GRADE 11 GEOGRAPHY TEACHERS' AND LEARNERS' PERCEPTIONS OF SOCIAL MEDIA AS A TEACHING AND LEARNING TOOL: A STUDY OF THE RUNDU CIRCUIT, KAVANGO-EAST, NAMIBIA

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Abstract

The use of social media in learning and teaching has become a popular concept in this modern day of internet and a technological society. Many researchers have made efforts to prove the applicability of internet-based technologies in education as well their influence on the educational outcomes. As social media sites continue to grow in popularity, it remains the premise that technology is a vital part in today's learners' success equation. This study examined Grade 11 Geography teachers' and learners' perceptions of social media as a teaching and learning tool in the Rundu Circuit, Kavango East, Namibia. The general objective of the study was to assess the perception of using social media as learning and teaching tool for the subject of Geography. The problem that prompted this study to be carried out was poor application of social media as a teaching and learning tool in educational settings by teachers and learners in the Rundu Circuit, Kavango East. As this study adopted a quantitative research approach, the hypothesis was as follows: ***H*$_0$**: *There is a significance difference between Grade 11 teachers' and learners' response (perception) to whether social media can be used as a teaching and learning tool in Geography.* ***H*$_1$**: *There is* ***no*** *significance difference between Grade 11 teachers' and learners' response (perception) to whether social media can be used as a teaching and learning tool in Geography*. In order to answer the research questions and test the hypothesis a survey tool was used. Results indicated a greater number of respondents support the use of social media as a teaching and learning tool in Geography. Since the study found that the use of social media by both geography teachers and learners occurred to be moderate, it is important for educators and teachers to consider its capability to the shift teaching pedagogy. The research results obtained show that most of the respondents indicated that they strongly agree to the use of social media as a teaching and learning tool in Geography and that it was already used in a Personal Learning Environment (PLE). More than 55% of responses agreed that Social Media improves the Geography results if used in the right way. Based on the research findings and conclusions made, the following recommendations were made which include training of teachers and learners on social media use in education, regulating social media use in the classroom setting, in education and designing special media for teaching learning.

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DEDICATION

This thesis is dedicated to my late father **Daniel Mbambi** and my sister **Namenda.**

DECLARATION

I, Theofillus Mbeghu Kadhimo, declare hereby that **"***Grade 11 geography teachers' and learners' perceptions of social media as a teaching and learning tool: a study of the Rundu circuit, Kavango-east, Namibia"* is a true reflection of my own research, and that this work or part thereof has not been submitted for a degree at any other institutions of higher education.

……..…… ……..

Theofillus Mbeghu Kadhimo Date

LIST OF ABBREVIATIONS/ACRONYMS

BED Bachelor of Education

ICT Information and Communication Technology

MEAC Ministry of Education, Arts and Culture

NAMPA Namibia Press Agency

PLE Personal Learning Environment

SPSS Statistical Package for Social Sciences

CHAPTER 1: INTRODUCTION

1.1. Introduction

This chapter introduces the study by summarizing what the study investigated in this field and presents an overview of the research by asserting the background, statement of the problem, the research objectives, significance and limitations of the study.

1.2. Background of study

The impact of social media on teaching and learning environment is intensifying rapidly each year. Zakarian (2013) found that 92% of young adults ages 18-29 use social networking sites, while 73% of those ages 30-49, and 57% of those ages 50-64, frequent social networking sites. Haipinge (2016) writes that the proliferation of social media and its use by students has raised a lot of research interest in attempts to seek ways of appropriating these new technologies for instructional and learning purposes.

On the one hand, social media seem to have greatly influenced the way we teach and learn according to Griesemer (2004). On the other hand, Chen & Bryer (2012) argue that social networks have little or no integration into formal learning environments. Williams (2012) reveals that many studies found that middle school, high school and college students who check social media networks at least once during a 15-minute study period achieved lower grades. Many school districts and administrators are skeptical that social media actually benefits education and are worried that social media implementation in the classroom can lead to and poor results and Internet security problems (Davis, as cited Zakarian,2013).

Griesemer (2004), refutes that social media applications can reinforce class material and positively influence discussions, collaborative work, and authoring. Educators and researchers are constantly experimenting with social media technologies, hoping to stimulate critical thinking skills, collaboration, and knowledge construction. "With social media becoming an everyday communication method for individuals and organizations, it is logical to incorporate its use into instructional approaches" (Griesemer, 2004) .The ever changing technologies cause a challenge for educators in that learners naturally levitate towards these technologies and to date, no local research has investigated and examined the teachers' and learners' perception of social media as a teaching and learning tool. NAMPA (2017) makes the claim that "Learners at secondary schools in Walvis Bay, Swakopmund and Luderitz say they learn more from social media, the Internet and socializing than from the classroom". The learners spoke to Nampa on the side-lines of the third annual Namibian Ports Authority Schools Exhibition. Nine secondary schools from the two coastal towns and one from Luderitz are this year competing for the 50 000 dollar price money. The learners stated that most of the information used to compile presentations for the competition came from the Internet, Facebook, newspapers and television and little from what they heard or learned in the classroom. They, however, acknowledge that classroom education is needed for them to experience the proper explanation of subject topics and for them to have a better understanding. They further claimed that they found all the information used in their models through digital media as well. Al-Rahmi & Othman (2013) argue that social media does not support learning at all. "Social media are negatively associated with academic performance of learners and is a lot more momentous than it is advantageous" (Al-Rahmi and Othman, 2013). Nicola Osborne (2011) writes that educational organizations have a moral and legal responsibility

to look after both staff and learners, and to consider their safety and privacy. Some education authorities in Namibia believe that the use of social media in schools in Namibia should be banned and some go to extend of blaming the higher failure rate on social media such as Facebook, WhatsApp and others (The Namibian, 2016). The perception is that social media has a negative impact on the learners' academic performance. Raut & Patil (2016) assert that Social media has become a major distraction for learners, causing the overall performance of learners to decline, especially the one who tend to check their Facebook and twitter while studying. These views are supported by Chen & Bryer, (2012) who found that the use of social media as a teaching and learning tool has negative effects on academic performance. Al-Rahmi & Othman (2013) allude that Social media remains a major distraction of current generation in schools.

On the other hand, many researchers, such as Delmatoff (2010), have indicated that social media is being used in creating learning communities and supporting professional networks to encourage collaboration among teachers and learners. Prensky (2001) notes that learners are digital natives and naturally attuned to technology and that teachers as digital immigrants need to develop ways to incorporate this into their teaching and learning strategies. According to Weisberger (2010) teachers use social media such as Facebook, WhatsApp, Instagram and Twitter on a daily basis for social purposes and to support informal learning. Studies in Namibia including that of Haipinge (2013) show that students are already using social media informally to support their own and their peers' learning. In 2015 a 'new factor' contributing to poor results was identified. Social media were suspected to be the main factors contributing to poor performance of learners in schools in Namibia. "Social media users prefer using internet setting back their personal and professional responsibilities which ultimately leads to poor academic performance"

(Al-Rahmi and Othman, 2013). In a recent NEW ERA report, one the regional governors was quoted saying that the disappointing Grade 10 and 12 national examination results for 2015 are to be blamed on Facebook, WhatsApp and other social media. Learners spend more time on social media than on their studies, this negatively affects their academic performance according to Staff Reporter (2016). This sentiment is supported by Al-Rahmi and Othman (2013) who found that social media users often experience poor performance academically. Raut and Patil (2016) write that learners are extremely busy in accessing number of sites other than educational site for long hours which create a very negative impact on their mind as well as creates ample of health issues and also affecting their academic performance.

The educational authorities in Namibia are encouraged and advised to consider using social media networks and cellular phones as teaching and learning aids rather than putting a ban on their usage during school hours (Narib, 2012). The Deputy Minister of Information and Communication, Stanley Simataa, was quoted warning the education authorities not to fight against the technology as they will never win. Simataa advised the schools to encourage more learners to join social networks like Facebook. "I recently joined it and my children disapproved it at first. These platforms can be used to form learning groups where projects, assignments as well as other tasks can be shared amongst students" (Narib, 2012). This sentiment is echoed by Delmatoff (2010) "Don't fight a losing battle, we are going to get there anyway, so it is better to be on the cutting edge, and move with the kids, rather than moving against them". The research findings further reveal that, when schools have tried to ban social media now, an integral part of a young person's life, they had negative results. As much as we do not want the pupil to use social media, they find their way out to be on social media without our consent. According to

Bloxham (2010) in a study conducted in Britain, some teachers believe that, despite schools banning mobile phones, many pupils secretly take smart phones to school and remain connected to social networking websites in class. Many studies have indicated that the use of social media in schools have more benefits and drastically improves learners' academic achievement. However, Delmatoff (2010) states that a pilot social media program in Portland, Oregon classroom, found out that 20% of students, school-wide were completing extra assignments for no credit, grades had gone up more than 50%, and chronic absenteeism was reduced by more than a third. For the first time in its history, the school met its goal.

Weisberger (2010), however, claims that the use of social media for teaching and learning could be pedagogically beneficial to both parties. He further suggests that social media also brings with it the freedom for learners to connect and collaborate outside of institutional boundaries, as well as to gain practical experience for the workforce. Delmatoff (2010) asserts that social media encourage learners' teamwork and participation in subject matter discussions. Students can critique and comment on each other's assignments, work in teams to create content and can easily communicate with each other as well as with the teacher to ask questions or start discussions. He concludes that "using social media as a teaching and learning tool/environment could also provide opportunity for the shy pupil to participate in discussion and interact with each other to learn from each other".

1.3. Problem Statement

Most teachers and learners in Namibia are spending quality time on social media regardless of the prohibition of smartphones and other gadgets in some schools. Most of secondary learners have smartphones and/or other technological gadgets that allow them to access information in digital format with a simple click (Wang, 2014). Learners and teachers use social media frequently to communicate and interact with friends, classmates and workmates according to Adam (as cited in Lui, 2012; Peters, 2015). The five (5) secondary schools in Rundu circuit are among the schools in Namibia that have banned the use of cell phones, laptops and other electronic gadgets by learners on the school premise. Zakarian (2013) found that many school computer laboratories have blocked social media technologies, especially Facebook which make it difficult to implement and use social media as a teaching and learning tool in the classroom.

Raut & Patil (2016) confirm that most learners and teachers have smartphones and have used social media in the classroom and for other educational purposes. In fact, there are apps and web tools that offer social media in an educational context, whereas they may spend hours on there (Zhao et al., as cited in Lui, 2012). Social media is generally perceived to cause distraction in education and at times it is blamed for poor results in schools. However, some learners believe they can learn better on social media than in the classroom. The claim is that teachers and learners spent precious school time posting and chatting on social media, instead of being engaged in teaching and learning activities.

Although research on teachers' and learners' perceptions of social media as a teaching and learning tool has been carried out in developed countries, little has been carried out in developing countries, specifically Namibia. Therefore this study aims to fill this apparent research gap by comparing teachers and learners' perception of social media as a teaching and learning tool in geography as a school subject within the parameter of Rundu circuit, Kavango-East region, focusing on the attitudes towards, and participation in social media. The outcome of the study is expected to inform the process of conceptualizing pedagogical models to support teaching and learning through social media. Lacking any previous research with a specific focus on teachers' and learners' perception of social media as a teaching and learning tool in Namibia, this study is closely linked to some empirical studies on social media in education carried out in other countries.

Internationally, several studies, including that of Weisberger (2010) and Delmatoff (2010), show that teachers and learners use social media for teaching and learning. Some studies indicate that the numbers of teachers who doubt its pedagogical benefits has increased (Schimel, 2015). A new survey from the University Of Phoenix College Of Education found that just 13% of teachers use social media as an instructional tool and the number of those reluctant to use it has increased since 2014, from 55% to 62% (Baker, 2013). Many teachers think that if they allow their leaners to use social media in the classroom, students will rather be posting status updates about how their day is going, which would only detract from educational experiences. Al-Deen and Hendricks (2012) stress that social media is an integral part of daily life for most learners, new research could reveal how social media might contribute to learning in new way, however at the moment most of the researches focus on the use and not perceptions and effects of social media in education.

In Namibia, a study by Haipinge (2013) reveals that students use social media informally to support their own and their peers' learning and few studies exist on teachers' and learners' perception and use of social media in Namibia. Haipinge (2013) notes the students' perceptions of social media as supportive learning tools show recognition of the learning affordances that the technologies offer. Mobile Social Media, an ethnographic research by Shihomeka (2017) carried out in the Ohangwena region reveals that youth are using Facebook and WhatsApp to provide advice to others or to ask questions that they do not have answers to because they have a lot of professionals online. On the contrary, a local study concludes that "social networks promote plagiarism and take up much of teachers' and students' time. They cause learners and students to be lazy as they spend much of their time on the networks rather than on their schoolwork or books. This results in them not doing well in school and much of the productive things in their academic life" Elago (2014).

1.4. Questions of the study

Research questions

This study was guided by the following questions:

a) What do the Grade 11 Geography teachers and learners identify as attitudes towards using social media as a tool for teaching and learning in the Rundu Circuit?

b) What do Grade 11 Geography teachers and learners identify as an effective participation in the use of social media for teaching and learning in the Rundu Circuit?

c) What social media can be recommended for Grade 11 Geography teachers and learners as a teaching and learning tool in Geography in the Rundu Circuit?

1.4. Hypothesis of the Study

- $H_{0:}$ There is significant difference between Grade 11 teachers' and learners' response (perception) to whether social media can be used as a teaching and learning tool in Geography.
- $H_{1:}$ There is **no** significant difference between Grade 11 teachers' and learners' response (perception) to whether social media can be used as a teaching and learning tool in Geography.

1.5. Significance of study

As there was no study on perceptions of teachers and learners on social media in Namibia education conducted, the findings of this study is very important to all stakeholders in education in Namibia. The results of this study shed light on what do the grade 11 geography teachers' and learners' identify as attitudes towards using social media for teaching and learning, and effective participation in the use of social media for teaching and learning in the Rundu Circuit. The results of this study shed light on teachers' and

learners' perceptions of social media as a teaching and learning tool. The results reveal the types of social media teachers and learners use the most and how they used it and proper guidelines might be developed in schools to properly regulate the use of social media in schools without banning them all. The results might be used as a benchmark on which social media Apps to use in order to encourage or discourage the use of social media for teaching and learning in schools.

1.6. Delimitation of the study/Scope of the Study

The research was delimited only to geography teachers and learners in the Rundu Circuit, Kavango-East and as such cannot be generalized as the perception of geography teachers and learners in the remaining parts of Namibia.

1.7. Definitions of terms

Digital media is digitized content that can be transmitted over the Internet or computer networks. This can include text, audio, video, and graphics. This means that news from a TV network, newspaper, and magazine, etc. (Jukes and Dosa, 2006).

Digital native is an individual who was born after the widespread adoption of digital technology (Prensky, 2001). In this study this is a category for children who have grown up using technology like the Internet, computers and mobile devices and social media.

Hypertext is an arrangement of the information in a computer database that allows a user to get information and to go from one document to another by clicking on highlighted words or pictures. (Hornby, 2006).

Multi-task –to do several things at the same time- (Hornby, 2006). In this study it is referred to learning and socializing.

Gadgets mean small tools or devices that something, (Hornby, 2006). In this study it means electronic devices like, laptops, iPods, and smart phones that support social media applications.

Web 2.0 technology is the term used to describe a variety of websites and applications that allow anyone to create and share online information or material they have created. A key element of the technology is that it allows people to create, share, collaborate and communicate. (Hornby, 2006).Web 2.0 differs from other types of websites as it does not require any web design or publishing skills to participate, making it easy for people to create and publish or communicate their work to the world.

Social network – is the use of dedicated websites and applications to interact with other users, or to find people with similar interests to one's own (Hornby, 2006). Social networking allows an individual to create a profile for themselves on the service and share that profile with other users with similar interests to create a social network. Users can choose to have public profiles, which can be viewed by anyone or private profiles which can only be viewed by people that the users allow.

Educational technology is the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources (Patrut, 2013).

Social media in education refers to the practice of using social media platforms as a way of enhancing the education of learners. Patrut (2013) defines social media as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user generated content.

1.8. Structure of Research

This study comprises of five chapters. The first chapter entails the Introduction, Background, Problem identification, Objectives, Research questions, Hypothesis, Significance, Limitations and Delimitations of the study as well as Definitions of terms. In the second chapter, the researcher reviews literature on teachers' and learners' perceptions of social media use for teaching and learning. Chapter three contains the methodologies that were used to conduct the study. Chapter four contains the detailed data presentation, analysis, interpretation and discussion. This study looked at Grade 11 Geography teachers' and learners' perceptions of social media as a teaching and learning tool: a study of the Rundu Circuit, Kavango East, Namibia.

The final chapter contains the discussion of the results within the theoretical framework, Summary, Conclusion and Recommendations for further research.

CHAPTER 2: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1. Introduction

This chapter presents the relevant literature on teachers' and learners' perceptions of social media as a tool for teaching and learning. This literature review is a critical and in-depth evaluation of previous work that was done by several researchers, related to the specific field of study (Simon, 2011). The focus is also to highlight the issues and gaps in the literature surrounding social media and learners' and teachers' perceptions, as well as introduce the theoretical framework from which lens the researcher views this study.

