some sites had even stated that they did not check whether this was happening. The inconsistent practices of management were noted, and it was apparent that specific sites were more active in managing the processes and holding their teachers accountable. At particular sites, the senior management team and the HODs played a very active role in ensuring that academic goals were being achieved, and they even reported on their progress.

Theme:

- **Lack of accountability and inconsistent leadership engagement**

Another important finding was that teachers were not being held accountable for the non-implementation of academic strategies, primarily because management practices were inconsistent across the sites. Participants also cited the lack of clarity around exactly what needed to be done, which in turn highlighted the issue of unclear communication of academic strategy. It was also stated that sites with active monitoring reported greater enthusiasm and success with the digital platforms.

What is the role of both the teacher and the student in the blended learning classroom?

All respondents agreed that it is a dual responsibility, but a few indicated that the parents also played an integral role in the success of blended learning. Additionally, some confirmed that the teacher remained fundamentally responsible for creating these learning experiences. Even today, with many options available for blended learning classrooms, the responsibility still rests with the teacher to provide these experiences and ensure that students engage. This was an incredible challenge during the COVID-19 era, as teachers received training while the entire country was going into lockdown. This meant that teachers had to learn and implement simultaneously, and as such, it would have taken a mental toll on them.

Theme:

- **Inequitable responsibility, in addition to emotional and cognitive demands on educators**

The creation of digital learning experiences is often regarded as being the responsibility of teachers. However, students also played a crucial role in this process, as their participation was essential to its success. Teachers also reported that it was an additional burden on their shoulders, which contributed to teacher burnout due to the constant demands of the initiative. Further, teachers displayed incapacity, as they were unable to carry out their assigned duties due to their limited skills, as well as the challenges that arose from the LMS. Additionally, teachers lacked the autonomy to implement their initiatives during this period. Instead, they were compelled to implement a top-down strategy as communicated by their head offices, and no room was provided for their input.

What role does learner motivation and self-management play in blended learning?

Campus 1 indicated that students needed structure, while Campus 2 stated that if students lacked self-management, the application of blended learning would be unsuccessful. Campus 1 believed that students needed to be in a physical classroom to receive nurturing and encouragement from their teacher. In the absence of physical presence, students lacked the initiative to achieve results.

Campus 2 stated that students were generally marks-driven, and if no reward was attached to adaptation, they might not want to complete tasks. Some students were naturally motivated to achieve goals, which may have given them the inherent self-discipline needed during the COVID-19 period. However, the reality was that most students required the structure and parameters associated with traditional classroom tuition.

Theme:

- **Student engagement and the need for structure and support**

Students did not engage much via Teams, which contrasted with their regular behaviour within classrooms. This meant that students felt a disconnect and, therefore, did not engage during online sessions. Additionally, due to the students' age and maturity levels,

they required more structure and support. Thus, what was important was to consider students' needs in the creation of further initiatives.

Discuss the benefits of blended learning (if any)

Respondents confirmed that blended learning offered incredible benefits when done correctly. Many referred to the use of Teams as a valuable tool which aided the provision of digital education. Students also needed to take some responsibility for their learning. It offered students the opportunity to learn using different techniques, and this difference helped them stay motivated to complete the coursework. While students found Kahoot to be engaging, it could not replace traditional teaching methods, especially when huge volumes of content needed to be taught. The Kahoot application can be seen at best as a 'self-check' activity.

Theme:

- **Engagement and limitations of digital tools**

While the Ed-Tech tools presented an element of "newness" and excitement in the learning experience, they should not have replaced traditional teaching methods. It also became difficult to set rigorous assessments via these platforms. Since the evaluations were conducted at home, this might have given rise to a new challenge: cheating in assessments, as a teacher was not actively invigilating the test or task. In future, it might be a good idea to consider these tools as add-ons during lesson instruction, as students did enjoy them. However, for authentic learning and student involvement, students were expected to receive the regular classroom instruction to which they had become accustomed.

Is support being offered to the teachers and HOD's?

Training was cited as the support mechanism for the teaching staff. Additionally, each site had Blackboard Champions or experts available to assist with any queries regarding Blackboard. However, now that Blackboard is no longer in use, further training is provided to teachers on the use of Teams. It was interesting to note that the MD stated that insufficient support was being offered to the teachers and that more support should be provided.

Theme:

- **Inadequate support for teachers**

Despite the training initiatives, peer support and Blackboard experts, teachers did not feel that they were being supported as they transitioned and tried to adapt to the new platform. It was suggested that the experts should engage directly with the teachers and inquire about the support they required to feel enthusiastic and empowered within the digital space.

Model of blended learning

In embarking on this study, the conceptual model (see Figure 22) that was used is indicated below. The concepts that were important to blended learning were face-to-face learning and online learning. These elements were core to the implementation of blended learning practices. Based on the responses provided by the participants, it became clear that blended learning was not simply the combination of face-to-face and online learning, as other elements were also essential to its success. In addition to the traditional aspects already mentioned, it was crucial to receive management support and oversight, as well as to have a functional learning management system in place. It was evident that management had, in many instances, left the implementation of blended learning solely to the teachers, with little intervention or support. Additionally, students were reluctant to complete the required work in the online space. One could attribute this to the fact that students were conditioned to a traditional classroom environment and, as such, were not adequately trained in how to navigate the specific learning management systems.

