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Teachers' Experiences in Integrating Digital Tools in Teaching Business Studies in Rural Secondary Schools

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Abstract. The integration of ICT in education has emerged as a cornerstone in advancing teaching and learning methodologies globally. This surge in technology usage has seamlessly integrated computers and other digital devices into our daily lives, particularly in the 21st century. The transformative role of technology in enhancing the quality of education is well-documented, with digital tools reshaping instructional practices to benefit both teachers and learners. Despite the growing emphasis on digital learning, there is limited research exploring how Business Studies teachers in rural secondary schools incorporate digital technology to support innovative pedagogies. The objective of this study was to explore the experiences of Business Studies teachers in integrating digital technology to support innovative pedagogical practices in rural secondary schools. The study was guided by the following research question: What digital tools do Business Studies teachers incorporate to support innovative pedagogies in rural secondary schools? This study employed a qualitative research approach located within the interpretive paradigm. A purposive sampling was used to select six Business Studies teachers from different secondary schools in a rural context. Semi-structured interviews were used to generate data from teachers. Data generated were analysed and interpreted using a thematic analysis. Findings revealed that Business Studies teachers employ various digital tools to facilitate engaging learning activities based on critical thinking, engagement, and a better understanding of complex topics. Furthermore, the study contributes to the pedagogical transformation agenda by

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exploring how innovative digital approaches can move Business Studies teaching beyond traditional, teacher-centred methods. Insights from this study could inform educators on how to use digital tools to foster learner engagement, critical thinking, and problem-solving skills indispensable to the Fourth Industrial Revolution.

Keywords: digital tools; innovative pedagogy; education technology

1. Introduction

The 21st century marks a pivotal era characterised by substantial technological transformations, significantly influencing the operations of governments, businesses, and the education sector globally. Amidst these changes, the Coronavirus Disease (COVID-19) pandemic has further accelerated the exploration of alternative pedagogical approaches, particularly in educational settings. This era underscores the imperative for teachers to not only embrace creativity and innovation but also to develop proficiency in Information and Communication Technology (ICT) to facilitate the delivery of curriculum effectively (Isabirye et al. 2025)

Integrating ICT in education has proven to be a transformative process, as evidenced by various studies. For instance, research has shown that ICT integration in education leads to improved educator efficacy and enhanced student academic achievements (Kundu et al. 2020). Furthermore, advancements in technology have revolutionised teaching methods, enabling anytime access to information and redefining the role of teachers as pivotal knowledge providers (Mahmud & Ismail, 2010). The shift towards technology-enhanced teaching and learning practices fosters active and collaborative learning, thus positively impacting learners' academic outcomes (Sithole, 2023).

Recognising the critical role of technology, Jackson (2017) highlights its essentiality in ensuring equitable and high-quality education, noting that teachers who integrate ICT into classrooms gain crucial skills in technical knowledge (TK), Pedagogical Content Knowledge (PCK), and Technical Pedagogical Knowledge. Xhuraj et al. (2023), based on the challenges and advantages of integrating technology in teaching and learning, revealed that integrating technology into curriculum delivery enables learners to be well-prepared for the future and modern world. They add that technology makes it easier for learners to access information anytime and anywhere by using various search engines.

In South African, the integration of technology in education has received formal recognition, particularly in the Curriculum and Assessment Policy Statements (CAPS) for Business Studies in the Further Education and Training Phase (Grades 10-12). This policies mandate the use of the internet and audio-visual media as instructional tools, preparing learners for both academic success and their future professional roles (DBE, 2011). However, a notable gap persists in understanding the practical integration of these ICT pedagogical tools in the teaching and learning process, especially in rural secondary schools (Mathevula & Uwizeyimana, 2014). Despite extensive research on ICT integration in education,

existing studies largely focus on urban or well-resourced contexts and often examine ICT adoption in general rather than subject-specific pedagogical practices. Therefore, the integration of digital pedagogy into Business Studies has received limited scholarly attention. This oversight is significant given the subject's role in preparing learners for higher education, entrepreneurship, and participation in a technology-driven economy. The absence of empirical research on how innovative digital pedagogies are implemented in Business Studies classrooms highlights a critical gap in both knowledge and practice. This study, therefore, positions itself as a necessary response to these gaps. It seeks to explore how Business Studies teachers integrate innovative digital pedagogies into their teaching, with a view to identifying both opportunities and challenges.

1.1 Conceptualising pedagogy

Conceptualising pedagogy in the context of integrating diverse, innovative approaches in teaching Business Studies is crucial to understanding how instructional practices can be enhanced and transformed through digital technology. Peterson et al. (2018) maintained that different scholars define pedagogy in various ways, since it is a dynamic concept. This view highlights that people possess different perspectives on pedagogy and that there are various definitions of pedagogy in the literature. Generally, researchers view pedagogy as a teaching method employed by teachers to enhance teaching and learning and to promote the application of a variety of teaching strategies that empower learners in the classroom. Shah and Campus (2021) assert that traditionally pedagogy was understood as the art and science of teaching encompassing the strategies, methods and techniques employed by teachers to facilitate effective learning.