The researcher was unable to find many studies on teachers' and learners' perception of social media as a teaching and learning tool in Namibia. Thus, international studies on attitudes towards using social media for teaching and learning, effective participation in the use of social media for teaching and learning, and teachers' and learners' perception of social media as teaching and learning tool in general and in education, specifically school setting, were reviewed.

Tyson (2015) indicates that the rise in the use of social media in Namibia has become an increasingly popular area of research among academics. "As scholars explore these new online communities, it is necessary to examine the use of social media tools by learners of colour, a segment of the population that has historically experienced inequalities associated with the use of and access to technology" (Guy, 2012). Lui (2012) attests that there is an increasing trend that online learning platforms such as Facebook, Wikis, Blogs and WhatsApp are becoming important in teaching and learning. Similarly echoed by

Inayati (2014) “The use of social media in teaching has gained increasing attention over the past decade, which is evidenced by the growing number of research in the area found in internationally peer reviewed journals”. Guy (2012) writes that educators and researchers are exploring the integration of social media in education. Whereas Sad (2017) reveals that research into social media in education tend to focus on the institutional and pedagogical implications of using technology in learning and little attention has been paid to teachers’ and learners’ own perception of these tools or how they can be used. John and Choi (as cited in Haipinge, 2013) Concludes that the increased use of social media has sparked research interest regarding this phenomenon.

Bloxham (2010) Educational Psychologist, Kairen Cullen admits that currently there is little research and related guidance on how to integrate social media into schools. Ngonidzashe (2013) discloses that very few studies have explored teachers’ and leaners’ perception towards use of social media in education. Phenomenological study by Williams (2012) investigated how digital Immigrant teacher perceptions of social media as it influences the affective and cognitive development of students at three high schools in Alabama, found that as the prevalence of social technologies is increasing, educators must understand how it is affecting learners in order to instruct learners and utilize technologies in an effective manner.

2.2. Learning theories in digital age

Starkey (2012), writes that a learning theory for the digital age should consider learning as a continual process within a complex environment rather than an event. Furthermore,

Starkey (2012) explains that the central idea in the learning theory of Connectivism is the continual expansion of knowledge as novel connections which open new interpretations and understanding to create new knowledge. Greehow et al. (2016) note that a significant growth in access to web technology and in the educational possibilites of social media has been generated during the past ten years. These changes challenge previous conceptualizations of education and the classroom and pose practical questions for learners, educators and administrators.

Sad (2017) found that learners and educational institutions rely more and more on social media tools to create innovative approchaes to education, capapcity building and knowledge transfer. Greenhow et al. (2016) allude that social media is challenging and disrupting the existing educational models. (Starkey, 2012) maintains that the Connectivism Learning theory is closely linked to Social Learning theory.

2.3. Theoretical framework

"The use of Social Media as a teaching and learning tool has been connected to several popular theories in education" (Inayati, 2014, p.23). Shih (as cited in Inayati, 2014) pinpoints that the theory of Constructivism could also serve as the basis for social media use in education, as its application allows pedagogy designs with meaningful social interaction and community sharing.

This study draws upon Siemens' (2005) new approach to teaching and learning practices in 'digital era' based on Connectivism theory and partially on Social learning theory. Siemens (2004) says that Connectivism presents itself as a pedagogical approach that

affords learners the ability to connect to each other via social networking or collaboration tools. Many theories assume that learning happens inside the head of an individual. Siemens believes that learning today is too complex to be processed in this way and that "we need to rely on a network of people (and, increasingly technology,) to store, access, and retrieve knowledge and motivate its use" Learning is viewed as multi-faceted and particular tasks define which approach to learning is most appropriate to the learner (Siemens, 2004).

Learning is a process that occurs within nebulous environments of shifting core elements – not entirely under the control of the individual (Siemens, 2005). "The starting point of Connectivism is the individual, personal knowledge comprised of a network, which feeds into an organization and institutions, which in turn feeds back into the network, and continues to provide learning to individuals. This cycle of knowledge development (personal to network organization) allows learners to remain current in their field through the connections they formed" (Siemens, 2005). Connectivism considers that the three broad learning theories Behaviorism, Cognitivism, and Constructivism, popularly utilized in the creation of instructional environment, are no longer adequate to a world in which "technology and social media have re-organized how we live, how we communicate, how we teach and how we learn, which requires the definition of a new model of teaching-learning in the 'digital era'" (Siemens 2005).

He further explains that Behaviorism, Cognitivism, and Constructivism were developed at a time when learning was not impacted by technology and social media. Harasim (2017) supports that there are strong indications that the role of social media in the 21st century is creating a compliant society in which technology plays the role of a teacher

replacing the human teacher, yet the old educational theories of practice do not significantly reflect or address this new reality. Siemens (2005) writes that the existing theories or paradigms of learning cannot sufficiently explain or account for the fundamental change conditions for learning brought about by the changes in the technological landscape, for instance the abundance of information, the increasing shorter half-life of knowledge and the need to continuously stay updated with new information and resources. Furthermore, many information processing tasks can be delegated to technology (or social filtering through networks at different levels of scale) and as such the role as teacher who knows it all shifts to facilitator and guide in the learning process.

Connectivism considers that technology and social media has a crucial role in the way individuals, learn, grasp information and communicate. Connectivism theory is consistent with the needs of the twenty first century. Siemens (2005) articulates that learning rests in capabilities of forming connections to other people, networks and sources of information and that the capacity to recognize or create useful information patterns are crucial.

Siemens (2005) writes that Connectivism comprises the integration principles such as:

- Learning and knowledge rests in diversity of opinions.
- Learning is a process of connecting specialized nodes or information sources.
- Learning may reside in no-human appliances.
- The capacity to know more is more critical than what is currently known.
- Nurturing and maintaining connection is needed to facilitate continual learning.
- The ability to see connections between fields, ideas and concepts is a core skill.

- Currency (accurate, up-to-date knowledge) is the intent of all connectivity learning activities.
- Decision-making is a learning process.

The Connectivism theory enables this study to assess the learners recognize and interpret patterns and which social media platforms influenced them to tie into a diversity of networks and learning context. According to Siemens, (2005) Connectivism is the integration of principles explored by chaos, network, and complexity and self-organization theories. Learning is a process that occurs within nebulous environments of shifting core elements – not entirely under the control of the individual. The theory aims to help the study to look at the learners' and teachers' ability to draw distinctions between important and unimportant information either way, the study will review the data and analysis from the perspective of this theoretical framework.

2.3.1 Personal Learning Environments (PLEs)

Firstly, PLE is an educational concept that meets various challenges educational systems face today and it represents a new approach towards developing e-learning tools (Laakkonen, 2011). PLE is part of the learning ecosystem consisting of resources (programs, browsers and mobile devices) and people (peers and teachers) available to the learner.

Downes (2006) also states that the heart of the concept of the PLE is that it allows a learner (or anyone) to engage in a distributed environment consisting of a network of people, services and resources.

"It is claimed that a whole new theory of learning such as the concept of *Connectivism* is demanded in the highly networked world in which PLEs currently exist" (Laakkonen, 2011). Wolpers et al. (2015) define PLE as a facility for individual to access, aggregate, manipulate, and share digital artefacts of their ongoing learning experiences.

Buchem et al. (2014) define Personal Learning Environments (PLEs) as an approach to using technology for learning, focusing on self-directed self-regulated use of tools and resources by learners. (Schaffert & Hilzensaur, 2008) as cited in Petrushyna (2008) define PLE as a collection of social software applications the learners has collected that are useful for his/her own specific needs e.g. Wiki, Blogs, YouTube, Google Docs, Skype, Facebook, Twitter and others. Van Harmelen (2006) defines PLEs as a single user's e-learning system that provides access to a variety of learning resources and may also provide access to learners and teachers who use other PLEs. It is a response to pedagogic approaches which require that learners e-learning system need to be under the control of the learners themselves. Petrushyna (2008) advocates that Personal Learning Environments (PLEs) can exist both online and offline. "Many of the online tools are web 2.0 tools, and the development of web 2.0 technologies, sometimes called social software, has given learners a large collection of tools for creating, organizing and making meaning from content.

2.3.1.1 The significance of Personal Learning Environments (PLEs)

Emergence and proliferation of the Internet and social media technologies play a double role in educational chance in that they pose both new demands and possibilities not

previously experienced claims Laakkonen (2011). According to Wolpers, Kroop & Mikroyannidis (2005) "personal learning environments (PLEs) hold the potential to address the needs of formal and informal learners for multi-sourced content, and easily customisable learning environment". With personal learning environment, individual learners arrange and organise subject contents according to how best one can learn on his/her own pace and platforms. Laakkonen (2011) suggests that social media in PLEs provide opportunities for networking with people who share similar interests, people joining to form communities of practices

Wolpers et al. (2015) note that PLE follows a learner centric approach, Allows the use of lightweight services and tools that belong to and are controlled by individual learners. PLE provides learners with a variety of services and hands over control to them to select and use these services the way they deem fit (Wilson as cited in Wolpers et al. 2015).

PLE facilitate the use and sharing of open and reusable teaching and learning resources online. Teachers and learners can access, download, remix and republish a wide variety of teaching and learning material through open sources provided on the cloud. PLE approach encourages interactivity and foster the creation of learner communities combining informal and formal learning on the one hand and providing the possibility to track and transfer learning between course, subjects and educational institutes (Laakkonen, 2011).

Web 2.0 changes the position of a learner from a consumer to a producer and creator and his/her role in the educational community to that of co-builder and contributor. Wolpers et al. (2015) found that learners' motivation is strongly increased when learners find the

activities they engage in socially and culturally relevant. And learners who believe that they have control over their own learning tend to be more successful.

2.3.1.2 The use of Personal Learning Environments (PLEs)

Buchem et al. (2014) note that teachers and learners may select tools according to own needs, configure the environment, according to their own preferences and learners may negotiate the rules of communication and collaboration with teachers, peers and communities.

Wolpers et al. (2015) emphasise that learners nowadays have access to a variety of learning tools and service via the Cloud. Furthermore, they mention that web 2.0 has altered the landscape in technology enhanced learning, which puts emphasis on their needs and preference, providing them with a wider choice of learning resources to choose from. "Wikis are already being used to facilitate joint content, blogs serve as arenas of self-expression and enhanced readership" (Sykes et al. cited in Laakkonen, 2011).

Social networks such Facebook, WhatsApp, Myspace, Google+ and other social media allow students to network, interact and share information (Wolpers et al.,2015). The same sentiment is echoed by Laakkonen (2011) when he says that "social bookmarking sites serve a platform for organizing content and for building and sharing knowledge". The PLE requires teachers to adopt a new role as coaches or facilitators in the process of learning. "When teachers are new to social media and learner-centred design, they need time, resources and pedagogical support from the institution in which they work" (Laakkonen, 2011).

Petrushyna (2008) elaborates that tools such as Wikis, Blogs, YouTube, Google Docs, Skype, Twitter, Myspace, Facebook and others allow learners to organise content that has meaning to them and easily share that content and their own interpretations of it. "Offline tools can be used via mobile learning such as mobile phones and e-book readers" Laakkonen (2011).

2.4 Teachers and learners perception of social media as a teaching and learning tool

2.4.1 Attitudes towards using social media for teaching and learning

Teachers are reluctant to use social media in teaching and learning according to Blankenship (2011). He concludes that many teachers fear that they will adapt and become reliant to these technologies and may always remain available to them. Their concerns are multiple identities on social media platform (Morris & Millen as cited in Lui, 2012). "A path analysis of the data showed that attitude was the only factor with a strong significance in affecting the schools' behavioural intention to use of social media in teaching" (Inayati, 2014). Williams (2012) advocates that in orders to determine how social media is affecting learners, there is a need to investigate the perceived reality of social media as teaching and learning tool through the eyes of digital immigrant teachers. A study by Noor Al-Deen and Hendricks (2012) found that there is an increment on learners' agreement that courses with use of social media are innovative. In fact, 97% of the respondents agreed with that statement. Stefaniak (2017) advocates that teachers should use a positive future furnished with digital technologies for the benefits of teaching and learning processes. Draskovic, Korper, & Yasin (2017) claim that social media will continue to play an important role

within the constantly changing learning envrinnment and various types of social platforms could be used as instructional and communication tools as learners adoptation rate of social media is generally very high. This is an indication that learners have a positive attitude towards social media as a teaching and learning tool. They also found that the use and implimentation social media in the clasroom depends on both learners' and teachers' attitudes. So they conclude that "unfortunatly teachers typically share rather conservative attitudes towards using both social media and contemporary technology and prefer to use traditional media". Lewis & Nichols (2012) observe that overall, students had positive attitudes toward using social media in the classroom and had experience of using social media to study. Ponce, Mendez, & Penalvo (2016) found that many leaners already possess the basic know of how social media functions.

2.4.2 Effective participation in the use of social media for teaching and learning

The popularity of Facebook and other social media is on the increase, especially amongst learners and young people in general, so teachers are looking for ways to incorporate them in education procedure, since they believe that social networks can activate, involve and learners cooperate with each other (Manolis and Kalaitzidou, 2017). Regarding participation, Sanad (2016) points out that social media encourages contributions and feedback from everyone who is interested. It blurs the line between media and audience. Teachers should be active and interactive sufficiently to show their participation and involvement online (Lui, 2012). Subsequently, the teachers' roles changes when participating in online learning environments such as Facebook and communicating with students in order to establish the relationship and motivate students in learning (Lui,

2012). The benefits of participation in social media within educational process have the strongest influence on students' earning motivation (Guy, 2012). Noor Al-Deen and Hendricks (2012) attest that since the inception of social networks, there has been a swell of discussion and experimentation in education about how social media can be used effectively for educational purpose. Sclater (2017) found that learners are familiar with the use of social media such as Facebook, Blogs, and Wikis. They are used by learners on a daily basis because they offer them many opportunies for the creation and sharing of content. Sad (2017) found that today's learners are highly engaged, and often independent or take advantage of social media techonology to collaborate with their peers.

Barot and Pargi (2017) emphasise that it is very useful for teachers to be able to post on social media sites about class activites, homework, assignments and even schools events, this helps the teachers, parents and learners to stay on the same page about what is going on at school. Manolis And Kalaitzidou (2017) allude that social media make it possible for teachers to transfer the responsibility of learning to learners, turning their presence on the internet into a new social culture of the classroom. Sad (2017) states that by introducing and inviting learners to participate and engage with others who are interested and vested in similar endeavour, learning moves outside the classroom and into the realm of day-to-day life.

Recent literature shows that a significant number of young people in schools engage with a variety of digital technology, including social media in their lives (Stefanial, 2017). Sad (2017) notes that learners spend a considerable amount of their time in learning individually on social media using mobile tools, this time can even be more than the time they spend at school or classrom. Sad (2017) reiterates that the influx of technology into education is continually redefining teaching and learning and social media opens new

possibilities for connecting learners and taking education in new directions, although schools have been slow to bring social media into the classroom, many learners are using social media on their own to create and publish content. Draskovic et al. (2017) found that social media has potential as an educational tool that could improve learner motivation and in-class participation level. This view is supported by Kitchakarn (2016) who found that social media allows better participation in learning activites. Mendez et al. (2011) claims that students who befriend their teachers on social media are more likely to have higher grades. Generally, Wankel (2010) found that use of social media for entertainment and recreation is common among all age groups. Learners knew the names of different social media and their preferred social media was Facebook and most teachers use social media in their personal lives, so it is easier for them to adopt these technologies as tools for teaching and learning. A survey of perception of social media in education by (Rensing, Friestas, & Ley, 2014) where they compared two generations (Y and X), participants were asked if they have ever used social platforms in education. Rensing et al. (2014) found that regarding generation Y (learners) 87% used social media platforms in education while generation X (teachers) only 71% used social media platforms. Barot and Pargi (2017) decribe social media as a flexible and effective teaching and learning tool to use. "if the teachers need to direct learners to particular online resources they can easily share the site through social media sites like Twitter and if the teacher wants the class to visit a particular site all they have to do is tweet the website and the entire class can view it with one click" (Barot and Pargi, 2017).

2.4.3 Perception of social media as a teaching and learning tool

The general perception is that social media is difficult to use as a teaching and learning tool in school settings, based on the fact that teachers are not trained on social media application (Chen and Bryer, 2012). Noor Al-Deen and Hendricks (2012) "Some teachers say social media and technology can be distractions and potentially harmful to teaching and learning and others believe that revolutionizing social media tools, which are designed specifically for education are on the horizon". Zakarian (2013) found that the intergration of social media with educational process, of course has to take place smoothly, because social media like Facebook, for instance, has a contraversial issue for both parents and teachers and the majority of educators remain hesitant about implementing social media technologies in the classroom.

On the contrary, teachers and learners viewed social media, specifically Facebook, as a good place where members can either learn alone or together (Kitchakarn, 2016).

Stefaniak (2017) reiterates that neither Facebook or any other social media was developed for use as an educational tool specifically. "Teachers and researchers, however observed their popularity and communication power and embraced the opportunities to incorporate them into their pedagogy" asserts Stefaniak (2017). Wange, et al. (2012) argue that social media is not only employed for social connection, but it is also useful if use as a learning tool.

The haunting challenge for some teachers, however, is that the non academic use of social media and social medial illiteracies, are perceived to differ from one school to another.

