UNIVERSITY OF THE WESTERN CAPE

FACULTY OF EDUCATION

DEPARTMENT OF EDUCATIONAL STUDIES

A Case Study On Using Social Media As An Educational Tool By The Western Cape Education Department, In South Africa

Thesis submitted in partial fulfilment of the requirements for the Degree of Masters in Education

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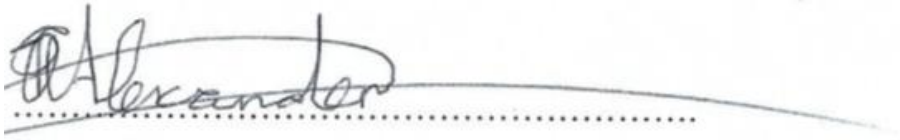
DECLARATION

I declare that "How social media can be implemented as an educational model to enhance teaching and learning: A case study of the Western Cape Education Department, South Africa" is entirely my own unaided work, and that, all the sources that I have quoted have been indicated and acknowledged by means of complete reference. It is submitted for the degree of Masters in Educational Studies in the University of the Western Cape, in South Africa. It has not been previously submitted as a research project, or thesis, at any other University.



Pearl Alexander

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DEDICATION

I dedicate this entire work to my father whose persistent effort ensured that his descendants pursued continuing education, my mother for her continuous moral support, also to my brother, Mark Matthee, who always told me to succeed you will struggle and to defy all odds so that you can stand out and be counted. Special thanks to my children, Zita, Daena and Daniel for being my reason for pursuing this.

ACKNOWLEDGMENTS

I would like to especially thank Prof. Luckay for this scholarly pursuit. Her encouraging words from the inception of this vital step in fulfilling my career to progress and broaden my educational experience had been inspirational during this entire research journey. With her assistance in scouting for a research topic and also her patience to monitor its evolution from a Research Proposal to a Dissertation, and the richness of the findings and the critical analysis, would not have been conceivable without her guidance as very few supervisors have that patience. Thank you once again for your time and assistance.

My special thanks also go to the research participants for their valuable input and time. I am grateful to everyone who has encouraged and supported me. A special and heartfelt thanks to my parents Mervin and Jossette Matthee for their unconditional support, thank you to my children, Zita, Daena and Daniel Alexander for your encouragement as it was deeply appreciated.

A special thanks as well to all my colleagues, friends and everyone that supported and guided me.

LIST OF ACRONYMS

ANC: African National Congress

BBM: Blackberry messaging

COVID-19 Coronavirus

CTLI: Cape Teaching and Leadership Institute

DER: Digital Education Revolution

DET: Department of Education and Training

FYP: Five-Year Plan

ICT: Information, Communications and Technology

IT: Information Technology

LAN: Local Area Networks,

MOOC platform

OECD: Organization for Economic Co-operation and Development

OLPC: one laptop per child

PIRLS: Progress in International Reading Literacy Study

PISA test Programme for International Student Assessment

ST: Student Teachers

THE: Technological Horizons In Education

TIMSS: Trends in International Mathematics and Science Study

TTS: Teaching with Technology Survey

REB: Rwandan Education Board

UNCTAD: United Nation Conference on Trade and Development

WAN: Wide Area Network

WCED: Western Cape Education Department.

VOIP: Voice over the internet

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ABSTRACT

This study explores district officials' understanding of the use of social media as an educational tool in the Western Cape Education Department (WCED) schools within a selected district in the Western Cape Province. Policy-makers tend to be responsive to changes by often showing the public their intended implementation strategies, yet do not drive a pedagogical agenda within these frameworks. This study seeks to gain insights into how the WCED district officials developed and implemented the Information, Communications, and Technology (ICT) policy and the impact on the pedagogical agenda, especially related to the use of social media. The study is important as it could guide these policy-makers to consider actively promoting alternative classroom pedagogies like using social media to enhance learner engagement in classroom practice. The study is vital as many benchmark tests in South Africa have shown that South African learners are performing below par on standardized tests compared to their international counterparts, suggesting that we should consider pedagogies to enhance learner engagement in classroom practice. To gain these insights the study adopted a qualitative research approach which involved five semi-structured interviews with selected senior district officials of the WCED. The study found that though the WCED is responsive to changes in school-related ICT policy implementation and has ICT-related policies in place, there is a lack of pedagogy-related policies for school teachers, especially those related to social media policies that allow for its use as an educational tool in the WCED-linked schools. Notwithstanding, many teachers do not have a sound understanding of how social media can be used as a pedagogical tool in classroom practice. In addition, some communities do not have adequate infrastructure to connect the learners. The study also highlighted that although social media is used widely in the country, it is not ready to be used as an instructional or educational tool in the WCED-linked schools since often mandatory infrastructure (e.g. access to the internet and technical training or staff development of teachers to use social media as educational tools) is lacking in many schools in the WCED.

KEYWORDS: Social Media, Social Media Policy, Educational tool, Education policy, Information Communication Technology, Western Cape Education Department, District officials

CHAPTER ONE

INTRODUCTION

1.0 Introduction

Technology is defined as the progression from recognizing a need within a context to the development of a technological artifact that addresses this need (Stenholm, et al. 2019). The understanding is that technology is realized when society develops new mechanisms and instruments for undertaking tasks that address human needs. Technology can also be simply viewed as the process and tools by which humans modify nature to make life easier and better. The same could be said about social media as it has emerged as a tool used in classrooms in the United States, China and Australia to improve learner performance and their engagement with teachers.

Naicker (2006) holds that in the context of South Africa during Apartheid there was segregation in education as White schools were highly developed and Black schools were neglected. Post-1994 despite the various attempts by the African National Congress (ANC) government to address these injustices of the past Makgato & Nji (2006) reveal that many South African learners are still lagging behind their peers in international examinations in subjects such as Mathematics and Physical Science. This poor performance for has led to many learners dropping out of schools leading to many politicians and civil society leaders advocating for the use of social media in classroom pedagogy to improve learners' performance (Makgato & Nji, 2006). Consequently this frames the focus of the current study.

To gain these insights into such as framework, the study employed the Social Constructivism Theory, which describes individual's personal experience of teaching, learning and reflection. It is premised on the understanding that the learning process is based on the interaction between learners and teachers, hence focusing on the construction of knowledge and the perspective gained is from the knowledgeable other – the policy-developers within a region in the Western Cape Province. This chapter unfolds in key parts, starting with a background to the study and then continuing to examine the research problem, identify the research questions and their aims and objectives, the rationale and the research setting of the study and finally the research methodology of the study. The chapter concludes with the overall argument and the structure of the thesis.

1.1 Background of the Study

During the Apartheid system in South Africa from 1948-1990, Naicker (2006) explains that there were racial divisions in all walks of life and this was also extended to the schooling system. As Apartheid policies classified South Africans into four distinct racial categories, namely, African, Coloured, Indian and White. The three former designations were grouped and classified as "Black" and the rest of the population was "White" (Fiske & Ladd, 2004). In fact Naicker (2006) adds that a legacy of well-equipped classrooms is glaringly evident in schools previously classified as White, whereas in Black schools infrastructure is lacking. Apart from the infrastructure gap the schooling system functioned to condition learners for hierarchical roles they would assume as adults, based on race (Kallaway, 1984). After 1994 the previously classified "White schools" have been referred to as ex-Model C schools based on the subsidy received from the government, and other schools are classified as "Black", which are considered to be poor schools. In the post-Apartheid climate, privately-funded schools are considered better equipped with global technology than government-funded schools, which generally suffer from inconsistent power supplies, poor sanitation, overcrowded classes and high absenteeism of employees and poor infrastructure (Gumbo, 2019).

Post-1990s the African National Congress (ANC) embarked on a series of political, economic and social reforms. These policy changes were a way to end changes in the racial divisions in the country. (Naicker, 2006) posits that there were reforms to ensure inclusiveness in schooling. Makgato & Nji (2006) add that despite these reforms, there was still a backlog in Mathematics and Science, as many learners were facing difficulties and others chose to drop out of school. The deteriorating conditions led to politicians and civil society in advocating for the use of social media to address these backlogs. It should be noted that the need to implement ICT in education is outlined in the 1995 White Paper on Education (White Paper on Education, 1995). Makgato & Nji (2006) explain that this was done to address the injustices of the past Apartheid education era, which created an inequality gap in the South African population as Blacks were neglected. These reforms for Naicker (2006) paved the way towards the creation of a single National Department of Education (NDE). Also, there was the creation of the Provincial Departments of Education (PDE) (Naicker 2006) which were conferred administrative control over the school sector in the various provinces in the country.

However, the PDE had to be guided by the 1995 White Paper (Naicker 2006) which proposed a national framework policy for the schooling sector. The key to addressing educational inequalities was the integration of ICT skills in the education system (Hennessy et al., 2010). Thus, teaching should not only be limited to

direct instruction as a teaching method, but should include the delivery of content via all electronic media, including the internet, intranet, extranet, satellite broadcast, audio/video tape, interactive TV and CD-ROM sources, known as asynchronous instruction. In addition, e-learning could take place synchronously, on live online platforms like Microsoft Teams, Zoom, WhatsApp, or Google Meet. In South Africa, however, the virtual classroom landscape is in an early developmental stage with socio-economic disparities still rife (Skhephe, 2020), as noted earlier.

In South Africa, the Apartheid regime caused backlogs in Mathematics and Science and also in the learner's ability to read (Makgato & Nji (2006). The outcome was that post-1990 many politicians and civil society leaders started advocating for the use of social media in classroom practice to address these gaps. This was critical as the performance of these learners is deteriorating, as illuminated in Mathematics and Science (Makgato & Nji, 2006) and then re-enforced by the important results according to the Human Science Research Council (2020), giving impetus to the need towards addressing these challenges. This was critical as the performances of these learners are deteriorating further. This is again substantiated by the Human Science Research Council (HSRC) (2020:3) which reveals that out of a total of 64 countries and entities that took part in the TIMSS 2019 Grade 4/5 study. The top five ranked countries were from East Asia – Singapore, Hong Kong SAR, Republic of Korea, Chinese Taipei and Japan. The five lowest-performing countries were Morocco, Kuwait, South Africa, Pakistan and the Philippines.

The Human Science Research Council Report (2020) explained that TIMSS 2019 Mathematics and Science achievement scores are 374 and 324 TIMSS points respectively. In terms of ability levels, 37% of learners demonstrated that they acquired basic mathematical knowledge, and 28% demonstrated that they acquired basic Science knowledge. Furthermore the HSRC (2020) elaborates on the implications of the Mathematics, non-improvement between the TIMSS 2015 and 2019 cycles and states that. “The Medium Term Strategic Framework’s (2019–2024) Grade 5 TIMSS mathematics score target of 426 in 2023 does not look attainable”. Furthermore, the HSRC report also reveals that South African achievement continues to be unequal and socially graded. The evidence suggest that the achievement gaps continue to be linked to socio-economic backgrounds, spatial location, attending fee-paying or no-fee schools, and the province of residence.

A further Study of importance is the Progress in International Reading Literacy Study (PIRLS) Assessment Framework (2021) which assesses international trends in the reading comprehension of young students in their fourth year of schooling-an important transition point in children's development as readers. PIRLS was

designed to complement the International Association for the Evaluation of Educational Achievement's TIMSS assessments of Mathematics and Science at the fourth grade. PIRLS is a comprehensive assessment of fourth grade students' reading literacy achievement. Conducted on a regular five-year cycle, with each assessment linked to those that preceded it, PIRLS provides regular data on trends in students' reading literacy on a common achievement.

Since 2015 South Africa has been performing poorly in both the TIMSS and PIRLS leading to many political and civil society leaders advocating for the use of social media in classroom practice. This study investigated how social media can be implemented as an educational tool to enhance teaching and learning in the WECD in the Western Cape. This is vital as worldwide social media is being used as a tool for instruction in schools. This view is echoed by Professor Dawson, an expert of Digital Marketing at the Catholic University of Cordoba, who notes that: "We live in a digital ecosystem, and it is vital that educational institutions adapt". He notes that history has shown us all that, despite the resistance, technological progress and new trends will ultimately become a standard. This applies to developed countries that have well-structured educational systems with schools that are equipped with Information, Communication Technology and this contrasts to developing ones like South Africa (Wade, 2021).

In many developed countries, education has changed as interactive learning is pivotal in learners' development. Education has evolved towards learner-centeredness, and the construction of knowledge is developed within a classroom learning environment promoting learner collaboration and interaction. Incorporating technology into such learning environments is successful internationally like in Australia and China. According to a study conducted by Balakrishnan, et al. (2017), "the results indicate that Australian students agreed that social media assist in the pursuit of academic knowledge in this digital era." In these countries, education is thriving due to the fusion of social media (Balakrishnan, Teoh, Pourshafie & Liew 2017:91).

In sub-Saharan Africa, Rwanda adopted ICT and social media was introduced into education when Nadia Uwamahoro and Origiene Igiraneza, established e-Founders, whereby they created two digital education platforms to help students receive online education during the COVID-19 Pandemic (Cianca 2020:6). These platforms include virtual learning, libraries and science laboratories that assisted them to continue studying during the COVID lockdown when they were prevented from attending classes (Cianca 2020).

Cianca (2020) adds that the Rwandan Education Board (REB) took steps to assist learners digitally during the COVID-19 pandemic as it broadcast educational radio programs for six hours daily on weekdays to assist learners. They also launched a YouTube channel with educational content. The curriculum features lessons in the sciences like Mathematics and Biology. The REB also created an environment for teachers to assist to improve teaching. Furthermore the REB revamped its online school websites to provide digital resources and professional development tools to support teachers and students. This was vital as in Africa, 89% of learners do not have computers and 82% do not have internet access. The REB then partnered with telecommunications companies to waive internet fees for these student users.

In South Africa, The Phepha uFunde campaign was launched to mobilize for educational change and respond to the challenges schools are facing during the Covid-19 Pandemic. Experts were brought in and they developed the content for the campaign by sourcing information from educators and profiling innovative ways to tackle these unexpected problems (Mail & Guardian 10 December 2020). A social media strategy was at the center of their messages as they used Facebook and Twitter to mobilize for change in schools.

Initially, the Facebook strategy focused on content that was developed by the various teams. This was re-worked in the campaign to focus on sharing user-generated content that was supplied by teachers and school leaders. Through the sharing of the content in videos, transcripts and pictures they received from teachers and school leaders the engagement. The numbers rose and stressed the need for a platform for teachers and leaders to share problems and solutions (Mail & Guardian 20 December 2020).

The success of these campaigns in other countries incorporating ICT like social media in their educational systems is likely to have an impact on informing countries like South Africa, where there have been problems with learner achievement at various levels in the education ecosystem. “As far as educational outcomes are concerned, South Africa has the worst education system of all middle-income countries that participate in cross-national assessments of educational achievement” (Spaull, 2013:3).

Evidence shows that past pedagogies have very likely been ineffective in promoting student learning amongst South African learners. Given that current learners are classified as millennials, where they use technology at higher rates than people from other generations (Junco & Mastrodicasa, 2007), technology should be incorporated into South African learners’ education to engage them in the learning process. Indeed, these steps could lead to the critical need based on evidence from TIMMS and PIRLS for the country’s education system to cater to the millennials. Strauss & Howe (2000) ascribe seven basic traits to the millennials cohort:

special, sheltered, confident, team-oriented, conventional, pressured, and achieving. The authors found that 97% of these students own a computer, 94% owned a mobile phone, and 56% owned an MP3 player. Therefore, it is plausible that incorporating social media as an instructional tool could bring positive changes to the country's education as these millennials have the requisite resources.

The government has recognized the merits of technology in education stating that technology drives two primary changes in education better achievement, and preparing learners with 21st century skills. The Department of Education's Draft White Paper on e-Education (2003:8) states that "The introduction of ICTs to our schools is creating new ways for students and teachers to engage in information selection, gathering, sorting and analysis. Also, ICTs have the potential to enhance the management and administrative capacity of schools" (Department of Education 2003:8).

Recently, the WCED has promoted an e-learning policy to create an enabling environment to change teaching and learning in public schools and to promote a change in the physical and cognitive environment of the learners. According to the WCED's Vision for e-Education, "The vision imagines a metamorphosis of traditional teaching, learning and environment into e-teaching and e-Learning and virtual learning environment… This vision will propel the WCED into a new e-Learning era and this has to be implemented between five to ten years" (Department of Education, 2003:13).

However, one of the challenges to the use of social media as an educational tool is the issue of the digital divide which is a phenomenon linked not only to the topic of access to the internet but also the one usage and usage benefit (Fuchs & Horak, 2008).

Extant literature reveals the use of technology in the classroom has been addressed in practice specifically how technology such as ICTs can be integrated into classroom practice (Ngambi et al,2016, Hartman (2019), Hardman and Set 2021). However there is a gap in the literature on how social media can be used in teaching and learning, and how the execution is being reinforced by the management structures within the WCED. This study attempts to address this gap.

1.2 How the Western Cape Education Department can use social media in enhancing education

The South African government has recognized that change should take place in classroom practice and supports the use of technological tools to enhance classroom pedagogies. Technology-enabled learning environments are to extend learning beyond the reading and writing learning objectives of the 20th century to include 21st century skills and competencies that are necessary for success in a knowledge economy (Makgato & Nji, 2006). Such a task is difficult given that schooling in the country and around the world is struggling to achieve basic outcomes. The following is an example namely "The quality of education in South Africa remains very poor, mostly in the historically deprived areas; the schools do not have the basic learning infrastructure requirements like access to laboratories, libraries and Internet connections; and less qualified science educators. As a result, learners experience learning deprivation, higher-grade repetition and dropout rates" (Statistics South Africa, 2015 and 2016:3).

The government has implemented a new curriculum called the "National Curriculum and Assessment Policy Statement" (CAPS, 2018:2) which is a single, comprehensive, and concise policy document that, which has replaced the Subject and Learning Area Statements, Learning Program Guidelines and Subject Assessment Guidelines for all the subjects listed in the National Curriculum Statement Grades R-12" (Department of Basic Education's Curriculum Assessment Policy Statement document). This document makes provision for Information Technology such as computers, the internet, and different software.

The South African curriculum support and promote new 21st century skills that can be developed through learner-centered classroom learning environments and pedagogies supporting active learning. Thus, at the school level, the policy supports the development of a classroom learning environment that encourages pedagogies promoting the use of technology. To transform education in the country, we must think beyond the incremental changes in the classroom and focus on the school leaders that can re-invent education. They should initiate and drive change through policies. They play a pivotal role to address the challenges.

The government has endorsed projects to support the implementation of technology in schools like the Khanya and Phakisa projects. "The Khanya project is to promote learning and maximize educator capacity by integrating the use of appropriate, available and affordable technology mainly computer technology into the curriculum delivery process" (Khanya Project: Western Cape Department of Education) (2001:1-2). However, there are societal factors that impact their service like security to protect the facility. There is also Operation Phakisa which "is an initiative of the government designed to fast track the implementation of

solutions on critical development issues" (Operation Phakisa; Department: Planning, Monitoring and Land Evaluation) (2014). Phakisa is vital to fast track projects like the Khanya project and thus ensuring faster implementation.

The WCED has developed two policy documents; the Western Cape Education Department's (WCED) Vision for e-Education (2012) document and the e-game changes document (2012) which states that "Digital technology has the potential of improving every aspect of schooling, from teaching and learning to assessment, school management and parent support. A key benefit of e-learning will be to reduce the gap between poor and well-resourced schools, by improving access to the best educational resources and support."(; the Western Cape Education Department's (WCED) Vision for e-Education (2012). This document states that the WCED will also be providing all schools with Wi-Fi connectivity to enhance teaching and learning through digital technologies.

To support policy implementation, the WCED set up an e-portal project known as [100 schools project]; updated Information Technology laboratories; implemented SMART classrooms and provides training at CTLI (e-beam, interactive devices, tablet training, e-learning integration for teachers). Also, there are infrastructural supports like (Local Area Networks (LAN), Wide Area Network (WAN), smart classroom, tablets). Moreover, the e-Game Changer document supports a technology learning setting to bring about change in the school culture.

To reinvent the role of schools, teachers, and the systems around them, and for teaching to be driven by school leaders, especially those who develop and guide the implementation of policy. To gain these insights this study explored how a selected group of school leaders in a school district perceived, directed and supported the drive to implement ICT technology policies, particularly social media policies, at schools under the Western Cape Education Department.

The quality of education in the country, versus other countries, is poor. According to the World Statistics measured in 2015, the country was ranked second last in the world for the level of performance in mathematics and science at schools. According to Christie (1998), "A prominent and problematical legacy of apartheid education, which requires transformation, is the poor functioning of a large number of previously black schools……" (Christie, 1998:2).