Similarly, Peterson et. al. (2018, p. 8) postulated that pedagogy is the key to effective teaching and learning, and they define it as “repeated patterns or sets of teaching and learning practices that shape the interaction between teachers and learners”. This definition highlights that it is essential for teachers to select suitable approaches or techniques to enhance effective curriculum delivery. Besides, Maja (2023) elaborated that ICT pedagogy involves the integration of technology in lessons that are being conveyed to learners in order to enhance knowledge and understanding.

However, Shah and Campus (2021) argue that the notion of pedagogy is influenced by time and technological transformation in the world. They concur that in the 21st century, the definition of pedagogy has expanded by including the integration of digital technologies to foster more dynamic, interactive, and learner-centred learning environments. Bates (2015) and Eyyam and Yaratan (2014) argue that this shift is based on the recognition that technology can significantly enhance the teaching and learning process by providing access to a wealth of resources, enabling collaboration, and facilitating innovative assessment methods. Drawing from the above definition, the role of ICT in education extends beyond mere digital tool usage, as it necessitates a transformation of pedagogy where teachers are not just transmitters of knowledge but facilitators of learning, guiding learners in navigating and constructing

knowledge using digital technology. Therefore, this approach aligns with constructivist theories, which posit that learning is an active, contextualised process of constructing knowledge rather than passively acquiring it (Piaget, 1967; Vygotsky, 1978).

Wagner (2008) argues that integrating ICT into pedagogy means creating learning experiences that are engaging for learners and preparing them for the challenges of the modern world. Therefore, the integration of technology into teaching methods enhances both learners' and teachers' roles by fostering personalised learning, improving engagement and enabling real-time feedback. For learners', it offers access to a wealth of resources, collaboration and digital literacy skills, while for teachers, it streamlines content delivery, provides data-driven insights and promotes more efficient instruction. Ultimately, technology empowers both learners and teachers to create interactive learning environments.

The integration of ICT into pedagogy also requires teachers to develop Technological Pedagogical Content Knowledge (TPACK). This framework emphasises the intersection of technology, pedagogy and content knowledge as an essential aspect for effective teaching in the digital age (Mishra & Koehler, 2006). This study posits that teachers need to understand not only the content they are teaching and the pedagogical approaches most effective for that content, but also how diverse technological resources can be used to enhance learning outcomes. This study maintained that teachers should utilise digital technology to understand business environments, facilitate discussions, or enable learners to collaborate on projects from different contexts.

However, the implementation of ICT in pedagogy for teaching and learning comes with various challenges, as most teachers fail to incorporate ICT pedagogy in their classes due to several factors. Van Dijk (2005) outlined four factors that contribute to the problem of digital technology in South Africa, including motivational, resource, skill shortage and general usage of ICT resources. Access to technology and digital literacy varies significantly among learners, especially in rural areas (Chisango & Marongwe, 2021; Faloye & Ajayi, 2022; Warschauer, 2004). Teachers also face barriers in terms of their own digital literacy, the availability of resources, internet connectivity and professional development support for integrating technology into their teaching practices (Chisango & Marongwe, 2021; Ertmer & Ottenbreit-Leftwich, 2010).

Therefore, overcoming these challenges requires extensive professional development, infrastructure investment and a shift in mindset towards valuing and integrating digital tools as core components of pedagogical strategy. Despite these challenges, the potential of ICT pedagogy to transform educational practices is massive. Our view is that digital pedagogy offers new ways to engage learners through diverse and innovative teaching strategies.

2. Literature Review

2.1 Educational Technology

For decades, numerous scholars have defined educational technology in various ways to demonstrate their understanding of educational technology in the literature. This suggests that there is no universal definition for educational technology. Spector (2013) asserts that it is difficult to define educational technology due to technological transformations and developments from decade to decade. Januszewski (2008) defines educational technology as the study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources. The above definition demonstrates that education technology has the potential to transform the way teachers teach and learners learn.

Similarly, Hassan (2023) concurs that educational technology has transformed traditional teaching and learning practices into virtual platforms through the adoption of digital learning. A study by Eyyam and Yaratan (2014) on the impact of using technology in mathematics lessons revealed that one of the key benefits of educational technology is its ability to improve learners' attitudes towards learning and engagement. This responds to Kadir et al.'s (2014) views, who affirm that education technology enables both teachers and learners to acquire new knowledge, resulting in a positive attitude towards the use of digital technology.