Noor Al-Deen and Hendricks (2012) write that some teachers continue to struggle ways to either limit or exploit social media in their classrooms to either protect or enhance tradional teaching and learning methods. Inayati (2014) reveals that a closer look at teachers' attitudes towards social media has provided evidence of the manner in which teachers' attitudes play a significant role in influencing their tendency to be in favour of or against using any form of technology in class, including social media. It was discovered that the perceived benefits are that social media improves learners' learning, increases interaction and improves learners writing (Inayati, 2014). Moyle and Wijngaard (2012) believe that integrating social media into education and training can change the ways in which classes are taught. A survey on how students perceived social media as a learning tool by Kitchakarn (2016) found that students had a positive attitudes toward the use of social media for carrying out activities. Furthermore, Kitchakarn (2016) found out that students' learning performance positively correlated with the perceived usefulness of social media and attitude toward doing the activities on social media. Millia (2014) asserts that learners, specifically are perceived as being perpetually on Facebook. Acar (2013) alludes that parceptions and use of social media in academic platform have been an important topic. On contrary, Issa, Isaias, and Kommers (2016) found that most of the learners think that social media makes them addicts and it is a waste of time.

2.5 Social media as teaching and learning tool in school setting

2.5.1 The obstacles/challenges of social media use in school setting

Although a number of studies have shown that social media is being used in some schools by both teachers and learners as a teaching and learning tool, and there are benefits to implementing it in the classroom, it is imperative to note with concern that social media remains an obstacle and pose challenges on both teachers and learners. Ngonidzashe (2013) found that there are many challenges involved in using social media in education and the main challenges are security, unproductive behaviour, wastes of time and misuse of tools during instructional time. There are"claims that some scholars had disapointing findings about social media use in education especially facebook" Hewit & Forte (as cited in Acar, 2013). Thang et al. (as cited in Meda & Makura,2017) found that learners sometimes use ICTs more often for social purpose than educational purpose. Nicola (2011) says that there are risks associated with encouraging staff and learners to register for and share personal information with social media sites, particularly when requiring student participation as a course requirement in schools.

Like any other teaching and learning tool, social media should not and cannot be considered a "silver bullet" to address the challenges of effective teaching and learning in the future (Noor Al-Deen and Hendricks, 2012). The challenge for educators is how to use social media which is, after all, social to enhance learning outcomes though Social networking offers teachers and learners exciting opportunities to communicate according to VanDoorn and Eklund (2013). Chen and Bryer (2012) argue that the use of social media in teaching by teachers is scarcer. Raut and Patil (2016) found that learners usually use social site for many reason such as for study purpose, for entertainment purpose as social media provides any data one can easily and quickly access.

Raut and Patil (2016) assert that social media had become a major distraction to learners, causing the overall performance of learners to decline, especially the ones who tend to check their Facebook and twitter while studying. Al-Rahmi and Othman (2013) refer to social media as a major distraction of the current generation in schools. The same view is expressed by Raut and Patil (2016) who wrote that learners, who attempt to multi-task, checking social media sites while studying, show a reduced academic performance. "The experts have already made it clear that social media negatively impact learning" (Raut & Patil, 2016). Meda & Makura (2017) found that some learners expressed having used WhatsApp and Facebook for useless things, not school work. Furthermore, Meda & Makura (2017) conlude that the informal learning platforms such as Facebook and WhatsApp were not entirely used for the purpose of learning and thus positioned learners in space where they could either learner or their attention was diverted to issues irrelevant to education.

Raut & Patil (2016) conclude that many learners rely on the accessibility of information on social media and the web to provide answers. That means a reduced focus on learning and retaining information. Chen & Bryer (2012) found that the use of social media as a teaching and learning tool has negative effects on academic performance. Williams (2012) acknowledges that new forms of cheating, cyber-bullying, and possible classroom disruption threaten social media application in schools. Ngonidzashe (2013) writes that popular social networking sites like Myspace, Facebook, and Bebo have received intense criticism from schools which are fearful for the online safety of learners using these sites, and also the concern that learners will misuse them during instructional time. The biggest downfall of social media being incorporated into education is the security and privacy issues that come along with it. Confidentiality and privacy are very big issues within social

media because of issues such as posting personal information online (Chen & Bryer, 2012). Ngonidzashe (2013) articulates that internet exposes students to inappropriate material, un-wanted adult interactions, and bullying from peers and Web 2.0 is also a source of concern regarding issues such as, privacy, authorship and ownership rights, digital divide in the classroom or time management issues. Williams (2012) admits that Social media and interactive technologies have posed challenges as well as fears and concerns in education. (Ngonidzashe, 2013) writes that "Social media is useful in education, however little is known about the challenges posed to learners who use social media in education". Williams (2012) stresses that there are implications in the use of social media in education as it has a multi-layered influence on the socialization and learning context of students. Therefore, educators must no longer view social media and other technologies simply as curriculum-delivery devices or teaching aids. Morris and Millen (as cited in Lui, 2012) reveal that multiple identities privacy and security issue and the original purpose of social media such as Facebook as a social networking platform rather than an online learning platform are the major challenges of using social media as a teaching and learning tool. Williams (2012) writes that social media to have negative uses, and thus, have negative psychological and social implications. Further, researches have shown that social media can be used to bully, start rumours, or intentionally deceive others. The use of acronyms, shortcuts, emoticons, careless punctuation, and poor grammar and spelling by learners on social media platform contributes to negative perceptions. Issa et al. (2016) reveal that some learners indicated that social media makes learners feel lonely and prevents them from completing their work or studies in time. Remarkably, social media makes them lazy and it is distructive to their performance. Wankel (2010) also decribes social media as destructive, an example of such distraction

is that during the interviews, two students checked every two minutes what their friends posted on Facebook and posted replies using their cellphones. The ideas to integrate social media in education is a brilliant one, however, " It raises various ethical concerns amongst learners and teachers alike" according to Millia (2014).

Barot & Pargi (2017) single out the major challenges with social media application in school settings as (a) classroom distraction, (b) imporper use of social media in the classroom, (c) posting inappropriate content on social media and (d) cyber bullying on social media sites.

(a) Classroom distraction

Barot & Pargi (2017) found that a common complaint among educators is that social media is distracting in the classroom.Teachers maintain that tools like Facebook and twitter divert students' attention away from what is happening in the classroom and are ultimately disruptive to the learning process.

(b) Improper use of social media in the classroom

Barot & Pargi (2017) write that learners might take advantage of being able to access social media in the classroom and use it for personal interactions instead of school related activites. They further expalin that, if learners are not closely monitored it will be hard to know if they are using social media properly during class time.

(c) Posting in appropriate content on social media

Barot & Pargi (2017) found that one of the reasons social media sites are not allowed in schools is because it is difficult to monitor how learners use social media sites, and

learners may post inappropriate content such as pornography or use foul language which would be both distracting and damaging to learners.

(d) Cyber bullying on social media sites

Barot & Pargi (2017) write that, although social media provide a way for teachers and learners to connect, they can be a weapon of malicious behaviour. Furthermore, Barot & Pargi (2017) warn teachers who use social media as part of their subject activites to be aware of the pontential danger and have a plan in place to intervene in case of minor incidents before they become more serious.

2.5.2 Positive impact of social media in education

Social media can play a significant role in enabling both formal and informal learning opportunites for learners in schools (Stefaniak, 2017) .Sad (2017) obrseves that one of the key advantages of social media in education is the ease of facilitating peer learning and emphaising the importance of collaborative learning and networking through massive social interaction.

Chen and Bryer (2012) allude that Uses of social media as learning tools could possibly connect informal learning to the formal learning environment. Stefaniak (2017) supports that social media is a flexible, easy to use and powerful tool for educational learning and teaching. A study by Noor Al-Deen and Hendricks (2012) at one high school, found that the use of social media in the classroom led to "meaningful learning" through devlopement of social identities that shaped what learners knew, felt and did and how they made sense of their experience. Stefaniak (2017) finds out that social media is perceived

to be part of today's society, it is something that can be regarded as 'realia' in the teaching and learning environment. Endodermic staff, (2015) advises that "If you want to bring the 'real world' into the classroom, consider integrating social media into your lessons". Lui (2012) writes that in order to motivate student learning, some teachers are trying to make use of social media in teaching and learning. Sad (2017) found that social media have great potential as a teaching and learning to overcome some of the challenges facing educational institutions. White, King, & Tsang (2011) explain that social media sites are publicly available for almost free, this enables teachers to develop and share curriculum material in an adaptive fashion and facilitate collaboration among learners.

Noor Al-Deen & Hendricks (2012) write that to the benefit of educational objectives, learners' use of social meida to produce and share content evokes interest through simulationeous personalization and interactivity.When used carefully, social media can be a useful tool rather than a distraction. Ponce et al. (2016) found that students ususally respond when web 2.0 technologies are used in the classroom.

Endodermic (2015) argues that using social media not only brings current technology to the classroom, but it also helps bridge the digital divide among lower-income learners. Stefaniak (2017) observes and acknowledges that social media enables learners to engage with classmates and teachers outside the physical room, before a class begins and after it ends.

Social media can be integrated in education to allow learners get ideas and exchange knowledges with other people by support of internet (Parmar 2017).

Mellett (2013) writes that Social media is one of the trendiest ways teachers are enhancing lessons and engaging students both in and out of the classroom. He states that "with just a smartphone, tablet, iPad, laptop, or a home computer, social media can improve teaching and extend learning time in a way a learner would get excited about. Through social media, learners can log on any time or any place to do their work, allowing more interaction beyond the school day". We need to think of education as an individualized and year-round activity, not just something that takes place within schools between 7:00 a.m. to 13:00 p.m. Monday through Fridays when schools are in session. Learning should be continuous, anytime and anywhere. Sanad (2016) concludes that students who hardly ever participate in class may get actively engaged in co-constructing his learning experience with his teachers, collaborating with their fellow colleagues, and may feel more comfortable to express themselves and to share their resources and ideas on Facebook. Hrastinski (2009) as cited in Sanad (2016) argues that social media give learners a chance to manipulate their learning environment and to participate actively in the learning process. Sad (2017) observes that social media enable learners to collaborate and interact in new ways with their peers and teachers, thus develop self-regulated learning skills. Social media provides new and exciting opportunities for teaching and learning (White et al., 2011) . Social media as a learning environment enable learners to do selft-study, exchance ideas, give comments, and submit assignments in order to improve writing ability (Kitchakarn, 2016). Furthermore, Kitchakarn (2016) claims that social media makes learnnig more meaningful. In a survey by Wankel (2010) the 'Yes', respondents were more than the 'NO' respondents. The Yes, respondents suggest that social media have positive learning outcomes, because they enhance social interactions and sharing (Wankel, 2010). "Teachers who have the capacity can use social media to customize their

teaching methods to meet the individual needs of students, thus allowing students to learn at their own speed" (Ponce et al. 2016).

2.6 Social media in education

2.6.1 Social media for teaching and learning

Today the capabilities of social media are influencing learning and teaching in ways previously unseen, these changes offer a window into the future of education, with new means to knowledge production and reception and new roles for learners and teachers (Greenhow et al., 2016). Zakarian (2013) found that many of today's educators are personally using social media sites and recognize the educational value of social media.

Over and above, there is a growing trend that people participate in social media as Lui (2012 states "given there is a discussion forum provided by online learning platforms, students get used to communicate with social media. The phenomenon enables teachers to think whether social media such as Facebook can be incorporated in teaching so as to facilitate student learning". Many researchers argue that social media is playing a huge role in the world of education (Haipinge, 2013,). Baker (2013) asserts that students are experiencing the world through more than just books and assignments; Social media offers plenty of opportunities for learning and interactivity. A new study by Carter (2013) on social media found that there is a link between social media use and poor academic performance. On the contrary, Delmatoff (2010), who carried out a survey on social media program in Portland, Oregon classroom, found out that 20% of students, school-wide were completing extra assignments for no credit, grades had gone up more than 50%, and

chronic absenteeism was reduced by more than a third, when they were allowed to use social media. Curtis (2014) alludes that social media such as Facebook has greater advantage "Face book groups are accessible on mobile devices, enabling pupils to quickly access homework assignments. If pupils miss a lesson or revision session, a set of homework tasks with supplementary resources can quickly be added to the group. They can also discuss tasks among themselves and post links to useful resources. Blaschke (2014) case study on the role of social media in promoting cognitive and meta-cognitive learner development found that the use of Social media technology provides teachers with an opportunity to engage learners in the online classroom, as well as to support the development of learner skills and competencies. The research results further indicate that learners perceived specific social media (Google Docs, mind mapping and e-portfolio software) in conjunction with a unique learning activity as influencing specific cognitive and meta-cognitive skills (constructing new knowledge, reflecting on course content, understanding the individual learning process).

Blaschke (2014) points out that with the multitude of tools and approaches available, the challenge is in finding the approach that has the most meaningful learning outcome. One approach is to encourage students to use social media actively in their learning and research, opening up the potential for them to develop the skills they need for creating a personal learning environment (PLE) and bringing them a step closer toward becoming more self-directed learners.Coleman (2013) writes that by using social media, students also have an opportunity to manage their own learning environments and thus become more independent, lifelong learners. Importantly "using social media as a teaching and learning tool/environment could also provide opportunity for the shy pupil to participate in discussion and interact with each other to learn from each other" Delmatoff (2010).

Siemasz (2011) on Dr. Katie King's Social Media Learning online discussion acknowledges that social media has become the modern dictionary, encyclopedia, and ultimate research tool for students and teachers. Baker (2013) asserts that students are experiencing the world through more than just books and assignments; Social media offers plenty of opportunities for learning and interactivity, and if you take a moment to think about it, it is not too hard to see how students benefit from using social media. As younger generations use such technology in the classroom, they remake the educational landscape.

On a contrary, Bloxham (2010) writes that teachers believe that social networking sites such as Facebook and Twitter are to blame for pupils' poor grades. Further revealed that teachers believe pupils don't spend nearly enough time on their homework as they should and 73 percent believe parents should take responsibility and limit the amount of time their child is spending online. And in the same study, 58 per cent of teachers believe mobile phones and computers are responsible for children being unable to spell as well as previous generations. And 54 per cent say children can't write as well as they should because they are more used to keyboards and touch pads.

Carter (2013) writes that students who spent the most time using social media had “fewer academic behaviors, such as completing homework and attending class, lower academic confidence and more problems affecting their school work, like lack of sleep and substance use. Dunn (2011) suggests that Students, who attempt to multi-task, checking social media sites while studying, show reduced academic performance, their ability to concentrate on the task at hand is significantly reduced by the distractions that are brought about by YouTube, stumble upon, Face book or Twitter.

Bloxham (2010) says some teachers believe that despite schools banning mobile phones, many pupils secretly take smart phones to school and remain connected to social networking websites in class. However, Study conducted by the British Council (2007) indicated 69% of learners around the world said that they learned most effectively when socializing informally this result suggests that a lot of students learn best from their friends and family. Perhaps that isn't so surprising. It further suggested that pupil learn best from their peers or people close to them and when relaxed they are more open to suggestions and new Ideas than they will with teachers in the classroom. It was concluded that in some African countries, people own more than one phone each on average. What these findings mean is that sometimes young people get more new information from the technology they use outside of school than they do from their teacher in the classroom. Sometimes, young people learn more from using the Internet at home or in a café than they do at school. Weisberger (2010) supports this claim and points out that the use of social media in classroom may be more pedagogically beneficial.

2.6.2 Social media in the classroom

Zakarian (2013) found that educators at the secondary (9-12) grade levels are more likely to implement social media technologies in the classroom and that social media use in the classroom is related to student engagement. Furthermore, the results of the study demonstrate that teachers recognize the educational value of social media technologies. Sad (2017) admits that it is difficult to confine learners and learning in between the walls of an education institution anymore.

Inayati (2014) concludes that countless educators from various disciplines have used some forms of social media in their personal as well as professional lives. Furthermore, states that Social media is one of the current phenomena in the technology advancement that touches many aspects of life, including education. A study by Parmar (2017) found that social media brings the world to the classroom and enables learners to communicate across the world. “Social media is a ubiquitous phenomenon that affects a huge number of teachers and students” (Inayati, 2014). VanDoorn & Eklund (2013) assert that Web 2.0 and its synchronous communications platforms provide new avenues for teachers to deliver curriculum and facilitate learning. Further, they provide new avenues for students to engage and intensify their own learning. Endodermic staff (2015) notes that since learners are already using social media away from the classroom, integrating it into the classroom helps learners learn best practices for social media and offers an interesting new twist on lessons. “For instance, a class Facebook group creates a space for learners to ask and answer questions. When learners get home and begin working on their homework, they can post a question to the group’s wall that either you or a classmate can answer. Since learners often learn from others, having learners share their questions, insights, or experiences with a topic can expand learning for other learners. In short, it extends the classroom discussion beyond the classroom” (Mellett, 2013). Using social media forces teachers to change how they teach and how they learners learn .(Ponce, Mendez, & Penalvo, 2016).