This study will focus on exploring social media as an educational model to enhance teaching and learning and whether it can be and the extent to the successful implementation through the perspectives of the key

policy-makers – the district officials. Therefore exploratory research will be conducted in the districts of the Western Cape Education Department to gain these insights. The study explores various perspectives on how social media can be used as a tool that can contribute to teaching and learning in the province. This trajectory is vital as most learners have access to and engage on social media platforms. In addition, mobile devices are becoming affordable and within the reach of the masses (Mayisela, 2013).

According to Edumic (2015), teachers can bring the "real world" into their classrooms when integrating social media into their lessons. The application of social media is being implemented in countries like Australia and China, as will be revealed in the literature review. The question to ask here is to what extent it is being implemented in Western Cape Education Department schools, despite an elaborate ICT education policymaking provision for e-learning.

Another strand of inquiry should be whether it would not be easier to incorporate educational social networking, instead of incorporating computers and other technology, as most learners own and/or have access to web-enabled phones. "Although mobile and social media are more evident now than ever before teaching and learning practice in South African higher education remains largely unchanged" (Ng'ambi, Bozalek, Gachago & Wood, 2016:6). This study examined the school policies of Australia and China as these countries made use of educational social networking sites. Indeed, the study selected these countries to highlight how they are implementing this in their schools. Rashidi & Alesantino (2015) explain that "all together social media is a great resource, which is greatly under-used, in and out of a classroom."(2015:3). This statement justifies the relevance of this study as it evaluates how social media can be implemented in the WCED as a medium of instruction.

1.3 The Research Problem

The central research problem this thesis sought to address was to explore social media as an educational model to enhance teaching and learning at schools in the WCED. Firstly, the study explored the understandings of various WCED district officials involved in the development and implementation of ICT policy in schools on how social media could be used as a tool that contribute to teaching and learning in the province. Therefore, exploratory research was conducted in one district of the WCED, to gain these insights. Secondly, another strand of inquiry was whether it would not be easier to incorporate educational social networking, instead of incorporating computers and other technology, as most learners owned and/or had access to web-enabled phones. The study documents insights gained from the literature of two key successful

countries, namely, Australia and China, where the school policy of these two countries promote the use of educational, social media as a pedagogical tool. In terms of successful educational programs these countries are ranked in the top twenty in the world.

In contrast to Australia and China, South Africa has been ranked one of the worst-performing countries in Mathematics and Science in the world according to the 2015 World Statistics. The country was ranked second last -according to the largest ever global school rankings in the 2015 World Statistics. This has led to many learners likely opting for easier subjects like Mathematics literacy instead of Mathematics, and up until the year 2011, only 45 percent of learners were choosing -second last-according to the largest ever global school rankings. This is leading to many learners opting for easier subjects like Mathematics Literacy instead of mathematics, and up until the year 2011, only 45 percent did or are doing Mathematics (Spaull, 2013). Studies have shown that from 100 students starting Grade one only 50 pass Grade 12 because of the high drop-out rate in schools (Spaull, 2013).

This high drop-out rate is a violation of their right to education as stipulated in the South African Constitution of 1996 in terms of Section 29 (1) (a) which expresses that everyone has the right to basic education. This right to education has been supported by the White Paper on Education, the School Act of 1996 which argued for the need for quality education. The introduction of social media in education could be interpreted as improving the quality of education and could plausibly reduce the school drop-out rate.

The problem is also attributed to the legacy of the Apartheid system, large classes, unskilled teachers the socio-economic background of learners, poverty, and the curriculum. Spaull (2013) explains that there are two different public schooling systems in South Africa: the wealthier 20-25 percent that are better performing schools and the larger, poorer 75-80 percent that are worse performing schools. These inequalities are still possibly one of the problems contributing to the state of education in the country. This could explain why the country is lagging behind most countries in terms of Mathematics and Science. It is for these reasons that social media as an educational model could be used to enhance teaching and level the playing fields to improve education in the country

This study sought to highlight these problems and develop possible policy recommendations on how social media could be implemented to enhance the performance of learners in the WCED. The study aimed to justify the need for social media as an intervention mechanism to address educational challenges. Interestingly and

importantly there are no previous research studies in South Africa on the need to use social media as a medium of instruction to enhance education in the WCED.

Previous studies have not highlighted how social media could be employed to enhance learning and teaching in the WCED. This study would therefore influence policy on the implementation of social media as a teaching and learning tool in the WCED. As part of the study some school leaders in the Metro East of the WCED were interviewed.

This was crucial as many South African teachers lacked the necessary training to incorporate social media as a pedagogical tool, whereas countries like Australia and China had successfully incorporated ICT-teaching tools. These form an integral part of their curriculum and contribute to ensuring positive results, ranking them in the top twenty in the world. The other challenge is the absence of a legislative framework and an implementation strategy in favor of the use of social media to enhance teaching and learning. Against the backdrop of existing education policies on ICT and learning, the possible lack of implementation is still highly evident in South Africa.

1.4 The Research Question

The main research question this thesis sought to address was:

What are the experiences of district officials in the WCED with the implementation of social media as an educational tool in schools?

1.5 The Research Sub Question

1.5.1 How is social media as an educational tool conceptualized internationally and in the South African context?

1.5.2 What are the experiences of district officials in the implementation of social media as an educational tool in WCED mainstream schools?

1.5.3 What comments and suggestions can be made regarding the implementation of educational policies on social media in WCED mainstream schools?

1.6 The Main Research Aims/Objectives of the Study

1.6.1 Objective 1:

To unpack how social media as an educational tool is conceptualized on an international level and contextualized in South Africa (Literature Review)

1.6.2 Objective 2:

To explore the experiences of district offs schools regarding the implementation of social media as an educational tool in mainstream schools (Semi-structured Interviews)

1.6.3 Objective 3:

To foreground the South African policy framework for social media as an educational tool and to position the South African policies within this framework.

1.7 Research Rationale or Justification for the Study

Nationally, there was a lack of evidence in South Africa on how social media could be used as a tool for teaching and learning in schools. This study was one of a relatively small number of independent studies currently examining the possible lack of social media implementation. Therefore, it was hoped that this study would make a contribution to the field of research. In conjunction with contributing to the literature on the subject, the study endeavored to find solutions to the reasons why social media was very likely not being utilized to improve education in South Africa when there were examples of its positive benefits in countries like Australia, Canada and China.

Based on the comparative analysis between Australia and China it is hoped that the results of this study might be used to guide the South African ICT in Education Policies on social media as an additional educational tool for schools. This might also have provided valuable information to the WCED on ways in which social media could be implemented to strengthen poor Mathematics and Science results at schools. In addition, it was hoped that this study would inspire pioneers to participate in the discussion on ways in which social media could be best utilized by voicing their valuable opinion on ways to fast-track the lack of policy implementation to date. Furthermore, it will also document the responses related to critical problems in most South African schools in most South African schools that might prevent social media from being implemented as part of a blended teaching approach.

The researcher aimed to compile a comparative analysis on the Educational Policy on ICT in Australia and China as a best practice model, to guide the South African policy towards implementation; a crucial step towards the design of a model to implement social media as a tool to aid teaching and learning in South African schools. This study aimed to contribute towards improving education by using a tool that most learners use daily, and by changing the manner of teaching and learning within the classrooms. Schools could then incorporate ICT to create a more learner-centered approach to education by constructively incorporating

social media in a way to aid teaching and learning as it has been proven that this manner of teaching is more beneficial towards the learner. According to WCED's vision for e-Education (2012) "The vision "…imagines a metamorphosis of traditional teaching, learning and environments into e-Teaching and e-learning and virtual learning environment…)." (2012:3).

1.8 Research Setting

The Western Cape Education Department (WCED) is the department of the Government of the Western Cape responsible for primary and secondary education within the Western Cape Province of South Africa. The political leader of the department is the Provincial Member of the Executive Council for Education.

This is a shift from Apartheid as education in the country was segregated according to race, with different government departments administering schools for the different races (Naicker 2006). The current Western Cape was at that time part of the Cape Province, and schools for white learners were run by the Education Department of the Cape Provincial Administration. Schools for Coloured students were run by the House of Representatives Education Department, while schools for Black learners were run by the Department of Education and Training Post-1994, the Interim Constitution of South Africa came into effect, abolishing the old provinces and establishing the nine new provinces. The new WCED inherited all schools from the previous departments that were located within the Western Cape. In terms of its administrative structure the WCED's administrative head of the department, subordinate to the National Minister of Education, is the Superintendent-General of Education.

The Western Cape is divided into eight education districts; four are "rural" districts which correspond to one or more district municipalities, while the other four are "urban" or "Metro" districts within the City of Cape Town. The districts are: Metro Central, Metro East, Metro-North, Metro South, Cape Winelands, Eden & Central Karoo, Overberg and the West Coast

The districts are responsible for the management of education, with policy and planning being handled by the head office. Each district is also divided into several "circuits", which provide advice, support, and specialized facilities to a small collection of schools. This study was conducted in the Metro East Education Districts in Kuils River as that Metro focuses on ICT incorporation in schools.

1.9 Research Methodology

Researchers in the field of education use various methodologies based on the nature of the research objectives of the study. Education research can use qualitative, quantitative, or mixed methods research. This research adopted the qualitative approach as it was deemed the most appropriate.

1.9.1 Research Approach

Kansteiner & König, (2020) explain that to conduct scientific research, a researcher might use either a qualitative research approach or quantitative research approach or a combination of both depending on the data collection method that s/he chooses to employ. The decision to use either a qualitative or quantitative research approach was influenced by data collection methods. What was important, according to the two authors was for the researcher to select instruments or techniques that fitted the research approach of the study or was appropriate to the goal of the research. Aspers & Ugo (2019) explain that a qualitative approach is a way in which a researcher seeks to answer 'how' and 'why' questions through descriptive and interpretative information. The approach brings in an individual's interaction with the issue being investigated (Clark & Ivankova, 2016).

This study adopted a qualitative approach to probe and explore a case study on using social media as an educational tool by the WCED. This facilitated an in-depth description of the situation that included interviews, observations and analysis of personal documents. It allowed direct interaction with participants and enabled the researcher to gain an understanding of the phenomenon being investigated.

1.9.2 Research Design

A case study design was considered the most relevant method for this research as stated by Yin (2003) because it allowed for a holistic and systematic focus on a single aspect, using multiple sources of evidence to get a better picture of the status quo. Mohajan (2018) asserted that the case study strategy allowed the researcher to study the subject matter within its context. Rashid, et al. (2019), further argued that a case study provided explanations to poorly understood cases or phenomena. Because the study used a single case study there were limitations because the results could not be replicated and could not be generalized (Heale & Twycross, 2018). However, the study provided some great insights into how social media could be used as a tool

1.9.3 Research Instruments

One of the most significant aspects of research is the development of a data collection method. The data collection methods used in this research included in-depth interviews and a review of secondary sources. The researcher interviewed WCED officials in the Metro East through face-to-face semi-structured interviews. The responses from the participants were audio-recorded. Secondary sources refer to information that has been compiled by another person, e.g. research books, journal articles, reports, etc. The study used several sources of data, including policy documents and literature on the use of social media in schools and policy documents.

1.9.4 Data Analysis

The data analysis process applied qualitative analysis methods that were suitable for the case study schools. According to Sharma (2018), data analysis refers to the process of bringing order, structure, and meaning to any collected data. In the qualitative context of the study, content analysis was used to analyze data. The researcher developed categories of responses based on the themes that emerged and then counted the frequency of instances when those categories occurred. The analyzed data was drawn from interviews with District Officials' as the primary theme of the research was to gain insight into the extent to which social media was used as a pedagogic tool by schools in the Western Cape.

In this light, a social constructivist lens was used during data analysis. This gave insight into District officials' personal… and the use social media in the WCED. In the process, the researcher also sought to understand how learners benefited or could benefit from the introduction of social media in classroom practice.

In order to prepare the data for analysis the manual transcription and coding were done. The coding process enabled the data to be merged and coded into major themes. The themes that emerged from the thematic analysis process included:

- Theme 1: The Concept of Social media;
- Theme 2: How social media can be used in classroom practice;
- Theme 3: The absence of social media policy at national and provincial level;
- Theme 4: The lack of know-how by teachers and students;
- Theme 5: Lack of knowledge of using social media;

- Theme 6: The cost of ICT;
- Theme 7: Policies or legislation on ICT and e-education and social media;
- Theme 8: Policy implementation of social media;

1.10 Research Ethics

According to Abrar and Sidik (2019:186), ethics is the principle of right and wrong conduct and refers to how the researcher should carry him or herself during the period the research is conducted. The General Chiropractic Council (2012) defines informed consent as a process of explaining questions to participating institutions and individuals who have released their documents to be analyzed or availed themselves for interviews. The study was conducted after the University (see Appendix J) provided ethical clearance. The researcher also ensured honesty and respect, to protect the institutions that were part of the study. Further, the researcher ensured that informed consent was observed.

1.11 An Overview of the study and the Organization of the Thesis

The main argument this Master's thesis attempts to explore is to gain insight into how social media can be implemented as an educational tool to enhance teaching and learning in the WCED. Thus the study started by examining how social media had been employed globally, regionally in Africa, and in the sub-Saharan region in South Africa and the WCED. Through this, a problem statement was framed. The study then developed this argument through five separate chapters which are linked to the main theme.

Chapter One explained the background to the research problem, the research aims/objective, the central research question, its rationale, research setting, the research methodology, overview of the study and the organization of the thesis.

Chapter Two dealt with the literature review of the study as it unpacked the global perspective on the case study of how social media can be used as an educational tool in schools to enhance the performance of learners. It further examined the different social media tools. Thereafter it explored the cases of China and Australia as good case studies where social media is used as an educational tool. It also examined the South African context and specifically the case study of the Western Cape Education Department, to gain insight into the various ways in which social media could be used to enhance learning and teaching in WCED. The study employed social constructivist theory to orientate teaching as an interactive process.

Chapter Three examined the research methodology of the thesis. The concept of research methodology was explained, and also the notion of the research paradigm. The use of qualitative research and transferability were also explained.

Chapter Four presented and discussed the data collected through semi-structured interviews, elite interviews and extensive documentary reviews on how social media could be implemented in the WCED to enhance performance. The data collected would respond to the three specific objectives of the study, which were linked to the main research objective of the study, which in itself emerged from the overarching research question of the study. Data analysis was completed through a qualitative thematic approach.

Chapter Five concluded the study by presenting overall remarks and recommendations for policy, government and future researchers.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The preceding chapter introduced the study. It provided a background to the research problem, the research question, and the research objectives. It also presented the rationale for the study, as well as the research methodology. This chapter presents a literature review of international and local studies that discuss policies and practices pertaining to the use of social media as an educational tool. I the instance, I provided a global perspective on social media as an educational tool together with the influence of contextual issues on the implementation, which is outline systematically. Different models of social media as educational tools are discussed in order to better understand social media practices, on both an international as well as a national level. This is done by presenting case studies regarding inclusive social media practices from China and Australia. The chapter is concluded with an exposition of social media as an educational tool in South Africa.

2.1 A Global Perspective on the use of Social Media as an Educational Tool

This section of the thesis explores the global perspective on how social media is being used. This is crucial as United Nation Conference on Trade and Development (UNCTAD) (2018:1) explains that the 2030 Agenda for Sustainable Development sets out clear goals, action plans and efforts in its vision of "leaving no one behind," (Kituyi, 2018:1). -Unlike the previous Millennium Development Goals, these are universal and comprehensive goals that give equal importance to the economic, social and environmental pillars of sustainable development. Islands of prosperity surrounded by poverty, injustice, climate change and environmental degradation are viewed as neither sustainable nor acceptable.

The document further reveals that research indicates that developing countries face an annual gap of $2.5 trillion in public and private investment relative to the needs of the Sustainable Development Goals (UNCTAD, 2014b), including $342 billion per year for low-income countries and around $900 billion per year for lower middle-income countries (UNCTAD, 2016d). Bridging such a gap is a formidable task, especially in least developed countries (LDCs).

The report further explains that the Sustainable Development Goals (SDGs) go beyond the Millennium Development Goals' objective of halving extreme poverty, to require its complete eradication everywhere by 2030. This is a particularly ambitious goal in LDCs – "the battleground on which the 2030 Agenda will

be won or lost" (UNCTAD, 2015b:4) –zero in 15 years, requiring a much greater economic miracle than that achieved by China since 1978 (UNCTAD, 2015c).

The authors of the report further notes that the Sustainable Development Goals also envisage, amongst others universal access to water, sanitation and affordable and reliable energy; combatting child mortality; reducing inequality within and among countries; making cities and human settlements inclusive, resilient and sustainable; and generating more productive jobs. It is clear that business as usual will fall far short of delivering these aspiring goals.

UNCTAD (2018) explains that science, technology and innovation (STI) played a pivotal role in the progress towards the Millennium Development Goals (MDGS); and the new and more ambitious 2030 Agenda will require still greater engagement of the global STI community. Technology is explicit as an important means of implementation of the Sustainable Development Goals, while Goal 9 economies, tackling vulnerability, building resilience and achieving inclusive prosperity in the global world. The role of STI is formally recognized in other global development policy agreements.

The report notes that the task of achieving the Sustainable Development Goals is complicated by the multiple interconnected social, economic and environmental issues involved, including poverty, food security, nutrition, health, water and sanitation, energy access and access to ICT infrastructure.

The depth and complexity of these interconnections require new forms of development in STI. The 2030 Development Agenda is being pursued in a context of profound transformation, driven by rapidly evolving and often converging technologies that are expected to radically change the operation of production systems, the roles of different players and industries themselves. UNCTAD (2018) explains that on the one hand, frontier technologies may have far-reaching effects for the ability of societies to respond to many pressing social and environmental needs. On the other hand there could be consequences for equality, employment … developing countries. For these reasons, this report focuses on the opportunities and challenges of harnessing frontier technologies for sustainable development.

The report states that apart from removing these barriers there is a need to address the persistent gap between developed and developing countries, there is an urgent need for sustained effort by the international community to ensure that no one is left behind in the race to the new world that they are forming. But in most case developing nations are not able to participate as they are not adequately always left behind. It is this lack of adequate participation that necessitates the use of social media in the schools to bridge the gap.

The report outlines strategies and actions to increase the effectiveness of frontier and established technologies as means of implementation of the 2030 agenda nationally and globally, combining existing experiences in STI policy for development with more innovative approaches. It should, however, be stated that the focus of this report on the role of technological innovation in development does not imply a disregard for the power of non-technological.

UNCTAD (2018) report adds that the establishment of the United Nations Inter-agency Task Team on STI for the Sustainable Development Goals and the launching of the Technology Facilitation Mechanism. UNCTAD is currently exploring how to incorporate these dimensions of innovation more effectively in its policy work and technical cooperation programs, and they will be the subject of analysis in future publications

2.1.1 Frontier Technologies with their Great Possibilities and Challenges

This section explores the role of frontier technologies. It notes that these technologies offer great possibilities and challenges. UNCTAD (2018) explains that the social, economic and environmental challenges of the twenty-first century and the ambitious agenda of the SDGs co-exist with frontier technologies that can and should play a major role in finding and applying the necessary global solutions. In this light, these technologies provide new and often underappreciated possibilities for economic development, environmental protection, education and governance, offering the potential for a world of far greater prosperity, while enhancing environmental sustainability and mitigating climate change. Many of these technologies also offer the prospect of solutions and opportunities that are:

(a) Better, in that they solve problems more effectively, provide new capabilities and opportunities, and human resources;

(b) Cheaper, in that the cost of technologies such as microchips and renewable energy has fallen exponentially as they have become more powerful;

(c) Faster, in that the new technologies are diffusing ever more rapidly around the world, propelled by Internet connectivity and sharply falling prices;

(d) In that they often offer small-scale solutions that can be rapidly scaled up to meet human needs for energy, food, clean water, health care and education; and

(e) In that they have rendered previously complex, laborious and/or time-consuming tasks, such as searching for patterns in huge data sets, almost effortless, while becoming increasingly transparent to users.

Indeed, UNCTAD (2018) adds that these traits open the possibility of a democratization of technology, making technological innovation an increasingly bottom-up process. According UNCTAD (2017b), globally, the digitalization of economic activities has been accelerated by expanding access to high-speed broadband and drastic reductions in the cost of ICT equipment and software: the cost of 1 gigabyte of hard drive storage capacity was just $0.02 in 2016, compared with more than $400,000 in 1980.

The report adds that harnessing new technologies and innovations could thus be transformative in achieving the Sustainable Development Goals and producing more prosperous, sustainable, healthy and inclusive societies. They offer governments seeking to meet the challenges of the SDGs with limited resources an opportunity to achieve "more with less" by supporting their use and developing new innovation and risks. They can allow new solutions to be found triaged more quickly, reducing the risk of technology investment "bets" proving costly and of technologies being obsolete before they come to fruition.