Similarly, Liew, Voon and Leong (2023) maintained that the integration of technology in lesson capture resulted in learners' interest being captured, leading to enjoyment of the subject being delivered. This view suggests that by integrating digital technology into the learning environment, teachers have the opportunity to create more interactive classroom contexts that facilitate active learning. Moreover, Johnson (2020) contends that educational technology provides learners with access to a wealth of information that significantly contributes to the reach of individual potential.

In other words, this suggests that digital technology enables learners to have opportunities to strengthen their knowledge and subject understanding, which contributes positively to outcomes. Vagg et al. (2020) pointed out that educational technology provides access to multimedia resources that cater to various learning preferences and increase learners' engagement and retention of information. Similarly, according to DBE (2023), the integration of educational technology into teaching and learning provides an opportunity to access a wide range of multimedia resources that can assist in illustrating complex concepts in teaching various subjects.

2.2 Business Studies in the South African context

Since 1994, curriculum restructuring has been implemented in the South African education system to address inequalities, racism and discrimination that occurred previously. The introduction of the National Curriculum Statement (NCS, 2006) in the Further Education and Training (FET) band resulted in changes to subjects' names and content in the FET Phase to reach international trends. Thereafter, Business Studies was born in the year 2006 to replace Business Economics, and it

was introduced as a non-compulsory subject to all secondary schools in South Africa (North, 2002). According to the CAPS, “Business Studies deals with the knowledge, skills, attitudes, and values critical for informed, productive, ethical and responsible participation in the formal and informal economic sectors” (DBE, 2012). Therefore, the integration of ICT and the application of innovative pedagogies are necessary in this critical subject.

America and Skelly (2021) pointed out that the Business Studies curriculum comprises four crucial main topics: business environments, business operations, business roles, and business ventures. These topics require critical thinking to understand specific businesses. Therefore, since this subject deals with the dynamics of the current business environment and practices, the integration of technology in its pedagogy is not just beneficial to learners but necessary for knowledge development. In support of this view, Mason and Rennie (2008) portrayed that the business world depends on technology for its operation, and this demands Business Studies teachers to acquire skills that are relevant and applicable in today’s technologically driven business world.

Moreover, the nature of Business Studies forces teachers to make use of various digital tools to keep abreast of the subject content and latest developments. Therefore, the use of digital tools in Business Studies helps facilitate collaborative learning. In addition, Ertmer and Ottenbreit-Leftwich (2010) argue that there is a need for teachers to be proficient not only in the subject content of Business Studies but also in the use of technological tools in the classroom environment. In light of the above considerations, there is a gap in understanding how ICT and innovative pedagogies are being implemented in the teaching of Business Studies, especially in contexts that are challenged by resource limitations, such as rural schools in South Africa.

2.3 Digital Tools

Johnson and Samora (2016) maintain that digital tools have become a major means to facilitate and support teaching and learning. Nurmatova et al. (2024) affirm that digital tools play a crucial role in modernising educational practices and enhancing both teaching and learning processes. In defining digital tools, Mucundanyi and Woodley (2021) conceptualise digital tools and stated that digital tools encompass a wide range of software, platforms, and digital devices that have the potential to transform traditional classrooms into dynamic learning environments. However, education technology includes not only digital tools but also the methods and systems used to improve teaching and learning.

In essence, digital tools are the instruments, while educational technology is the overall approach to using them effectively in education. In Business Studies, the utilisation of digital tools can facilitate the simulation of real-world business scenarios, enable access to global markets and trends, and encourage interactive and engaging learning experiences (Beeland, 2002; Hilton, 2016). In support of this view, Gcabashe and Ndlovu (2022) argue that Business Studies teachers should use technology to keep learners engaged in the classroom environment. As a

result, various digital resources are used by teachers to enhance instructional practice.

Churchill (2017) contends that digital resources such as e-books, online databases, and specialised software provide learners with up-to-date information and practical knowledge, bridging the gap between theoretical learning and real-world application. Research has indicated that integration of digital technology in the teaching of Business Studies enables learners to master business concepts and practical experience that is essential in the business world (Sithole, 2012). Bourbour (2023) asserts that digital tools such as interactive whiteboards and projectors enhance visual learning and allow teachers to present complex Business Studies concepts and data analysis in an accessible manner.

Greenhow et al. (2021) stated that digital tools support visual learning. They further indicated that the introduction of digital simulations and games into teaching and learning offers immersive learning experiences, whereby learners can experiment and witness what is happening in the world. This view suggests that digital tools not only deepen learners' understanding but also foster critical thinking in a classroom context. In addition, Okoye (2021) contends that Business Studies teachers should use technology to promote learner-centred learning in the classroom, as it encourages active participation, collaboration, and critical thinking among learners.