Leicester (2017) says that social media such as Facebook, Twitter, Google Plus, and Flickr, as well as open social practices such as blogging, are being used in learning for the purpose of convenient communication with other students and potentially with others

outside the class such as students of the same topic and subject experts. Griesemer (n.d) shares the same sentiment, and says with social media becoming an everyday communication method for individuals and organizations, it's logical to incorporate its use into instructional approaches. "The influence of social media on learning and teaching environments is growing more each year. Social media applications can reinforce class material and positively influence discussions, collaborative work, and authoring" (Griesemer, n.d). "Facebook, the world's most popular social network surpassed 500 million registered users in 2010, Crunchbase (as cited in Noor Al-Deen & Hendricks, 2012) . The network's popularity with digital natives who grew up with social media is due, in part, to the network's ability to personal educational content with interactivity as users share and discuss educational contet with friends and classmate.

Noor Al-Deen & Hendricks (2012) question that to what extent can social media such as Facebook enhance formal learning environment and how? Sad (2017) advocates teachers and scholars to ask for technological solutions to control and support teaching and learning outside formal institutions, so they could answer questions such as "how can social media be part of formal education? And should they limit technology use in schools or outside?. Kitchakarn (2016) found that social media like facebook has been used for teaching and learning for quite some time. Meda & Makura (2017) found that all participants mentioned one form of social media or another as very important learning tools: WhatsApp, Facebook, Imo, and Wikis were common forms of social media highlighted by participants, however WhatsApp and Facebook were the most used social media as per responses from the participants.

2.7 Preparing learners for the 21st century

2.7.1 Teaching and learning in the new digital landscape

" The best pedagogical approach to learning and teaching in Digital age is to have learners collaborate beyond the classroom context critically and cteatively" (Starkey, 2012). Our personal, professional, social and cultural lives have been affected and transformed by the computer networking revolution; email, cellphones, text messaging, participating in social networks and accessing powerful search engines using computers and mobile devices are common aspects of everyday life (Harasim, 2017). Furthermore, (Harasim, 2017) explains that the aspiring members of the education profession, such as teachers, instructors, professors and trainees, the world in which we work and teach has been particularly impacted by networking technologies.Coleman (2013) by using social media, students also has an opportunity to manage their own learning environments and thus become more independent, lifelong learners.Neville & Heavin (2013). Support that the emergence of social media has forced educators to think differently about the way learning occurs. Parmar (2017) explains that educating our children using and on social media is vital to their success. The goal of education is to prepare learners for the world outside of school. Ponce, Mendez, & Penalvo (2016) emphasis that the use of social media and other forms of technology for everyone is specially critical for those teaching in today's changing educational environment. The increasing use of social media in schools and daily use demonstrate a generational shift now impacting education institutions.

(Jukes & Dosa ,2006,P.1) point out that children today are different, but not just because they mature year earlier than children did even a couple of generation ago. They further elaborated that today's instant messenger generation has grown up in a new digital

landscape for most of them, there is never been a time in their lives when computers, cell phones, video games, the internet and all the other digital wonders that increasingly define their world have not surrounded them. Jukes & Dosa (2006) further explain that constant exposure to digital media has changed the way these digital natives process, interact and use information. "Using social media as a teaching and learning tool/environment could also provide opportunity for shy pupil to participate in discussion and interact with each other to learn from each other" states Delmatoff (2010). 0813023815

Brown , Krastiva & Ranieri (2016) allude that digital technologies including social media should be viewed as instructional tools that improve access to educational opportunities, strengthen cultural resources, promote social and economic equality and provide learners with knowledge and competence to prepare them for a future that cannot be predicted . White, King, & Tsang (2011) obverve that teachers who incorperate social media in their teaching give learners opportunities to bring their paasion into the classroom and encourage them to gain the cultural competencies and social skills they will need in their future roles as 21st century citizens and workers. Patrut & Cmeciu (2013) Brown, et al. (2016) claim that social media broadens the spectrum for democratic participation and communication capability become an important component in defining technological equality and the use of social media as a teaching and learning tool. Furthermore, Brown et al. (2016) indicate that the use of social media in education will broaden learners' awareness, analysis, reflection and participation in educational experience that facilitate meaningful societal transformation. Parmar (2017) suggestss that the first step towards applying social media into education starts with empowering teachers by giving them freedom to use social media to engage with learners and giving them the freedom to come up with with innovate ways of teaching using technology. Sad (2017) projects that social

media will increase the relevance of classroom learning by relating to increasing "eletroninc" center learners.

2.7.2 Digital natives versus digital immigrants

According to Prensky (2001) today's students have changed radically, today's students are no longer the people our educational system was designed to teach. Prensky (2001) further explains that digital natives (learners) are used to receiving information really fast. They like to parallel process and multi-task. They prefer random access like hypertext. They perform best when networked. They have spent their entire lives surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age. Digital natives (learners) think and process information fundamentally differently from their predecessors the digital immigrants (teachers). Therefore, teachers need to adjust when teaching the digital native. (Blankenship, 2011) asserts that in today's society, we are faced with the problem of differences between generations X and generations Y in education. He refers to "digital natives" as Generation Y and "digital immigrants" as Generation X. Generation Y consists of the younger generation, or students, who grew up embracing the web 2.0 technologies with great enthusiasm. On the other hand, Generation X, the older generation which includes several teachers, is forced to adapt to all of these new technologies and often find themselves overwhelmed and struggling with the changes (Blankenship, 2011).This creates a growing gap between teachers and students, limiting the social media that can be incorporated into education. Blankenship (2011)) believes that technology in education should be focused on what students use instead of what the school or teachers want He also believes that when the students become the stakeholder, it will be geared towards

their needs, avoiding the need for collaboration between different generations of educators and students (Blankenship, 2011). Prensky (2001) writes that Digital Immigrant teachers assume that learners are the same as they have always been, and that the same methods that worked for the teachers when they were students will work for their students now. Prensky (2001) stresses that Digital natives function best when networked. They thrive on instant gratification and frequent rewards. "They prefer games to "serious" work, but Digital Immigrants typically have very little appreciation for these new skills that the Natives have acquired and perfected through years of interaction and practice" (Prensky ,2001). These skills are almost totally foreign to the Immigrants, who themselves learned – and so choose to teach – slowly, step-by-step, one thing at a time, individually, and above all, seriously Prensky (2001). "Digital Immigrants don't believe their students can learn successfully while watching TV or listening to music, because they (the Immigrants) can't. Of course not – they didn't practice this skill constantly for all of their formative years. Digital Immigrants think learning can't (or shouldn't) be fun" (Prensky, 2001). "The question is should the Digital Native students learn the old ways, or should their Digital Immigrant educators learn the new?" (Prensky, 2001). Prensky, (2001) reassures that no matter how much the Immigrants may wish it, it is highly unlikely the Digital Natives will go backwards. Prensky, (2001) recommend a need to invent Digital Native teaching methodologies for all subjects, at all levels, using our students to guide us, and Today's teachers have to learn to communicate in the language and style of their students. Jones &Shao (2011) argues that the gap between students and their teachers is not fixed, nor is the gulf so large that it cannot be bridged. In many ways the relationship is determined by the requirements teachers place upon their students to make use of new technologies and the way teachers integrate new technologies in their courses (Jones

&Shao, 2011). Furthermore “analysis of the empirical evidence suggested that today's young students' don’t fit neatly into the stereotype of the 'Digital Native' and conversely age does not seem to be a barrier to gaining technological aptitudes and skills. Students do not form a homogeneous generational group in relation to access, competence levels and experiences with technologies and they vary considerably according to specific local contexts and socio-economic factors” (Jones &Shao, 2011).

2.8 Conclusion

This chapter reviewed the relevant literature as it pertains to the scope of this study. The chapter also focused on the theoretical framework, and a summary of knowledge gaps been. Most of the literature and studies cited this far were conducted outside Namibia and little empirical evidence exist within Namibia. In the literature, it emerged that social media can enhance team working in the classroom setting by promoting concentration engagement. The use of social media enables both teachers and students to provide constructive educational outcomes as well as to practice a variety of pedagogy in the best interest of the learners. The social media assists to accomplish a change in strategy, mentality, attitude and behavior that enhances the knowledge transfer. The literature reviewed established the relationship between education and social media and the implication on learners.

CHAPTER 3: METHODOLOGY

3.1. Introduction

This chapter elaborates on the methodology used in this study. It details the research design and how the research site and study participants were selected. It further explains the instruments and methods used in collecting data from the sample; it describes the population, sample and sampling procedures used. The data analysis procedures and research ethical considerations and conclusion are also discussed in this chapter.

3.2. Research Design

In order to answer the research questions and test the hypothesis a quantitative approach using a descriptive design involving a survey was employed in this study. Descriptive design uses quantitative methods to describe what is, describing, recording, analyzing and interpreting conditions that exist. It involves some type of comparison or contrast and attempts to discover relationships between existing nonmanipulated variables and some form statistical analysis is used to describe the results of the study (Best & Kahn ,2006). Quantitative data were collected using a written questionnaire. Gay, Mills, & Airasian (2009) defined quantitative research as the collection and analysis of numerical data to describe, explain, predict, or control phenomena of interest. Best & Kahn (2006) explain that quantitative research consists of research in which the data can be analysed in terms of number. Since the study adopted a quantitative research approach hypothesis was set as follows:

$H_{0:}$ There is significant difference between grade 11 teachers' and learners' response (perception) to whether social media can be used as a teaching and learning tool in geography.

$H_{1:}$ There is **no** significant difference between grade 11 teachers' and learners' response (perception) to whether social media can be used as a teaching and learning tool in geography.

3.3. Population

The population of this study are Grade 11 Geography teachers and learners from the Secondary schools in Rundu circuit. The five (5) Secondary schools in Rundu circuit are amongst the schools in Namibia that do not allow the use of cell phones, laptops and other electronic gadgets by learners on the school premise, except computers in the school laboratories. Best & Kahn (2006) difine population as any group of indiviuals that has one or more charecteristics in common and that are of interest to the researcher. Thus, the target population for this study was two hundred (200) respondents which comprise of seventeen (17) Geography teachers and one hundred and eighty three (183) Geography learners in Rundu Circuit, Kavango-East, Namibia.

3.4. Sample

Since there were only seventeen (17) grade 11 geography teachers in Rundu Circuit, all the seventeen (17) teachers were included in this study. And eighty-three (183) learners

from the 280 grade 11 geography learners of the five (5) Secondary schools in Rundu circuit also formed part of the study sample of the population. Best & Kahn (2006) define sample as a small proportion of the population that is selected for observation and analysis.

3.5.Sampling procedures

A simple random sampling procedure was used to select a sample of eighty-three (183) grade11 geography learners from the 280 grade 11 geography learners for the survey and since there were only seventeen (17) geography teachers in Rundu circuit, all were purposefully included in the study. The researcher obtained the names of all eligible grade 11 Geography teachers and learners from the principals of the secondary schools in Rundu circuit. These lists of learners formed a sample frame from which the researcher selected sixty-five (183) learners at random by assigning a number to each name and 'picking the numbers out of a hat' (Johnson, 2014). And seventeen (17) teachers were purposively sampled. Thirty-seven (37) learners were sampled from four (4) schools with more grade 11 geography learners and thirty-five (35) from one (1) school with least learners to from a sample of 183 learners since there are only five (5) secondary schools in the Rundu circuit.

3.6. Research Instruments

A questionnaire mixed with Likert-type scale and options was used. Gay, Mills and Airasian (2009) indicate that questionnaires are useful in collecting data if well structured. A survey Likert scale questionnaire with close-ended and options questions was used to

elicit data from the seventeen (17) grade 11 geography teachers and eighty-three (183) learners.

3.7.Data collection produce

Data were collected by administering questionnaires to the seventeen (17) grade 11 geography teachers and eighty-three (183) grade 11 geography learners at the schools. The researcher handed out questionnaires to teachers and learners and collect them from the principals of the schools after five days.

3.8.Data analysis

According to Bryman (2002), data analysis can be defined as the process of bringing order to the data, organizing what is there into patterns, categories and descriptive units and looking for the relationship between them. In this study, the data collected through the questionnaires were coded, entered, cleaned and analysed using the Statistical Package for Social Sciences (SPSS 20) computer software. The quantitative data were analysed using descriptive and inferential statistics such as percentages, chi-square tests and t-test. Best & Kahn (2006) suggested four stages, namely data reduction, data display, data consolidation and data integration were employed in this study. In this study data reduction refers to condensing the dimensionality of quantitative data through descriptive statistics. The responses were entered into the Microsoft Excel to create data sets and data analysis commands were run. The analysis included descriptive methods such as frequency counts, standard deviation and percentages and mean. T-test and chi-square were used to test the hypothesis of the study. The findings were presented systematically

and were discussed objectively. All the data were strictly interpreted in relation to the research questions and conclusions were drawn from the findings.

3.9 Ethical considerations

On approval of the study, the University of Namibia Centre for Research and Publications gave the researcher ethical clearance and permission to conduct the study. Thereafter, permission was sought from the Ministry of Education, Arts and Culture (Permanent Secretary). After permission was granted, further permission was obtained from the Director of Education, and from the school principals in Rundu Circuit. Participants were asked to give consent and for the minors' consent were obtained from their parents who allowed them to participate in the study after school hours. Before data were collected from the participants, the purpose of the study was clearly explained to them, after which they were asked to give their information voluntarily and participants were assured of confidentiality by informing them not to write their names on the questionnaires. The participants were also assured of their right to withdraw from the study anytime they wish to. Data collected were stored in a locked briefcase to which only the researcher have access and to be kept for a period of not more than five years after completion of the study. Thereafter the hard copies to be destroyed by using a shredder while the soft copies to be deleted from memory sticks and hard drives.

3.10 Pilot study

Questionnaires were piloted using ten (10) non-research participants, who had similar characteristics as the study participants. These were four (4) grade 11 geography teachers and six (6) learners from a neighbouring circuit. Questionnaire Pilot testing was done one month in advance before the researcher began with the collection of the data at the five secondary schools. According to Meriwether (as cited in Patemoshela (2013) a pilot study greatly reduces the number of unanticipated problems because one has an opportunity to redesign parts of their study to overcome difficulties that the pilot study reveals. The results collected by the pretest questionnaire was validating the understandability of the questions asked in order to get reliable answers. The alterations that were made to the question two (2) in section C of learner's questionnaire. The question was confusing students. Students thought the question required them to mention the social media they use instead of social media they recommended as learning and teaching tool. The data collected from the pilot study were used to estimate the reliability and validity of the instruments and necessary adjustments were made on the questionnaire.

3.11 Conclusion

Above are discussion covered the introduction, research design, target population, research sample, research instruments, research ethics pilot study, and conclusions. The next chapter discussed in detail the research findings.

CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter aims at presenting the research findings and results, as well as providing an analysis and interpretation of the research results. This chapter will also answer the research questions mentioned in this study. Statistical Package for the Social Science (SPSS 20.0) was used for data analysis. The research used quantitative data, therefore, the chapter commences with presenting demographic features within the collected data and then provide an analysis and interpretation of the research results. The current study aimed to assess the grade 11 geography teachers' and learners' perceptions of social media as a teaching and learning tool in Rundu circuit. This chapter describes the demographics of the participants through presenting age, education and familiarity levels of social media. The chapter further answers the research questions and proves or disproves the hypothesis under investigation.

4.2 Demographic Results

The research will make use of demographic characteristics of the collected data so as to explain the characteristics of the population. The demographic features used include the response rate analysis, age of teachers and learners, educational qualifications teachers, and the years of experience of teachers.

4.2.1 Response Rate Analysis

The research made use of questionnaires distributed to the targeted respondents in gathering the research data for analysis so as to answer the research questions. These questionnaires were issued to different respondent, that is the teachers and learners, and they obtained different response rate analysis.

4.2.1.1 Questionnaire response rate

The research targeted to distribute 200 questionnaires to the targeted respondents which consisted of the individuals involved in the learning process of geography that is the teachers and learners. ~~A~~ Total number of 200 questionnaires were distributed, 183 were distributed to the learners and 17 were distributed to the teachers. The response rate analysis of the questionnaires is provided in Table 1.

Table 1: Questionnaire Response Rate Analysis (Source: Raw Data)

Respondent	Questionnaires Issued Out	Questionnaires Responded	Response Rate
Teachers	17	14	82.35%
Learners	183	169	92.35%
TOTAL RESPONDENTS	**200**	**183**	**91.50%**

In this current study, 200 questionnaires were issued and 183 questionnaires were answered. The study showed a response rate of 91.50%. This was as a result of 14 questionnaires responded to by teachers out of the 14 distributed and 169 responded to by learners out of the 183 distributed. The response rate of 91.50% shows that the results

obtained are free from bias, and they are valid as the majority of the targeted respondents managed to respond to the questionnaires distributed.

4.2.2 Age of Teachers and Learners

The research examined the ages of the respondents that formed the research sample. Table 2 provides an analysis of the results of the responses obtained.

Table 2: Age of Teachers and Learners

Variable	Observations	Mean	Standard Deviation	Minimum	**Maximum**
Age of Teachers	14	23	21	20	48
Age of Learners	169	18	18	16	19

Source: Raw Data

The results from the analysis showed that the teachers have an average age of 23 years, the lowest being having 20 years and the highest 48 years. The learners' data showed an average of 18 years of age, having a minimum of 16 years and a maximum of 19 years. This shows that the data has been collected from respondents representing all the age groups of both the teachers and the learners', and that the data is free from bias.