However, the spread of new technologies would probably outpace the ability of societies and policymakers to adjust to the changes they create. Friedman (2016) explains that the rate of turnover of technology platforms can reportedly be as short as 5–7 years – half the 10–15 years it may take society and regulatory measures to adapt. This has created widespread anxiety, causing uncertainty to and/or repudiation of technological advances like gene editing and deep learning.

The UNCTAD (2021) report notes that in most cases, if societies are to cope better with the quicker step and broadened scope of technological change, policy developers will need to develop plans based on technological foresight and assessment of potentially. It should not be assumed that technological change systematically precedes social and institutional change. The reverse sequence is possible, with no less and in most cases deep learning allows computational models that are composed of multiple processing layers to learn representations of data with various levels of thought.

UNCTAD (2021) adds the these technologies have improved the state of the art in speech recognition, visual object recognition, object detection and many other domains, like drug discovery and genomics. Deep learning discovers intricate structure in large data sets by using the back propagation algorithm to indicate how a machine should change its internal parameters that are used to compute the representation in each layer from the representation in the previous layer.

LeCun et al. (2015) notes that there are deep convolutional nets which have brought about breakthroughs in processing images, video, speech and audio, whereas recurrent nets have excelled light on sequential data like text and speech. UNCTAD (2021) adds that human development in recent decades has been accompanied by rapid changes in technology and an increasing spread of digitized devices and services. And the pace of change seems likely to accelerate as a result of "frontier technologies" like artificial intelligence (AI), robotics, biotechnology, and nanotechnology.

UNCTAD (2021) notes that these technologies have already brought benefits highlighted in 2020 by the accelerated development of coronavirus vaccines. But rapid advances can have serious effects if they outpace the ability of societies to adapt. There are fears that jobs are disappearing as more economic activity is automated with these advances in Artificial Intelligence.

The report adds that in total there are concerns that frontier technologies will further widen inequalities, or create new ones. Most of these issues have been voiced in developed countries. But the implications could be even more serious in developing countries-if poor communities and countries are either overwhelmed or simply left behind. This report considers how developing countries can catch the wave of frontier technologies, balancing innovation with equity in pursuit of the SDGs.

2.1.2 Catching the Waves

The UNCTAD (2021) report explains that we live in an age where technology changes very fast and mostly concentrated in developed countries. But the great divides between countries that we see today started with the onset of the first industrial revolution. At that point most people were equally poor and the gaps in per capita income between countries were much smaller. Moreover, the scholarship adds that with waves of technological change, Western Europe and its offshoots – Australia, Canada, New Zealand, and the United States-along with Japan, pulled ahead. Most other countries remained on the periphery. Every wave of progress was associated with sharper inequality between countries – with widening disparities in access to products, social services and public goods-from education to health, from ICT infrastructure to electrification. UNCTAD (2021) further notes that nevertheless, a few countries, in East Asia, were later able to catch up through technological learning, imitation and innovation.

Bajpai, Biberman, & Ye (2019) substantiates that Information and Communications Technologies (ICTs) stand at the vanguard of a series of economic transformations which are changing societies around the globe in several areas. Over the course of the Third Industrial Revolution, ICTs enabled instantaneous

communication and sharing of information over vast distances, driving global trade worldwide. The Fourth Industrial Revolution, which will witness the development of paradigm-shifting in technologies like generalized Artificial Intelligence and the automation of infrastructure, will accelerate these changes even further.

The UNCTAD (2021) report adds that it is within developing countries, however, that ICTs could have their most lasting impact by serving as agents of development for the poor, the rural, and the marginalized. The nature of ICTs is to lower barriers to accessing knowledge and to accelerate transactions, while some of the most significant factors inhibiting development include uneven access to information and distance from infrastructure that facilitates transactions. If the essential influence of ICTs is mobilized to challenge education disparities, close the health gap, fulfill the potential of agriculture, and meet other development priorities, then the societies of these countries moving forward will be more mobile, inclusive, and ultimately, sustainable.

The report again notes that education stands as a vital urgency sector for ICT-driven development because it serves as the keystone which shapes how individuals participate in their society. A proper education equips students with the right skills to thrive in a work environment which few may have envisaged just a few decades in the past, and the ability to teach and adapt oneself to an economy whose demands on workers continues to rapidly change. They add that quality education also equips students with critical skills that prepare them to serve as better, more informed citizens as it strengthens the pillars of sustainable development which are creating an economy that works for all and a cohesive and mobile society.

The scholarship adds that citizens in China experience quite different demands as workers and citizens, shaped by past circumstances and paths that continue through the present day. In this case education has played and will continue to play a critical role in adapting Chinese to their societies, and when necessary, bending the arc of the status quo to make those societies more inclusive, equitable, and sustainable. Thus supporting how the use of social media in education can enhance learning and teaching.

2.2 Different Approaches on Social Media

As mentioned earlier, social media refers to sites and applications such as MySpace, Cyberworld, Twitter, Mxit, WhatsApp, Blackberry messaging (BBM), Blogs, Wikis, Podcasts, Skype and various educational social networking sites. Social media also relate to the digital technology that enables people to communicate (Poore, 2014). In this light, Poore (2014) explains the characteristics of social media, noting that it consists

of qualities like participation, communication, collaboration, interactivity, sharing, networking, creativity, distribution, flexibility and customization.

It is worth noting that most learners already own or have access to smartphones that are web-enabled or connected to the internet. Therefore the utilization of social media as an educational tool in teaching and learning could be implemented easier in schools. Despite these positive benefits uncontrolled social media use in a classroom can lead to challenges for the teacher. There are different views and opinions of scholars on the positive and negative effects of social media as an educational tool in the classroom.

2.3 Social Media as an Educational Tool: The Case Study of China

This section explores social media as an educational tool. Meng & Li, (2002:1) explained that the dramatic revolution in information and communications technology in China started in the1990s, which saw the "convergence of the IT industry and the communication industry" that can be seen as "the major driving force" of economy (Meng & Li, (2002:1). ICT was often "identified as a key to improve the resource allocation process and to more efficiently implement programs" (Heeks, 2010).

Hong (2017) expanded that the global economic crisis in 2008 created a difficult macro environment which led to deflation and slow economic recovery for most countries globally, because of the reach of global capitalism. The outcome of this circumstance was that China had some structural imbalances. Hong (2017) added that based on "investment and export-driven growth", China's economy had been deeply affected by the market of "traditional manufacturing and real estate", which meant that when "oversea demand slackened", the economy would slide into a structural gridlock (Hong (2017).

According to Hong (2017), "China's GDP growth in 2015 fell below the 7% benchmark for the first time in decades" which gradually makes ICT development a highlight in the national strategy. Also, Whyman (2014) posited that there was not only a "major supply chain" in China, but also "the largest national market for smartphones, PCs, and e-commerce", which implied that China's ICT industry could easily to be affected by variations in the "global market" In the first half of 2016, the imports and exports number of ICT products including PCs, handsets, components, and telecom equipment", fell 8.1% (MIIT, 2016b). As a result, the revenue in the first six months decreased. Faced with a slackened global ICT market, the importance of domestic market cannot be ignored this time because more than half of the ICT products made in China were sold in China during 2015. This implied that the stimulation of "domestic information consumption" was

necessary and reasonable. Hence, it is indisputable that China had to go through an economic restructuring as part of the digital capitalistic development.

Kennedy & Johnson (2016) posited that the major ICT related policy could be found in China's 13th Five-Year Plan (FYP) that regarded ICT sector as "highest priority" in economy. The 12th FYP was the first FYP that associated economic development with the ICT industry (Atkinson, 2014). During the period of the 12th FYP, cultural industry was regarded as an economic pivot. Also, there were comprehensive ICT applications in many aspects of social life. According to Hong (2017), if the 12th FYP indicated that "policy makers came to terms with the pitfalls of the old growth model and we're embarking on transitional measure", then 13th FYP mentions a future vision that China has been putting efforts on (Hong 2017:6).

Naughton (2016) added that for the 13th FYP, supply-side reform, which aimed to reduce excess capacity in traditional and old manufacturing and real estate industry, became a new priority. The key principle of supply-side reform was an innovation which was stimulated and encouraged by central government and reminded the public of the importance of science and technology.

Hong (2017) explained that due to the policy supports from government, China built the "largest 3G mobile communications network with a China-only standard" during 11th FYP which was an "unwelcome" establishment for western countries that almost dominated the global communication market (Hong 2017). He added that later, China became the largest 4G communication network in the world. For the coming 5G era, China had been preparing and anticipating since 2016 and trying to define the 5G standard. This can be seen as a signal that China has been actively trying to intervene the western-dominated telecoms world (Zhang, 2016).

2.3.1 The Development of Education Informatisation in China

The development of ICT has laid a foundational pillar for that of education Informatisation in China. Most countries in the world have started the process of education Informatisation because of the social demands of well-educated workers and technological innovations. Education Informatisation is regarded as an important aspect of educational modernization.

Within 20 years, China achieved a lot in the process of education Informatisation: IT infrastructure, education resources and personnel training have developed tremendously. This established a solid foundation for further development. It is believed that education Informatisation in China started in the 1980s, and then

gradually developed in the 1990s and into the 2000s. There was a significant developmental stage since 2000 and there were some important systematic projects for the 21st century. These included. "Campus Access to ICTs" project, "Modern Long Distance Education in Rural Primary and Secondary Schools" project, "Cloud Computing in Education Informatisation" project and "Three Connections & Two Platforms" project. These projects focused on schools which is schools and people's accesses to ICTs, educational resources, an online platform of study, educational management and educational resources (Ref). Other significant plans included 2003-2007 Year Education Promotion Motion Plan, National Outline for Medium and Long-term Educational Reform and Development (2010–2020), National Development Plan for ICT in Education (2011–2020), the 13th Five-Year Plan of National

Education and 13th Five-Year Plan of Education Informatisation. In 2018, the Ministry of Education of China launched the Education Informatisation 2.0 Action Plan, which was an upgrade version of education Informatisation. Previously the 1.0 versions mainly focusing on the construction of "Three Connections and Two Platforms". Generally, the 2.0 version of education Informatisation is built on the achievements of the 1.0 version. According to the Ministry of Education of China (2018), it can be known that the goal of the 2.0 version of education Informatisation is to comprehensively upgrade the quality of education Informatisation, which addresses the idea of smart education, education modernization and global leading role in education Informatisation process.

Overall, there have been a lot of great achievements in the process of education Informatisation in the past 40 years. The 2.0 version of education Informatisation presented a new goal and a new developing idea that could be seen as a huge leap forward. There are a lot of good case studies regarding education Informatisation in economically developed countries, including the United States, the United Kingdom, Singapore and Korea. Most studies about education Informatisation focus on the United States, which is widely accepted as the first country that came up with the idea of education Informatisation and started related national projects. Only few focused on some developing countries. Therefore, it is necessary to have a complete analysis of education Informatisation in developing countries. This study presents a systematic analysis of education Informatisation in China. For the domestic studies of education Informatisation in China, most scholars try to understand and analyze one specific policy or project during one developmental stage of ICT or education Informatisation in China. Domestic studies of education Informatisation in China focus on specific policies or projects that existed during one developmental stage. As a result there is no chronological record of China's achievements and no evaluation of the process.

In China, teachers have changed the traditional teaching medium environment of the chalkboard in the multimedia classroom, includes e-learning, online courses, a MOOC platform and other blended learning modes (Ying, Ke, Hao & Yongfeng, 2017). Developments in blended learning became a common practice at universities and colleges worldwide and there was a spike in demand during the Covid-19 pandemic. This led to a growing concern about its design and application as many countries did not have the proper infrastructure to properly implement remote learning using various social media platforms as educational tools. China had implemented the cloud classroom platform as a learning management system developed by Central China Normal University (Ying et al, 2017).

Ying et al. (2017) interrogated the factors affecting students' satisfaction in the blended environment. The study showed that there was a high level of satisfaction among the students, and most of them find the blended learning environment enjoyable. (Ying et al, 2017). The results were closely related to e-learning adaptability, perceived usefulness, and timely responses from the teachers, perceived ease of use and course applicability (Ying et al, 2017). China was ranked in the top 5 in the world, according to the World Statistics on education ( ). During the 1990s, China recognized the importance of technologies, when they experienced rapid economic growth and the growth of ICT (Ge & Ruaan, 2012). The Government then supported the promotion of ICT's in their education system, making it a part of education policy. The Ministry of Education (2000) then drew up a policy document called, "Information Technology Curriculum Guide in Primary and Secondary Schools." This particular guide encouraged the integration of ICT with various other school subjects. The main aims or focus of this document was:

- To cultivate students' interest and awareness of information technologies;
- To acquire basic ICT knowledge and skills;
- To develop an understanding of the impact of ICT's on human lives and conditions;
- To develop competence in communicating, processing, and utilizing information;
- To use technologies in a responsible and ethical manner;
- To use technologies to support lifelong learning and collaborative learning.(Ref)

The incorporation of ICT into subjects like Mathematics and Science could be very beneficial to South Africa especially, as South Africa was ranked second last in the world for their poor results in these subjects.

Incorporating ICT in education would create a collaborative approach to learning and studies have proven that learners learn best from one another. China has recognized the importance of this way of teaching and learning which is confirmed by the World Statistics (2015). The use of social media in schools and universities has become quite a common practice. Although it is easy to use, it is an efficient tool that enhances the teaching and learning experience.

2.4 The Use of Social Media as an educational tool: The case study of Australia

This section of the study explores the use of social media as an educational tool in Australia. Hayes (2005) noted that politicians, policy makers, school leaders, teachers and parents were starting to develop more critical understandings of the issues associated with integrating ICT in schools. He added that this might have been due to the high costs associated with supplying and maintaining these technologies, and the slow uptake of ICT by teachers. Hayes (2005) adds that in New South Wales (NSW), the introduction of computers into public schools was a major government priority that received over $AU300m in funding at the time with a further $AU500m in the period between 2003-2007. He further posited that the NSW government's Computers in Schools Plan aim to improve learning outcomes for all students in all key learning areas, from Kindergarten to Year 12. The author adds that it involves a comprehensive program of support to schools that includes: the provision of regularly updated computer hardware and software; connection of all schools to the Internet; provision of teacher training and development in the use of computers; and, the development of curriculum support materials to enhance curriculum in all key learning areas. However, despite this commitment of money and support, the rate of uptake of ICT and the success of school-based practices differed extremely across the state.

Hayes (2005) explained that the gradual emergence of a more critical understanding of the promise and pitfalls of ICT integration suggested that the climate was right to rethink some common assumptions and research questions related to this process in schools. This study attempted to highlight the educational benefits of ICT integration in schools in Australia.

It was assumed that the most important factor affecting the quality of learning associated with ICT integration was the design of the learning experience. A close link was assumed between teachers' pedagogical practices and the learning opportunities made available to students. An emphasis on learning was supported in the literature. In their review of the second decade of research into gender equity and information technology, Volman and Van Eck (2001) observe that:

Recently, strong arguments have been put forward for the introduction of advanced ICT applications as a means of creating a powerful learning environment. This involves new forms of learning and teaching (transformation) in which students deal with knowledge in an active, self- directed and constructive way, leading to learning results that are more transferable to situations outside school than are the results of traditional teaching methods (2001:614)

Whilst the term 'powerful learning environment' is not commonly used in the literature, it has appeared in this journal (Smeets, 2005:6), and it has been the focus of a European research network (see for example, De Corte, Verscha, Entwhistle, & van Merrienboer, 2003). More generally, a quick search of most relevant databases reveals that questioning the basis for how learning occurs and is mediated through ICT is a trend that has gathered momentum in the last five years, while recognizing that it has been a long-term interest of sociocultural theorists (see for example Renshaw, 1998) and other researchers whose primary interests relate to theories of learning (see for example Schaverien & Cosgrove, 1999).

The approach taken in this study was to look for evidence of transformations in learning opportunities through teachers' classroom practices. Moll (1997) concluded that technology alone would not necessarily improve the outcomes and processes of teaching. She also claimed that the need to integrate technology in the classroom was really tied to the greater plan of introducing information technology in society in general. Therefore, she suggested that a responsible plan to introduce technology in the classroom should agree on a definition of education and its goals and be based on how technology would affect and restructure the learning environment and process rather than on how good a teaching tool it was.

Australia has various educational social networking sites that assist teaching and learning. "In 2008, the government committed more than $2.1 billion to Digital e-Education Revolution (DER) initiative-an intervention designed to generate an immediate, large-scale boost to enhance the integration of information and communication technology (ICT) into teaching and learning in Australian schools" (Australian Government-Department of Education and Training 2009).

This illustrates that Australia recognizes the importance of the incorporation of digital education as much funding was invested in the incorporation of technological infrastructure. Furthermore, the implementation thereof was successful as the country's main focus was on four area's namely infrastructure, leadership, teacher capability and learning resources.

This implies that a holistic approach is necessary to ensure successful implementation. As seen from the Australian case, funding was not the sole solution to the problem as other factors needed to be addressed to ensure the successful implementation of an initiative like An example of this was the incorporation of educational social networking sites as part of ICT. Another main focus for Australia was to "create the foundation for effective delivery of an online, nationally consistent curriculum as well as providing stimulating and challenging learning resources for students"(Curro & Ainsworth, 2018:13).

Furthermore, when the DER was assessed, it was discovered that it had led to advanced educational outcomes. The DER assisted schools in achieving specific outcomes in a much shorter timeframe. It assisted schools to implement an infrastructure to support the incorporation of technology. Australia also created specific frameworks to ensure the success of the implementation of DER. According to the Australian Government-Department of Education and Training, the following frameworks would act as a guide for systemic implementations:

• Appropriate governance and policies – including the need for a long-term, staged approach to digital education planning and greater collaboration between stakeholders at state, sector and school level;

• Strong school leadership and a whole school approach;

• Infrastructure that is fit for purpose, flexible, supported, and sustainable – including the need to ensure that the selection and design of physical infrastructure devices, school-based infrastructure and software take account of the requirement of the learners and the school environment; and Teachers' professional preparation and development- including integrating content, pedagogy, and technology, and the development of professional networks both within, and beyond the school.

In Australia, a law school makes use of Twitter to keep the students updated on court judgments (Curro & Ainsworth, 2018). This gives students access to information that they need for them to participate in class discussions. Australia was ranked in the top 20 of the World Statistics (2015) regarding education, and it believes in proper implementation strategies to ensure the success of the incorporation of technological tools. Policies alone will not ensure successful implementation.

2.5 The Use of Social Media as an Educational Tool: The Case Study of South Africa

This section explores the South African Educational system and its use of social media as a tool educational tool. Heymans (2007) posited that every country and nation had its own unique educational system though it

is tied to some representative educational pattern. The people and the country's history helped to shape the educational system of a country. The South African Educational system has many facets that are of its own making, but also portrays much of the Western tradition in education (Behr 1988).

Post-1994 the new African National government adopted an educational system that sought to address the injustices of the past. This task was placed under the new Department of Basic Education (DBE). The enactment of the Constitution of 1996 was the start of the transformation the education system of South Africa into an inclusive non-racial educational system. The ways in which the education would be advocated for those with inequalities and those experiencing barriers to learning in South Africa become clear when analyzing documents in the South African context, namely the Constitution of the Republic of South Africa (Act 108 of 1996), The National Education Policy Act (1996) the South African School Act (Act 84 of 1996) the Education White Paper on ICT Education. Examining policies and other related primary documents would provide an understanding of educational transformation and the use of technology in South African schools. These are summarized below:

- The Constitution of the Republic of South Africa 1996: This document provides the legal framework of fundamental principles on rules on which all policies, including education policies are based. This document encourages equity and access to education. Learning with technology through media can provide such opportunities.
- The National Education Policy Act (1996), NEPA, is aimed at protecting every individual's fundamental rights, in particular the right "of every person to be protected against unfair discrimination within or by an education department or educational institution on any grounds whatsoever" RSA DoE, 1996 c: Section 4 (a)(i).
- NEPA therefore provides the platform to ensure that every South African citizen is protected against unfair discrimination and therefore given access to ICT and social media education in the country.
- The South African Schools Act (1996) (SASA). The SASSA's objective is [t]0 provide for a uniform system for the organization, governance and funding of schools; to amend and repeal certain laws relating to schools; and to provide for matters connected therewith: RSA DoE, 1996 b; Preamble).
- The SASA is a policy framework that standardizes the various elements within the South African education system by focusing on the responsibility of all parties involved in the governance, organization as well the funding of schools (RSA DoE 1996b).

2.5.1 The Education White Paper on ICT

The White Paper 6 indicates "how the education and training system must transform itself to contribute to establishing a caring and humane society, how it must change to accommodate the full range of learning needs and the mechanisms that should be put in place" RSA DoE 2001: Section 1.1.6).