Although the literature widely acknowledges the benefits of integrating technology and digital tools in teaching and learning, there is limited research that specifically explores how innovative ICT-integrated pedagogies are implemented in the teaching of Business Studies, especially in rural South African secondary schools. Most studies emphasise the general advantages of educational technology without sufficiently examining teachers' pedagogical practices, contextual challenges and alignment with frameworks such as TPACK. This gap necessitates further investigation into how technology can be effectively integrated to enhance Business Studies teaching and learning in resource-constrained contexts.

3. Theoretical Framework

This study was underpinned by two major theoretical frameworks as a theoretical lens through which the complexities of integrating technology into pedagogy can be understood and navigated. This comprises Conversational Theory by Pask (1976) and Laurillard (2002), as well as Engagement Theory by Kearsley and Shneiderman (1998). According to Brown (2003), Conversational Theory originated from the work of Gordon Pask (1976) within the cybernetics and educational psychology domain. Thereafter, the theory was supported by different scholars who advocate a similar conception, including Scott (1993) and Laurillard (1993, 2002, and 2008).

Pask (1976) contends that Conversational Theory was developed to explain how learning occurs through conversation. He further conducted research on systems as a way of examining how they learn and adapt to meet the human learning

mechanisms, which he studied through dialogical processes. Furthermore, Pask (1976) argued that learning is essentially a conversational process whereby understanding is built upon numerous iterations of exchanges between participants. This view suggests that Conversational Theory's foundation lies in the concept of "conversation" being treated as a negotiation process. Pask (1975) maintains that there are two types of conversation, namely teaching conversation and learning conversation. Pask (1975) contends that in teaching conversation, the instructor guides learners through a series of dialogues, helping them to grasp new concepts and apply them. During a learning conversation, learners are inquisitive, asking questions and seeking clarification while developing their own comprehension. This creates an opportunity for information flow and feedback through conversations, which is crucial for co-constructing knowledge.

On the other hand, Engagement Theory was formulated by Greg Kearsley and Ben Shneiderman in the late 1990s as an outgrowth of the changing educational environment influenced by advancements in digital technology. Thereafter, this concept became popular when there was a shift towards using technology as a tool for improving engagement among learners who are learning. The work of Kearsley and Shneiderman (1998) built on earlier theories of education that emphasised active learning, student motivation and the role of interaction in learning. Their focus is not on technology as a delivery system but rather on being able to use it to get learners involved in collaborative project-based activities. Therefore, engagement theory has its roots in early pedagogical frameworks, which stressed the importance of involvement in effective instruction.

These theories were suitable for this study because they provide a comprehensive framework for understanding how technology can enhance pedagogical practices in Business Studies. Conversational Theory aligns with the subject's emphasis on dialogue, critical discussion and interaction. This provides insight into how digital tools can facilitate communication, feedback and collaborative knowledge construction. Similarly, Engagement Theory underscores the importance of learner involvement, motivation and interaction, which are critical for effective Business Studies instruction in a technology-rich learning environment. Together, these theories complement each other by highlighting the dynamic relationship between technology, interaction and active learning, thereby offering a strong theoretical foundation for integrating technology into Business Studies pedagogy.

4. Methodology

This study adopted a qualitative research design located within the interpretive paradigm. The use of a qualitative approach enabled the researcher to interact with participants to gain more insight into their views and experiences. Through this approach, we could examine and understand the lived experiences of participants and how they derived meaning from their teaching experiences. The major reason for adopting a qualitative approach in this study was to understand teachers' experience and explore their diverse pedagogical approaches used in teaching Business Studies lessons and the variations in these approaches across different rural school settings. In addition, a qualitative approach uses open-ended questions and probing to provide participants with an opportunity to

respond in their own words, instead of forcing them to choose from given answers, which a quantitative approach does (Willig & Rogers, 2017).

4.1 Sampling

This study employed purposive sampling to select six Grade 12 teachers with rich information since the objective of the study was not to generalise findings but to obtain in-depth insights from a specific group of participants. Teachers were selected from different secondary schools that offer Business Studies from Harry Gwala District, KwaZulu-Natal Province, South Africa. Importantly, one teacher was selected per secondary school. As a result, six teachers were sampled because of their teaching experience and knowledge of incorporating innovative pedagogy in the classroom environment. The strength of purposive sampling is that it makes it easy to theoretically generalise findings, which is more essential in qualitative research (Cohen et al., 2018). Table 5.1.1 below presents a brief synopsis profile of study participants. The actual names of the participants and their schools were not disclosed. The participants' pseudonyms were P1, P2, P3, P4, P5 and P6.