4.2.3 Educational Qualifications

The research explored the educational qualifications of the teacher respondents, in order to identify if the data to be gathered represents the views of people with each of the educational levels from grade 12 to Masters Level. The results from the study are as presented in Figure 1.

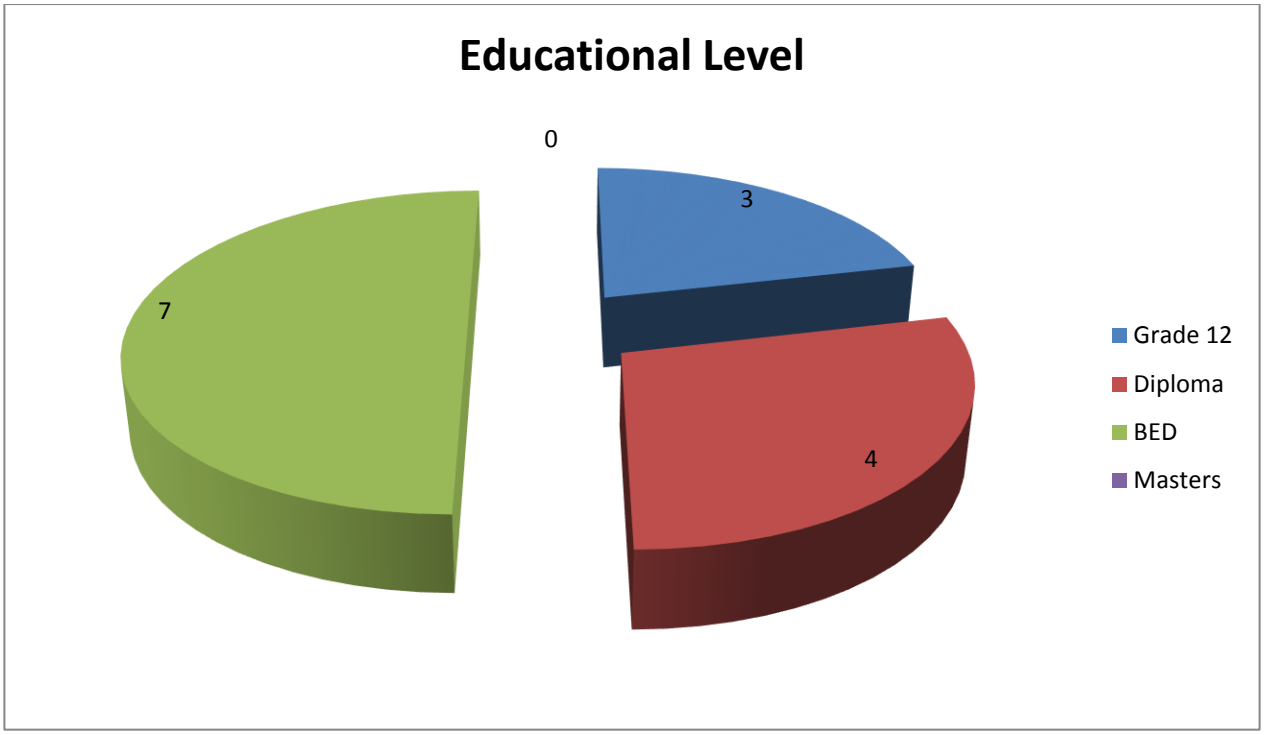


Figure 1: Educational Qualifications of Respondents (Teachers) Source: Raw Data

The results from the educational qualifications of the respondents showed most of the educational levels were presented, except of the masters who failed to have a representation in the sample of respondents. This was evidenced by BED and the Diploma level dominating, but however, the representation of all levels guarantees the results that they are not bias on a certain educational group of people.

4.2.4 Years of Experience

The research explored the years of experience for teachers. This is aimed at determining if the perception of using social media is related to work experience. The results from the analysis are provided in Table 3 below.

Table 3: Years of Experience (Source: Raw Data)

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
Years of Experience of Teachers	14	4.326	2.098	2	23

The results from the respondents showed an average of 4.326 years of experience, having a maximum of 23 and a minimum of 2 years of experience. A standard deviation of 2.098 years was obtained which shows a slight difference of the respondents years of experience from the mean age observed. The results revealed that teachers with a few years of work experience perceive social media as teaching and learning tool for geography.

4.3 Research Question 1

What do the Grade 11 Geography teachers and learners identified as attitudes towards using social media as a tool for teaching and learning in the Rundu Circuit?

The research investigated the perceptions towards social media as a teaching and learning tool. The research aimed at understanding the different attitudes that the respondents have on the perception of social media as it pertains to teaching and learning benefits. The results obtained from all the questions asked about the respondents' attitudes are presented in Table 4.

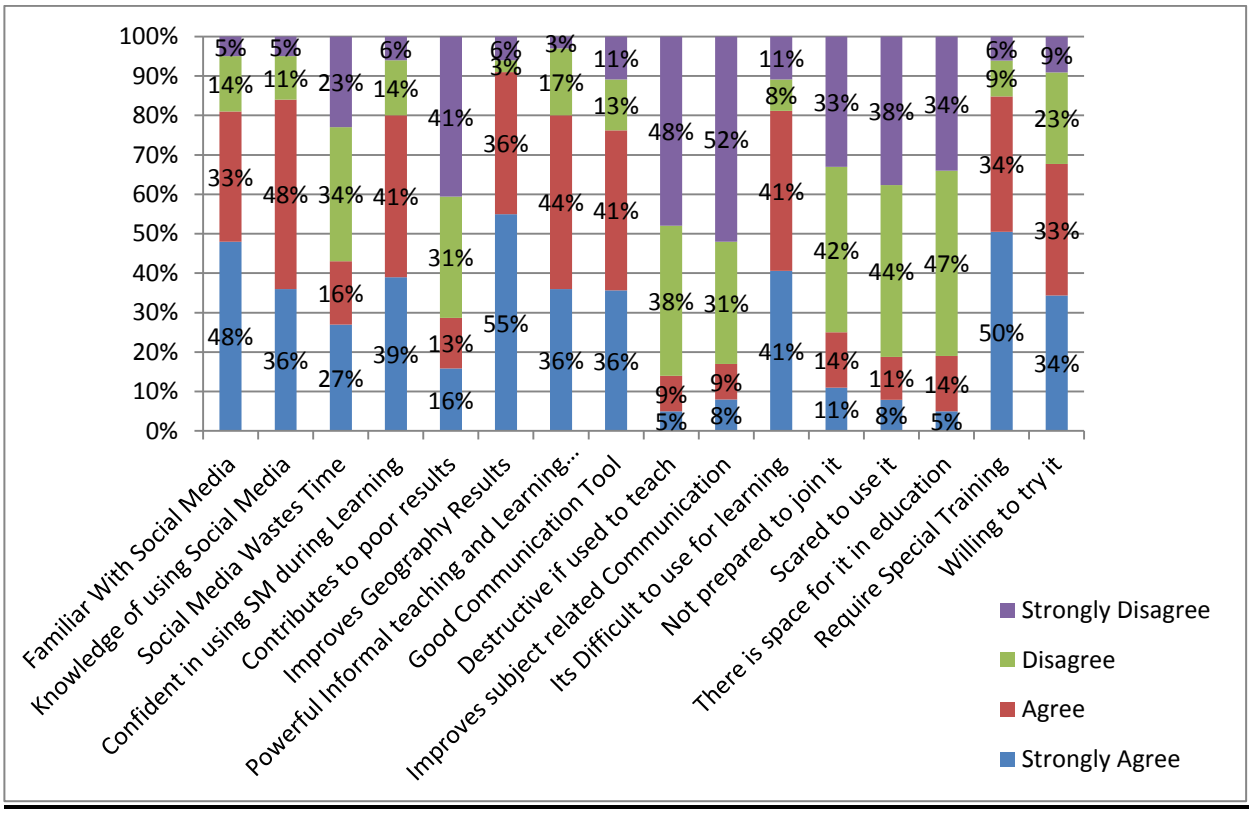
Table 4. Teachers and learners general attitude towards the use of social media for teaching and learning purposes.

QUESTION	FREQUENCY				Descriptive Statistics		Result
	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean	S.D	
1. I am familiar with Social Media.	89	60	26	9	46	35.656	Agree
2. I know how to search and share information on social media.	66	89	20	9	46	32.863	Agree
3.I believe that social media wastes much of my time in a day, where I could be doing something else	49	29	63	43	46	39.79	Disagree
4.I feel confident with my ability to learn or teach geography using social media	71	74	26	11	46	31.796	Agree
5. I believe that social media contributes to poor results in the schools.	29	23	57	74	46	23.963	Disagree
6. I believe social media can improve geography results in schools if used in the right way.	100	66	6	11	46	45.243	Agree

7. Even though I spent much time on social, I believe that it is a powerful informal teaching and learning tool.	66	80	31	6	46	33.570	Agree
8. I believe it is right to communicate geography related matter with teachers or leaners via social media.	66	74	23	20	46	28.217	Agree
9. I think social media is destructive/ (**a bad thing**) if used to teach and learn geography.	9	17	69	89	46	39.107	Disagree
10. I don't want to use social media in geography.	14	17	57	94	46	37.811	Disagree
11. I would prefer to use social media for communicating with my friends **not** teachers and learners.	26	40	49	69	46	18.019	Agree
12. I think social media can improve subject related communication between teachers and learners.	74	74	14	20	46	33	Disagree
13. Social media is for people who have nothing to do at all, not for teacher and learners.	26	9	37	112	46	45.486	Disagree
14. I think using social media to learn geography will be difficult for me.	20	26	77	60	46	27.281	Agree
15. I really enjoy using social media to learn new things.	106	51	17	9	46	44.101	Agree

16. I am part of a collaborative group on social media in the circuit, e.g. WhatsApp and Facebook.	77	57	31	17	46	26.752	Disagree
17. I am not prepared to join a social media group for teaching or learning process.	14	20	80	69	46	33.510	Agree
18. I know that social media is a teaching and learning tool.	66	86	20	11	46	36.060	Disagree
19. I am scared to use Social media to teach or learn.	9	26	86	63	46	34.919	Disagree
20. Social media is just a social environment not a teaching and learning tool.	26	17	57	83	46	30.170	Disagree
21. Social media is being used by learners and teachers for recreation or social purpose only.	32	29	83	40	46	25.100	Agree
22. I believe there is a space for social media in education.	92	63	17	11	46	38.604	Agree
23. There are teachers and learners in Rundu Circuit who use social media for teaching and learning purpose.	83	63	29	9	46	33.247	Agree
24. It is a bad thing to use in teaching and learning geography.	20	23	63	77	46	28.605	Disagree
25. I need special training on using social media before I can use it in geography.	63	60	43	17	46	21.093	Agree

26. I heard about it as a teaching and learning tool and it does not work well.	17	40	83	43	46	27.415	Disagree
27. I am willing to try using social media for teaching and learning geography.	94	69	20	0	46	43.300	Agree



Source: Raw data

Figure 2: Teachers and learners general attitude towards the use of social media for teaching and learning purposes.

These results can be summarized in the following diagram in figure 2, so as to be clearly understood. The research results obtained showed that most of the respondents indicated that they strongly agree to the use of social media as a teaching and learning tool for the geography subject. This was evidenced by a 55% response agreeing on Social Media improving the geography results if used in the right way. A study by Noor Al-Deen & Hendricks (2012) found that there is an increment on learners' agreement that courses with social media are innovative, the results yielded 97% on agreement.

Lewis & Nichols (2012) observe that overall, students had positive attitudes toward using social media in the classroom and had experience of using social media to study. Ponce, Mendez, & Penalvo (2016) found that many leaners already possess the basic know of how social media functions.

A 34% of the respondents disagreed that the social media is a waste of time in the learning field. 48% also disagreed that it is destructive, if used for teaching. This was further highlighted as social media increases the ability of learners to communicate with their teachers on the subject related matters through class subject WhatsApp groups. These results agree with studies carried out by Noor Al-Deen & Hendricks (2012) that puts forward an increment that courses with social media are innovative,learning time in a way learners get excited about. Brown , Krastiva & Ranieri (2016) allude that digital technologies including social media should be viewed as instructional tools that improve access to educational opportunities, strengthen cultural resources, promote social and economic equality and provide learners with knowledge and competence to prepare them for a future that cannot be predicted .

Despite others agreeing and having a positive attitude on the use of social media as learning and teaching tool, some have disagreed, thereby portraying a negative attitude towards it. This was evidenced by a 52% of the responses pointing out it does not improve the geography subject. This was further supported by the fact that social media can distract the learners and lead to viewing material that does not add value to the subject, or which may end up leading to the abuse of the social media. The general perception is that social media is difficult to use as a teaching and learning tool in school settings, the facts that teachers are not trained on social media application Chen & Bryer, (2012). This will further affect the concentration of students in the school, and result in poor results. This evidence can be supported by the studies carried out by Bryer, (2012) which illustrated that social media and technology can be distractions and potentially harmful to teaching and learning. Another sentiments from Chen & Bryer, (2012) indicated that social media increase concentration engagement in class for both teachers and the students.

However, although there have been some agreements and disagreements to the use of social media in the teaching and learning of geography as a subject, there are some limiting factors which have been pointed out by the respondents, that are limiting the use of the social media in the teaching and learning. These limitations included lack of knowledge of how to use it. This was evidenced by 41% of the responses agreeing that it is difficult to use as they lack the knowledge on how to use it. This response was supported by a 50% agreeing that they are ready for special training for the use of social media as a teaching and learning tool. This enables the use of the social media in the education system.

4.4 Research Question 2*:*

What do teachers and learners identified as an effective participation in the use of social media for teaching and learning in the Rundu circuit?

4.4.1 Devices mostly used by geography teachers and learners to access their social media profile

The devices mostly used by grade 11 geography teachers and learners to access social media platforms are indicated in figure 3 below. The investigation was carried out on both the learners and the teachers. The results both teachers and learners respondents are as presented in Figure 3.

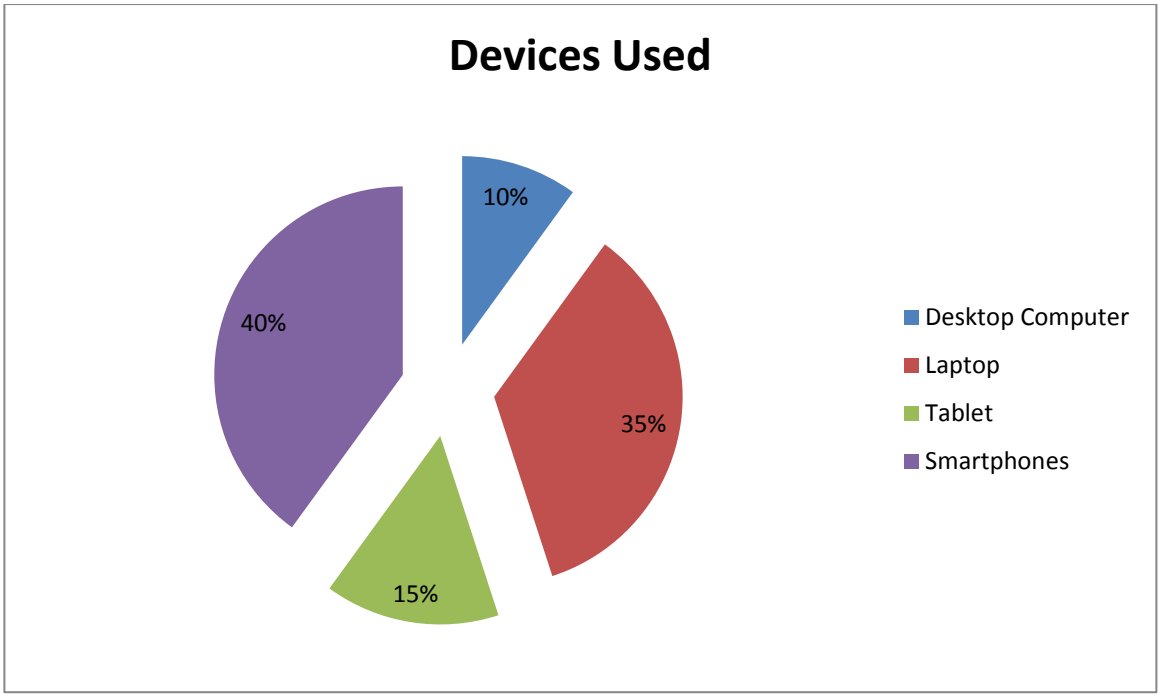


Figure 3: Devices mostly used by teachers and learners **Source:** Raw data

The results show that most of the respondents used their smart phones to access their social media profiles. This was evidenced by a 40% response which depicted 74 of the

respondents out of the 183 who responded to the questionnaires. The results also revealed that the device used by teachers and learners influences access and pedagogical approach to learning and teaching. This finding is supported by Baker (2013) asserts that students are experiencing the world through more than just books and assignments; Social media offers plenty of opportunities for learning and interactivity. Thirty five percent of the respondents indicated that they use their laptops and only a few (10 %) indicated that they use desktops at homes. These results show that if social media is implemented as a teaching and learning tool access to information for teachers and learners will be not be a problem seems. The findings of the study informed that social media can increase access to study materials as the students have devices which can access social media and they can also access study materials where ever they are .