- WCED policies
- E-Vision
- Other EWCED Policies

Heymans (2007) noted that the first major curriculum statement of a democratic South Africa was the Lifelong Learning through a National Curriculum Framework document (1996) that was informed by principles derived from the White Paper on Education and Training (1995), the South African Qualifications Act (No 58 of 1995) and the National Education Policy Act (No 27 of 1996). The White Paper emphasized the need for major changes in education and training in order to normalize and transform teaching and learning in South Africa. A shift from the traditional aims-and-objectives, approach to an outcome-based education was also stressed (DOE 2002:4).

Technology can be defined as follows:

> Broadly speaking, technology is how people modify the natural world to suit their own purposes. From the Greek word "Techne", meaning art or artifice or craft, technology literally means the act of making or crafting, but more generally it refers to the diverse collection of processes and knowledge that people use to extend human abilities and to satisfy human needs and wants" (ITEA, 2001:1).

The National Education Policy Act no 27 of 1996, gives the following definition of technology:

''Technology is the use of knowledge, skills and resources to meet human needs and wants and recognize and solve problems by investigating, designing, developing and evaluating products, processes and systems''(Heyman 2007:4).

Technology Education can consequently be defined as concerning technological knowledge and skills; technological processes; understanding the impact of Technology on both individual and society, a system; designed to promote the capability of the learner to perform effectively in the technological environment he/she lives in, and stimulate him/her to contribute towards its improvement (HEDCOM, 1996:12).

Heymans (2007) noted that today we lived in a complex and diverse society and the knowledge, skills and resources used today were different because of the accelerating developments in Technology. The technology involved everything around us and influenced the way that people used available resources, knowledge and skills, through different processes, to develop our world and satisfy our needs and wants.

According to Van Wyk (2012), the policy development on ICT's in education dated back to 1995, with the establishment of the Technology Enhanced Learning Initiatives (TELI) which was followed by the Feasibility Study for the Establishment of a Dedicated Educational Channel, (South Africa Country Report, 2007:12). He added that in 2001, the National Department of Education and the Department of Communication jointly released a Strategy for Information and Communication Technology in Education, which is believed to have laid the basis for the e-Education White Paper adopted in 2004.

2.5.2 E-education White Paper

The e-Education White Paper (DoE, 2004) was the first, and is currently the only policy document informing decision-making on the use of ICT in education. It presented a specific policy that supported the introduction of ICTs in education in the schools (Isaac 2007). The Minister of Education declared the White Paper on e-Education on 26 August 2004 which formed the basis for ICT development in education in South Africa. The White Paper outlined a vision of deploying ICT in schools to improve the quality of teaching and modernize administration and management.

The e-Education policy goal, as stated in the White Paper (DBE, 2004) was that: "Every South African learner in the General and Further Education and Training bands would be ICT capable (that is, use ICT confidently and creatively to help develop the skills and knowledge they needed to achieve personal goals and to be full participants in the global community) by2013." In this light, the White Paper provided a framework for the collaboration of government and the private sector in the provision of ICTs in education in order to turn schools into centres of quality learning and teaching for the twenty-first century (DoE, 2004). The implementation of these comprehensive strategic policy goals required a multi-year implementation strategy with three phases, the last being that ICTs should be integrated at all levels of the education system (2010- 2013). After the declaration of the e-Education White Paper, a series of initiatives were introduced to implement the goals of the policy. A discussion on some of these initiatives follows:

2.5.3 The Feasibility Study for an e-Education Initiative in South Africa

In 2007-2008 the Department of Education conducted a feasibility study on ICT in Education in terms of Treasury Regulation 16 of the Public Finance Management Act, 1999 (PFMA). The purpose of the study was to develop a business case that could be presented to the National Treasury for additional resources to be made available for the large scale implementation of ICT in the education system. The feasibility study determined models of implementation for infrastructure, connectivity, professional development, curriculum integration, as well as research and human resource systems (Karine, Lalancette and Roseveare, 2012)

2.5.4 National Implementation Strategy for e-Education 2011-2014

According to the DBE Strategic Plan for the period 2011-2014, capacity was created to support the implementation of the e-Education White Paper (DBE, 2011). Van Wyk (2012) explained that five areas of focus were identified in the National Implementation Strategy for e-Education from the e- Education White Paper, supported by the country's ICT Policy Framework. The proposed focus areas are:

- Electronic Multimedia Resource Development and Distribution;
- ICT professional development for management, teaching and learning;
- ICT Teacher Development, Levels
- ICT Infrastructure;
- Connectivity and
- Research and Development

Van Wyk (2012) explained that the Department of Basic Education recognized the important role that statistics played in the realization of the e-Education White paper and the National Implementation Strategy for e-Education. He also notes that the Department of Basic Education had conducted an ICT in Education survey in 2010 to provide quality data to support and inform the implementation strategy and that the focus areas as outlined in the National Implementation Strategy formed the basis for the content and structure of the ICT in Education survey (Van Wyk, 2012).

Technological Horizons In Education Journal's (THE), reported on the third-annual Teaching with Technology Survey. The journal concluded that many teachers were warming up to the idea of using technology in the classroom. The majority of teachers who participated in the survey indicated a general enthusiasm towards technology in the classroom and positivism regarding the direction technology was

heading. When teachers were asked about their views regarding technology in the classroom about 75% of the interviewees had a generally positive to extremely positive experience with the use of technology in the classroom.

The other 25% said technology in the classroom had both a positive and a negative effect on education. When teachers were asked about how technology aided their ability to teach, 77% said technology has made their jobs easier than before. About 15% said it did not make their job easier, in fact, it made their job harder and 2% percent said it has made their job harder. The remaining 6% were neutral. 87% of the participants said technology has positively impacted their ability to teach. While 10% said it has had no effect, but 3% said it had a negative effect on their teaching ability (Nagel 2018).

In most cases the statistics on technology in the classroom and the impact it had on students' learning ability were similar, with 84% saying it had a positive impact. While 6% said it had a negative impact on the students' learning ability and 10% were being neutral (Nagel, 2018). The 81% of teachers preferred schools providing devices to students. The 47% of teachers preferred that students bring their own devices to the classrooms. About 33% of teachers were against students should bring devices for classroom teaming while the rest were neutral. And the 14% of teachers required students should to bring their own devices (Nagel 2018).

With the progress of technology and social media platforms in this modern age, it is undoubting making its way into education systems throughout the world. It is transforming the way education is being received by students. During the outbreak of the COVID-19 crisis social media emerged as an educational tool used by many institutions. The use of these tools to teach and access students during remote learning served as a lifeboat in the 2020 academic year.

According to the South African educational policy on e-Education and IT (Department of Education, 2004) there is infrastructure in place to support technology in education. According to South African White Paper policy on e-Education (2003) there is ICT Professional Development such as SCOPE (Finnish Development Support), SchoolNet SA provides online based mentor-based in-service training for teachers on introducing ICTs into the curriculum and management the South African Institute for Distance Education has developed 11 Teacher Development Modules for introducing ICTs into schools; INTEL "Teach to the Future" Teacher Development Programme provides teacher training in ICT integration into teaching and learning (Department of Education, 2004). However, studies have shown that although policy indicates that there are

tools in place to support technological infrastructure, there is a lack of implementation and knowledge on policy implementation.

Vandeyar (2015) conducted a study on South Africa's e-education policy. His study revealed that the e-Education policy was not communicated to all schools. Furthermore the integration of ICT was not driven by the e-Education policy mandates, but rather by teachers' professionalism. Teacher agency was crucial in formulating and implementing a school-based e-policy in practice. He posited that teachers repositioned themselves, not as recipients or rectors of the e-Education policy, but as social and cultural actors of school-based policy appropriation and formulation. In addition, the lack of systemic support from districts and province catalyzed communities of practice between schools. According to the South African educational policy on e-Education and Information and Technology (IT) there is the infrastructure to support technology in education.

Vandeyar (2015) reveals that the e-Education policy was not communicated to all schools in the study. Second, the integration of ICT was not driven by the e-Education policy mandates, but rather by teachers' professionalism. Third, teacher agency was crucial in formulating and implementing a school-based e-policy in practice. Fourth, teachers repositioned themselves, not as recipients or rectors of the e-Education policy, but as social and cultural actors of school-based policy appropriation and formulation. Fifth, the lack of systemic support from districts and provinces catalyzed communities of practice between schools.

This study seeks to advocate for more practical steps to implement social media in the WCED to ensure that the learners are on par with their peers globally. The researcher believes incorporating these tools can level the digital playing field in the Province. It is my opinion that South Africa does not have a proper policy framework in place to ensure the implementation of various technological resources in schools, like educational social networking sites. Research reveals that though there is a policy framework and tools in place to support technological infrastructure, there is a lack of implementation and knowledge on policy implementation.

A study done at four high schools in Ghana showed that many students made use of WhatsApp and Facebook as social media tools. Students used it for making friends and keeping in contact with loved ones as studies show that some students developed an addiction to the various social media platforms, while others took advantage of the positives. This proof to be the fastest way to share information and they took it further, by sharing examination questions. This was an effective way to study without leaving the comfort of their

homes. This led to the promotion of social media in schools for academic purposes and counseling for students who showed signs of social media addiction (Mingle & Adams, 2015).

Lavinas & Veiga (2013) explained that in Brazil a program called "one laptop per child (OLPC)", was put in motion. They add that this was where one XO laptop was given to 65 children and 15 teachers at a pilot school. The laptop was designed for children of all ages. It was simple enough to use by children under 6 and accommodated the intellectual as well as the social needs of older children. The study showed that the mere introduction of a different learning tool changed the attitude of learners and how they felt towards a classroom setup. They enjoyed being in class. Kids found more interest in the games on the laptop, while the older learners appreciated the dual functions the laptops had. The learners could use the laptops for academic purposes as well as social interaction. These laptops in the classroom improved both the students' learning ability, as it gave them access to various research platforms that increased the quality of education and extended to social media where they could share information with others.

Onge1 & Hoehn (2015) explained that in America, various third-year pharmacy students and faculty members at 6 colleges and schools of pharmacy were surveyed to assess their perceptions on the type, frequency, and appropriateness of using technology in the classroom. They collected data came from 466 students, 124 faculty members, and 12 administrators who participated in the survey. The most used and valued types of classroom technology used by students and staff, were course management systems, audience response systems, and lecture capture. They further noted that faculty members and students agreed that the faculty members used suitable data course management systems and audience response systems. However, male and tech- savvy students reported significantly greater inclination for the increased use of technology in the classroom. According to the survey, 86% of the faculty members reported having changed their teaching methodologies to meet the needs of the students. While 91% of students agreed that the use of technology in the classroom for academic purposes met their learning and educational needs.

Another finding was that the pharmacy colleges and schools in America used a variety of technologies in their teaching methods. These methods had evolved to meet the needs of the current generation of students to improve their interaction and learning experience in the classroom. They averred that students were satisfied with the appropriateness of the use of technology in the classroom, although many displayed preferences for even greater use of technology in the classroom (Ongel & Hoehn, 2015).

Corbett & Willms (2002) conducted a study in Canada. The researchers explained that students frequently used information and communication devices like laptops and smartphones at in the classroom to execute their tasks. They also use social media for non-academic like checking their emails. They explained the study was aimed at understanding why students use ICT devices in classroom for non-academic purposes, but do not use it for academic purposes. It was taken further to see if the integration of information and communication devices in the classroom would lessen the use of these devices for non-academic purposes. The study revealed that this integration was an effective method of increasing student engagement in the classroom and lessening the use of devices for non-academic purposes (Corbett & Willms, 2002).

2.6 An Analytical Framework on how Social Media can be implemented in the Classroom

The section attempts to develop an analytical framework on how social media could be used in classrooms in the WCED. This study explored some of the suggestions put forward by West (2021) who explained that there were different ways that social media could be used in the classroom to enhance teaching and learning especially as there are many social media tools for education that could be advantage learners in the Western Cape Education Department. These popular social media tools are Facebook, Twitter, Instagram, YouTube and Blogs.

2.6.1 The use of Facebook

West (2021) noted that social media tools could be used in the classroom. A case in point is a Facebook Page that could be used to broadcast course updates and flag alerts or identify what the learners needed to take seriously in a specific course. Also, Facebook was identified as the perfect social media platform to integrate into the classroom because both instructors and students were familiar with Facebook. This would prevent introducing something unfamiliar. Also, creating … helpful learning tool.

2.6.2 Creating a Facebook Page

An exciting point raised by West (2021) was that creating a Facebook Page for the class that all students followed made communication easy. The teacher could use it to post class updates, share homework assignments and encourage discussion amongst the students. This would create space for students to learn easily. Furthermore, West (2021) explained that the teacher/lecturer could use a Facebook Group to stream live lectures and host discussions. West (2021) notes that instructors can also create Facebook groups for each of their classes both public and private—and stream Facebook Live lectures, post discussion questions,

assign homework and make class announcements. This platform also keeps students engaged during school breaks by posting reminders and assignments to avoid having to review once class resumes the break. West (2021) noted that when using social media for education, it's important to ensure a professional boundary, so when setting up a Facebook group; teachers would not need to send friend requests. Email both parents and students receive an email with a direct link to the Facebook group for access. Groups are the perfect "home base," especially for an online course and to easily connect with students.

2.6.3 The use of Twitter as a class message board.

Another useful social media tool that could be used in the classroom is Twitter. West (2021) explained that Twitter could be great as a discussion board or message board for a class. He added that teachers could create a single Twitter handle per class and reuse it every year, or they could create a new handle each school year. The 280 character limit would encourage students think critically about communicating concisely and effectively, a beneficial skill to develop. The teacher could use Twitter to post reminders of assignment due dates or share inspirational quotes and helpful links to practice quizzes or access resources. The teacher could also create discussions and Twitter chats surrounding a specific hashtag that they created.

2.6.4 The use Instagram for photo essays.

West (2021) posited that visually heavy class or artistic students could use Instagram to present a series of photos or graphics in a visually appealing manner. Instagram would allow students to practice digital storytelling in ways where other social media platforms might fall short. This might be ideal for history and drama. A student could also create a class-specific Instagram accounts, delete them when the course was over if they choose to.

2.6.5 Creating a class blog for discussion.

Another platform that could be used for social media in classroom discussions was the blog. West (2021) suggested that writing blog posts gave students another outlet for digital content that they can then easily link back to class social channels. There are many different platforms available, such as WordPress, SquareSpace, Wix, Blogger, Tumblr, or Medium, where teachers can create a class blog. Students could create user accounts to make discussion posts or add comments on class prompts. The course syllabus and any assignments, updates and resources could be shared on a blog as a central location as well.

2.6.6 Assign blog posts as essays.

West (2021) explained that having students create their blogs for essays or short-form writing was another strategy for combining social media and learning. Blogs as a semester- or year-long assignment could improve students' short-form writing and critical thinking skills. The creation of platforms through which students could respond to the weekly prompts would make it as informal and loosely structured as possible and not limit it to just an English or writing class; this use of social media in education could be transferred across all subjects.

2.6.7. Creating a class-specific Pinterest board.

West (2021) discussed the use of Pinterest as an educational tool. The teacher or lecturer could create Pinterest boards for each of their classes and save pins that were relevant to the lessons. Pinterest is a great social media platform for teachers to use to prepare and organize resources, lesson plans and worksheets for their classes in one place. The creation of boards according to class or subject, and creating sub-topic boards for weekly units or all worksheets could assist students. Pinterest could also be useful for students to curate a digital bibliography for research projects, papers, or group assignments. Students could pin websites, books, or videos to a board on a single topic and refer back to it when it was time to write.

2.7 The Different ways social media can contribute to enhancing teaching and learning in the classrooms

This section explores the different ways that social media can contribute to enhancing teaching and learning in the classroom. The researcher will examine the extent to which social media has an empowering effect on school communities, and the role of the teacher in creating an effective social media community.

Hill (2015) explained that with the right strategy, social media could make studying more collaborative and efficient. One reason social media was so popular was that it allowed people to personalize the way they experienced and interacted with the web. The use of social media tools like Facebook, Twitter, and Instagram, which students used when taking a break from academics, could increasingly be used as study tool, especially for today's tech-savvy students in most of the classrooms in the Western Cape Education Department.

2.7.1 The Empowering effect of social media

Social media has an empowering effect as Hill (2015) posited that it empowers everyone, including parents, teachers and students. Hence, it has emerged as an effective tool to share information and build a community in terms of connecting with other students, teachers and experts. According to one study, YouTube, Instagram and Snapchat are the most popular online platforms among children. Hill (2015) explained that 95% of children had access to a smartphone, and 45% said they were online almost regularly. Hill added that some used it for entertainment, but it could also promote positive and useful activities. For instance, students use the best tablet for college to find information, promote a positive story, share something useful, and collaborate with projects.

2.7.2 Implementation in school

The question that comes to mind is how can this tool be implemented? Hill (2015) expanded that various schools have different policies for adopting social media. To share information and organize tasks. However, the policies also had to address the concern for the lack of attention students pay for their class and teachers. Students devote a considerable portion of their time to social media. One advantage of social media was that many students connect to it after school and therefore teachers could use it to connect with the students, especially as many use smartphones. They were always busy browsing their feed, sharing stuff on Instagram and sending each other Snapchat message. This had become an important part of their life.

2.7.3 The role of teachers in ensuring that social media is used in the classrooms

Hill (2015) explained that many learning management systems had been utilizing the concept of online learning for years as these tools had been in use for decades, but had never enjoyed mainstream adoption, and this is changing. He added that teachers need to use changing technology to improve the learning process for their students as it helps the pupil to react positively. Teachers needed to adapt to the way students were doing things. It was an important part of the whole educational process. It makes sense when a teacher is strict about homework but does little to nothing to ensure the students follow suit. Would help teachers to control homework and to get an insight into what students were doing. It would let students open up and share their opinions on important matters.

2.7.4 Strengthen your community

Using online platforms strengthen your school community. Hill (2015) noted that it would help improve the teacher-student bond. Social media was used to share important news, updates about upcoming events, and holding meetings with parents. This could be done using tools such as iigers.com. Since we are living in a fast-paced world and therefore communication is vital so we need all the help we can get.

West (2021) claimed that there were many different ways to use social media in the classroom for teaching and learning as it had various uses. There are several ways to use social media for education. These numerous benefits of social media could drastically improve learning and teaching in WCED. Social media and technology are integral parts of daily life, and integrating them in the classroom is easier than before given how acclimated many students are these tools.

Each social media platform offers many different ways to be used in the classroom, from sharing announcements to holding live lectures, and so much more. First, social media provides a smoother, more direct communication tool between students, teachers and parents, who can check and ask or respond to questions instantly. West (2021) suggests that social media allows for more e-learning opportunities as well. As remote jobs and online classes are becoming more popular, training students to work from a distance is an important lesson, and social media can help with that.

2.1 Framework of the Five Step Social Media Implementation Plan for Pedagogical Educational Practice

Step	Theoretically creating a social constructivist learning environment	Practically implementing social media as a pedagogical educational tool in the classroom following West (2021)
1	Make knowledge personally relevant	Expose learners to social media applications via ICT technological skills.
2	Make knowledge engaging:	

	• Metacognition • Investigation	Expose learners to creating using social media applications
3	Expose learners to engaging with and enacting higher order thinking skills: Apply higher order thinking skills • Critical Voice • Respect for difference	Creating a Facebook Page The Use of Twitter as a class message board Use Instagram for photo essays Create a class blog for discussions.
4	Expose learners to collaborative interactions	Create a class blog for discussions Assign blog posts as essays. Create a class-specific Pinterest board

2.8 The Theoretical Framework

The study utilized the constructivist approach as meaning could be constructed best by face-to-face interaction with different individuals. Constructivism is the most current psychology of learning and is based on the work by Jean Piaget & Lev Vygotsky (Fosnot & Perry, 1996). Many have argued that the constructivist model of learning reflects the best understanding of the brain during learning (Elliott et al., 2000; Arendts 1998). Authors like Whitman (1993) who reviewed the literature on constructivism generally agree that there are differences in views about the constructivist model of learning. They further suggest that two forms succinctly delineate the differences in constructivism, namely, the individual and social forms. Some theorists emphasize the individual construction of knowledge, (Kelly, 1955; Piaget, 1972; von Glaserfeld, 1989), while others emphasize the social construction of knowledge (e.g., Gergen, 1995; Vygotsky, 1978). Phillips (1995) further emphasizes that there are differences within these two forms. Indeed, at times, the two

forms merge leading to an integrated approach (Cobb, 1994; Fosnot, 1996). While the movements or groups focused on can be categorized as those related to the individual forms of constructivism (i.e., cognitive constructivism, personal constructivism and radical constructivism) and the social forms of constructivism (i.e., social constructivism and socio-cultural constructivism), the focus will be on the social forms of constructivism which is appreciate for creating a learning environment to promote the use of social media.