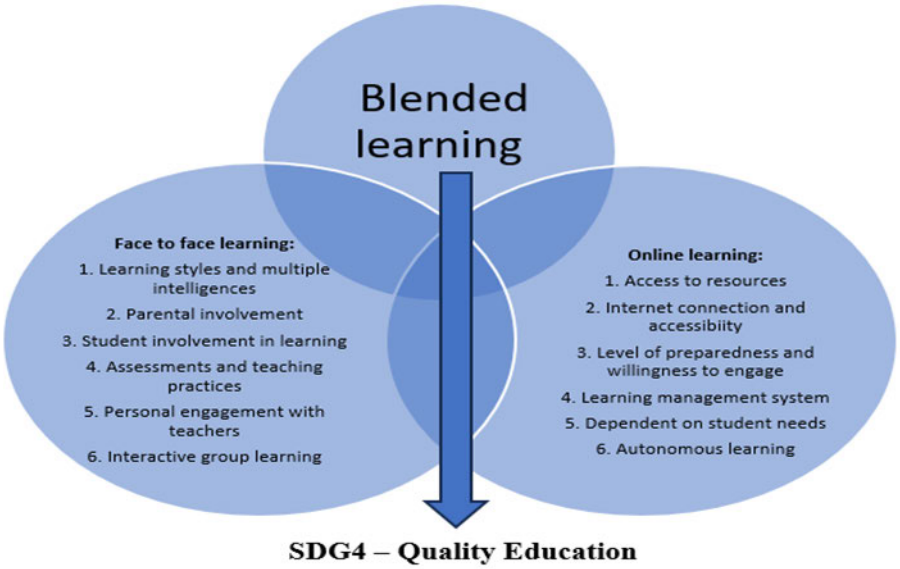


Figure 22: Blended Learning Model for Schools (Author developed)

Many students used the transition to Teams and Blackboard to avoid completing the required work, making this challenge difficult to address, mainly because schools were operating remotely. As a result, teachers were unable to maintain the same level of oversight they had been used to having in a physical classroom. Students were not completing work or meeting deadlines, and many fell behind academically, which became a considerable challenge when schools returned to traditional practices. A learning gap has formed, and to date, it remains with many students. In terms of the traditional steps of management, namely planning, organising, leading, and controlling, all management tasks had to be done remotely, and instructions on online delivery had to be communicated via Teams. As such, perhaps there was little room for teachers to raise specific queries that might otherwise have arisen from the online delivery of lessons. Therefore, based on the findings, a new model of blended learning was developed, which incorporated two additional elements: support from the management team and the need for clear policies.

Figure 23 below shows the key aspects that should be incorporated for successful blended learning in secondary schools. The reason for including management and clear policies was that, in their absence, frustration set in for both teachers and students, which in turn compromised not only learning but also the willingness to harness the benefits of the online space. Additionally, as educators, the institution's leader needed to have a strong understanding and grasp of the practices that needed to be adopted. In specific sites,

teachers could easily pick up on the fact that the management team also felt quite overwhelmed with everything, and as such, the teaching staff also felt somewhat despondent. Therefore, based on the findings, it is essential to have consistent management practices and a well-communicated education policy or framework. As noted in the previous chapter, the lack of clear policy guidelines hindered the success of the blended learning initiative. In addition, a lack of support and intervention from the management team also dissuaded teachers from taking the initiative further.

Additional elements of the new conceptual model for blended learning within secondary schools:

- **Management support**

There was inconsistent management support across the various sites, which led teachers to feel that they were not receiving adequate support during the change. One of the primary responsibilities of a good manager is effective communication. While this was a new strategy for the school and its top management team, it was also a new experience for both the middle-level management team and the teachers who needed to implement the strategy. Instead of conducting initiatives that they believed would support teachers through this transition, namely training, it may have been more prudent to engage directly with the teachers to determine the specific help required. On sites where management support was present, the positivity from participants was noted, and students also appeared to be more engaged.

- **Policy responsiveness**

The development of policies is typically done to achieve the desired outcomes that need to be attained. In this case, the school sought to introduce blended learning as its academic strategy and had envisioned that it would be successful based on its planning and the level of access to digital resources. However, inertia set in when the same policies remained unchanged, even in circumstances that suggested a need for change. This led many individuals to feel isolated and uncertain about the entire process. Therefore, it was crucial to consider the feedback provided by the implementers, i.e., the teachers, and identify areas where changes could be made. This could have resulted in greater adoption and a higher success rate. The policies were fixed with little room for change, and one of the significant features of any good plan is the ability to be flexible. Flexibility would

have allowed for the amendment of the current strategy to meet the needs of the various stakeholders, including teachers, management, parents, and students.

In the new conceptual model below, the original elements for blended learning by Risdianto (2019) were still included, namely the face-to-face and online teaching aspects, and all of the additional elements for each category are also significant to implementation. There was no doubt that the teachers were keen on doing what was in the best interests of the students, even if it meant stepping out of their comfort zones. Some of the additional challenges that teachers faced with blended learning included a lack of support for the initiative from both students and the IT department or management staff. To successfully work towards achieving SDG4 by 2030, management had to ensure that the policies and frameworks decided upon were shared and openly communicated to teachers and that they were provided with ongoing support.