4.4.2 Social Media Familiar with.

This section presented the social media that both teachers and learners are familiar with. The results showed that learners are more familiar with lots of social media platforms as compared to teachers. These platforms that can assist them in using it as a teaching and learning tool are as presented in Figure 4 below.

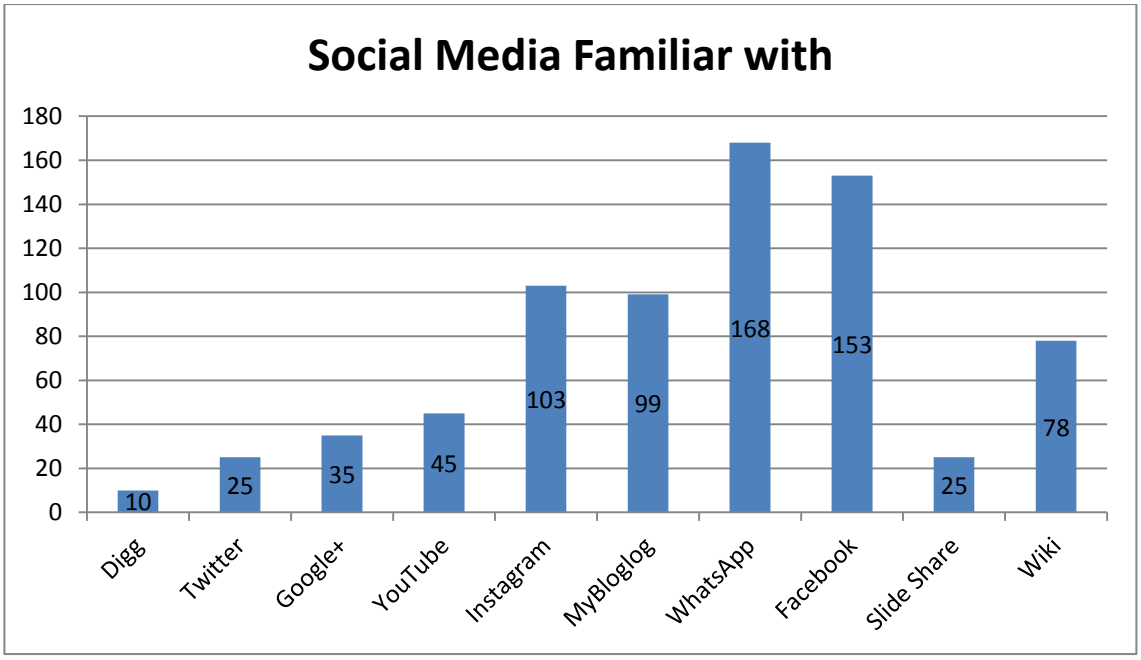


Figure 4: Social Media Applications familiar with **Source:** Raw Data

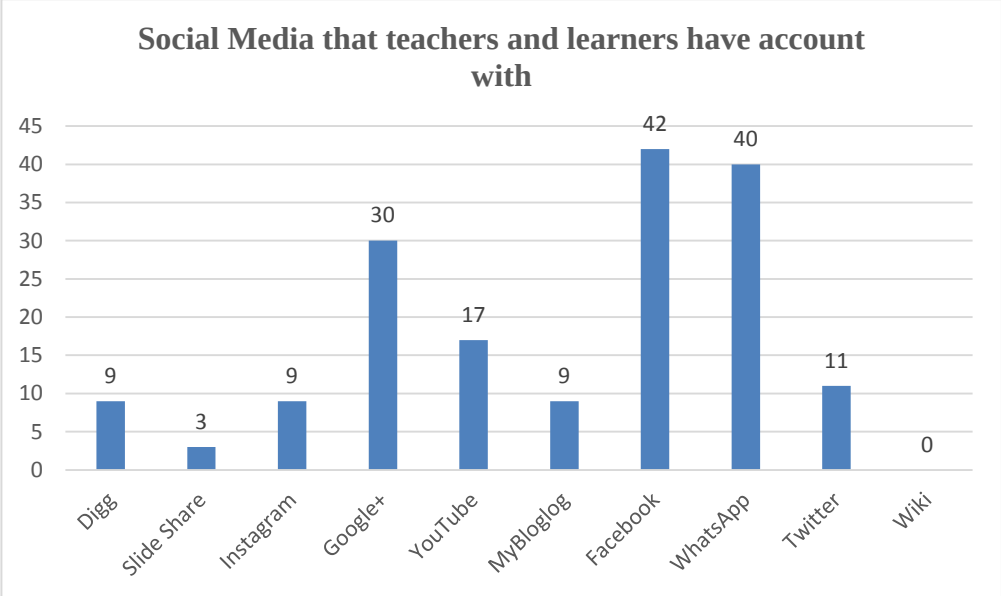
The results from the research showed that most of the respondents were mainly familiar with WhatsApp, which had a response rate of 168 out of the 183. This means 92% of teachers and learners were familiar and comfortable with WhatsApp. This was followed by the Facebook and Instagram respectively, with 153 and 103 respondents. These findings are furthermore supported by Sclater (as cited in Manolis & Kalaitzidou, 2017) who found that learners are familiar with the use of social media such as facebook, WhatssApp, blogs, and wikis. These social media tools are used by learners on a daily basis because they offer them many opportuntiesies for the creation and sharing of content.

Wankel (2010), found that learners knew the names of different social media and their preferred social media was Facebook. Most teachers use social media in their personal lives, so it is easier for them to adopt these technologies as tools for teaching and learning.

The social media tool named *Digg*, was rated lowest for use by respondents using it which amounted to 10 people. However, all of the 183 respondents highlighted that they all each have at least one social media platform they are currently using, which means the implementation of social media as a teaching and learning tool will not be much difficult as the respondents are currently familiar with various social media platforms. These results agree with the views of Sclater (as cited in Manolis & Kalaitzidou, 2017) which found that learners are familiar with the use of social media such as facebook, blogs, and wikis.

4.4.3 Social Media that the teachers and learners have account with.

The research asked about the type of social media that all the respondents (the teachers and the learners) had an account with. The results from the 183 respondents who responded to the questionnaires distributed is as presented in figure 5 below.



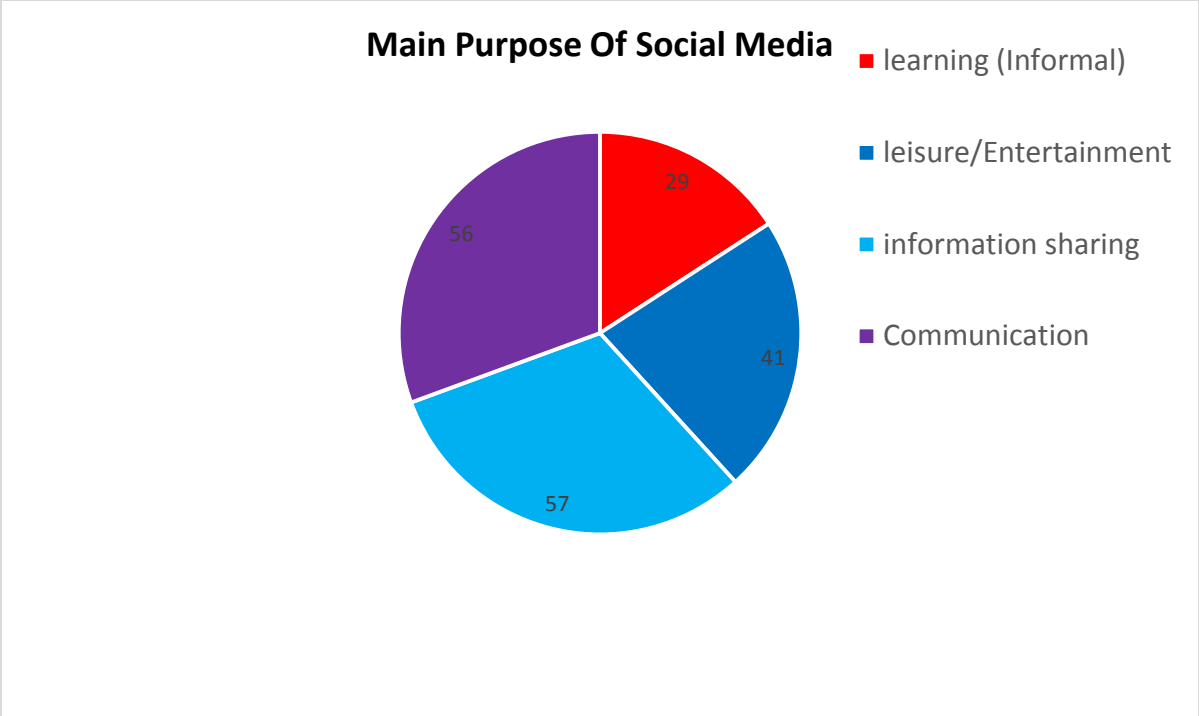
Source: Raw Data

Figure 5: Social Media that teachers and learners have account with

From the results obtained, it was obtained that out of the 183 who responded to the questionnaires distributed, 170 of them had social media accounts, and the other 13 had no social media account. From the 171 that have social media accounts, most of them used Facebook, as it is normally seen as the common social media platform which had a 42 response. Manolis & Kalaitzidou (2017) indicate that the popularity of Facebook, WhatsApp and other social media is on the increase, especially amongst learners and young people in general, so teachers are looking for ways to incorporate them in education procedure, since they believe that social networks can activate, involve and learners cooperate with each other. Followed by WhatsApp with 40, and Google+ with 30. These findings are supported by Sclater (as cited in Manolis & Kalaitzidou, 2017) who found that learners are familiar with the use of social media such as facebook, WhatssApp, blogs, and wikis. They are used by learners on a daily basis because they offer them many opportunies for the creation and sharing of content. Study byWankel (2010) also revealed that that learners knew the names of different social media and their preferred social media was Facebook and most teachers use social media in their personal lives, so it is easier for them to adopt these technologies as tools for teaching and learning. The Wiki platform resulted as the social media which is not currently being used within the education system.

4.4.4 Main purpose of Social media uses

The study focus was on the respondents usage of various social media tools, thus from the 170 respondents who indicated that they are having social media accounts, results in figure 6 indicate how they use the social media.



Source: Raw Data

Figure 6: Main Purposes of Social Media use by grade 11 geography teachers and learners

The results obtained from the respondents showed that the social media is mostly used for sharing of information, followed by communication purposes and leisure/entertainment. The results are in are not in line with the findings from Wankel (2010) who found that the use of social media for entertainment and recreation is common among all age groups. While learning (informal) is the least purpose of social media use. Stefaniak (2017) emphasizes that Social media can play a significant role in enabling both formal and informal learning opportunities for learners in schools.

4.4.5 Frequency of use of social media

The study investigated how frequently the social media is being used by the respondents, so as to find out how much time is being spent on it. The results from the respondents are as presented in the Figure 7 below

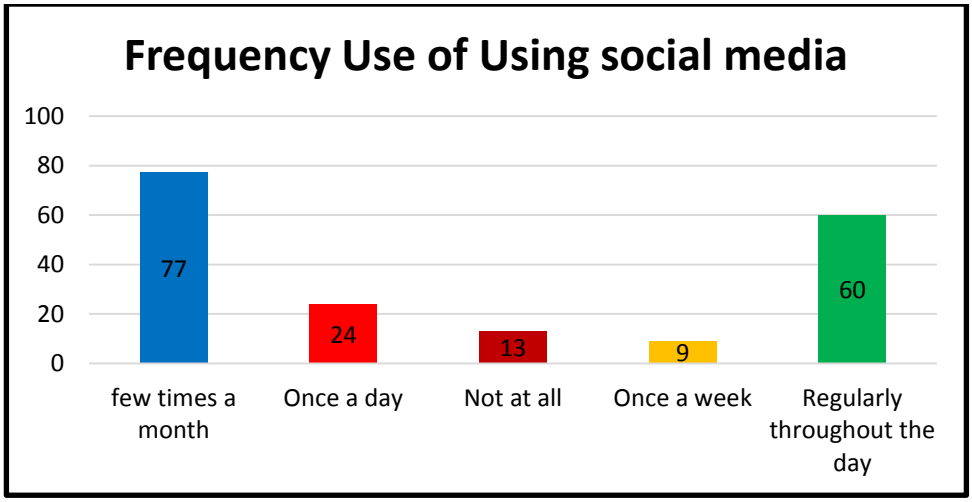


Figure 7: Frequency use of social media **Source:** Raw Data

Results from the respondents show that most participants use social media few times a month which had 77 respondents out of the 183 respondents, and 60 respondents used social media regularly throughout the day. This is supported by Sad (2017) who notes that learners spend a considerable amount of their time in learning individually on social meida using mobile tools, this time can even be more than the time they spend at school or classroom. Sharing the same sentiment, Stefanial (2017) writes that recent literature shows that a significant number of young people in schools engage with a variety of digital technology, including social media in their lives .13 of the respondents pointed out that they do not at all use the social media. Inayati (2014) concludes that countless educators.

4.4.6 Effective participation in the use of Social Media for teaching and Learning

The research asked questions on the effective participation in the use of social media for teaching and learning so as to understand the users' views. The results from the respondents are as presented in Table 5.

Table 5: Effective participation in the use of Social Media for teaching and Learning

QUESTION	FREQUENCY				Descriptive Statistics		Result
	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean	S. D	
1. I often use all type of social media as a teaching and learning tool.	17	57	63	46	45.75	20.419	Strongly Agree
2. I use only one type of social media as a teaching and learning tool.	40	51	63	29	45.75	14.592	Agree
3.I want to participate in any geography social media group	86	80	17	0	45.75	43.637	Strongly Agree
4. We have a Facebook page for geography class.	9	29	74	71	45.75	31.98	Strongly Agree
5. We have a WhatsApp group for our geography class.	11	31	66	74	45.75	29.63	Strongly Agree
6. All teachers and learners should use social media on a daily basis to support learning.	83	74	20	6	45.75	38.422	Strongly Agree
7. Only specific grades should be allowed to use social media as a teaching and learning tool in geography.	49	34	46	54	45.75	8.5	Agree

8. Social media should be used as a teaching and learning tool by fewer selected teachers and learners only.	29	31	46	77	45.75	22.172	Agree

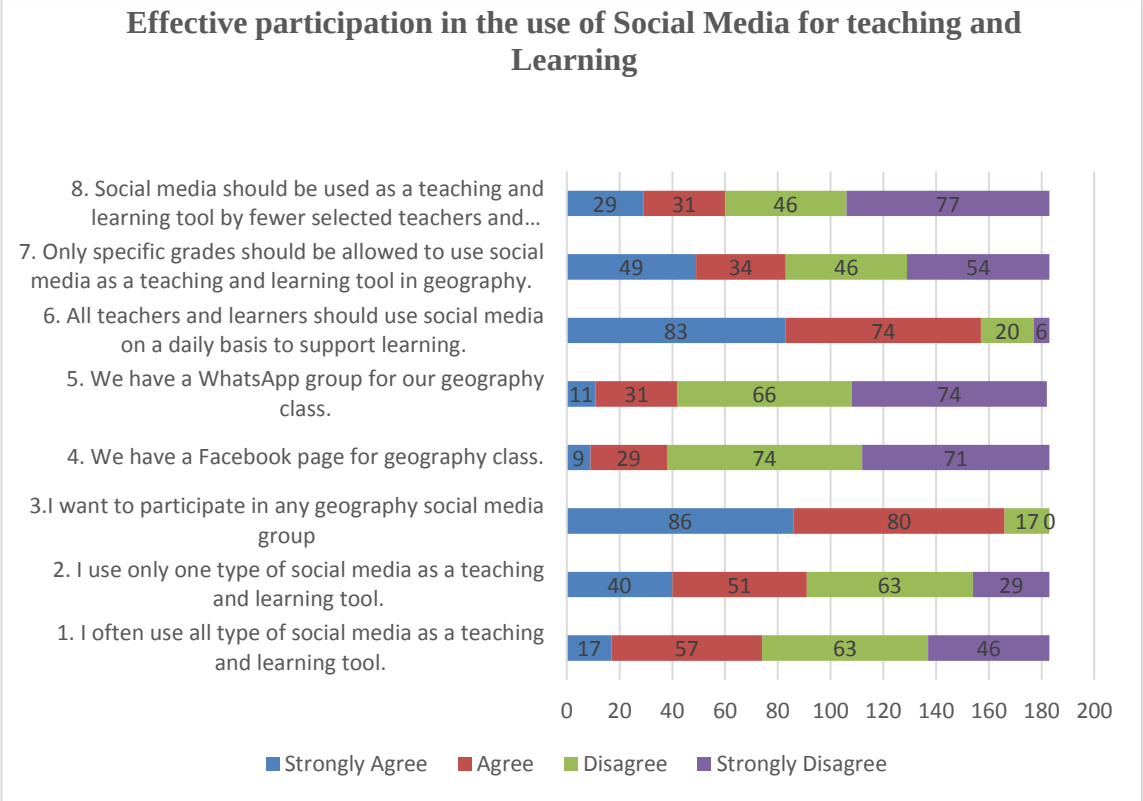


Figure 8: Effective participation in the use of Social Media for teaching and Learning (Source: Raw Data)

4.5 Research Question 3*:*

What social media can be recommended to grade 11 teachers and learners as a teaching and learning tool in geography in the Rundu circuit?