2.8.1 Social constructivism

Social constructivism underscores the significance of culture and context in understanding what occurs in society, constructing knowledge based on this understanding (McMahon, 1997). This narrative is linked with many contemporary theories, most notably the developmental theories of Vygotsky & Bruner, and Bandura's social cognitive theory (Shunk, 2000).

Sivan (1986) states that:

> …social constructivist theory provides a framework for conceptualizing motivation as socially negotiated by the participants in the classroom. The culturally determined joint activity between student and social context results in an internal state of interest and cognitive and affective engagement, and motivated behaviors, both of which can be considered cultural norms. (Sivan, 1986:5).

The constructivist approach is appropriate when ICT is being incorporated into the learning as this approach is all about explanation followed by a demonstration. It is also about the learners constructing knowledge instead of just acquiring it. According to Mandler (2013), a constructivist approach is when learning happens in two forms, namely psychological and social which enable a deeper understanding. Thus, learning occurs when facilitated by knowledgeable or skilled individuals.

"Assumptions are made that observation, listening to explanations from teachers who communicate clearly, or engaging in experiences, activities, or practice sessions with feedback will result in learning; and that proficient skills will quantify to produce the whole, or more encompassing concept" (Fosnot & Perry, 1999:9).

Social constructivism is based on precise assumptions about reality, knowledge, and learning. To understand and apply models of instruction that are rooted in the perspectives of social constructivists, it is important to know the premises that underlie them and these are outlined below:

- Reality: Social constructivists believe that reality is built through human activity. Members of society together invent the properties of the world (Kukla, 2000). For the social constructivist, reality cannot be exposed: it does not exist before its social invention.
- Knowledge: To social constructivists, knowledge is also a human product, and is socially and culturally (Gredler, 1997). Individuals create meaning through their interactions with each other and with the environment they live in.
- Learning: Social constructivists view learning as a social process. It does not take place only within an individual, nor is it an inactive development of behaviors that are shaped by external forces (McMahon, 1997). Learning occurs when individuals are engaged in social activities.
- Intersubjectivity of Social Meanings: Intersubjectivity is a shared understanding among individuals whose interaction is based on common interests and assumptions that form the ground for their communication (Rogoff, 1990). Communications and interactions involve socially agreed-upon ideas of the world and the social patterns and rules of language use (Ernest, 1999).
- Any personal meanings shaped through these experiences are affected by the intersubjectivity of the community to which the people belong. Vygotsky (1987) explains that intersubjectivity not only provides the grounds for communication, but also supports people to extend their understanding of new information and activities among their groups. Knowledge is derived from interactions between people and their environments and resides within cultures (Shunk, 2000).
- Caption: Two people, interacting through communication, help to extend each other's understanding of what makes a rainbow. The flash graphic above illustrating the intersubjectivity of social meanings was created by Nina & Wan-Ting Huang (2002:2).

The above notwithstanding, social constructivism as a theory has been criticized by many scholars post-Jean Piaget & Lev Vygotsky work on social constructivism. Prominent amongst these are Phillips (1995), Terhart (2003) and Fox (2001). Though Phillips (1995:11) commented "Constructivism also deserves praise for bringing epistemological issues to the fore in the discussion of learning and the curriculum". In our view, this quasi-religious or ideological aspect of constructivism is closely linked to the ambition of prescribing it as the human epistemology. It is exactly because of the ambition of constructivism to prescribe the so-called 'truth' about human epistemology and about the universe as the object of knowing, that it has become an exclusive church of thinking. The ugliness of constructivism in becoming an exclusive religion of human epistemology does not lie solely within its claim of becoming a paradigm; many constructivists harbor important sociopolitical and educational concerns (Phillips, 1995).

These criticisms are extended by Terhart (2003) who contends that constructivism does not present a new didactic paradigm different from traditional educational theories. Although successful in practical teaching recommendations in some educational areas, constructivism does not introduce a shift from the traditional dualist framework of thinking. A paradigm shift requires a deeper level of correction. Fox (2001) observes that in its emphasis on learners' active participation, it is often seen that constructivism too easily dismisses the roles of passive perception, memorisation, and all the mechanical learning methods in traditional didactic lecturing.

Other like Biggs, (1998); and Jin & Cortazzi, (1998) have noted that while constructivist teaching approaches, including one-to one or small group classroom interaction, do not always guarantee teaching effectiveness, traditional didactic lecturing in large classes of 50 to 70 students in China has not always meant the doom of teaching efforts. Thus the goal of learning is central to what is to be learnt, leading to the student taking ownership of the problem. If the goal of the activity is clear and the student accepts the relevance of the topic in relation to the bigger picture (Savery & Duffy, 2001), they are more likely to incorporate the relevant knowledge to existing knowledge. To further personalize knowledge, it should be contextualized. Contextualising knowledge makes learning meaningful and promotes learner engagement with knowledge and thus a teacher should create a social constructivist learning environment. The key features of a social constructivist learning environment can be summarised in the table below, adapted from (Luckay, 2010).

Table 2.2 Key dimensions of Social Constructivism and its relevance to the Literature

Dimension	Relevance to Social Constructivism literature	Relevance to teaching and learning with social media as an educational tool
Personal Relevance	Access to contextualized knowledge makes it interesting because standard knowledge and skills are learnt in familiar contexts (Savery & Duffy, 2001).	Using relevant social personalised

(Gives meaning to learning by placing knowledge in personally relevant contexts)		to learning in a context
Metacognition (The student is engaging cognitively with knowledge all the time)	Teachers should allow learners to build on knowledge generatively and to use metacognitive processes to reflect on the learning process (Mayer, 1998)	Thinking about knowledge using the educational tool
Investigation (Learners need to develop investigative skills to enable them to solve problems and think critically)	Learning should always be engaged in the process of sense-making and asking questions (Mayer, 1998).	Using investigative skills on variable sites and engaging with knowledge
Critical Voice (Learners become critical and express it in the classroom)	Learners should be critical when integrating new ideas into their own schema (Roth, 2002)	Expressing views about knowledge
Collaboration (Describes how the learners should interact with others)	According to von Glaserfeld (1989) other people are the greatest source of alternative views to challenge our view.	Collaborating with others in the knowledge sphere for teaching and learning
Respect for Difference (Importance of expressing an opinion in a multicultural setting, and especially	In a plural world, learners should respect each other's opinions in a social setting like a classroom (Savery & Duffy, 2001)	Exposing ones views and

opinions related to the person–taking into account their personal background opinions, opinions related to their culture, etc)		expressing an opinion in a plural world

Teachers should promote learning for understanding, as the type of learning envisaged should produce students who-will not only recall knowledge and skills, but also apply it in different contexts. Knowledge should transform into a series of steps, starting with applying -certain methods of inquiry to -repeated investigations, after which, -results are carefully debated and examined before being accepted as valid (CAPS, 2011:2). Thus, the transformation of knowledge from an individual understanding of sharing knowledge for verification is a position very likely consistent with a social constructivist orientation and the above can transform the teaching and learning within the current classroom setting to promote 21st century skills, and to incorporate pedagogies like social media into the classroom learning environment.

2.9 Conclusion

This chapter provided explanations of the key concepts employed in this thesis including social media and the different platforms of social media that can be used to enhance education in the WCED. It also examined the effectiveness of using social media as an educational tool to enhance education in the province and compared educational policies on the utilization of ICT's and learning in South African schools and schools abroad. The chapter examined the challenges faced in using social media and rationalized why social media can be used as an educational tool to enhance teaching and learning in the WCED. It also examined how social media had been utilized to advance teaching and learning in Australia, Canada and China. The study employed a constructivist theory. The study now transit to Chapter Three to investigate the research methodology that was utilized in gathering data for the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The preceding chapter developed the literature review of the study. To achieve this goal the chapter clarified some key concepts and provided the theories of the study. An application for ethical clearance was done at the University. Thereafter an application was done at the WCED to get the necessary permission to conduct the research. The purpose of this chapter is to discuss the research methodology that was utilized to gather data on a case study using social media as an educational tool by the WCED. A qualitative approach was used to provide a detailed description of tools, situations, events, people and interactions. The chapter is introduced with a brief overview of the methodological approach underpinning the study, as well as an explanation of the research design, methods and sampling procedure. A description of the sampling procedures and issues regarding the sampling procedure is given, followed by the methods of data collection. The processes of data analysis, issues of the limitations of the study, validity and reliability, and finally, ethical considerations are discussed.

3.1 Research Methodology

The research methodology of Dale and Volpe (2008) is envisioned which underscores the fact that the researcher understood the methodological implications of the difficult choices made and in particular that cautious thought was given to the links between the study's purpose, research question and the research methods that were chosen to execute the study. McMillan & Schumacher (2006) state that research methodology refers to a design according to which the researcher selects data collection and analysis procedures to interrogate the specific research problem. Leedy (1993) adds that it is a working outline within which the facts are placed so that their meaning may be seen clearly.

3.2 Research Paradigm

Research paradigms define the philosophical orientation of a researcher which has implications for the decisions that are made in the research process and for Denzin and Lincoln (2003), a research paradigm can be perceived as human constructions consisting of philosophical assumptions which are essential to the

research design. According to Creswell (2012), the direction of a study is shaped, together with a researcher's own world view, by certain philosophical assumptions referred to as ontology, epistemology, axiology and methodology. Certain paradigms are associated with certain methodologies, and the interpretivist paradigm generally utilizes a qualitative methodology (Kawulich, 2011), which aims to discover reality through the experiences of research participants.

The intended approach being undertaken here by the author is a constructivist approach as meaning can be constructed best by face-to-face interaction with different individuals.

"…social constructivist theory provides a framework for conceptualizing motivation as socially negotiated by the participants in the classroom. The culturally determined joint activity between student and social context results in an internal state of interest and cognitive and affective engagement, and motivated behaviors, both of which can be considered cultural norms" (Sivan, 1986:5).

This paradigm will assist the researcher to develop particular meaning of experiences from the district officials responsible for incorporating ICT's in schools in the WCED in Cape Town. The aim of interpretive research -to understand people's experiences - is subsequently guided by the assumption that multiple realities exist within a given situation. My decision to be guided by this paradigm is informed by the assumption that multiple realities often lead to an extensive understanding of a situation in that interpretivism provides in-depth information (Morehouse, 2011). The possibility of gaining an in-depth understanding of the experiences of various role players with the implementation of the ICTs in the Subject Technology and ICT policies have subsequently influenced my decision to work with the interpretivist paradigm.

It is worth noting that the ontological assumption of interpretivism centers on reality as perceived as inter-subjective, its epistemological assumptions are based on the meanings and understandings on a social level and knowledge is subjective as it is socially constructed and mind-dependent (Dudovskiy, 2018). The different perspectives from the district officials involved are different and at the social level, there will be varying epistemological assumptions. However, throughout my study, I need to bear in mind that whereas multiple realities and perceptions exist within the same context, the participants' experiences differ in relation to the implementation of the ICT policies. The researcher is also aware that my personal values will undoubtedly influence the research process, but will be bounded by the ethics and values, which include objectivity, honesty, openness, accountability, fairness and stewardship as the researcher. The individual interviews will enable me to explore the perceptions of various stakeholders with regard to their experiences.

Thus, my decision to be guided by this paradigm is informed by the assumption that multiple realities often lead to a more extensive understanding of a situation in that interpretivism provides in-depth information.

3.3 The Approach to the Study: The Qualitative Approach

Lofland & Lofland (1995) explained that qualitative research entails methods of data collection that are non-quantitative. In this approach, observations are gathered and reported on in everyday language. Shank & Brown (2007) list the basic tools and procedures used to gather qualitative data: observation, interviews, focus groups, archival and historical records analysis. Hittleman & Simon (2002) explain that some researchers refer to this research as interpretative to avoid the implication of defining this approach as non-quantitative.

The researcher opted for a qualitative research method to gather the data needed. Qualitative research is defined as research that produces descriptive data (Brynard & Hanekon 1997:29). Qualitative research is a form of inquiry in which the researcher collects data in face-to-face situations with selected persons in their settings (McMillan & Schumacher, 2006). The strength of the qualitative approach for Mapuva (2007) lies in the fact that it is more thorough and permits for the description of how actions can be evaluated to allow the researcher to adopt a well-informed position.

It is thanks to this strength that the researcher adopted the qualitative approach to ensure a thorough investigation. In terms of epistemology or research paradigm, Dale & Volpe (2008) contend that qualitative research is grounded on essentially constructionist philosophical position, in the sense that it is concerned with how the complexities of the sociocultural world are experienced, interpreted and understood in a particular point in time (Dale & Volpe, 2008:24).

The choice for qualitative research as noted by Patton (1990) is grounded on the premise that it enables the researcher to examine the social context, by allowing the researcher to enter the world of others and attempting to achieve a holistic rather than reductionist understanding. It also implies an emphasis on discovery and description and the objectives are generally focused on extracting and interpreting the meaning and experiences.

The other advantage of qualitative methodology as noted by Denzin & Lincoln (2003) is its emphasis on discovery and description and the objectives are generally focused on extracting and interpreting the meanings of experiences, as contrasted to those of quantitative research where the testing of the hypothesis

to establish facts and to designate and distinguish the relationship between variables is usually the intent. This is particularly relevant in a thesis that, in significant part, is interested in understanding how the implementation of social media in teaching and learning in the WCED could improve the performance of the learners in general and in key areas like Mathematics and Science in particular.

Weiss (2004) observed that qualitative research does not only seek to evaluate but implement qualitative research does not measure, but understand and get a hold of interactions among phenomena (Weiss, 2004:94). From this point of view the implementation of social media in education in the WCED could plausibly improve the performance of learners and ensure more and more learners continue learning and become scientists and mathematic teachers.

Kerlinger (2003) categorized qualitative datasets into three groups. The first group is interactive interviewing which involves people being asked to verbally describe their experiences of a phenomenon, the second group involves written description, through which participants are requested to give written submissions of their experiences. The third group involves observations where respondents are requested to submit descriptive observations of verbal and non-verbal behavior (Kerlinger 2003:37). Only one method was used in this study. The principal force of the qualitative approach is the depth to which explorations are conducted and descriptions usually resulting in sufficient details for the researcher to grapple with the issues of the situation (Myer, 1996) as this method permit the researcher to study selected issues, cases, or events in-depth and detail (Patton,1987). An example is how social media can be used in teaching and learning in WCED. The absence of constraints in data collection categories of analysis contributes to this in-depth analysis and details.

Layder (1995) observed that this depth and details are also evident through direct quotations and careful description of programs situations, events, people, interactions and observed behaviors. Patton (1987) points out that direct quotation is a basic source of data in qualitative research as they reveal the respondents "level of emotions, the way in which they have organized the world; their thoughts about what is happening and their experiences and perceptions. However, this approach has its caveats, in that the descriptive and prescriptive nature of qualitative data has yielded to subjectivity in its attempt to give the researchers' "viewpoint and analysis (Adler & Adler 2003:27) where they argue that qualitative research methodology involves a personal influence of the researcher in the methods as the researcher emerges as an instrument. To address these caveats the researcher utilized data triangulation which incorporates reflections on divergent data sources (interview and documentary analysis) on one study object.

3.4 Research Approach

The researcher opted for an exploratory research design that was "appropriate and feasible" according to Mouton & Marais (1990:43). The above authors concurred that exploratory research was pursued in a relatively unknown research area. Furthermore, they are also of the opinion that an exploratory research design enabled an open and flexible research strategy, and the use of methods such as literature reviews, interviews, case studies and informants might lead to insights and comprehension (Mouton & Marais 1990:43). The researcher agrees with this statement, mainly due to this method of research, ensuring a wider spectrum of diverse opinions.

The researcher found it necessary to conduct the interviews in a manner that allowed the exploration of issues raised by respondents that were not covered in the interview schedule. There was a high level of flexibility in the interview format to gather a holistic view of any problematic areas in a social media application as a tool for teaching and learning. Therefore, this study used the qualitative design to gather key information from interviewees.

Based on qualitative research, analyses data was collected directly from fieldwork observations, elite interviews and written documents. To further support the qualitative option, Patton (2005) concurs that "qualitative researchers engage in naturalistic inquiry, studying real-world settings inductively to generate rich narrative descriptions and construct case studies. Inductive analysis across cases yields patterns and themes, the fruit of qualitative research" (Patton, 2005:3).

3.5 Research Design

There are various explanations for the word research design. Some authors' interpret that it involves choosing between qualitative and quantitative research methods. Other researchers argue that a research design is when a researcher chooses on a specific way of collecting data and how it would be analyzed as stated by (Saunders, Lewis & Thornhill, 2012). The author selected a qualitative research design using a case study. According to Maxwell (2012), "qualitative research design, to a much greater extent than quantitative research is a "do-it-yourself" rather than an "off-the-shelf" process, one that involves "tacking" back and forth between the different components of the design, assessing their implications for one another. It does not begin from a predetermined starting point or proceed through a fixed sequence of steps, but involves interconnection and interaction among the different design components" (Maxwell, 2012:3). In this case study, the researcher collected data by interviewing the relevant district officials at the Metro East Education district Western Cape

Education Department which is districts situated in Kuils River. The researcher employed a case study research.

3.6 Case Study Research

Dale & Volpe (2008) explained that in keeping with the framework of a qualitative approach, the study was most suited for a case study design. Yin (1994) defined a case study as a "careful method of collecting information or evidence about a certain unit of analysis which may include; individuals, groups, communities, organizations or even a country" (Yin, 1994:16). As a form of research methodology, the strength of a case study is that it is an intensive description and analysis of a phenomenon, social unit or system bounded by time and place (Miles & Huberman 1994).

There are several case study designs, but the one used in this study is a holistic embedded single case-design as noted by Yin (2003:42). If one is interested in looking at the same issue, but intrigued by different decisions made by different stakeholders within the same area, then a holistic case study with embedded units would enable the researcher to explore the case while considering the influence of the various variables and associated attributes on the phenomenon. The ability to look at sub-units that are situated within a larger case is powerful when you consider that the data can be analyzed within the subunits separately (within-case analysis) between the different subunits (between case analysis) or across all of the subunits (cross-case analysis) (Yin 2003:42).

Yin (1981) again noted that another reason for the choice of a case study approach as compared to other approaches is that it attempts to examine: (a) a contemporary phenomenon in its real-life context, especially when (b) the boundaries between phenomenon and context are gray. Yin (2003) further noted that a case study approach might be undertaken when "how" or "why" questions are being interrogated about a contemporary set of events, over which the investigator had little or no control. Denzin& Lincoln (1999:436) also points out that, what is important in a case study is what can be learned from the single case with emphasis on, designing the study to optimize understanding of the case rather than generalization. Case studies are designed to bring out the details from the viewpoint of the participants by using multiple sources of data (Mapuva, 2007). In this light, attempts were made to gain insights from the WCED district officials at the Metro East on how social media could be implemented in in classroom practice.

3.7 Sampling Strategies and Participants

As intimated earlier, in the study that the researcher adopted a case study approach was selected, there is the need for a research sample. Miles & Huberman (1994) note that this is the set of people or entities from which findings are to be generalized: the population must be spelled out in advance before a sample is taken. When identifying a target population for a study, it is instructive that it should consist of people who have the relevant information that the researcher is seeking (Guba & Lincoln 1995:5).

Sampling refers to the choice the researcher makes on a given population or other groupings that are seen as necessary for the research (Melville & Goddard, 1997:29). In qualitative research purposive sampling and non-probability is commonly applied instead of a random sampling and probability method (Nieuwenhuis, 2007). This study, therefore, applied the purposive sampling approach as a suitable method for data collection.

The participants were selected based on the specific traits which distinguished them from the others. This is called a purposive sampling (Nieuwenhuis, 2007). The researcher therefore resorted to utilizing a purposive sampling technique so that the best possible source of information could be obtained to answer the overarching research questions. In this study, as explained earlier, the Western Cape is divided into eight education districts; four are "rural" districts which correspond to one or more district municipalities, while the other four are "urban" or "Metro" districts within the City of Cape Town.

In this study, the researcher employed the purposive sampling technique to select participants. According to Patton (2005), purposeful sampling is used when the focus is on selecting information-rich cases. Therefore, the researcher eliminated any uncertainty that might occur regarding the research. The sample consisted of at least two high-level district officials in the Metro East District, currently managing the portfolio of social media as a supporting educational tool, and three officials in other recommended districts.