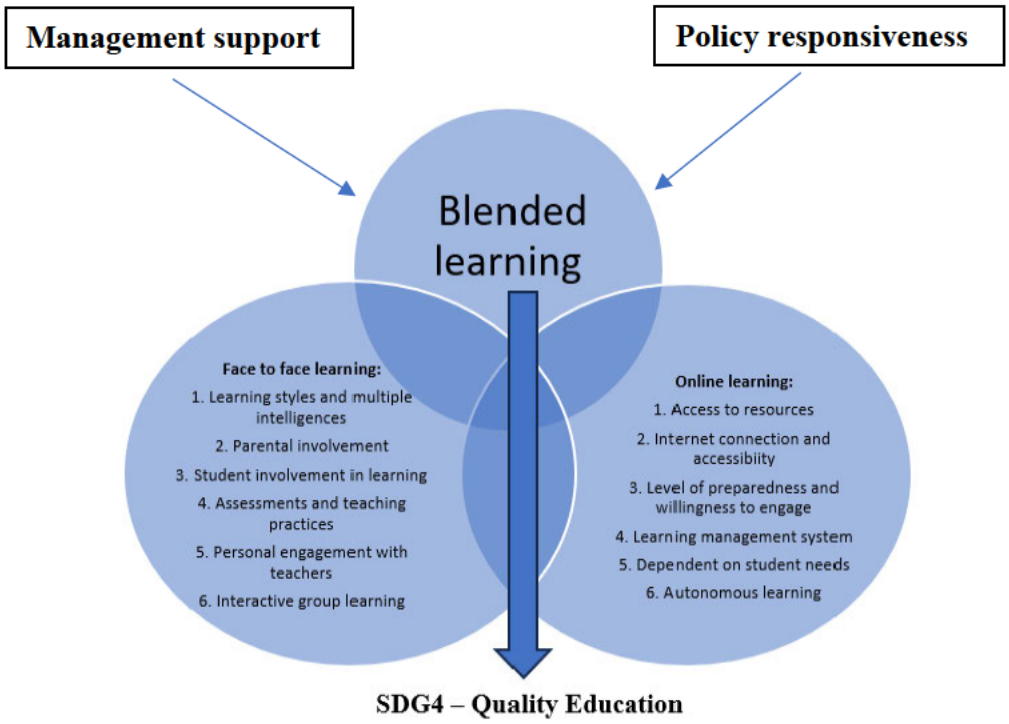


Figure 23: Blended Learning Model for Schools (Author developed)

7.4 Conclusion

The study demonstrated that the adoption of blended learning within the participating South African independent high school emerged primarily as a contingent response to the extraordinary disruptions caused by the COVID-19 pandemic, rather than as the result of deliberate, long-term pedagogical reform. Participant narratives consistently positioned blended learning as an emergency intervention necessitated by the abrupt suspension of conventional schooling during 2020-2021. As reflected in Rekha's observation that blended learning became particularly "prominent" during this period, its implementation was framed less as an embedded instructional philosophy and more as a pragmatic mechanism for educational continuity under crisis conditions.

The findings indicate that while the school sought to leverage blended learning as a potential competitive advantage within the independent education sector, this ambition was not sufficiently integrated into the institution's strategic planning processes. As a result, blended learning remained peripheral to the school's long-term vision and governance structures, limiting its capacity to evolve into a stable and institutionalised mode of delivery. The absence of systemic support encompassing leadership alignment ultimately constrained the sustained integration of blended learning into routine practice. This underscores the relevance of the proposed conceptual model, which emphasised the necessity of comprehensive organisational support to move beyond episodic or reactive adoption, and more towards enduring educational transformation.

Although considerable effort was invested in the development of an academic plan to support blended learning, participants largely interpreted this initiative as a short-term response to an externally imposed crisis. In the post pandemic period, the reversion to predominantly traditional, face-to-face instructional practices – particularly in relation to high-stakes assessments – reinforced the entrenched dominance of conventional pedagogical norms. This reversion highlighted the resilience of established schooling practices and the challenges inherent in disrupting deeply institutionalised educational cultures, even in the face of demonstrated alternatives.

Importantly, however, participants did not regard the pandemic-induced shift toward blended learning as a failed endeavour. On the contrary, the experience was widely acknowledged as a period of significant professional learning and reflective practice,

during which educators developed new digital competencies and pedagogical awareness. Nevertheless, the ongoing use of digital tools remained unevenly distributed across grade levels. Technologies such as online quizzes, and interactive applications were largely confined to junior grades, reflecting perceptions that senior students' academic pressures rendered such approaches impractical. This differentiation revealed underlying assumptions about age, assessment and academic seriousness that continue to shape pedagogical decision making.

In summary, this study concluded that without intentional strategic alignment, leadership commitment and systemic support, blended learning risks remaining as a situational response, rather than a transformative educational practice. The findings contribute to the understanding of digital education management practices in independent schooling contexts and offer critical insights for institutions that seek to embed blended learning sustainably beyond periods of crisis.

7.5 Recommendations

Based on the results obtained from the respondents, the recommendations have been discussed and categorised into practical, theoretical and policy implications. The practical, theoretical and policy implications were related to RQ3, as this looked at how digital education had manifested and the resulting changes that would need to be made to educational strategies.