4.5.1 Social media Recommendations

The research asked the respondents on the best or most appropriate social media platform they would recommend as teaching and learning tool in geography. The results from the respondents are indicated on Figure 9.

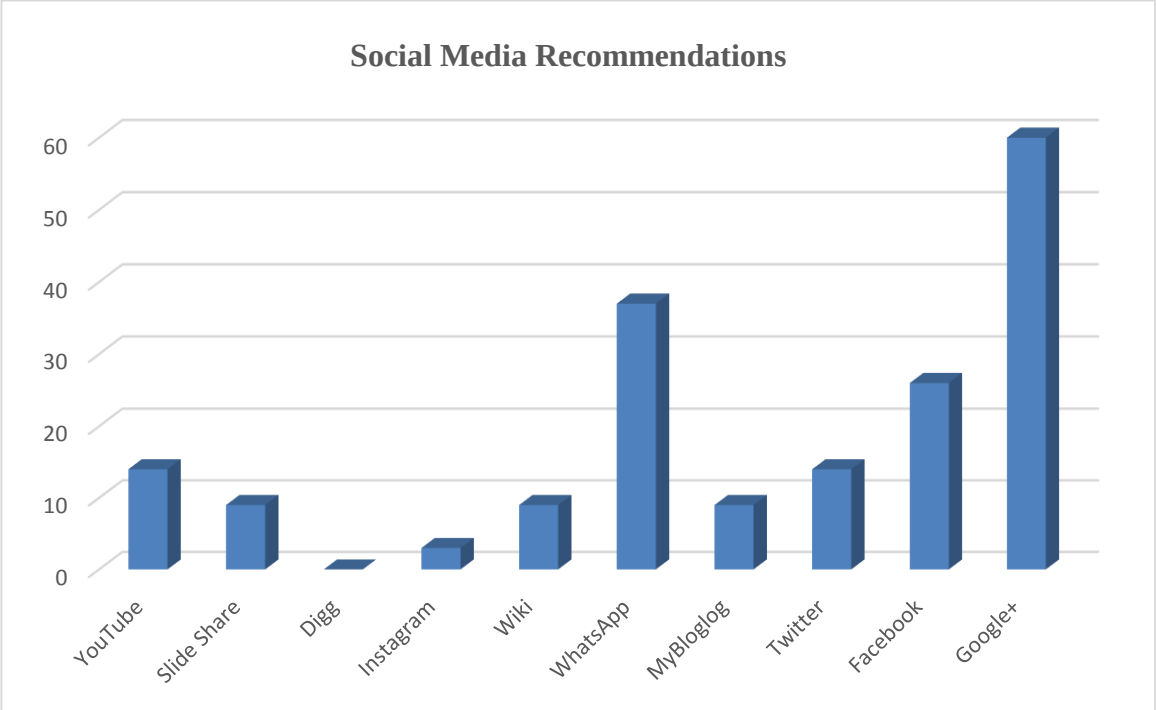


Figure 9: Social Media Recommendations (Source: Raw Data)

The results obtained from the respondents shows that most of them recommended for the use of Google+ as a form of social media, which had a 60 response out of 183 respondents. This social media was recommended because it is ideal for teaching and learning purposes as they are few social conversations which can be communicated within it, and it allows

easier sharing of educational resources such as study guides in word or pdf formats, and it can also be easily assessable on phones, tablets, desktops and even laptops.

4.6 Hypothesis of the Study

The research conducted an investigation, carrying out hypothesis tests using the Chi-Square (chi2) and t-test on the perception to whether social media can be used as a teaching and learning social by geography teachers and learners. The probability was calculated at 5 % confidence interval with 1 degree of freedom.

- $H_{0:}$ There is a significant difference between grade 11 teachers' and learners' response (perception) to whether social media can be used as a teaching and learning tool in geography.
- $H_{1:}$ There is **no** significant difference between grade 11 teachers' and learners' response (perception) to whether social media can be used as a teaching and learning tool in geography.

Table 6: Perceptions of the of use of social media as a learning and teaching tool

	Response			
	YES	NO	Not sure	Total
Teachers	14	0	0	14
Learners	126	10	33	169
Total	140	10	33	**183**

The results revealed that all the 14 teachers accepted that social media can be accepted as a teaching and learning. Out of 169 students, 126 acknowledged that social media can be used as teaching and learning tool in geography, while 10 did not acknowledge. Only 33 learners were not sure whether the social media can be used as a learning or teaching tool. These results show that learners and teachers perceive social media to be more effective as a teaching and learning. Hypothesis testing for the chi-square test of independence as it is for other tests like t-test, where a test statistic is computed and compared to a critical value. The critical value for the chi-square and t-test statistic was determined by the level of significance (typically .05) and the degrees of freedom.

4.6.1 t-Test: Two-Sample Assuming Equal Variances

A t-test was run on excel to test the hypothesis and the following results were produced.

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	*Variable 2*
Mean	2	1.674556
Variance	0	0.220837
Observations	14	169
Pooled Variance	0.204976	
Hypothesized Mean Difference	0	
Df	181	
t Stat	2.584679	

P(T<=t) one-tail	0.005267
t Critical one-tail	1.653316
P(T<=t) two-tail	0.010535
t Critical two-tail	1.973157

P(T<=t) is greater than 0.05 alpha for the test, therefore we cannot reject H0. Basing on the statistical test results, there is a significant difference between grade 11 teachers' and learners' response (perception) to whether social media can be used as a teaching and learning tool in geography. The hypothesis testing above indicated that both teachers and learners agreed that social may be used a teaching for geography. The findings of the study contradict with the findings of Kim (2011) who discovered that community colleges teachers and learners perceived online media and social media as less significant as a learning and teaching tool.

4.6.2 Chi-square testing

The degrees of freedom for the chi-square is calculated using the following formula: df = (r-1)(c-1) where r is the number of rows and c is the number of columns. If the observed chi-square test statistic is greater than the critical value, the null hypothesis can be rejected. Chi-square is a quantitative measure used to determine whether a relationship exists between two categorical variables, therefore, this study utilized chi-square to test the perceptions in using the social media as a learning and teaching tool.

Table 7: Hypothesis testing using chi square test

Actual	**Expected**	$(o_j - e_j)^2 \div e_j$
14	10,7	1,018
126	129,2	0,07
0	0,765	0,765
10	9,23	0,064
0	2,52	2,52
33	30	0,3
Total		0.535243723

$X^2 = (o_j - e_j)^2 \div e_j$

$= 0.53524372$

The results in table 12 show that chi-square test was used to test perception of the use of social media as a learning and teaching tool. A Chi-square (X^2) test results gave a calculated value (X^2_{cal}) = 0.535243723 and standard value (X^2_{std}) = 3.8415 at 0.05 confidence interval with the degrees of freedom (df) = 1 which showed no significant difference in the learners' and teachers responses concerning their perception about the use of social media. Thus, we accept the null hypothesis (H_0) and conclude that there is a significant difference between grade 11 teachers' and learners' response (perception) to whether social media can be used as a teaching and learning tool in geography. Teachers and learners had mostly positive perception towards the usage of social media for geography. They consider social media as a useful tool that can increase the level of

teaching geography. The hypothesis supports the positive perceptions on the use of social media as teaching and learning tool for both geography teachers and learning. The hypothesis was supported by Goya (2014) who discovered that students and instructors have positive perceptions and beliefs on using social media as a teaching tool for mathematics.

4.7 Summary

Since the study found that the use of social media by geography teachers and learners occurred to be moderate with no attend purpose of using, it is important for educators and teachers to consider its ability to shift teaching pedagogy. The research results obtained showed that most of the respondents indicated that they strongly agree to the use of social media as a teaching and learning tool for the geography subject. This was evidenced by a 55% response agreeing on Social Media improving the geography results if used in the right way. Positive perceptions and beliefs on the use of social media in the teaching and learning process were the very important principle that guided the development of using social media in teaching instruction in the future. Results from the respondents show that most participants use social media few times a month which had 77 respondents out of the 183 respondents, and 60 respondents used social media regularly throughout the day. The findings of the study show that both teachers and learners have social media accounts, mostly Facebook and WhatsApp as it is normally seen as the common social media platform. However, the learners perceived to use more than two social media as compared to teachers. The results obtained from the respondents shows that teachers and learners recommended for the use of Google+ as a form of social media, which can be used for learning purpose. This social media was recommended because it is ideal for teaching

and learning purposes as they are few social conversations which can be communicated within it, and it allows easier sharing of educational resources such as study guides in word or pdf formats, and it can also be easily assessable on phones, tablets, desktops and even laptops.

4. 8 Conclusion

The chapter has managed to present an analysis and interpretation of the results obtained from the research. It commenced by providing some demographic features surrounding the data collected on the use of social media as learning and teaching tool in the geography subject. The research further presented the empirical results on how respondents' perceived the use of social media, the various applications and devices used, and finally, the relationships determining the use of the social media in the education system in teaching and learning of geography.

CHAPTER FIVE: DISCUSSION, CONCLUSIONS AND RECOMENDATIONS

5.1 Introduction

The research aimed at investigating the teachers' and learners' perceptions of social media as a teaching and learning tool in the Rundu circuit. Specifically, the study sought to answer the following questions: What do the Grade 11 Geography teachers and learners identified as attitudes towards using social media as a tool for teaching and learning in the Rundu Circuit?, What do Grade 11 Geography teachers' and learners identified as an effective participation in the use of social media for teaching and learning in the Rundu Circuit? And what social media can be recommended for Grade 11 Geography teachers and learners as a teaching and learning tool in Geography in the Rundu Circuit?

The study also tested the following hypothesis:

$H_{0:}$ There is a significant difference between grade 11 teachers' and learners' response (perception) to whether social media can be used as a teaching and learning tool in geography.

$H_{1:}$ There is **no** significant difference between grade 11 teachers' and learners' response (perception) to whether social media can be used as a teaching and learning tool in geography.

5.2 DISCUSSION

The study aimed at determining the attitudes teachers and learners have on the use of social media as a teaching and learning tool, examining what is perceived as effective participation in the use of social media. The study showed that most of the respondents were familiar with social media, and had a perceptional that social media can improve geography results. Respondents indicated that they had accounts with WhatsApp (168 out of 183), followed by Facebook (153 out of 183) and Instagram (103 out of 183).

The research only focused on grade 11 learners and geography teachers as the targeted respondents to the research questions. The study showed that there were significant differences in the use of social media and revealed that learners were more active in the social media arena than the teachers. The purposes of their use included sharing of information, communication purposes, leisure/entertainment and learning (informal). The study revealed that 16% of the respondents used social media for learning, 31% for information sharing, another 31% for communication and 22 for leisure/entertainment and teachers and learners mostly used smart phones and laptops to access their social media profiles.

The study also drew upon Siemens new approach to teaching and learning practice in "digital era" based on Connectivism theory. In this study the Connectivism theory provides insight into the dynamics of networks, environments, and ecologies that supports a continual learning process. According to Connectivism, the basic level of learning theories based on network theory is concerned with the organisation of individual knowledge. The results showed that established belief and learning often ensure that new

information is routed through the existing network. Many learners will move into a variety of different, possibly unrelated fields over the course of their lifetime. Informal learning is a significant aspect of our learning experience. Formal education no longer comprises the majority of our learning. Learning now occurs in a variety of ways – through communities of practice, personal networks, and through completion of work-related tasks. Mikroyannidis (2005) believed that learning is a continual process, lasting for a lifetime. Technology is altering (rewiring) our brains and the tools used to define and shape our thinking. The organization and the individual are both learning organisms. Increased attention to knowledge management highlights the need for a theory that attempts to explain the link between individual and organizational learning.

Siemens (2005) writes that Connectivism is the integration principles such as:

5.2.1 Learning and knowledge rests in diversity of opinions

The study shown that social media tools afford learners and teachers with multiple opportunities to improve teaching and learning methods. "Through social mediums such as YouTube, Facebook or Instagram live video the engagements between learners, teachers and the institution can be sustained" (Mikroyannidis, 2005). This study found that 92% of teachers and learners were familiar and comfortable with WhatsApp, Facebook, Instagram, YouTube, and MyBloglog respectively. Learners and teachers used social media for various reasons such as informal learning, information sharing, leisure/entertainment and communication, though most of the respondents indicated that they used social media mostly for information sharing, communication and leisure. The study results show that 66 out 183 respondents indicated that although they spent much

time on social, they believe that it is a powerful informal teaching and learning tool. Through these networks, one can incorporate social media plugins that enable sharing and interaction. There is valuable knowledge to be gained through social media such as analytics and insights on various topics or issues for study purposes. Social media is also a medium where learners can establish beneficial connections for their careers. Social media has the ability to broaden your perspective on various subjects and gives illuminating, instant content that is new. Social media offers audience and subject monitoring tools that are useful and it is one of the best platforms to extract data. PLE provides learners with a variety of services and hands over control to them to select and use these services the way they deem fit (Wilson, 2008) as cited in (Wolpers et al. 2015).

5.2.2 Learning is a process of connecting specialized nodes or information sources.

In a learning sense, the likelihood that a concept of learning will be linked depends on how well it is currently linked. "Nodes (can be fields, ideas, communities) that specialized and gain recognition for their expertise, have greater chances of recognition, thus resulting in cross-pollination of learning communities" (Siemens, 2005). Knowledge that resides in a database needs to be connected with the right people in the right context in order to be classified as learning. As a learning theory, Connectivism provides insight into the dynamics of networks, environments, and ecologies that supports a continual learning process. In this view, learning is strongly a networked process where a learner aggregates external contents into a holistic representation. Within social networks, hubs are well-connected people who are able to foster and maintain knowledge flow. Creating, preserving, and utilizing information flow should be a key learning activity. Knowledge

flow can be contrasted to a river that meanders through the ecology of a learning community. Mikroyannidis (2005) "personal learning environments (PLEs) hold the potential to address the needs of formal and informal learners for multi-sourced content, and easily customizable learning environment". With personal learning, environment individual learners arrange and organise subject contents according to how best one can learn on his/her own pace and platforms. The study revealed that 106 out of 183 respondents indicated they really enjoy using social media to learn new things.

Buchem et al. (2014) note that learners and teachers may select tools according to own needs, configure the environment, according to their own preferences and learners may negotiate the rules of communication and collaboration with teachers, peers and communities.

5.2.3 Learning may reside in no-human appliances.

According to Siemens (2005) learning is a process that occurs within nebulous environments of shifting core elements – not entirely under the control of the individual. "Learning (defined as actionable knowledge) can reside outside of ourselves (within an organization or a database), is focused on connecting specialized information sets, and the connections that enable us to learn more are more important than our current state of knowing (Siemens, 2005). The study showed 77 out of 183 respondents indicated that they are part of a collaborative group on social media in the Rundu circuit, e.g. WhatsApp and Facebook. This shows that teachers and learners have joined social sites. Decision-making is itself a learning process. Choosing what to learn and the meaning of incoming information is seen through the lens of a shifting reality. The unique needs of each learning

experience drive the selection of the learning approach and method. When designers understand how learning occurs, they can foster connections, and make existing connections explicit.

The research also reviewed a relationship between the social media use and the applications in which it is being used for. The results show that most of the respondents used their smart phones to access their social media profiles. This was evidenced by a 40% response which depicted 74 of the respondents out of the 183 who responded to the questionnaires. The research results obtained showed that most of the respondents indicated that they strongly agree to the use of social media as a teaching and learning tool for the geography subject. This was evidenced by a 55% response agreeing on Social Media improving the geography results if used in the right way. Positive perceptions and beliefs on the use of social media in the teaching and learning process was very important principle that will guide the development of using social media in teaching instruction in the future.

5.3 Recommendations

Based on the research findings and conclusions made the following recommendations can be suggested for the better use of social media as a learning tool for geography.

5.3.1 Training of Teachers and Learners on Social Media uses in education.

There is a need for the teachers and learners to be trained and coached in the use of social media in delivering the lessons as well as in receiving the lessons. This will enable effective use by all the players, and no one will be left out.

5.3.2 Regulating Social Media Use in education

There is a need for the educational authorities to put forwards some policies and procedures on the use of social media as a teaching and learning tool which will enable and ensure quality use of the platforms without being abused. There is also need for a board that will be closely monitoring the use of the social media

5.3.3 Designing Special Media for Teaching Learning.

There is a need for the designing and development of special social media tools or applications for learning which are not associated with other social media platforms which ends up interrupting the learning process. There is also need for this application to block access to some other disrupting applications.

5.3.4 Provision of Resources

There is a need for the government to provide and deliver social media resources such as devices to the less privileged schools and leaners so that they will not be left out in the modern learning methods due to their social statuses. There is also a need for communication authorities to provide network facilities to some remote areas so that they can effectively access the networks, and ensure quality teaching and learning.

5.3.5. Training in the evaluation of information and knowledge

There is a need for technological innovation as it offers an opportunity for education to impact teachers' and learners' teaching and learning practice. As changes in technology engulf the education sector, strive to find ways to keep pace and incorporate the new technology meaningfully and efficiently in personal and professional lives.