Table 1: Profile and Background of Business Studies teachers

Participant Name	Gender	Age group	Qualifications	Major subjects	Teaching experience
P1	Female	35-40	Bcom & PGCE	Business Studies & EMS	14 years
P2	Female	25-30	BEd	Business Studies & EMS	8 years
P3	Female	40-45	Master of Education	Accounting and EMS	18 years
P4	Male	40-45	B.A & PGCE	Business Studies	20 years
P5	Male	25-30	BEd Honors	Business Studies and Technology	10 years
P6	Male	35-40	BEd Honors	Accounting and EMS	12 ears

4.2 Data Collection and Analysis

Semi-structured interviews were used to generate data from participants. Opdenakker (2006) asserts that semi-structured interviews provide an opportunity for synchronous communication, which enables the interviewee to provide extra information to the interviewer through the use of social cues, such as facial expressions, body language, and voice tone. These non-verbal aspects enhance data quality and help gain further understanding of the experience of the participants. Semi-structured interviews enable researchers to ask similar interview questions to all participants and provide flexibility to probe and ask follow-up questions to obtain richer data from teachers (Cohen et al., 2018).

To begin the interview process, an interview schedule consisting of seventeen interview questions was developed in advance. Thereafter, teachers were

subjected to 45-60 minutes of face-to-face semi-structured interviews to give them sufficient time to express their viewpoints. All interviews were audio recorded to ensure that participants' information was captured. Follow-up interviews were conducted to refine information. In addition, all interviews were conducted after school hours in a private location to avoid disturbing teaching and learning.

4.3 Ethical Consideration

Before embarking on this study, the researcher applied for ethical clearance from the UNISA Ethics Committee to conduct the research and an ethical approval certificate was obtained. After that, the researcher applied for permission from the KZN Department of Basic Education (DBE) to conduct research in their jurisdiction schools. After obtaining approval from KZN education, principals and participants were contacted, and permission was granted. All participants were provided with consent letters, which explained more about the purpose of the study.

4.4 Trustworthiness

Trustworthiness is a fundamental aspect of qualitative research. It assists in ensuring the validity and reliability of findings. This study considered the four key components of trustworthiness, namely: transferability, credibility, confirmability, and dependability. Rule and John (2011, p 107) contend that trustworthiness promotes "scholarly rigour, transparency and professional ethics". Credibility was established through engagement with participants, the use of semi-structured interviews and the alignment of interview questions with the study objectives. Participants were given opportunities to clarify and elaborate on their responses, which ensured that findings accurately reflected their experiences. Dependability was achieved by maintaining a detailed description of the research process, including the sampling procedures, data collection methods and interview protocols, thereby allowing the study to be replicated.

Confirmability was ensured through the use of an audit trail, which included an interview schedule, field notes and verbatim transcripts. This demonstrates that the findings were derived from the data rather than the researchers' assumptions. In addition, transferability was addressed by providing descriptions of the research context, participants and data collection procedures, which enables readers to determine the application of the findings to other similar contexts.

4.5 Data analysis

The data generated from semi-structured interviews were analysed using thematic analysis. An inductive approach was adopted, allowing themes to emerge directly from the data rather than being imposed by pre-existing theories. As a result, we employed Braun and Clarke's (2019) interconnected phases of thematic analysis to analyse semi-structured interviews. Data analysis process commences by listening to six audio recordings and transcribing raw data into a text format. This process enabled researchers with the opportunity to familiarise themselves with data. This was followed by colour-coding segments of similar phrases and grouping them according to research questions. Colour coding assisted researchers in this study to identify patterns and categorise them into themes. The researchers further identified themes, sub-themes and patterns that

emerged from data based on research questions, which assisted in reporting the study findings.

4.6 Research context

The study was conducted in six secondary schools in Harry Gwala District in KwaZulu-Natal, South Africa. Both rural and semi-urban schools were purposively selected based on their availability of infrastructure and resources that support the integration of innovative pedagogical practices in the teaching of Business Studies. The selected schools serve learners from diverse socioeconomic backgrounds and all benefit from the National School Nutrition Programme. The sampled schools fall within Quintiles 2 and 3, with five categorised as no-fee-paying schools and one as a low-fee-paying school. All schools offer Grades 8 to 12, with learner enrolments ranging from 950 to 1,350. In terms of infrastructure, the schools are equipped with Wi-Fi connectivity and digital tools such as computers, laptops and computer laboratories enabling the implementation of technology-enhanced teaching and learning.

4.7 Findings and Discussion

This study intended to explore the experiences of Business Studies teachers in integrating digital technology to support innovative pedagogical practices in rural secondary schools. To ensure anonymity, participants' views were represented using pseudonyms (P1, P2, P3, P4, P5 and P6)

Table 6.1 below depicts a summary of themes and sub-themes that emerge during data analysis and interpretation.