7.5.1 Practical implications

- Teachers' workload should have been considered when academic strategies and training programmes were designed. Having been in teaching, the researcher knows that the regular load was quite extensive, and there was no time to do deliberate planning for blended learning. There was undoubtedly a significant emphasis on completing syllabi, especially for senior grades, and a lesser urgency to focus on blended learning initiatives, which may have seemed like a *"nice to have"* rather than a compulsory classroom practice. Lastly, the busy schedules were cited as reasons for non-participation in the study. However, this was only applicable to four of the participants. Although it did not significantly impact data collection across the entire sample, it further reinforced the point that teachers were overwhelmed with work. Going forward, it was recommended that teachers'

workloads are considered and a planning session be incorporated into the timetable to allow teachers the opportunity to plan for these learning experiences and ensure that it brings value to the students.

- Management needed to play a more active role in checking on the implementation of the academic strategy amongst the academic staff, as well as supporting staff with challenges that were experienced. Support was being offered extensively at specific campuses and withheld at others. Consistency was needed across the board to ensure that support was uniform across all sites. In addition, it may be worth considering including blended learning aspects as criteria for the Key Performance Indicators (KPIs) in the future, so that staff will be more inclined to incorporate these practices into their daily instruction. If this implementation became part of the employee's performance appraisal, they might, in turn, want to challenge themselves and gain the confidence needed to tackle the blended classroom.
- Students need to be held accountable for their role in the blended learning process. Students at affluent schools often displayed an attitude of entitlement, and in certain instances, they also exhibited a poor work ethic. If marks were attached to their involvement in the initiatives, perhaps they might have taken more interest in it.
- Blended learning should be designed with consideration of different sets of intelligence, learning styles and the abilities of the respective students. In a technology-driven era, it is almost unheard of to believe that some students are not comfortable with technology for educational purposes. They still prefer classroom instruction, as this is what they have been accustomed to throughout their lives. Anything else might leave the students feeling uncomfortable and unwilling to participate.
- Infrastructure development is another aspect that should be considered due to the many challenges that were experienced because of loadshedding.
- Affluence did not exempt Quintile 5 schools from experiencing the same nationwide challenges such as access to digital platforms, and as much as the access challenges may have been minimised, they were still present.
- The broader implication of meeting the objectives for South African education policy should also be factored into the planning process at the start of the

academic year, so as not to broaden the divide in terms of limited access to quality education. This would also be applicable to less affluent or public schools, as regardless of lack of access, it is expected that educational objectives would be met. As such, academics are tasked with ensuring that planning would be aligned to the achievement of the objectives as outlined by the educational policies.

7.5.2 Theoretical implications

- The conceptual model by Risdianto (2019) might have been applicable within an international context, but due to the unique contextual challenges within South Africa, e.g., access to resources, loadshedding etc., the original model would need to be redesigned to incorporate a range of factors unique to the South African context. The factors would need to go beyond the two elements of blended learning, namely face-to-face and online learning.
- In addition, blended learning studies to date had not considered the importance of management support or the importance of being responsive to when policies needed to be adapted based on the feedback of those individuals that had been implementing the policy. Regarding the management function, the fundamental management steps of planning, organising and leading and controlling were insufficient when implementing change initiatives. Instead, it required that the managers executed the task of being supportive, and the managerial competency of being responsive.

7.5.3 Policy implications

- The central academic team needs to define their expectations regarding blended learning and the implementation thereof and develop a policy clearly outlining the deliverables that are expected. In addition, once expectations had been mapped out, regular support should have been offered at selected campuses. In the absence of policy guidelines, teachers implemented techniques at their discretion, as no guidelines had been provided previously. This would have led to inconsistencies across sites and would once again lead to differentiated adoption.

In addition, the findings of this study suggest that the school might have benefitted from applying Kotter's change management model, considering that they were embarking on

a change in their academic strategy. The study contributed to existing literature on managing digital transformation and organisational change in complex organisations. The resource-based view model looked at the strategic resources that a company had and how these resources could have been leveraged to achieve a competitive advantage. In the case of the selected institution, their access to digital resources was an advantage which allowed them to continue with online instruction during the pandemic. As a result, this study did contribute to the literature on managing digital transformation and organisational change in complex organisations.

7.5.4 Reflection on transferring the Risdianto model to the South African context

Whilst the Risdianto (2019) model may have worked well in the international context, the challenges experienced within the South African context differed, especially in terms of infrastructure and general access to digital resources. The study by Risdianto (2019) was conducted at the University of Bengkulu which was a state university that had the mission to become a world class university in 2025. Being a state university meant that the institution would have been receiving funding from external bodies in addition to student fees etc. It was also noted that university students were older, and it was understood that they would have a higher level of maturity as well. Therefore, whilst the implementation may have been successful at the University of Bengkulu, the model was now being applied within a secondary school context. Whilst the selected school itself did not have challenges providing digital access, it was noted that students and staff sometimes experienced the nationwide challenge of loadshedding, which restricted their ability to continue with digital education. In addition, high school students may not have had the same maturity and self-discipline to embrace the online learning platforms either, as was evidenced in this study. This study was also conducted within a Quintile 5 or affluent school so, it did not consider the additional challenges that may have been experienced when trying to apply this model to Quintile 1 or state schools. The lack of resources and access challenges would be significantly heightened in that space, and blended learning would not have been able to take place as intended. Whilst the Risdianto (2019) model provided a very basic framework, it needed to be enhanced with the addition of contextual factors that were unique to the South African educational landscape. Nonetheless, the model did provide the researcher with a basic framework and

starting point for the study. This model was later enhanced with factors that were derived from the literature that was consulted, and the final model was then enhanced with factors that had been derived from the results of the study. As such, this model became more representative of the factors that would need to be considered in the local context when implementing blended learning.