The reason for selecting these district officials was that the researcher had anticipated that they will have valuable knowledge regarding the implementations of social media and various ICT's being incorporated in schools which formed the backbone of this study. The participants were interviewed until data saturation was achieved. The data collection only happened in the selected districts and not schools, as the researcher only required information from these district officials. Given that this was an exploratory study, the researcher felt that a case study at the WCED would give insights into answering the research questions. Therefore, a quantitative research method would not have achieved the objectives of this study, which was to gain insights

into how social media could be implemented in teaching and learning in the WCED. The researcher also did a policy review and assessed the documents related to the implementation of ICT and social media at the WCED. The researcher selected five participants for the study two males and three females who were all senior officials in the WCED attached to the E-Learning and ICT Department. One of the officials worked at the WCED training their officials on how to integrate ICT tools into schools.

3.8 Research Methods or Instruments (Data Collection Sources)

This section of the study explores the research methods. Dale & Volpe (2008) explained that qualitative researchers were concerned about the validity of their findings and reduced the likelihood of misinterpretation of how various procedures of their study are used in collecting data. In this study, multiple methods were used in collecting data. These ranged from existing literature (secondary data) to in-depth interviews and observations (primary data). The use of multiple methods enabled the researcher to embark on triangulating the various datasets on how social media could be implemented in the schools in the Western Cape Education Department.

3.8.1 Literature Review (Secondary data)

To gain insights into the study the inquiry started through sourcing the literature from documentary sources or secondary data. The process involved a collection and analysis of available literature on social media, ICT, e-learning, E-education and how these could be implemented in the classrooms in the WCED. These concepts enabled the researcher to prepare a clear conceptual framework which on assisted in developing the theoretical grounding or wedge for the study. These were mostly textually based and in some cases were available in electronic and physical format. In this case, the desktop method was the main method employed to gather the data from government documents, gazettes, books, newspapers, published and unpublished articles, and minutes of meetings on the various programs and progress on ICT and E-learning and also social media. These literatures range from 1990-2021 and provide insights into the post-1990 progress and educational transformation in South Africa and the drive towards ICT and E-education.

3.8.2 Interviews

This section of the study dwelled on the significance of interviews in qualitative research as the researcher made use of semi-structured in-depth interviews. This allowed for questions to develop throughout the interview questions were asked in a manner that will allow further probing to gain clarity. The researcher

also conducted "A semi-structured interview to ensure verbal interchange where one person, the interviewer, attempts to elicit information from another person by asking questions" (Longhurst, 2003:143). Although the interviewer prepared a list of predetermined questions, semi-structured interviews for the interviewees, the discussions unfolded in a conversational manner offering participants the chance to explore issues they felt were important. The researcher interviewed five participants within the WCED. The interview was concluded when saturation of data regarding the phenomenon under investigation was achieved.

The role of interviews in qualitative research is unique and incontestably a major one in ethnographic research which Dale and Volpe (2008) explain that the qualitative research interview is an attempt to understand the world from the subject perspective, to unfold the meaning of people's experiences, to uncover their lived world. Patton (1990) averred that "qualitative interviewing begins with the assumption that the perspective of others is meaningful, knowable, and able to be made explicit" interviews are of vital importance in that a legitimate way to generate data is to interact with people (talking and listening to them) thereby capturing their experiences in their own words (Dale & Volpe, 2008:29).

According to Burns and Grove (1997), an interview involves verbal communication between the researcher and the respondent during which information is provided to the researcher. This implies that in interviews the interviewer asks questions and the interviewee responds to the questions either telephonically or face-to-face. Interviews can be unstructured, semi-structured or structured. According to Nunan (1992), in unstructured interviews, questions are based on the response of an interviewee. In other words, there is no predetermined set of questions or agenda. Nunan (1992) argues that in semi-structured interviews, on the other hand, the interviewer has a general idea of what s/he wants to get at the end of an interview, but does not use any agenda. In structured interviews the researcher brings in a list of questions to the interview, which will be asked in that order.

Bailey (1994) identifies the following as advantages of interviews:

- Flexibility – where the interviewer can probe for more answers instead of just asking what was originally intended to.
- Control over the environment – the interviewer can assure the participants of privacy. In other words, the researcher can always adjust the interview environment.
- The response rate is always high because the researcher is instantaneously recording responses with an audio-recorder.

- Researchers can use more complex questions, which would otherwise not be used in administered questionnaires.
- Completeness of questions is guaranteed. The research can always make sure that all the questions are answered.
- Interviewing provides the researcher with the chance to find out from the people those things that cannot be directly observed.

Source Baily Bailey, (1994:174)

Despite the advantages mentioned above, there are also some caveats of this data collection procedure; interviews are time-consuming, costly and difficult to administer, more especially for those who did not receive any training (Seliger & Shohamy, 1989). In addition to these disadvantages, there might be personal biases and questions may be directed in a different way of responding to a question. The duration of the interviews was also minimized to avoid inconveniencing interviewees because of their schedule. The number of interviewees per school manager was also minimized. To avoid the impact of untrained interviewers, the researcher managed to discuss the interview schedule and the techniques that are necessary in interviews, with the supervisor. The interview schedule was also piloted before it was used in this study. In line with this inquiry, the researcher conducted five interviews.

3.8.3 Document Review

This section explores a document review as a data-gathering tool in research. Bowen (2009) interprets the document review as a reliable data collecting tool that was used to collect qualitative data. For Creswell (2013) the document review involves a researcher collecting and reviewing documents to obtain the required data. Amin (2005) adds that these documents may be management or official reports, court proceedings or minutes of meetings, or private documents.

In this inquiry, only official documents like The Constitution of South Africa Act 108 of 1996, and policy documents relating to the use of e-education and e-learning were considered. Organizational documents are useful secondary records collected by others and covering a wide range of material (Hall & Hall 1996). The main advantage of these sources was that they could be processed at greater speed and with a lower cost of retrieval compared to primary data, where respondents needed to describe what was meaningful and salient without being confined to standardized categories. These documents might have been policy documents, and minutes of meetings of these District Officials.

3.9 Data analysis

The data analysis began immediately after the interviews to process the information that was gathered. The author made use of the content analysis strategy for this study. Neuendorf (2016) stated that various studies indicated that content analyses are qualitative text analyses. It could also be defined as summarizing, analyzing, verifying and reporting on the specific content that was gathered (Cohen et al. 2009).

Firstly, the data that will be obtained will be processed and organized for analysis. Thereafter, data cleansing took place. According to Microsoft research, data cleaning is the prevention and correction of errors which includes record matching, identifying inaccuracy of data, and overall quality of data, duplication and column segmentation. Once the process of data cleansing has occurred, data analysis could take place. According to O'Neil & Schutt (2013), the researcher may apply a variety of techniques referred to as exploratory data analysis to begin understanding the messages contained in the data. The literature added that these processes of exploration may result in additional data cleaning or additional requests for data, so these activities may be iterative in nature. The authors added that descriptive statistics, such as the average or median, may be generated to help understand the data. Data visualization could also be used to examine the data in graphical format, to obtain additional insight regarding the messages within the data. Once the data had been analyzed it would be reported on using the feedback.

3.10 Trustworthiness and Credibility

All the participants were provided with the transcripts of their interviews to check and verify if the information had been interpreted correctly. The reason for this was be for the participants to check if the researcher had represented them correctly. To check for credibility and trustworthiness, a data triangulation method was used. According to Carter et al. (2014:11), "triangulation refers to the use of multiple methods or data sources in qualitative research to develop a comprehensive understanding of phenomena. Triangulation also has been viewed as a qualitative research strategy to test validity through the convergence of information from different sources" (Carter et al. 2014:11). By using different data collection strategies, like interviews, analysis of documents and research notes the researcher ensured the credibility of the data.

3.11 Ethical Statement

David & Resnik (2015) state that ethics are thought of as rules that distinguish between right and wrong. It can also be seen as norms for conduct that distinguish between acceptable and unacceptable behavior. Firstly,

the researcher applied for permission for ethical clearance. The researcher also explained. The nature of the research to participants and thereafter the participants were informed that participation is voluntary and that their privacy and anonymity would be respected and they signed consent forms. Participants were informed of the fact that they were allowed to withdraw if they felt they did not want to continue with the research.

The ethical statement was a very important part of this study as it ensured the protection of both participants and the researcher. It ensured a specific guideline for the researcher to follow to ensure that the study remained ethical. An ethical clearance process was followed by providing all the relevant documents (Permission letter for participants, a permission letter from the WCED: Research Directorate and UWC ethical clearance form). Firstly, a permission and ethical clearance letter was provided to the UWC ethics committee for approval (Appendix1). Thereafter permission was requested from the WCED: Research Directorate and then that letter were provided for all participants of this research study (Appendix 2) after which that letter was provided to all participants of this research. Also another permission letter was provided to the selected district office (Appendix 3). All participants signed an information participation sheet outlining the purpose of the study (Appendix 4). Finally, a summary of the findings was provided to the participants once the study was completed.

3.12 Chapter Summary

This chapter explored the research methodology that was employed to collect the data and the reasoning behind the appropriate selection of strategies for this study's specific research question. The approach allowed the study to examine a case study on using social media as an educational tool by the WCED. In this chapter, a descriptive analysis of the research paradigm and the qualitative research design was discussed. The study selected a small but effective sample of experts in ICT and e-learning and also E-education in the WCED. The study was done through a case study as this sample was convenient and purposive t for the selected participants. Also, data collection tools and process, data analysis, ethical consideration, trustworthiness, reliability, and validity, and the limitation of the study were discussed. The next chapter presents the data collected, interpreted, findings and discussions on the pertaining to case study on how social media could be implemented as a tool in classroom practice.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, FINDINGS, AND DISCUSSIONS

4.0 Introduction

The preceding chapter reported on the research methodology of the study, the paradigm that shaped the research, the population and the sampling procedures as well as the selection of the sample that was employed to collect the data on the study of how social media could be implemented by the WCED in classroom practice. The chapter also included a discussion on the approach of the research and a discussion and justification of the qualitative methodology as a choice for data collection. This chapter presents the findings of the data. The purpose of this chapter is to present and interpret the data that attempts to respond to the overarching research question and research objectives of a case study of how social media could be implemented by the WCED to enhance teaching and learning? The data collected was meant to respond to the three specific research objectives of the study, which are linked to the main research objective. The data analysis was completed using through qualitative data and a thematic approach was applied. The chapter also inquired about how social media can be implemented in the classroom and how it can enhance teaching and learning in these classrooms to improve learners' performance at the WCED.

4.1 Setting the stage for Research Interviews

This section of the study explains the researcher's journey into the site and one of the challenges that many researchers face is that of gaining access to a specific site to collect data (Welman Kruger & Mitchell, 2005). To collect the data elite semi-structured interviews were employed and a comprehensive review of documents was completed. As mentioned earlier, to gain access the researcher had to seek approval from the WCED and it was accorded. The researcher conducted interviews with five officials from the WCED.

These officials were two males and three females who are officials of the WCED working on ICT policy and e-Learning. One of the officials works directly with the unit responsible for incorporating ICT and e-Learning into schools in the WCED. Hence, these individuals were knowledgeable on the policy framework of how the WCED was implementing ICT, e-education and E-learning in the various districts of the WCED. As intimated earlier, the researcher started by making appointments with the officials in the WCED through phone calls and dates and places were arranged and five participants' agreed to be interviewed. Thus the response rate was 100%. The researcher agreed with the participants on the issue of anonymity which ensured

that the participants expressed their feelings and opinions without fear of disapproval and condemnation. The researcher then arranged on interviewing these educational leaders and each interview lasted for about 40 minutes. These interviews were tape-recorded and later transcribed by the researcher. As mentioned earlier, before the interviews, the researcher explained to the participants that participation in this study was voluntary and they had the right to withdraw whenever they felt uncomfortable continuing participating.

The researcher presented her student card to the participants as proof that she was a *bona fide* student of the University of the Western Cape (UWC). Also, as noted earlier, the researcher presented the consent form to the participants to read and sign and later they were also presented with the information participation sheet that they also signed. After the completion of the interviews, the researcher sent a copy of the interview to the participants to make sure that what was said is what was recorded and transcribed.

Table 4.1 summarizes the participants' details in terms of their gender, age, qualification, areas of specialization and length of time at the WCED. Each participant was coded as Participant 1 (P1), Participant 2 (P2), Participant 3 (P3), Participant 4 (P4) and Participant 5 (P5) to ensure their anonymity when reporting the results. It is evident that there are two males and three females, in the age range of 40-55 years old, four of them having a Bachelor degree qualification and one a Higher Certificate, and their areas of specializations were primarily in ICT and Education.

Table 4.1 Psychographic Details of Participants and Code that were used to protect the identity of the participants from P1-P5

Participants	Gender	Age range	Qualification	Longevity in	Specialization
One (P1)	Male	55	Bachelor Degree	6	ICT
Two (P2)	Female	52	Honors Degree	4	Education
Three (P3)	Female	50	Bachelor degree	6	Education
Four (P4)	Female	40-49	Higher certificate	11	Education
Five (P5)	Male	40	Bachelor's degree	6	ICT

4.2 Participant Background Information

This section of the study explores the background information or socio-economic status of the participants in the interviews. This information includes their administrative positions, their levels of education, gender, ages, and longevity in services. As illustrated above in Table 4.1, it shows how participants were coded in the interviews to protect their identities and ensure anonymity. The section intends to shed light on their professional ability to initiate and implement educational policies on ICT, social networks and social media at the WCED. This would indicate whether implementation of ICT and e-learning programs would impact positively and whether the implementation of the social media policy in these districts would ensure that all learners in these districts started using social media as a tool in enhance teaching and learning in these areas.

4.3 Research Findings

The incoming sections present the main themes that emerged from the interviews with the District Officials in the WCED. The results of the study are presented using extracts and quotations from the semi-structured interviews with the District Officials in the WCED. To ensure clarity in the study, the researcher deliberately connected and integrated the findings from this study to the literature which explained the study and the theoretical grounding of the research all related to the main focus of this study.

In the course of these efforts the following themes and sub-themes were identified through a process of data analysis. Each theme or subtheme will be discussed and augmented by the use of quotations or responses from the participants. In most cases and where possible, reference was made to the literature review and the theoretical framework in order to give meaning to the results that are presented in the research study. It is worth highlighting that such engagements in interviews cannot be free of grammatical errors which emerged in certain responses of the participants as some participants preferred to respond in English, which was not their mother tongue as some are Afrikaans speaking. However, the researcher understood their responses as in many cases they were clear and easy to comprehend and are quoted verbatim so as to reflect their views.

4.4 The Main Themes emerging from the Study

Theme 1: The Concept of Social media

Theme 2: How social media can be used in classroom practice

Theme 3: The absence of social media policy at national and WCED

Theme 4: The lack of know-how by teachers and students

Theme 5: Lack of knowledge of using social media

Theme 6: The cost of ICT

Theme 7: Policies or legislations on ICT and e-education and social media

Theme 8: Policy implementation

Each theme was unpacked and described with detailed sub-themes in Table 4.2.

4.2 The Main Themes Emerging from the Study

Research Objective 1	Main Themes	Sub-Themes
To unpack how social media as an educational tool is conceptualized on an international level and contextualized in South Africa	The Concept of Social media	What is Social media?
		Different forms of social media
	How social media can be used in classroom practice	
Research Objective 2 What are the experiences of district officials in the implementation of social media as an educational tool in WCED mainstream schools?	The absence of social media policy at national and WCED	Lack of policy
	The lack of know-how by teachers and students	Inadequate knowledge Inadequate computers for staff/ learners
		Internet connectivity challenges
		Staff development challenges
	Lack of knowledge of using	
	The cost of ICT	
Research Objective 3	Policies or legislations on ICT and e-education and social media	The availability of ICT policy

To foreground the South African policy framework for social media as an educational tool and to position the South African policies within this framework.	Policy implementation	Teacher Professional development
		ICT for learners

4.5 Research objective one: What are the district officials' perceptions of social media as a tool for teaching and learning?

This section examines what are the various district officials' perceptions of social media are as a tool for enhancing teaching and learning in classrooms in the WCED. To achieve this goal the section is partitioned into main themes and sub-themes.

First I will draw on the literature review in Chapter 2, which outlines key areas in which social media as an educational tool is unpacked. The literature globally claims that social media can be a vital tool to enhance pedagogy. As mentioned earlier, UNCTAD) (2018:1) explains that the 2030 Agenda for SDI sets out clear goals, action plans and efforts in its vision of "leaving no one behind," (Kituyi, 2018:1). The document notes that developing countries face an annual gap of $2.5 trillion in public and private investment relative to the needs of the SDGs (UNCTAD, 2014b), including $342 billion per year for low-income countries and around $900 billion per year for lower middle-income countries (UNCTAD, 2016d). UNCTAD (2018) explains that science, technology and innovation (STI) played a pivotal role in the progress towards the MDGs and the new and more ambitious 2030 Agenda will require still greater engagement of the global STI community.

These technologies provide new and possibilities for economic development, environmental protection, education and governance, offering the potential for a world of far greater prosperity. UNCTAD (2021) adds the these technologies have improved the state of the art in speech recognition, visual object recognition, object detection and many other domains, like drug discovery and genomics. UNCTAD (2021) adds that human development in recent decades has been accompanied by the pace of change seems likely to accelerate as a result of "frontier technologies" like artificial intelligence (AI), robotics, biotechnology, and nanotechnology. Most other countries remained on the periphery. Bajpai, Biberman, & Ye (2019) substantiate that ICTs stand at the vanguard of a series of economic transformations which are changing societies around the globe in several areas. Thus supporting how the use of social media in education can

enhance learning and teaching in China and Australia. In South Africa, Heymans (2007) posited that every country and nation had its own unique educational system though it is tied to some representative educational pattern. Post-1994 the new African National government adopted an educational system that sought to address the injustices of the past. This task was placed under the new Department of Basic Education (DBE). The enactment of the Constitution of 1996 was the start of the transformation of the education system in the country and the National Education Policy Act (1996), the South African School Act (Act 84 of 1996) the Education White Paper on ICT Education. The National Education Policy Act (1996), NEPA, the Education White Paper on ICT. The WCED policies are the E-Vision, E-education White Paper, the Feasibility Study for an e-Education Initiative in South Africa, National Implementation Strategy for e-Education 2011-2014.

4.5.1 The Concept of social media

When asked what is social media? Participants 1, 3, and 6 explained that:

Social media refers to tools like WhatsApp, Facebook, YouTube, Instagram, and Twitter, and also blogs.

From the above, they read social media like WhatsApp, Facebook, YouTube, Instagram and Twitter and also blogs.

This view is shared by West (2021) who agrees that social media includes elements like WhatsApp, Facebook, YouTube, Instagram, and Twitter, and also blogs. This view is also echoed by Poor (2014) who states that social media refers to sites and applications such as MySpace, Facebook, Cyberworld, Twitter, Mixit, WhatsApp, Blackberry messaging (BBM), WhatsApp, Blogs, Wikis, Podcasts, Skype as well as various educational social networking sites. Social media also relate to the digital technology that enables people to communicate. Poor (2014) also states that social media consists of qualities such as participation, communication, collaboration, interactivity, sharing, networking, creativity, distribution, flexibility and customization.

This finding suggests that social media comprises MySpace, Facebook, Cyberworld, Twitter, Mixit, WhatsApp, Blackberry messaging (BBM), WhatsApp, Blogs, Wikis, Podcasts, Skype, YouTube and Instagram.

Thus, the concept of social media is well understood and is well distinct from social networks and ICT as many think they are synonymous.

4.5.2 What are the different forms of social media and how can they be used in the classroom?

The theme the researcher presented to Participant 2, 5, and 6 was what are the different forms of social media? The Participants replied that:

Social media are Twitter, Facebook, Microsoft programs, Google programs, Skype, WhatsApp groups, Microsoft tools 365, G-sweet, Google classroom, LinkedIn, WCED Portal-learner dashboard, Instagram, YouTube, and blogs.

The revelation here is that all these platforms can assist in enhancing social media in the classrooms. This view is also shared by West (2021) who notes that social media involves a variety of tools such as Twitter, Facebook, WhatsApp g, LinkedIn, Instagram, YouTube, and blogs. Hence, social media are these tools that are accessible from any cell phone and can be used in the classroom to enhance learning and teaching in most classroom settings to enhance performance of learners.

Flowing from West (2021) and Poor (2014) and the responses from the district officials it emerges that the respondents have a clear understanding of how social media tools are being used to enhance classroom pedagogy in most countries as illustrated in the extant literature. Interestingly the districts officials in the Western Cape Education Department (WCED) have a clear understanding of these social media tools and how they can be used to enhance classroom pedagogy in the district. This is vital as such an understanding can facilitate the institution of social of media as a pedagogic tool in the WCED district schools.

4.6 Research Objective Two: What are the experiences of district officials in the implementation of social media as an educational tool in WCED mainstream schools?