Table 2: Summary of themes and sub-themes

Research question	Themes	Sub-themes
What digital tools do Business Studies teachers incorporate to support innovative pedagogies in rural secondary schools?	Digital Tools for Content Delivery and Visualisation	PowerPoint
	Social Media for Extended and Collaborative Learning	WhatsApp and Facebook

4.8 The presentation of Results and Discussions

4.8.1 Digital tools for content delivery and visualisation

Digital tools play a crucial role in modernising educational practices and enhancing teaching and learning processes (Mucundanyi, 2019). This emphasises that the rise of digital tools has made significant changes in the education sector in meeting learners' needs. Koehler et al. (2013) assert that teachers cannot depend on a single digital technology to solve teaching and learning challenges.

Furthermore, Mucundanyi and Woodley (2021) concur that numerous digital tools are used to transform how educational institutions operate. To shed more light on digital tools, Moran (2017) indicated that they comprise a wide range of software, platforms, and digital devices that can transform traditional classrooms into dynamic learning environments. This emphasises that the utilisation of

digital tools in teaching and learning has altered traditional educational techniques by creating environments that prioritise student interaction, incorporate visual learning elements, and focus on learner-centred education. On the other hand, Danca et al. (2023) confirm that the implementation of digital tools, such as laptops, interactive whiteboards, PowerPoint presentations, YouTube videos, data projectors, simulation games, and mobile applications, has established dynamic learning environments that help to deliver content.

4.8.2 PowerPoint presentation

Generally, the majority of participants stated that they use PowerPoint presentations for the delivery of interactive lessons. However, their responses seem to be mixed on how they integrate it into content delivery. P1 indicated that it helps her simplify abstract subject concepts for better understanding. She explained,

“I use a laptop connected to a projector, which allows me to make use of a PowerPoint presentation. It makes it easy for me to design and communicate information with learners and to design different assessment tasks. It also allows me to share multimedia content such as videos, graphs and images, which are more useful to get learners' attention. All these digital tools make it possible for students to grasp information and understanding of different concepts easily”.

P1's assertion demonstrated that PowerPoint presentations and projectors enable her to deliver structured, visual lessons that resonate with learners' preferences. According to P1, the use of multimedia content such as graphs and images ensures that abstract concepts become more tangible for learners, making learning more accessible and effective. In support, Baker et al. (2018) pointed out that the use of PowerPoint presentations provides an opportunity for engagement and an interactive learning environment where learners can visualise concepts rather than relying solely on text-based instructions.

Similarly, P2 in school B raised the same sentiments as P1 in school A by arguing that PowerPoint presentations enable her to visually display lessons for effective learning and understanding. She briefly clarified:

“For effective teaching, I use PowerPoint to summarise information. This digital tool helps me to create a visualised presentation, and learners pay attention through demonstration”.

Many studies highlight the benefits of PowerPoint in teaching and learning. However, some researchers have reported limitations and negative effects. For example, Johnson and Mayer (2009) argue that PowerPoint can lead to cognitive overload if slides are overcrowded with text, which may reduce learners' understanding. Brock (2011) critiques the overuse of PowerPoint, suggesting that it can oversimplify complex information and promote passive learning. These studies indicate that while PowerPoint can enhance learning, its effectiveness depends on how and when it is used, highlighting the need for careful integration into lessons. The findings from participants can be interpreted through the lens of Conversational Theory (Laurillard, 2002), which emphasises learning as an iterative dialogue between teachers and learners. Participants' use of PowerPoint

presentations to simplify abstract concepts, incorporate multimedia and summarise key ideas reflects the teacher learner dialogue central to this theory.

P3 stated diverged views with P2 and P3. He believed that PowerPoint presentations provide an opportunity for brainstorming and critical thinking, which are essential skills in subjects like Business Studies. In our discussion during interviews, P3 stated:

“PowerPoint slides are most effective in my classes because learners get the opportunity to brainstorm various ideas together and solve subject-related problems. Learners are competitive since there is an element of creative thinking; they get quick, live feedback from one another, and from the teacher”.

With reference to the above, P3 pointed out that PowerPoint presentations provide an opportunity for sharing ideas, leading to creative thinking in class. This is more essential due to the rapid changes in the educational landscape in the 21st-century. Currently, the world demands integration of digital tools in preparing learners with the skills necessary for life beyond the classroom. This means that critical thinking and collaboration are recognised as essential competencies for success in modern education and society. This is supported by Engagement Theory (Kearsley and Shneiderman, 1998), which emphasises that learning is most effective when students are actively involved, collaborating and working on meaningful tasks.

On the other hand, P4 argued differently, stating that PowerPoint slides are not only used for content delivery but also for transforming theory into practice. He argued,

“When I was teaching corporate social responsibility, I created slides where there was a video of how different companies handle corporate social responsibility, and then I had embedded questions throughout the video. Learners were expected to think about what they had learnt in light of the theory that we talked about in class over the previous few days. It was a great discussion, and the class was more engaged.”