7.6 Suggestions for Further Research

An affluent state was seen as having a large sum of money on hand, and while this school was affluent, as judged by that criterion, it did not consider that not all students within it were affluent. Several students attended the school on either a scholarship or a bursary. This study was not without limitations and whilst some of the limitations had been indicated in chapter 1, these could be summarised as follows:

- Geographical – the researcher was only granted access to the schools in one province. Therefore, it may not be entirely representative of the experiences from the other sites and provinces.
- Number of participants – The initial number of participants that were requested to participate in the study versus those that agreed to participate was significantly less. Therefore, access was limited and the sample was smaller.
- Methodological approach – Since this study was qualitative in nature, it was done through an interpretivist viewpoint, and the idea was to understand the lived experience of participants.
- Time constraints – The researcher was only given access to the research participants over a short period of time. The researcher was only allowed to interview the participants over a month. After which, the availability lapsed between the authorisation and the time permission was granted.

Additional studies need to be conducted at other affluent independent schools within South Africa and abroad to determine whether this trend was general during the COVID-19 pandemic. Additionally, follow-up studies should be performed to determine whether the same challenges persist today, such as load shedding and access to data. Additionally, a study on student perceptions of blended learning should also be considered. This study was conducted from a single perspective, that of the academic staff, which did not account for student feedback on implementation. Teachers alluded to students being happy to be

back in a regular classroom, but there may have been a cohort of students who had found great value in the blended learning scenario. A great deal more could have been done to monitor and track students, and this could have involved creating assessments linked to their final mark, as it was noted that marks drove students. Additionally, by leaning into the aspect of parent involvement, getting parents involved contributed to the creation of a learning partnership.

Regarding international secondary schools, these studies should be conducted at both affluent and impoverished schools to determine the unique challenges and specific enablers to the blended learning process. This is the best practice when viewing what is being done elsewhere. In addition, the model by Risdianto (2019) could be applied to more affluent and non-affluent schools in South Africa. Comparative studies could assist with broader application of the model and the revised model as suggested by the researcher. Due to challenges with generalisability in this study in terms of the context, sample size, participant demographics and the affluent nature of the institution, it would be advisable to conduct studies into blended learning within different South African secondary school contexts. Whilst the results of the study were obtained within a Quintile 5 school, the results were still transferable to public sector or less affluent schools. The results of the study would have informed practices that other high schools could adopt as well as identify and address challenges. Additionally, it was also important to meet the educational objectives as indicated in the South African education policy documents. Therefore, schools could have adopted certain aspects of the selected institution's implementation process and perhaps try to implement blended learning on a smaller scale, with a smaller target group as a pilot study. In doing so, the access to quality education (SGD4) would be minimised. Research should also examine the involvement of school management in the process, both at the senior management level and at middle management level and assess the tools and methods they could implement to ensure that the academic strategy is being met. Lastly, the teachers' buy-in and perceptions of blended learning should also be studied, as they play an essential role in the adoption of these practices.

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APPENDICES

Appendix A – Informed consent letter

UKZN HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE (HSSREC)

APPLICATION FOR ETHICS APPROVAL
For research with human participants

Information Sheet and Consent to Participate in Research

Date: 10 October 2022

Dear Sir/Madam

I, Halisha Ramlall, am a PhD student from the University of KwaZulu-Natal (Student no: 974126064). You are being invited to consider participating in a study that involves research into digital education and blended learning as a pedagogical tool at [redacted]. Blended learning may assist in helping learners with different learning styles to achieve their maximum academic potential. To date, blended learning studies have been limited to a few institutions or in different countries with differing demographics. The aim and purpose of this research is to research blended learning in a South African classroom context.

The study is expected to include 26 participants in total from the three [redacted] campuses in Gauteng. It will involve the following procedures.

- Eight respondents will be selected for an in-depth interview, and 18 respondents will be required to attend a focus group interview.
- The duration of your participation, if you choose to participate and remain in the study, is expected to be 30 - 45 minutes.

The study will provide no direct benefits to you or the other participants. However, it will be useful to inform the existing body of knowledge on digital education and blended learning. This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number HSSREC/00004769/2022). In the event of any problems, concerns, or questions, you may contact the researcher at [redacted] or the study supervisor, Dr D. Pillay, at [redacted] You may also contact the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION
Research Office, Westville Campus Govan Mbeki Building
Private Bag X 54001
Durban 4000 KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2604557- Fax: 27 31 2604609
Email: HSSREC@ukzn.ac.za

Your participation in the study is voluntary, and by participating, you are granting the researcher permission to use your responses. You may refuse to participate or withdraw from the study at any time with no negative consequence. There will be no

monetary gain from participating in the study. Your anonymity will be maintained by the researcher and the School of Management, I.T. & Governance, and your responses will not be used for any purposes outside of this study. All data, both electronic and hard copy, will be securely stored during the study and archived for a period of 5 years. After this time, all data will be destroyed. If you have any questions or concerns about participating in the study, please contact me or my research supervisor at the email addresses listed above.