In this section of the study the researcher would dwell on the challenges highlighted by the district officials in the WCED in implementing social media as a pedagogic tool in the WCED schools. The researcher will now turn to these challenges. These challenges are intended to explain why social media had not been implemented in the WCED schools in the districts.

4.6.1 The first challenge is the absence of policy

When asked what challenges the WCED foresee regarding the use of social media as an educational tool in schools? Participants 1 and 3 in the interviews revealed that:

The absence of a national and provincial policy of the institution of social media policies in classrooms to enhance teaching and learning in the schools to assist teachers to improve the learning of the students makes it difficult to implement these policies.

This view suggests that South Africa has no specific policy framework for the use of social media as a tool in enhancing teaching and learning in the classrooms. The absence of such as policy makes it difficult for the Western Cape Education Department to ensure its implementation in the Province.

In terms of social media policy, Participant 2 notes that:

There is a fragmented implementation of social media usages in different schools in the country as some White schools are implementing social media usages in their schools.

The understanding here is that there is no coordinated social media policy within the WCED to ensure that all the various schools within the WCED have a coordinated policy. This view is relevant in South Africa, which notes that whereas some (White schools) in the WCED have social media and ICT or an e-learning policy this is not the case with social media policy. The finding reveals that in the case of South Africa, whereas some former ex-model c (White schools) in the WCED has social media and ICT or e-learning policies there is no social media policy.

4.6.2 Inadequate knowledge of both staff and lecturers on how to implement social media

The next question was "How could the officials implement social media in schools?" It emerged from Participant 1 that:

Both staff and lecturers do not possess the requisite skills to implement social media.

The understanding here is that the teachers themselves are not skilled in these ICTs, e-Learning and social media and therefore they cannot have the self-belief and good knowledge of their curriculum to lead and teach the learners social media. This is in line with Hennessy et al. (2010) who hold that these officials are not skilled in social media tools and the teachers have not attained enough teacher professional development by the WCED.

4.6.3 The challenge of inadequate infrastructure

The other question that was asked was whether there were enough ICT infrastructures to ensure the rolling out of social media in these schools in the WCED. Participants 1 responded that:

Yes, there is infrastructure but it is not enough for all the teachers and learners in the Western Cape as many learners in the townships do not have access to these ICT infrastructures.

The explanation is that the Western Cape Education Department has the infrastructure in some schools, but it does not stretch to some others. For example in the townships some schools do not have these infrastructures. The ICT infrastructure can assist in facilitating ICT and social networks, which can leverage or provide the backbone for social media in these schools in the Western Cape Education Department.

This view is shared by Christie (1998), who blames Apartheid education for most of these challenges. But even post-1996 these challenges are still entrenched as Spaull (2013) notes that there are two different public school systems in South Africa, the wealthier 20-25 percent that are better performing and well equipped whereas others are not and do not have the infrastructure.

The finding reveals that apartheid could be blamed for some of these challenges and post-1990s the challenges persist as white schools are better resourced than black or public schools.

4.6.4 The issue of whether schools were made aware of these policies and whether they are they binding?

The next question was to gain insights from these participants on how schools are made aware of these policies and when I asked Participant 3 and 6 how schools are made aware of these policies, the response was that:

Schools are made aware of these policies through training sessions and circulations. In both instances, the WCED will refer to the various documents and policies so that teachers and schools are aware of them.

The understanding here is that schools are made aware of these policies through training and circulars organized by the WCED.

Another strand of the discussion comes from Participant 1 and 5. When asked about the policy issues he notes that:

Policies are implemented by law and schools have to abide by these policies. However, guidelines are just a medium of suggestion and are not binding by law. It is the teachers' choice whether or not they want to make use of any guidelines and to what extent they want to use the guidelines in the classroom.

The understanding here is that whereas there are policies and guidelines from the WCED and national government, the practical implementation of these policies and guidelines depends on the individual member of staff teaching in the classroom.

The next question I put to Participant 3 and 5 was what are the benefits of social media? They noted that:

It changes the way we teach, it makes learning fun for students. We are even looking at integrating virtual reality into classrooms. You create an interactive learning environment.

The understanding here is that social media changes teaching and makes it fun as the learners enjoy it. The finding is that social media changes teaching and makes it exciting for learners.

4.6.5 The challenges of using social media as tools for enhancing education in WCED

When asked what the possible challenges of using social media as a tool in classrooms in the Western Cape Education Department? Participant 1and 4 noted that:

Social media are directly linked to mobile phone devices. Many schools have an outdated policy in place, which bans cell phones from the school. Various policies are put in place out of fear, for example, the possibility of videos taken on school grounds going viral according to Participant 1. There is no doubt great value carried by the use of social media as an educational tool.

Various aspects should be taken into consideration when using social media as an educational tool, such as cyber safety and cyber bullying. Teachers and learners need to be trained on how to use the platforms responsibly. However, Participant 2 draws our attention to the fact that there are also issues of internet access by disadvantaged schools.

This seems to suggest that the school authorities need to change some of their archaic legislation on cell phones as previous ones tried to ban them from schools and this is a problem.

The finding reveals that the existing legislative policy needs to change.

On the same question, Participant 3 responded that:

Teachers should be aware of the fact that they should always keep a professional relationship with students. With the use of social media as educational tool teachers can easily accidentally share too much personal information about themselves or use the wrong type of language with students.

The finding is that teachers should always keep a professional relationship with students especially with the use of social media in the classroom teachers can share personal information with students. This is detrimental to the students.

4.6.6 Internet connectivity

When asked about the question of internet connectivity, Participant 3 and 6 responded that:

In most cases, learners in townships and rural areas in the country face the challenge of access as these areas do not have the ICT infrastructure.

This view was also supported by Participants 1, 2 4 and 5 and seems to reveal that most learners in these townships cannot access internet resources and possibly social media tools in the after-hours, or weekends, and holidays.

This is in line with the findings of Rossouw (2018) who noted that students living in third world countries like South Africa were not that inclined to make use of live streaming lectures because of data costs being high as well as internet connectivity not always being guaranteed.

In this light, data cost is emerging as a challenge to many learners in developing countries and this is affecting their access to the internet. The finding is that in developing countries data issues are a challenge as there is a lack of infrastructure and also data is expensive in most countries.

4.6.7 The intergenerational divide amongst teachers in implementing social media

The question "What are your perceptions of the teachers' willingness to utilize social media and different ICT tools? Received the following response from participants

Participant 1:

> The younger teachers embrace the use of social media more than the older generations. However, few older teachers who embrace it as they can see the benefit it has in the classroom. There are always two sides to this, as most of the younger teachers know how to use all the various forms of social

media, but they do not exactly know how to integrate it as a learning tool. This is why many people suggest that they add it as a module at the university level. Older teachers are often fearful to make use of a different teaching method as they are scared to appear to look unknowledgeable in front of their students. Many feel that they have mastered the technique of getting the best results from their students and do not feel the need to change anything.

The explanation here is that the younger teachers have the skills and enjoy working with social media as they are more tech-savvy, but this is not the case for the old generation who in most cases are reluctant to use the new technology fearing that it may not work.

This is echoed by Rossouw (2018) who explained that in many cases lecturers were reluctant to use new technology in their teaching because of the fear that it would not work as well. This, however, is a result of the lecturer not getting sufficient support and training with the new e-learning tools.

The finding is that in many cases, lecturers are claimed to be reluctant to use new technology like social media in teaching and this is a problem impacting the learners.

4.6.8 Issues around teacher professional development at the WCED

The next section was to understand from the officials whether there was any teacher professional development? I asked what are efforts were in place for teacher professional development regarding the use of social media in the classrooms in the Western Cape Education Department

Participant 2 explains that:

> The WCED provides support to schools and teachers. Every district has one e-learning advisor. The Advisor for each district would identify a training need and then address the problem. The CTI is a provincial training institute aimed at empowering teachers. They do interventions that are intended to help and train teachers in the use of social media in the classroom. There are three-day training courses, two-day workshops, seminars, and conferences to help teachers. They also do digital training which is known as basic computer skills for those who struggle to use a computer.

According to Participant 2, teachers should first be introduced to a social media platform and then be equipped to use it efficiently within a classroom. A good example would be a platform that makes use of closed groups.

The finding seems to suggest that teachers should first be taught these tools and how to use them as teaching tools before they have to use them to teach learners.

4.6.9 The issue that social media policy guidelines are just a medium of suggestion and not binding by law

The other challenge which emerged during the inquiry was the issues around the social media policy guidelines. The researcher asked the participants, whether these social media policies were binding on the WCED, the schools, the teacher and the students or learners?

Participant 3 responded that:

Whereas these policies provide the various circuits and districts in the WCED policy guidelines on how social media should be utilized in the province to enhance learning and teaching, but these policies are merely guidelines and not binding on any lecturer or teacher as the WCED cannot compel or pressure any teacher or lecturers to use them.

The above explanation seems to suggest that the staff and teachers in the WCED cannot be forced to use social media policies to enhance teaching and learning in their various districts or circuits or classrooms as it is the teachers' choice whether or not to implement social media in classrooms. This presents a challenge in the drive towards utilizing social media to improve teaching and learning as there is no mechanism or consequence management in the WCED against lecturers and teachers who are reluctant to implement these social media policies.

The participants suggested that many teachers were hesitant to use these tools of social media in teaching. This hesitancy of teachers is a challenge.

4.6.10 Some learners also do not have the infrastructure at home to ensure continuity of using social media after school hours

The next theme that the researcher examined with the participants was the infrastructural challenges faced by many learners in continuing to use social media after school hours. When the researcher asks the participants how the learners were expected to continue using social media after school hours, especially those living in the previous townships and others in the far-flung rural areas? They mentioned that:

This is a challenge as in most of these townships and rural areas there are infrastructural challenges as many learners living in these areas cannot connect to the internet due to the absence of infrastructure which makes connectivity limited while they are at school".

The understanding here is that most of the learners from these areas cannot join the class as members of the social media community due to infrastructural challenges that the communities are facing.

The finding is that many learners do not have either cell phones or data connectivity to join these social media communities.

4.7 Research Objective Three: To foreground the South African policy framework for social media as an educational tool and to position the South African policies within this framework

This section of the study explores the policy framework and challenges to implementing ICT and social media in WCED. To gain these insights the section is divided into three separate sections, namely are the availability of ICT and social media policy, staff and/or teacher professional development and the implementation of ICT to reach learners.

4.7.1 The availability of ICT and social media policy

To gain these insights the researcher decided to question Participant 1 in the interview and when asked whether there was an ICT and Social Media policy, the participant revealed that:

> The government has developed policy documents to support the implementation of technology in schools like the Khanya and Phakisa projects to promote learning and maximize educator capacity by integrating the use of appropriate, available and affordable technology mainly computer technology into the curriculum delivery process. The WCED has developed two policy documents; (1) Western Cape Education Department's (WCED) Vision for e-Education (2012) doc; (2) e-game changes document states, that "Digital technology has the potential of improving every aspect of schooling, from teaching and learning assessment, school management and parent support.

It emerged from the Participant that there was an ICT policy in the country and the WCED, but not a social media policy. This shows that there is not a social media policy in both the WCED and the Department of Basic Education in the country. This means there are ICT policies that could plausibly facilitate and transform social media to enhance teaching and learning.

The explanation is in line with The Department of Education's Draft White Paper on e-Education (2003) which agrees that WCED has the necessary infrastructure to roll out social media as a tool to be used in schools in the various districts in WCED.

The understanding is that the WCED has the necessary policy in place to roll out ICT at the WCED which could assist in leveraging social media in the schools and classrooms.

The finding is that the WCED has ICT capacity to initiate and teach through social media. Thus, they are likely to have the capacity and ability to realize this goal.

4.7.2 What specific policies are in place within the WCED regarding ICTs?

When the researcher pressed further on what specific policies were in place regarding ICT in the WCED the manager in charge of ICT in the district Participant 1 noted that:

The WCED has an e-vision in place. In the last two to three years, it was guided by the Western Cape Government, and it is known as the e-learning game change. The document is called Game Change Road Map. It includes Guidelines on how to deploy ICTs and how to implement them in schools.

This participant confirmed that there was a specific policy known as E-vision although he added that the policy was very broad and it did not indicate or specify which social media tools should be used, but rather just encouraged the use of it by teachers. According to Participant 1 the reason for not specifying the type of tool that should be used was that social media changes constantly. Furthermore, schools were also expected to have their own social media policy in place and schools were made aware of any new policies or updates to existing ones via circulars sent through a special portal to the WCED website.

The finding reveals that each school is supposed to develop its ICT policy that could assist social media, but the challenge is that social media is changing fast and the schools need to adapt to these changes as well.

These views are also shared by Participant 3, who noted that:

There are other policies that indicate the use of mobile devices There are also an e-safety guidelines and this indicates the responsibility of the teacher.

Participants 5 who concurred that:

There is a policy called the Game Changer, through this a maximum amount of learners can get access to technology. There is also a Data policy, which has to do with subject advisors and whether or not they can have their district website. It also stipulates what kind of information can be shared amongst the learners in the district.

There are policies in place to assist learners to access technology and this could later be used to assist them to access social media for learning which could improve their performance.

4.7.3 Staff and/or Teacher Professional Development

The next question was whether there were programs for the staff or teacher professional development in the WCED on ICT and social media Participant 5 explained that:

There are training programs for staff and teachers on how to work with ICT infrastructure and assist with these ICT or e-Education and e-learning programs.

The understanding was that the WCED made provisions for staff and teacher professional development to ensure that the staff and the teachers had the relevant skills. Thus, staff or teacher professional development at the WCED was central.

This view is supported by the South African White Paper Policy on e-education (2003). There are ICT Professional Development like SCOPE (Finnish Development Support), SchoolNet SA and the South African Institute for Distance Education has developed 11 Teacher Development Modules for introducing ICTs into schools; SchoolNet SA provides online, mentor-based in-service training for teachers on introducing ICTs into the curriculum and management; and INTEL "Teach to the Future" Teacher Development Programme provides teacher training in ICT integration in teaching and learning.

It should be noted that whereas these ICT programs are rolled out within the WCED to enhance and assist students and learners with their educational needs most of these programs are not tailored for social media which involves tools like WhatsApp, Facebook, YouTube, Instagram, and Twitter, and also blogs which can easily be accessed by the learners using their cell phones.

In most of these schools, learners are also using other more sophisticated tools like Microsoft programs, Google programs, Microsoft tools 365, G-sweet, Google classroom, LinkedIn, WCED Portal-learner

dashboard. Whereas these tools are vital in assisting learners in the classrooms but they are not accessible by some cell phones. The researcher proceeded to gain insights into how teachers are using social media as an instructional tool at the Western Cape Education Department. The finding is that there are tools, but these tools cannot be used in cell phones and this is a challenge.

4.7.4 Cases where teachers are using social media as a teaching tool

When pressed for details on cases where teachers are using these social media tools all the participants explained that:

They are, however busy with implementing a social media plan in the schools.

All the Participants agree that the teachers are not forced to use social media in the classroom, but if they have the means to do so then they can. There are no policies made by the WCED that prohibits the use of social media in the classroom as an educational tool. There are known cases where teaching would not be possible without social media.

This view was shared by many participants and according to Participant 5, the subject advisors noted that in rural parts of Africa many students use WhatsApp and Facebook to share content such as articles and various other learning materials.

The understanding here is that it is at the discretion of the teacher to either use a social media platform or not in their various classrooms in the WCED. The finding is that there is a challenge as in many cases, leaving the implementation of social media in the classrooms at the discretion of the teachers might not lead to it being effective, as some teachers doubt its efficacy.

4.7.5 What are the motivations for the use of social media as an educational tool?

The next question I presented to them was what are the motivations for the use of social media in teaching and learning in their various schools? All participants pointed to me that:

Many of these learners already have phones and it would be instructive to use these devices to assist in education.

The understanding is that many of these learners already have cell phones or have access to their parents' phones and therefore the introduction of social media would ease their access to these social media platforms.

This view concurs with Ng'ambi, Bozalek, Gachago & Wood (2016) who agree that most learners already own or have access to web-enabled smartphones. Therefore, the utilization of social media as an educational tool toward learning could be implemented much easier in schools. It is worth considering that uncontrolled social media use in a classroom setting can lead to significant challenges for the teacher.

The finding is that there are different views and opinions from various authors on the positive and negative effects of social media as a teaching and learning tool within the classroom.

4.7.6 The Perceptions of these officials of social media as an educational tool

When asked what are your perceptions of social media as an educational tool? All five participants explained that:

Social media has its good traits and bad traits in many societies and classrooms.

They add that:

It all depends on how social media are utilized as they can enhance the learning and teaching experience for all involved. They add that social media tools like WhatsApp and Facebook are seen to be liked by all participants if used correctly and safely by teachers and learners in their various classrooms.

Participant 3 believes that:

Social media helps students' interaction on a global front and that is where we should steer our education. However, for social media to be successful students and teachers should be aware of all cyber safety aspects as it will protect them and their families.

Flowing from the above, the literature seems to suggest that social media, though it is helpful, they need to be used correctly as in some cases children or learners are preyed upon and may experience cyber bullying where adults or their mates use these platforms to bully them. Other scholars cite the fear of pornography where these learners could become victims. These views then usher in the challenges that the WCED foresee regarding the use of social media as an educational tool in schools.

The finding is that though it is helpful, it needs to be used carefully as in some cases, learners are preyed upon and they may experience cyber bullying from adults or their mates.

4.8 Chapter Summary

This chapter provided an analysis of the data collected from the fieldwork in the Western Cape Education Department on how social media could be implemented as an educational model in the various districts and circuits in the province. The chapter commenced with the research setting and an understanding of how the researcher went about entering the field and interviewing the participants for the study. It then provided detailed background information of participants. The chapter presented an interpretation of the data and the data was analyzed according to major themes and sub-themes, which emerged from the research objectives of the study. These were operationalized into main themes. The main theme of social media was then broken down into themes and sub-themes including definition of social media and identification of the different types of social media. The second part presented the document analysis as it analyzed the various aspects of the documents. This included how social media could be used in the classrooms and what policies were the policies in place in the Western Cape Education Department to leverage social media in the schools in the province. The chapter also explored the contribution of social media in enhancing teaching and learning in the classroom in the WCED. The study now transits to Chapter Five to present the conclusion and recommendations of the study.

CHAPTER FIVE

DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This study is an investigation into how social media can be implemented as an educational model to enhance teaching and learning in the WCED. The research objectives the researcher set out in this study were to spotlight the different teaching tools and ways that social media could be used to enhance teaching and learning in WCED. Thus, the study identified the main concepts and discussed how the WCED could use social media tools in teaching and learning in various schools.

This concluding chapter will briefly summaries the various chapters of the thesis, present a summary of the research findings, present conclusions and finally, draw recommendations that could assist the WCED on how social media can be implemented as an educational model to enhance teaching and learning in classroom practice. The discussion of the research findings of this study has been guided by the research themes that emerged from the results, based on the following research objectives and research questions:

The Research Aims/Objectives of the Study

Objective 1: To unpack how social media as an educational tool is conceptualized on an international level and contextualized in South Africa (Literature Review)

Objective 2: To explore the experiences in mainstream schools regarding the implementation of social media as an educational tool in mainstream schools (Semi-structured Interviews)

Objective 3: To foreground the South African policy framework for social media as an educational tool and to position the South African policies within this framework (Document Analysis).

The Research Question:

The main research question this thesis sought to address was:

Research Question One:

How is social media as an educational tool conceptualized internationally and in the South African context? (Objective B)

Research Question Two:

What are the experiences of district officials in the implementation of social media as an educational tool in WCED mainstream schools? (Objective C)

Research Question Three:

What comments and suggestions can be made regarding the implementation of educational Policies on social media in mainstream schools? (Objectives B and C).

5.1 Summary of Previous Chapters

In Chapter One, the researcher presented a general introduction to the entire Master's Thesis. This chapter serves as a gateway for the rest of the study. The researcher intermittently referred to this as a core chapter as it is the point of departure of this study.

Chapter Two of this study presented a discourse on the concepts of social media and social networks. It also examined the different forms of social media platforms that can be used to enhance education in the WCED. It further examined the effectiveness of social media as an educational tool to enhance teaching and learning in schools. It also compared educational policies on the utilization of ICT's and E-Learning in South African schools and schools in Australia, Canada and China and the challenges faced in using social media as an educational tool in teaching and learning. The chapter rationalized why social media can be used as an educational tool to enhance teaching and learning in the WECD. Furthermore, it examined how social media had been utilized to advance teaching and learning in Australia, Canada and China. The chapter employed a social constructivist theory to explain the study.