These sentiments illustrate the effectiveness of PowerPoint presentations in transforming theory into practice. The process of listening to and watching practical examples of corporate social responsibility promotes critical thinking, and learners get the opportunity to evaluate the relationship between theory and practice. P4 believed that embedded questions further enable learners to reflect on their past knowledge and encourage deeper engagement and meaningful discussions among learners. This approach not only simplifies content but also encourages learners to apply theoretical knowledge to real-world scenarios, enhancing their analytical and problem-solving skills. The interactive practices described by P3 and P4 resonate with Engagement Theory (Kearsley & Shneiderman, 1998), which posits that meaningful learning occurs when learners are actively engaged in collaborative and authentic tasks.

4.9 Social Media for Extended learning & communicating information

Participants further revealed that they use different social media platforms to extend and communicate information with learners. Among the social media platforms that were mentioned by the participants were WhatsApp and Facebook. Participants also highlighted that they use these digital tools for learners' engagement, to bridge the gap between theory and practice, for collaborative learning and discussion and for sharing teaching and learning support materials.

4.9.1 WhatsApp

During our interviews, P3 in school C indicated that she uses WhatsApp groups to share teaching and learning support material and also to engage with learners after school hours. This included assigning activities to learners and also addressing learners' queries about the subject. She described,

"I employ a WhatsApp group to get student engagement and easy communication. In this way, I post previous question papers and homework to improve my deep learning ability. Thereafter, they can also see and comment on their classmates' posts, which fosters some great dialogue."

P3's response demonstrates the effectiveness of WhatsApp as a digital platform for extending learning beyond the classroom through continuous interaction and collaboration. This practice strongly aligns with Engagement Theory (Kearsley & Shneiderman, 1998), which advocates that learning is most effective when learners are meaningfully engaged in collaborative activities that involve interaction, communication and shared problem-solving. By encouraging learners to comment on one another's posts, respond to questions and participate in discussions, WhatsApp communication components of Engagement Theory. It further promotes active participation and deeper learning.

Furthermore, Laurillard (2002) asserts that online discussion platforms that support sustained dialogue and feedback are essential for effective teaching and learning. Several studies have also reported that WhatsApp enhances academic performance by promoting learner interaction and collaboration (Motaung & Dube, 2020; Susilawati & Supriyatno, 2020). In support of this view, Udenze and Oshionebo (2020) argue that WhatsApp enables learners to respond to questions, share examples and engage with peers' contributions, thereby fostering collaborative learning in a digital space. In addition, Dewing (2010) highlighted that WhatsApp promotes interactive dialogue and collaborative discussions among learners, contributing to sustained engagement in learning activities.

Similarly, Ajani (2021) asserts that WhatsApp allows for continuous dialogue, offering quieter learners a platform to express their ideas comfortably while supporting peer-to-peer learning through information sharing and constructive feedback. Consistent with these findings, participants' responses in this study indicate that teachers use WhatsApp to achieve a common goal of supporting teaching and learning and improving instructional quality. This aligns with Gcabashe and Adebola (2023), who postulate that teachers increasingly use WhatsApp to share teaching and learning resources, enabling learners to access

learning materials regardless of geographical location and thereby enhancing understanding of subject content.

4.9.2 Facebook

On the other hand, P4 stated that he uses social media platforms like Facebook for collaborative learning and discussion, as students increasingly use them. He further stated that Facebook enable him to post activities for learners. He shared:

“Brainstorming can be particularly effective when done via an online platform such as Facebook. Facebook groups have been effective for creating collaborative learning environments. Learners discuss topics, share insights, and even post questions that extend classroom discussions. This impacts positively on learners’ performance.”

The excerpt from P4 indicated that he uses Facebook to facilitate brainstorming and dialogue amongst learners. This is in line with Hoi and Hang (2022), who affirm that Facebook promotes student engagement for better understanding. This insight shows that Facebook allows P4 to share school activities with learners and extend learning beyond the classroom, resulting in critical thinking and problem-solving. Therefore, through Facebook, teachers can assign informal activities to learners anytime. Moreover, P4 believed that this digital platform makes it easier for learners to interact with each other and contribute meaningfully, creating a sense of community.

In addition, P4 responses demonstrated that Facebook has a significant impact on learners' academic performance, as it serves as a tool for entertainment and engagement. Greenbowe (2009) asserts that Facebook promotes interactive learning, resulting in affective communication and engagement. This is supported by Neo et al. (2013), who stated that learners' engagement is essential to strengthen face-to-face classroom teaching, and activities using platforms such as Facebook should be integrated. They further stated that virtual platforms, such as social networking sites like Facebook, Twitter, and Myspace, increase learners' engagement. In this study, the utilisation of Facebook enables Business Studies teachers to facilitate brainstorming and reflective dialogue with learners.