Sincerely
Halisha Ramlall

CONSENT TO PARTICIPATE

I _____ have been informed about the study entitled "The management of digital education (blended learning) as a pedagogical tool at [redacted]" by Halisha Ramlall. I understand the purpose and procedures of the study.

I have been given an opportunity to ask questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I am usually entitled to.

I have been informed about any available compensation or medical treatment if injury occurs to me as a result of study-related procedures.

If I have any further questions/concerns or queries related to the study, I understand that I may contact the researcher at [redacted].

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION
Research Office, Westville Campus
Govan Mbeki Building
Private Bag X 54001
Durban
4000
KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2604557 - Fax: 27 31 2604609
Email: HSSREC@ukzn.ac.za

Additional consent, where applicable

I hereby provide consent to:

Audio-record my interview / focus group discussion	YES / NO
Video-record my interview / focus group discussion	YES / NO
Use of my photographs for research purposes	YES / NO

_____ _____

Signature of Participant Date

_____ _____

Signature of Witness Date
(Where applicable)

_____ _____

Signature of Translator Date
(Where applicable)

Appendix B – Ethical clearance



UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

26 September 2022

Halisha Ramlall (974126064)
School Of Man Info Tech & Gov
Westville Campus

Dear H Ramlall,

Protocol reference number: HSSREC/00004769/2022
Project title: The management of digital education (blended learning) as a pedagogical tool at [redacted]
Degree: PhD

Approval Notification – Expedited Application

This letter serves to notify you that your application received on 12 September 2022 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

This approval is valid until 26 September 2023.
To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

HSSREC is registered with the South African National Research Ethics Council (REC-040414-040).

Yours sincerely,

[redacted]

Professor Dipane Hlalele (Chair)

/dd

Humanities and Social Sciences Research Ethics Committee
Postal Address: Private Bag X54001, Durban, 4000, South Africa
Telephone: +27 (0)31 260 8350/4557/3587 **Email:** hssrec@ukzn.ac.za **Website:** http://research.ukzn.ac.za/Research-Ethics
Founding Campuses: Edgewood Howard College Medical School Pietermaritzburg Westville

INSPIRING GREATNESS

Appendix C – Amended ethical clearance



UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

05 November 2022

Halisha Ramlall (974126064)
School Of Man Info Tech & Gov
Westville Campus

Dear H Ramlall,

Protocol reference number: HSSREC/00004769/2022
Project title: The management of digital education (blended learning) as a pedagogical tool at [redacted]
Amended title: The management of digital education (blended learning) within a South African independent school
Degree: PhD

Approval Notification – Amendment Application

This letter serves to notify you that your application and request for an amendment received on 02 November 2022 has now been approved as follows:

- Change in title

Any alterations to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form; Title of the Project, Location of the Study must be reviewed and approved through an amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

Best wishes for the successful completion of your research protocol.

Yours faithfully

[redacted]

.....
Professor Dipane Hlalele (Chair)

/dd

Humanities & Social Sciences Research Ethics Committee
UKZN Research Ethics Office Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Tel: +27 31 260 8350 / 4557 / 3587
Website: http://research.ukzn.ac.za/Research-Ethics/
Founding Campuses: Edgewood Howard College Medical School Pietermaritzburg Westville

INSPIRING GREATNESS

Appendix D – Interview and focus group schedule

Research Questions – Qualitative Research

In conducting the interviews, the following questions will be asked (Principals, academic deputy principals, managing director and academic strategist):

1. What are the current digital education and blended learning pedagogical tools that are being implemented within the curriculum?

    - Probe: Do you know of, or have you heard of, such tools?

2. In your opinion, how is digital education and blended learning as a pedagogical tool being implemented within the curriculum?

    - Probe: How have you seen it unfolding? Is it prominent in the background?
    - Probe: Why?

3. Why has digital education and blended learning as a pedagogical tool manifested in a particular way?

    - Probe: How do you feel that digital education has been applied?

4. What are the challenges that were experienced during the implementation of digital education, and what strategies were employed to overcome them?

    - Probe: Do you think the strategies employed were successful in addressing the challenges? Why?

5. How is the implementation of blended learning as a pedagogical tool being managed?

    - Probe: Do you feel it is being managed effectively? Why?

6. What is the role of both the teacher and the student in the blended learning classroom?

    Probe: Do you believe that blended learning is the sole responsibility of the teacher? Why?

7. Discuss the benefits of blended learning (if any).

    - Probe: Have you seen any benefits, or are there perhaps more disadvantages to blended learning?

8. Is support being offered to the teachers and HODs?

    - Probe: If so, how is this support being delivered?

For the focus group sessions with the HODs, the following questions were asked:

1. What are the current digital education and blended learning pedagogical tools that are being implemented within the curriculum?
    - Probe: Do you know of, or have you heard of, such tools?
2. How is digital education and blended learning as a pedagogical tool being implemented within the curriculum?
    - Probe: How have you seen it unfolding? Is it prominent in the background?
    - Probe: Why?
3. Why has digital education and blended learning as a pedagogical tool manifested in a particular way?
    - Probe: How do you feel that digital education has been applied?
4. What are the challenges that were experienced during the implementation of digital education, and what strategies were employed to overcome them?
    - Probe: Do you think the strategies employed were successful in addressing the challenges? Why?
5. What is the role of the teacher in blended learning?
    - Probe: Do you believe that blended learning is the sole responsibility of the teacher? Why?
6. What role does learner motivation and self-management play in blended learning?
    - Probe: Is it the teacher's duty to motivate students or teach them about self-management? Why?
7. Discuss the benefits of blended learning (if any).
    - Probe: Have you seen any benefits, or are there perhaps more disadvantages to blended learning?
8. Do you receive support from the management team?
    - Probe: If so, explain how support is being provided.