Chapter Three presented the research methodology that was employed to collect the data on how social media could be used in education in the WCED. This was necessary for directing the study and providing claims and evidence for the understanding of how social media could be used to enhance education in the WCED. Moreover, the researcher provided and explained the thematic analysis approach that was used to analyze data to enhance the trustworthiness of this study. Furthermore, the research design assisted the researcher to focus on a given study area and the collection of data. The researcher took cognizance of the strength and limitation of each tool employed to gather data which in this case generalization as the data might not be the same in other education departments in other provinces like Gauteng, Free State, or Eastern Cape.

Chapter Four presented and analyzed the data collected from the field through semi-structured interviews, secondary literature, and documents collected from the WCED. The focus of the analysis was on secondary literature, interview responses, and documents. In this light, conclusions and recommendations could be drawn due to the emerging lacunae or gaps identified in this chapter.

Chapter 5 presented a summary of the previous chapters as well as recommendations to the WCED based on the findings outlined in Chapter 4. Concluding remarks of the study were given, as well as implications for future studies.

5.2 Summary and discussion of the research main findings /or conclusion

The overarching research problem this study sought to address was to explore the WCED as a case study on using social media as an educational tool by the WCED. The literature and the findings revealed that post-1994 the education system experienced problems as more and more learners were avoiding subjects like Mathematics and Physical Science and others were dropping out of school (Makgato & Nji 2006). Researchers pointed to the fact that only 50% of learners who registered in Grade 1 passed Matric Class (Spaull, 2013). This high school dropout has emerged as an issue which challenges school leaders, educators and civil society organizations and government. It is in this light, that this study attempts to advocate the use of social media as a pedagogy used by teachers at schools with the understanding that if lessons are made exciting more and more learners would become engaged in learning and it is likely that this might improve their achievement results and thus they would not drop out of school. To gain these insights the study employed a qualitative study using in-depth interviews with district officials and extensive literature review, and reference to policy documentary evidence. In order to provide a coherent sequence in answering the research questions, in this section, I have aligned the research questions of this study to the main findings.

The Research Question One was: What are the experiences of district officials in the WCED with the implementation of social media as an educational tool in schools?

The themes emerging from this research question were to gain insights into the experiences of the district officials to understand how they interpreted what social media was and their understanding of its tools.

The two themes are:

- The Concept of social media
- The different forms of social media and how can they be used in the classroom?

The study found that the district officials had an understanding of the basic concepts of what social media is and they could name some of the social media tools like WhatsApp, Facebook, YouTube, Instagram, and Twitter, and also blogs This view is corroborated by West (2021) who support the view that social media includes elements like WhatsApp, Facebook, YouTube, Instagram, and Twitter, and also blogs. This finding seems to further reveal that social media comprises MySpace, Facebook, Cyberworld, Twitter, Mixit, WhatsApp, Blackberry messaging (BBM), WhatsApp, Blogs, Wikis, Podcasts, Skype, YouTube and Instagram.

Research Question Two: What are the experiences of district officials in the implementation of social media as an educational tool in WCED mainstream schools?

- The themes emerging from this were:
- The challenge is the absence of policy
- Inadequate knowledge of both staff and lecturers on how to implement social media
- The challenge of inadequate infrastructure
- The issue of whether schools were made aware of these policies and are they binding?
- The challenges of using social media as tools for enhancing education in WCED
- Internet connectivity
- The intergenerational divide amongst teachers in implementing social media
- The issue that Social media policy guidelines are just a medium of suggestion and not binding by law
- Issues around teacher professional development at the WCED

Some learners also do not have the infrastructure at home to ensure continuity of using social media after school hours

The study found that post-1996 the South African government has developed policies to support the implementation of ICT in schools like the Khanya and Phakisa projects to promote learning and maximize educator capacity by integrating the use of appropriate, available and affordable technology mainly computer technology into the curriculum delivery process. The WCED has developed two policy documents; namely 1WCED Vision for e-Education (2012) and doc; 2 the E-game changer document which states, that "Digital technology has the potential of improving every aspect of schooling, from teaching and learning to assessment, school management and parent support".

Furthermore, the study found that there was an ICT policy in the country and supported by the WCED, however there is not a social media policy. The finding reveals that it is possible to implement social media in classrooms in the WCED since there is an ICT and a social media policy in place. This finding is supported by existing literature which points out the extent to which both the WCED and the national Department of Basic Education have worked hard to ensure that social media is used in the schools (South African Education Policy on e-education and the WCED e-learning policy).

In addition the study further reveals that that the WCED has an E-vision policy in place which was guided by the Western Cape Government, and it is known as the E-learning game change. The document is called Game Change Road Map. Moreover the study also found that the E-vision is very broad, and it does not indicate or specify which social media tools should be used but rather just encourages the use of it by teachers. The study also found that the district officials' interviews reveal that schools are also expected to have their own social media policy in place. Schools are made aware of any new policies or updates to existing ones via circulations sent through a special portal. The study also found that there was the Accessible Acceptable Usage Policy. There are also E-safety guidelines and this indicates the responsibility of the teacher.

The study also found that there was a policy called the Game Changer, through this a maximum amount of learners can get access to technology. There is also a Data policy, which has to do with subject advisors and whether or not they can have their district website. It also stipulates what kind of information can be shared amongst the learners in the district.

The study also found that there were training programs or staff professional development for staff and teachers on how to work with ICT infrastructure and assist with these ICT or E-Education and e-learning programs as staff or teacher professional development at the WCED was central like the South African White Paper Policy on e-Education (2003) and Khanya and the Phakisa Project (2001)

The study also found that social media helps students interact on a global front and that is where we should steer our education. However, for social media to be successful students and teachers should be aware of all cyber safety aspects as it will protect them and their families. The study revealed that despite the strides made in e-education and e-learning there is the fear that the introduction of social media in classrooms might plausibly come with its own challenges like the fear of learners sharing viral videos.

Research Question Three: To foreground the South African policy framework for social media as an educational tool and to position the South African policies within this framework

- The availability of ICT and social media policy
- What specific policies are in place within the WCED regarding ICTs?
- Staff and/or Teacher Professional Development
- Implementation
- Cases where teachers are using social media as a teaching tool

Barriers are challenges that need to be overcome in order to close the gap between an initial and an end state (Bromme, Hesse and Spada, 2005). The findings from the study suggested that although it was evident that social media tools were being used in the WCED in classroom practice they were not being applied consistently to achieve meaningful and deep intellectual engagement during learning. Although the district officials at the WCED recognized the potential of social media in enhancing classroom practice, but there are a number of barriers that restricted the effective and appropriate use of social media in some of the districts in this study.

There were two key categories of barriers identified and classified as extrinsic and intrinsic barriers. The extrinsic barriers were largely confined to factors outside the classroom. These included teachers' inadequate capability and skills, an unintegrated curriculum and a lack of resources to access and manipulate social media which are factors related to the learners themselves.

In the course of the investigation it emerged that the absence of policy both at the national and provincial level in the institution of social media policies in classrooms is a challenge. Furthermore it emerged that in terms of social media policy there was a fragmented implementation in different schools in the WCED as some White schools are implementing it and using it. This view is also echoed by Spaull (2013).

Also it is worth noting that the study revealed there was inadequate knowledge of both staff and lecturers on how to implement social media in the classrooms at the WCED. Also, there is inadequate infrastructure in the WCED to ensure the roll out of ICT which uses social media in the classrooms within the city as in the middle-income areas there is infrastructure whereas in the townships it is inadequate. The study revealed that social media guidelines are not binding by law. This view is substantiated by Christie (1998).

The study also found that the use of social media in the classroom makes learning fun for students and in some schools, some teachers are even looking for opportunities for integrating virtual reality into classrooms. This would create an interactive environment. The study also found that social media is directly linked to mobile phone devices. Interestingly, many schools have an outdated policy in place which bans cell phones from schools. Several policies are put in place out of fear, like the possibility of videos taken on school grounds going viral. The study also found that since social media uses phones issues like cyber safety and cyber bullying are crucial. Thus, teachers and learners need to be trained on how to use these platforms responsibly. Hence, school authorities need to change their legislation on cell phones as previous policies tried to ban them from schools. This view is shared by Ng'ambi (2021).

It also emerged from the investigation that teachers should always keep a professional relationship with students. With the use of social media as an educational tool teachers can accidentally share too much personal information about them or use the wrong type of language with students. This perception is shared by Hennessy et al. (2010) who holds that sharing personal information of students might jeopardize them since they are minors.

The study revealed that internet connectivity is a challenge for students living in countries like South Africa. This is because the infrastructure is not available in some communities and in some cases the cost of data for internet connectivity is beyond the reach of many of these students. This and other challenges are preventing them from accessing the internet Since many are not inclined to make use of live streaming lectures because of data costs being high and internet connectivity not always been guaranteed or stable.

It further found that in terms of staff professional development, the WCED is doing a lot to develop the teachers in the districts and this may go a long way to ease the implementation of social media in classrooms in the province. But the issue is the younger teachers embrace the use of social media more than the older generation. The challenge is that the older generations are very hesitant to learn new skills. This is in line with the study of du Plessis (2012) who explains the hesitancy of old teachers to learn new technologies.

It was evident from the findings that the participants in the study, being at different hierarchical levels of positions within the WCED, tended to have a good theoretical understanding of the ICT and social media concepts in line with West (2021) who agrees that social media include elements like WhatsApp, Facebook, YouTube, Instagram, and Twitter, and also blogs. Moreover, there were different forms of social media and the participants tended to understand the depth of the kinds of social media available, for instance, different

forms of social media like Twitter, Facebook, Microsoft programs, Google programs, Skype, WhatsApp groups, Microsoft tools 365, G-sweet, Google classroom, LinkedIn, WCED Portal-learner dashboard, Instagram, YouTube, and blogs. These views corroborate the findings of West (2021).

However, while the participants quite carefully articulated these views, it was evident that they had a most superficial understanding of the implementation of these social media applications, and very seldom could apply it to classroom pedagogical practice. It was evident that they could not articulate any of the key dimensions of the social constructivist learning environment, for instance, making knowledge personally relevant, collaboration, critical voice, etc. as expressed in Chapter 2, Table 2.2 pages 68.

Furthermore, the participants could express few of the elements of West (2021) framework Chapter 2, page 63. Hence, this could be why there are seldom practical guidance for teachers in South African ICT policy to implement ICT and social media into their classroom practice, as it could be that the policy-makers have a superficial understanding, and subsequently these would then be unlikely to be articulated explicitly in the ICT policies that they develop. The lack of these guidelines were evident in the literature reviewed on the South African positioning of social media as an educational tool in Chapter 2 pages 49-53, yet it is explicit in the policies of countries regarded as successful in incorporating social media in classroom practice. These countries have shown to produce good academic outcomes for learners at schools.

5.3 Limitations of the Study

This study has contributed to the understanding of a case study on using Social Media as an educational tool by The WCED and. despite this contribution the study has some limitations. Bibler Zaidi (2019) expands that there are limitations involved with all investigations. In this regard, the limitations of the study include the following: The sample size of the study consisted of a purposeful small sample of five District Officials in the WCED and therefore could not be generalized to the entire population of WCED within the Western Cape and in South Africa at large. The second limitation is the timing of the interviews, especially as all the interviews were conducted during the lunch break of the District officials and in most cases in their offices. In most cases, these officials had other commitments and in some cases other official duties were waiting for them. The other limitation was the cultural challenge in that being a research study for a Master's Thesis the student had to use the English language for the interviews whereas some of these District Officials are Afrikaans speaking.

5. 4 Recommendations

Based on the above findings, the researcher has developed recommendations that, if implemented would enable the WCED to develop and roll out a social media policy which if implemented effectively and efficiently could ensure that the department, the districts and the circuits use social media tools that most learners are already using for entertainment purposes and instead to enhance teaching in the classrooms. The recommendations are divided into four sections and discussed as follows.

5.4.1 Recommendations for the schools in the Western Cape Education Department

The researcher recommends that to improve the performance of the learners of the WCED they need to introduce social media in the classrooms in the various schools. These efforts might probably improve the performance of the learners in Mathematics and Science, as many learners are facing difficulties in these subjects. In this light, since many learners use cell phones for their entertainment this approach would make teaching and learn exciting for tens of thousands of learners in the WCED. A clear social media policy and School Governing Bodies (SGBs) allowing learners to bring cell phones to school and use them in the classrooms might change the dynamics. Also, teacher professional development training in the use of social media in classrooms should be encouraged to assist teachers to enable the learners to use social media in the classrooms.

5.4.2 Recommendations for the Western Cape Education Department.

The WCED has an ICT policy and an e-learning and e-Education program, but there is no policy on social media which learners can engage with their teachers or sharing course material with their peers or classmates. The introduction of these tools in the classroom would probably ease the learners' ability to share and learn from each other during school hours, after school and during vacations. All these tools can be implemented if the WCED has a social media policy that is binding and also trains the staff and teachers or staff professional development to assist the students in their course materials. Also, the WCED needs to develop more ICT infrastructures to implement social media to assist students. The WCED needs to install infrastructure in all communities because many learners in the townships face challenges after schools as they do not possess these network infrastructures to support social media.

5.4.3 Recommendations for National Government

The researcher notes that this study was limited in scope as it focused on gaining insights into how the implementation of social media can enhance students/learners' performance in classrooms within the WCED which is in the Western Cape Province in South Africa. Therefore the researcher posits that it would be interesting if future researchers can investigate whether the introduction of social media as an instructional tool in the country can assist students and learners nationwide.

Secondly, the government should develop policies that allow the use of social media in all schools in the country. This could probably improve the performance of many learners. This national policy has to take into consideration the different areas that schools are located and provide ICT and social media training to all teachers in the country. These nationwide efforts would ensure that all areas and communities and districts stand to benefit from the implementations of these programs The policy implementation should be followed by concomitant staff and teacher professional development in that once teachers' are trained on how to use social media in schools it becomes easier for them to train the learners.

5.4.4 Recommendations for further study

The study narrowed its scope at examining social media as an instructional tool and ignored other ICT-related issues such as e-learning and e-Education and the study of general ICT in the country. The integration of these ICT related courses in the classroom could be advantageous giving the drive towards Artificial Intelligence and the drive towards bridging the digital divide. These technologies could generally improve classroom pedagogy nationally and also improve learners' performance. Future researchers should investigate what are the specific hindrances to the introduction of social media in classrooms in the country, especially as many countries like Australia, Canada and China are benefiting from these introductions. Future researchers should investigate some of the challenges faced by learners in the township in accessing ICT infrastructure while at home or during vacations.

5.5 Conclusion

This chapter presented a summary of the previous chapters, the main findings and recommendations of the study to the Western Cape Education Department, the national government and to future researchers. The use of social media in education can be understood as using cell phones to engage with other learners and teachers in classroom practice. This involves the use of tools like WhatsApp, Facebook, YouTube, Instagram

and Twitter and also blogs. These tools can effectively assist learners and improve their classroom practice and performance in key subjects like Mathematics and Physical Sciences in the WCED. The utilization of information technology in education is a catalyst that promotes and drives the acquisition of knowledge for learners, empowering them for their learning experiences. These were mainly used to deliver different teaching strategies, communication and information searching, all done to enhance literacy of Mathematics and Physical Science.

The study concluded that the use of social media as an education tool might have been affected by a wide range of factors such as addiction to non-educational, social activities on the internet, overdependence on the internet, access to unauthentic sites, reduced knowledge retention, and inadequate resources. Effective utilization of social media in the Mathematics, Physical Science, Technology in the WCED were hampered by lack of financial resources, equipment, inadequate infrastructure, poor capacity among teachers and limited teacher training in ICT integration. There is therefore a need for deliberate strategies to promote the use of social media into teaching and learning of subjects such as Mathematics, Physical Science and Technology. These strategies should include enhanced School management should provide a vision for clear long- term, whole staff professional development; checks and balances within the curriculum that measure the integration of ICT used in teaching and learning Mathematics, Physical Science must be introduced; staff retention should be promoted by offering incentives to teachers who are trained to teach social media courses.

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List of Newspapers

Borgen Magazine 30th June 2020

Mail &Guardian 10 December 2020

Appendix

Interview schedule

1. To what extent can social media be implemented by the Western Cape Education Department as an educational tool?
2. What are your perceptions about social media as a tool for teaching and learning?
3. What are the different social media tools the WCED is aware of that can enhance teaching and learning in schools?
4. What policy structures are in place regarding Information and Communication Technologies in the WCED and what does it entail?
5. Does it specify about any specific social media tools that can be incorporated in the education process of the learners? What are these tools?
6. Do you think social media as an educational tool can be beneficial towards the learners' education and how?
7. What professional development is still needed for teachers regarding the incorporation of various ICT tools such as social media?
8. What problems, if any have you encountered regarding the incorporation of various ICT tools?
9. What are the WCED's plans on addressing and eliminating these problems?

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18 January 2019

Ms P Alexander
Faculty of Education

Ethics Reference Number: HS18/10/14

Project Title: A case study on using social media as an educational tool by the Western Cape Education Department, South Africa.

Approval Period: 14 January 2019 – 14 January 2020

I hereby certify that the Humanities and Social Science Research Ethics Committee of the University of the Western Cape approved the methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

Please remember to submit a progress report in good time for annual renewal.

The Committee must be informed of any serious adverse event and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

HSSREC REGISTRATION NUMBER - 130416-049

FROM HOPE TO ACTION THROUGH KNOWLEDGE

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APPLICATION TO CONDUCT RESEARCH IN PUBLIC SCHOOLS WITHIN THE WESTERN CAPE

Note

- This application has been designed with students in mind.
- If a question does not apply to you indicate with a N/A
- The information is stored in our database to keep track of all studies that have been conducted on the WCED. It is therefore important to provide as much information as is possible

1 APPLICANT INFORMATION

1.1 Personal Details		
1.1.1	Title (Prof / Dr / Mr/ Mrs/Ms)	Ms
1.1.2	Surname	Alexander
1.1.3	Name (s)	Pearl
1.1.4	Student Number	3052629

1.2 Contact Details		
1.2.1	Postal Address	16 Ganzekraal street Oak Glen Bellville

1.2.2	Telephone number	(021) 910 4989
1.2.3	Cell number	071 6068828
1.2.4	Fax number	NA
1.2.5	E-mail Address	3052629@myuwc.ac.za

1.2.6	Year of registration	2017
1.2.7	Year of completion	2019

3 DETAILS OF THE STUDY

2.1 Details of the degree or project		
2.1.1	Name of the institution	University of the Western Cape
2.1.2	Degree / Qualification registered for	Masters Degree (MEd) (Full thesis)
2.1.3	Faculty and Discipline / Area of study	Education: Leadership and Management
2.1.4	Name of Supervisor / Promoter / Project leader	Dr. M Luckay
2.1.5	Telephone number of Supervisor / Promoter	021 9592260 0835608309
2.1.6	E-mail address of Supervisor / Promoter	mluckay@uwc.ac.za

2.1.7	**Title of the study**
A case study on using social media as an educational tool by the Western Cape Education Department, South Africa.	

2.1.8	What is the research question, aim and objectives of the study

The main research question that shapes this study is:

"To what extent can social media be implemented by the Western Cape Education Department (WCED) as an educational model to enhance teaching and learning?"

The sub-questions that help to adequately address this main research question are:

1. What are the district official's perceptions of social media as a tool for teaching and learning?
2. What policy structures are in place regarding Information and Communication Technology (ICT) in the WCED?
3. What challenges do the WCED foresee regarding the use of social media as an educational tool in schools?

The study is aimed at exploring the perception of WCED officials on the use of social media as an educational tool to improve teaching and learning.

This study is needed for the following reasons:

Nationally there is a lack of evidence in South Africa on social media as a tool for teaching and learning. This study is one of a relatively small number of independent studies currently examining the possible lack of ICT implementation. Therefore it is hoped that this study would make a contribution, with regards to this concern. In conjunction with contributing to the literature on the subject, it endeavors to find solutions to the reasons why social media cannot be utilized to improve education in South Africa when there are examples of its positive benefits in countries such as Australia and China.

Based on the comparative analysis between Australia and China it is hoped that the results of this study may be used to guide the South African ICT in Education Policies on Social Media as an additional educational tool for all schools. It may also provide valuable information to the Western Cape Education Department on ways Social Media can be implemented to strengthen poor maths and science results at schools. In addition, it is hoped that this study will inspire pioneers to participate in the discussion on ways in which social media can be best utilized by voicing their valuable opinion on ways to fast-track the current lack of policy implementation to

date. In addition it will also aim to document the responses specifically related to critical problems in most South African schools and reasons why social media cannot be implemented as part of a blended teaching approach.

2.1.9	**Name (s) of education institutions (schools)**
1. Cape Teacher Leadership Institute (CTLI), Nooiensfontein, Kuilsriver 2. WCED district offiicials	

2.1.10	**Research period in education institutions (Schools)**	
2.1.11	Start date	10 October 2018 - 28 February 2019
2.1.12	End date	June 2019