Shahzad and Bilal (2019) argue that through engagement and discussion on Facebook, critical thinking and problem-solving may be promoted. Nevertheless, critics such as Busalim et al. (2019) argue that Facebook has a negative impact on learners’ performance. Siddiqui and Singh (2016) highlighted that inappropriate information may be posted on Facebook, leading to distraction from learners, and it may be difficult for educators to monitor learners who are not paying attention. Despite using Facebook, P2 shares a similar sentiment to P4, though she was not clear about the type of social media she uses in her Business Studies class. However, she mentioned that she relies on social media to create an inclusive environment that promotes collective contribution from her learners. In this way, all students get the opportunity to share subject knowledge with other learners. She elaborated,

“Sometimes I post something on social media, then request them to log in and share their views. Learners love looking at posts and reading other

learners' thoughts. And it's collaborative, and it gets some learners who wouldn't normally put their hands up, to actually contribute."

P2 revealed that by sharing information online, learners who are typically hesitant to speak in traditional classroom settings can express their thoughts freely. This highlights that Facebook promotes a comfortable classroom climate. This is in line with Greenhow and Askari's (2017) findings that social media promotes soft skills such as communication and collaboration, which are crucial for workplace performance. From the perspective of Conversational Theory, Facebook facilitates ongoing dialogue between teachers and learners through discussion posts, comments and feedback. Laurillard (2002) argues that learning is enhanced through iterative dialogue, reflection and feedback, all of which are evident in participants' descriptions of online discussions and reflective exchanges. These interactions enable learners to clarify their understanding and refine their thinking through social interaction.

5. Conclusion

The objective of this study was to explore the experiences of Business Studies teachers in integrating digital technology to support innovative pedagogical practices in rural secondary schools. The findings from this study showed that digital technologies, such as multimedia resources and social media tools, including WhatsApp and Facebook, are important for improving learner engagement, collaborative learning, and understanding of complex concepts in Business Studies. Teachers cited that such tools allowed interactive and learner-centred teaching strategies and were able to support meaningful post-classroom learning. The results of the study can be summarised as follows: successful integration of digital tools necessitates continuous professional growth, well-developed ICT infrastructure, well-developed school leadership and effective policies to guide the use of technology.

In these areas, it can be seen that digital pedagogy may be an effective force behind improved teaching and learning outcomes in Business Studies. Finally, based on the findings of the study, it is possible to suggest a number of research directions to extend and enhance the grasp of ICT integration in rural education. Firstly, more quantitative or mixed methods approaches are needed to directly explore the impact of ICT on teaching and learning. Secondly, based on the qualitative approach used in this study, future research could use standardised instruments to survey teachers to assess differences and similarities across provinces and districts, thereby improving generalisation.

6. Recommendations

6.1 Teacher Professional Development

This is in critical need of continuous professional development programmes that enable teachers of Business Studies to be equipped with practical skills on how to properly integrate digital tools into their pedagogical practices. The training should not be just basic training in digital literacy, but should also be based on how the teachers can use technology to engage learners more, encourage critical thinking and collaborative learning. Peer-learning clusters, workshops and

mentorship sessions need to be implemented in order to assist teachers in providing experiences and strategies that work in rural settings. These initiatives should be in line with CAPS requirements and subject the teachers to new pedagogies like the flipped classroom, gamification, and simulation-based learning. In addition, the training needs to be continuous as opposed to being one-time to keep the teachers abreast with the new emerging digital tools and trends in teaching.

6.2 Improving ICT Infrastructure and Availability of Resources

Rural schools also need heavy investment in ICT facilities and access to digital infrastructure so that they can utilise digital tools in teaching and learning. This also involves the provision of functional laptops, projectors, interactive white boards and a stable internet connection. In the absence of such vital resources, teachers cannot afford to apply innovative digital pedagogies. It is thus advisable that the Department of Basic Education, in collaboration with the district offices, should provide selected funding to rural schools to upgrade the ICT infrastructure. Digital resource centres should also be set up in schools where Business Studies can be done with the use of multimedia products, simulations, and online platforms.

6.3 Digital Literacy and Engagement of Learners

The digital literacy development of learners is necessary in order to maximise the advantages of the introduction of digital tools. The teachers of Business Studies are expected to present systematic activities in which the learner can utilise technology in significant ways, such as collaborative projects online, online research activities, and business simulation games. Learners should also be made aware of how to use the online platforms in a responsible and ethical manner through the organisation of digital literacy workshops in schools.

Platforms such as WhatsApp and Facebook can enhance communication and interaction in the classroom; therefore, teachers should establish clear guidelines and rules for their use to prevent misuse and distractions. Schools and educators should design structured online activities that allow learners to discuss academic topics, support one another and share knowledge. Training programmes should be implemented to develop learners' digital literacy, ensuring they can engage effectively with online tools while meeting the demands of the modern business environment.

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8. Conflict of interest

The authors declare that no potential conflict of interest exist relating to the authorship or publication of this article.

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