Appendix E – Gatekeeper's application letter

13 June 2022

Dear [redacted],

PERMISSION TO CONDUCT RESEARCH FOR THE PhD (MANAGEMENT) QUALIFICATION

Name:	Halisha Ramlall
Student No:	974126064
Dissertation Topic:	The management of digital education (blended learning) as a pedagogical tool at [redacted]

My PhD study is focused on blended learning and digital education, and I would like to research how this is being managed within [redacted]. The broad research questions for this study are as follows:

1. What are the current digital education and blended learning pedagogical tools that are being implemented within the [redacted] curriculum?
2. How is digital education and blended learning as a pedagogical tool being implemented within the curriculum at [redacted]?
3. Why has digital education and blended learning as a pedagogical tool manifested at [redacted] in a particular way?

The research design is a qualitative approach. Therefore, it will require data gathering by both focus group sessions and interviews. Interviews are expected to be conducted with both the principals and the academic deputy principals of the three college campuses within Gauteng, as well as the head of academics and the managing director of [redacted]. Due to the limitations regarding face-to-face interactions, the HODs for the core subjects (English, Afrikaans, isiZulu, Mathematics, Mathematical Literacy and Life Orientation) will be invited to online focus group interviews, using Zoom as the platform for the interviews. Your assistance in permitting access to your organisation for purposes of this research is most appreciated. Please be assured that all information gained from the research will be treated with the utmost circumspection. Further, should you wish the result from the thesis "to be embargoed" for an agreed period, this can be arranged. Additionally, please advise if the use of your organisation name will be allowed, or if you would prefer that it is referred to as a pseudonym or equivalent, such as "*private basic education institution group in South Africa*".

If permission is granted, the University of KwaZulu-Natal requires this to be in writing on a letterhead and signed by the relevant authority. Thank you for your assistance in this regard. If you have any enquiries, please do not hesitate to contact myself [redacted] and/or my supervisor, Dr. D. Pillay [redacted].

Yours sincerely

[redacted]

Mrs Halisha Ramlall (PhD student)

Appendix F – Gatekeeper's approval letter



[redacted]

[redacted]

20 September 2022

Halisha Ramlall
Email: [redacted]

Dear Halisha

I, [redacted] and the Managing Director for [redacted], South Africa hereby serve this letter as consent towards Ms Ramlall accessing the following [redacted] for the purposes of completing data collection towards her PhD Studies focused on '*The management of digital education (blended learning) as a pedagogical tool* [redacted] at the University of Kwazulu-Natal.

[redacted]

Yours sincerely

[redacted]

MANAGING DIRECTOR

[redacted]

Appendix G – Editor's letter (Original submission)

Busy Bee EDITING

Hugo Chandler - BA Psychology and Drama (UCT)
Brenda van Rensburg
1G Protea Street, Struisbaai, Western Cape, 7285
Tel: +27 [redacted]
Email: info@busybeeediting.co.za [redacted] / Website: www.busybeeediting.co.za

PROOFREADING AND EDITING CERTIFICATE

This is to certify that *Busy Bee Editing* has diligently proofread and edited the PhD thesis titled:

The management of digital education (blended learning) within a South African Independent school

Author: Halisha Ramlall
Student No.: 974126064
Supervisor: Dr Devika Pillay
Institution: University of KwaZulu-Natal

This thesis was submitted in fulfilment of the requirements for the degree of **Doctor of Philosophy: Management, School of Management, IT and Governance, College of Law and Management Studies.**

Scope of Editing
Our editing process included:
✓ Ensuring consistency in spelling, hyphenation, numerals, fonts, and capitalisation
✓ Correcting spelling, grammar, punctuation, and syntax
✓ Refining sentence structure and improving overall coherence
✓ Ensuring appropriate paraphrasing and academic tone
✓ Verifying formatting, layout, and referencing to the best of our ability

Disclaimer
Busy Bee Editing's role concluded upon delivery of the final edited version of this dissertation to Halisha Ramlall. Any subsequent changes—including amendments to grammar, spelling, or formatting—fall outside our responsibility. The Halisha Ramlall retains full discretion to accept or reject our suggestions and remains responsible for reviewing all edits and ensuring the accuracy and originality of the final submission.

Hugo Chandler - BA Psychology and Drama (UCT)
Proofreader and Editor at Busy Bee Editing

Brenda van Rensburg
Proofreader and Editor at Busy Bee Editing

Date of Completion: 02 July 2025

We are proud to have contributed to Halisha Ramlall 's academic journey and wish her every success in her future endeavours.

Appendix H – Editor's letter (Resubmission)

k/b

5 January 2026

Editing Certificate

This letter confirms that the following doctoral thesis by Halisha Ramlallwas language edited: **The management of digital education and blended learning within a South African independent high school.**

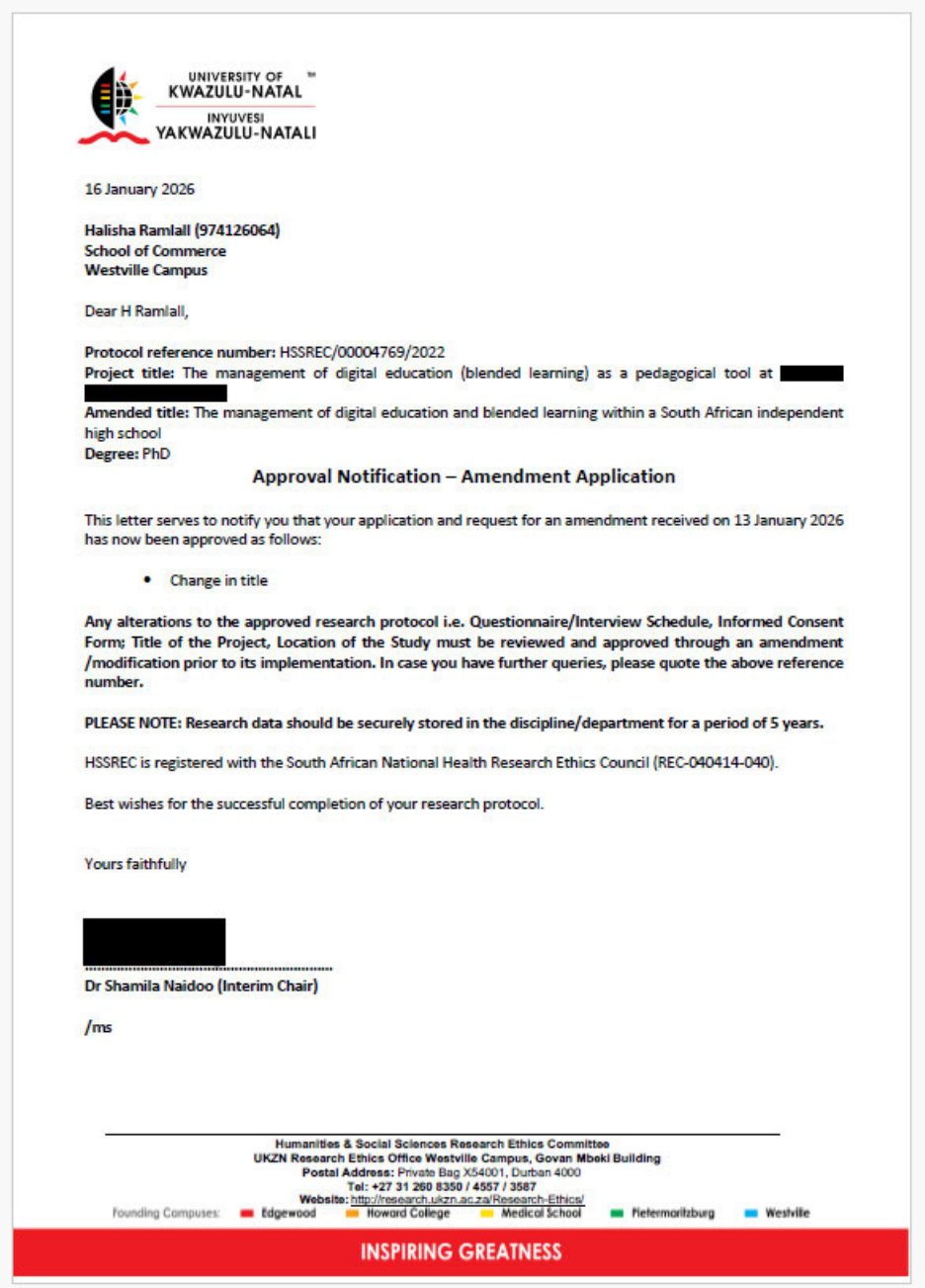
[redacted]

Dr Karen Buckenham, *PhD (KwaZulu-Natal), MA (KwaZulu-Natal), BSc (Toronto), TESL (Toronto).*

[redacted]

DISCLAIMER: The English language editor used track changes for corrections and inserted comments for queries. The responsibility for effecting the changes in the final, submitted document is the responsibility of the student.

Appendix I – Final ethical clearance



UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

16 January 2026

Halisha Ramlall (974126064)
School of Commerce
Westville Campus

Dear H Ramlall,

Protocol reference number: HSSREC/00004769/2022
Project title: The management of digital education (blended learning) as a pedagogical tool at [redacted]
Amended title: The management of digital education and blended learning within a South African independent high school
Degree: PhD

Approval Notification – Amendment Application

This letter serves to notify you that your application and request for an amendment received on 13 January 2026 has now been approved as follows:

- Change in title

Any alterations to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form; Title of the Project, Location of the Study must be reviewed and approved through an amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

HSSREC is registered with the South African National Health Research Ethics Council (REC-040414-040).

Best wishes for the successful completion of your research protocol.

Yours faithfully

[redacted]
.....
Dr Shamila Naidoo (Interim Chair)

/ms

Humanities & Social Sciences Research Ethics Committee
UKZN Research Ethics Office Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Tel: +27 31 260 8350 / 4557 / 3587
Website: http://research.ukzn.ac.za/Research-Ethics/
Founding Campuses: Edgewood Howard College Medical School Pietermaritzburg Westville

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