5.3.6 Encourage the training of PLE for teachers and learners for personal and professional growth.

By creating digital learning platforms on line it will give teachers and learners quick access to all information and instruments that are needed to for an efficient teaching and learning environment. The great amount of stored information at the level of social memory and the faster speed renewing animates changes in learning.

5.4 Conclusions

Social media continues to play and important role in the way in which communication can be enhanced despite which way of communication is required. However, it still remains important for it to be monitored how it is being used so as eliminate its abuse by both teachers and learners during the learning process. However, based on the research findings the following can be concluded on the use of social media as a learning tool for the geography subjects.

- Learners and teachers have a positive perception about the use of social media as a teaching and learning tool. This was evidenced by the high response on the devices and access to the social media platforms by the respondents.
- Social media is a good drive on the connectivity between teachers and learners on the subject related manners. This can be proved by the positive response on enhancing teacher and student communication.
- Social media use requires to be regulated and monitored so as to eliminate abuse of the social media platforms by the teachers and learners which might end-up interrupting the learning process.

- Lack of training for both teachers and learners on how to use the social media can be highlighted as one of the most limiting factors as most respondents identified that they do not know how to use the social media. This creates a negative implication of poor literacy skills and limits the leaners from the advantages of using social media in the learning process.

5.4.1 Suggestions of Further Researches

The research has managed to determine that there is a significant difference between teachers and learner's perception on the use of the social media as a teaching and learning tool in the geography subject. This study has managed to provide some insights on the perceptions that teachers and learners have on the use of social media as a teaching and learning tool. The research further suggests further studies to look on the effects of cultural values on the use of social media as a teaching and learning tool, so as to bring an in-depth analysis. In this study the most preferred social media were WhatsApp and Facebook. Future research must look into how best social media can be incorporated into the Namibian education system. However, these findings provide a baseline for all further studies to build on.

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APPENDICES

Appendix 1: Parental Consent form for Minors/Learners

INFORMED CONSENT FORM FOR PARENTS OF THE MINORS/CHILDREN.

Description of research

Your son, daughter or child of which you have legal guardianship are invited to take part/ participate in a research study that aims to learn more about teachers' and learners' perception of social media as a teaching and learning tool in the Rundu circuit. **Name of researcher: T.M Kadhimo, contact: 0812966492 email:kadhimot@gmail.com**

This study has been approved by the Research Ethics Committee at The University of Namibia and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, South African Guidelines for Good Clinical Practice and Namibian National Research Ethics Guidelines.

Risk and Benefits

There are no risk to the participation of this study. Your child's Participation in the research is **entirely voluntary**. If you do not want your child to partcipate in this study, **do not sign this consent form** and the researcher will respect your decision and this will not affect your child negatively in any way whatsoever. Your child is also free **to withdraw from the study at any point**, even if you have given consent for him/her to take part.

Payments

No payment will be given for your child's participation due to no funding for the research.

Data storage to protect confidentiality:

The name of your child will not be required for the survey. All data will be kept in a password protected electronic folder on my laptop or PC. The file will be deleted after four years.

Time Involvement:

Your child will be asked to commit 5-10 minutes to completing a survey/questionnaire

How will the results be use:

The results of the study will be used for educational purposes through a research report in the form of a Masters Thesis, Journal publications and/or conferenc proceedings. The results will also be presented to the Ministry of Education.

Please sign this form as declaration of your child's voluntary consent. Signing this form implies that you understand what the study is about, your child's role in the study, and you have voluntarily consented for your child to take part in the study. If you would like to receive a copy of the results of the research, please indicate postal or email address below.

Name of the child: _____ signature_____ Date: _____

Name of the parent _____ signature _____Date: _____

Postal address: email address:

Appendix 2: Teachers' Questionnaire

GRADE 11 GEOGRAPHY TEACHERS' QUESTIONNAIRE

School code:	
Teacher code no:	

Dear Geography Teacher,

In partial fulfilment of the requirements for completion of the Master of Educational Technology Degree at the University of Namibia, I am mandatorily required to conduct a research and collect data about key issues in a specific subject area. I have chosen Geography as a school subject. The study topic is: **Grade 11 Geography Teachers' and Learners' Perceptions of Social Media as a Teaching and Learning Tool: A Study of the Rundu Circuit, Kavango-East, Namibia.** This questionnaire seeks information from the Grade 11 Geography teachers on their perceptions of social media as a teaching and learning tool in Secondary Schools within Rundu circuit.

- Do not write your name on the questionnaire.
- You are kindly requested to assist me by completing the questionnaire.
- Please answer all the questions as truthfully as possible.
- Ask for clarity wherever possible.
- Return completed questionnaire to the school principal after 5 days
- Be assured that all information given in this study will be treated confidentially and used for research purpose only.

SECTION A: PERSONAL INFORMATION

Mark your choice with an **(X) or (✓)**.

1. Indicate whether you are:

Male	
Female	

GRADE 11 GEOGRAPHY TEACHERS' QUESTIONNAIRE

2. Which one of the following age categories apply to you?

Under 20 years		32-37		50 and above	
20-25		38-43			
26-31		44-49			

3. Please indicate the highest academic qualification you hold.
   _____

4. Please indicate the highest teaching qualification you hold in Geography teaching.
   _____

5. How many years have you been teaching Geography at grade 11 level?
   _____

SECTION B: TEACHERS' PERCEPTION OF SOCIAL MEDIA AS A TEACHING AND LEARNING TOOL.

The following statements are about what geography teachers identify as attitudes towards using social media for teaching and learning. Please indicate the extent to which you agree with each statement by choosing one of the following with an **(X) or (✓)**: Strongly Agree **(SA)**, Agree **(A),** Disagree **(D)** and Strongly Disagree **(SD).**

Leaners' general Attitudes towards the use of social media for teaching and learning.	**SA**	**A**	**D**	**SD**
1. I am familiar with Social media.				
2. I know how to search and share information on social media.				
3. I believe that social media wastes much of my time in a day, where I could be doing something else.				
4. I feel confident with my ability to learn or teach geography using social media.				
5. I believe that social media contributes to poor results in the schools.				
6. I believe social media can improve geography results in schools if used in the right way.				
7. Even though I spent much time on social, I believe that it is a powerful informal teaching and learning tool.				
8. I believe it is right to communicate geography related matter with				

teachers or leaners via social media.				
9. I think social media is destructive/ (**a bad thing**) if used to teach and learn geography.				
10. I don't want to use social medial in geography.				
11. I would prefer to use social media for communicating with my friends **not** teachers and learners.				
12. I think social media can improve subject related communication between teachers and learners				
13. Social media is for people who have nothing to do at all, not for teacher and learners.				
14. I think using social media to learn geography will be difficult for me.				
15. I really enjoy using social media to learn new things.				
16. I am part of a collaborative group on social media in the circuit, e.g. WhatsApp and Facebook.				
17. I am not prepared to join a social media group for teaching or learning purpose.				
18. I know that social media is a teaching and learning tool.				
19. I am scared to use Social media to teach or learn geography				
20. Social media is just a social environment not a teaching and learning tool.				
21. Social media is being used by learners and teachers for recreation or social purpose only.				
22. I believe there is a space for social media in education.				
23. There are teachers and learners in Rundu Circuit who use social media for teaching and learning purpose.				
24. It is a bad thing to use in teaching and learning geography.				
25. I need special training on using social media before I can use it in geography.				
26. I heard about it as a teaching and learning tool and it does not works well.				
27. I am willing to try using social media for teaching and learning geography.				

SECTION B: EFFECTIVE PARTICIPATION IN THE USE OF SOCIAL MEDIA FOR TEACHING AND LEARNING IN THE RUNDU CIRCUIT.

Mark your choice with an **(X) or (✓)**

1. Which devices do you mostly use to access your social media profile?

Desktop computer		Tablet		Others	
Laptop		Smartphones			

2. If it's a desktop computer, where do you access (Location)

Mostly at school computer lab	
Mostly community computer lab (TRC computer lab)	
Mostly at home	
Mostly at the Library	
Mostly at friends or family	

3. Which social media are you familiar with?

Didd		Twitter		Google+	
YouTube		Instagram		MyBloglog	
WhatsApp		Facebook		None of the above	
Slideshare		wiki			

If the social media you are familiar with is not listed, please specify: _____

4. Do you have an account with any of the social media bellow? Please indicate.

Didd		Slideshare		Instagram		Google+	
YouTube		MyBloglog		Facebook			
WhatsApp		Twitter		wiki			

If the social media is not listed, please specify: _____

5. What is your main purpose when on social media?

Learning (informal)		Leisure / Entertainment	
Information sharing		Communication	

6. How frequently (often) do you use social medial?

Few times a month		` Once a day		Not at all	
Once a week		Regularly throughout the day			

Please indicate the extent to which you agree with each statement by choosing one of the following with an **(X) or (✓)**: Strongly Agree **(SA)**, Agree **(A),** Disagree **(D)** and Strongly Disagree **(SD).**

Effective participation in the use of social media for teaching and learning in the Rundu circuit.	**SA**	**A**	**D**	**SD**
1. I often use all type social media as a teaching and learning tool.				
2. I use only one type of social media as a teaching and learning tool.				
3. I want to participate in any geography social media group.				
4. We have a Facebook page for geography class.				
5. We have a WhatsApp group for our geography class.				
6. All teachers and learners should use social media on a daily basis to support learning.				
7. Only specific grades should be allowed to use social media for as a teaching and learning tool in geography.				
8. Social media should be used as a teaching and learning tool by fewer selected teachers and learners only. (Example: Geography Higher level).				

SECTION C: GRADE 11 GEOGRAPHY TEACHERS AND LEARNERS GENERAL PERCEPTIONS OF SOCIAL MEDIA AS A TEACHING AND LEARNING TOOL IN THE RUNDU CIRCUIT.

Mark your choice with an **(X) or (✓)**

1. Can social media be used as a teaching and learning tool in geography?

Yes		No		I am not sure	

2. If your answer is YES, which specific social media would you recommend?

YouTube		Slideshare		Didd		Instagram		wiki	
WhatsApp		MyBloglog		Twitter		Facebook		Google+	

If none of the above, Please specify……

IF your mark is "**NO**", please elaborate why.....
……

If you mark is "**not sure**" please elaborate why…….....
……..

Thank you for sparing some of your precious time to complete this questionnaire.

Appendix 3: Learners' Questionnaire

GRADE 11 GEOGRAPHY LEARNERS' QUESTIONNAIRE

School code:	
Learner code no:	

Dear Geography Learner,

In partial fulfilment of the requirements for completion of the Master of Educational Technology Degree at the University of Namibia, I am mandatorily required to conduct a research and collect data about key issues in a specific subject area. I have chosen Geography as a school subject. The study topic is: **Grade 11 Geography Teachers' and Learners' Perceptions of Social Media as a Teaching and Learning Tool: A Study of the Rundu Circuit, Kavango-East, Namibia.** This questionnaire seeks information from the Grade 11 Geography learners on their perceptions of social media as a teaching and learning tool in Senior Secondary Schools within Rundu circuit.

- Do not write your name on the questionnaire
- You are kindly requested to assist me by completing the questionnaire.
- Please answer all the questions as truthfully as possible.
- Ask for clarity wherever possible.
- Return completed questionnaire to the school principal after 3 days
- Be assured that all information given in this study will be treated confidentially and used for research purpose only.

SECTION A: BIOGRAPHICAL INFORMATION

Mark your choice with an **(X) or (✓)**.

1. Indicate Your Gender

Male	
Female	

2. Your age

<18	
18-19	
20-21	
>22	

SECTION B: LEARNERS' PERCEPTION OF SOCIAL MEDIA AS A TEACHING AND LEARNING TOOL.

The following statements are about what grade 11 geography learners identify as attitudes towards using social media for teaching and learning. Please indicate the extent to which you agree with each statement by choosing one of the following with an **(X) or (✓):** Strongly Agree **(SA)**, Agree **(A),** Disagree **(D)** and Strongly Disagree **(SD).**

Leaners' general Attitudes towards the use of social media for teaching and learning.	**SA**	**A**	**D**	**SD**
1. I am familiar with Social media.				
2. I know how to search and share information on social media.				
3. I believe that social media wastes much of my time in a day, where I could be doing something else.				
4. I feel confident with my ability to learn or teach geography using social media.				
5. I believe that social media contributes to poor results in the schools.				
6. I believe social media can improve geography results in schools if used in the right way.				
7. Even though I spent much time on social, I believe that it is a powerful informal teaching and learning tool.				
8. I believe it is right to communicate geography related matter with teachers or leaners via social media.				
9. I think social media is destructive/ (**a bad thing**) if used to teach				

2

and learn geography.				
10. I don't want to use social medial in geography.				
11. I would prefer to use social media for communicating with my friends **not** teachers and learners.				
12. I think social media can improve subject related communication between teachers and learners				
13. Social media is for people who have nothing to do at all, not for teacher and learners.				
14. I think using social media to learn geography will be difficult for me.				
15. I really enjoy using social media to learn new things.				
16. I am part of a collaborative group on social media in the circuit, e.g. WhatsApp and Facebook.				
17. I am not prepared to join a social media group for teaching or learning purpose.				
18. I know that social media is a teaching and learning tool.				
19. I am scared to use Social media to teach or learn geography				
20. Social media is just a social environment not a teaching and learning tool.				
21. Social media is being used by learners and teachers for recreation or social purpose only.				
22. I believe there is a space for social media in education.				
23. There are teachers and learners in Rundu Circuit who use social media for teaching and learning purpose.				
24. It is a bad thing to use in teaching and learning geography.				
25. I need special training on using social media before I can use it in geography.				
26. I heard about it as a teaching and learning tool and it does not works well.				
27. I am willing to try using social media for teaching and learning geography.				

3

SECTION B: EFFECTIVE PARTICIPATION IN THE USE OF SOCIAL MEDIA FOR TEACHING AND LEARNING IN THE RUNDU CIRCUIT.

Mark your choice with an **(X) or (✓)**

1. Which devices do you mostly use to access your social media profile?

Desktop computer		Tablet		Others	
Laptop		Smartphones			

2. If it's a desktop computer, where do you access? (Location).

Mostly at school computer lab	
Mostly community computer lab (TRC computer lab)	
Mostly at home	
Mostly at the Library	
Mostly at friends or family	

3. Which social media are you familiar with?

Didd		Twitter		Google+	
YouTube		Instagram		MyBloglog	
WhatsApp		Facebook		None of the above	
Slideshare		wiki			

If the social media you are familiar with is not listed, please specify: _____

4. Do you have an account with any of the social media bellow? Please indicate.

Didd		Slideshare		Instagram		Google+	
YouTube		MyBloglog		Facebook			
WhatsApp		Twitter		wiki			

If the social media is not listed, please specify: _____

5. What is your main purpose when on social media?

Learning (informal)		Leisure / Entertainment	
Information sharing		Communication	

6. How frequently (often) do you use social medial?

Few times a month		` Once a day		Not at all	
Once a week		Regularly throughout the day			

Please indicate the extent to which you agree with each statement by choosing one of the following with an **(X) or (✓)**: Strongly Agree **(SA)**, Agree **(A),** Disagree **(D)** and Strongly Disagree **(SD).**

Effective participation in the use of social media for teaching and learning in the Rundu circuit.	**SA**	**A**	**D**	**SD**
1. I often use all type social media as a teaching and learning tool.				
2. I use only one type of social media as a teaching and learning tool.				
3. I want to participate in any geography social media group.				
4. We have a Facebook page for geography class.				
5. We have a WhatsApp group for our geography class.				
6. All teachers and learners should use social media on a daily basis to support learning.				
7. Only specific grades should be allowed to use social media for as a teaching and learning tool in geography.				
8. Social media should be used as a teaching and learning tool by fewer selected teachers and learners only. (Example: Geography Higher level).				

SECTION C: GRADE 11 GEOGRAPHY TEACHERS AND LEARNERS GENERAL PERCEPTIONS OF SOCIAL MEDIA AS A TEACHING AND LEARNING TOOL IN THE RUNDU CIRCUIT.

Mark your choice with an **(X) or (✓)**

1. Can social media be used as a teaching and learning tool in geography?

Yes		No		I am not sure	

2. If your answer is YES, which specific social media would you recommend?

YouTube		Slideshare		Didd		Instagram		wiki	
WhatsApp		MyBloglog		Twitter		Facebook		Google+	

If none of the above, Please specify……

IF your mark is "**NO**", please elaborate why.....
……

If you mark is "**not sure**" please elaborate why…….....
……..

Thank you for sparing some of your precious time to complete this questionnaire.

Appendix 4: Permission letter to the Ministry of Education

T.M Kadhimo
P.O. Box 2465
Rundu
Cell: 0812966492
Email:kadhimot@gmail.com

The Permanent Secretary
Ministry of Education
Private Bag 13186
Windhoek

Dear Mrs Sanet Steenkamp

Subject: Requesting permission to conduct research at five (5) Senior Secondary Schools in Rundu Circuit, Kavango-East Education Region.

I am Theofillus Kadhimo, student number 200436872, currently registered with the University Of Namibia, and pursuing a Master of Educational Technology Degree. I am at the last stage of the programme, where I am required to conduct research in the area of education. The title of my research **is grade 11 geography teachers' and learners' perceptions of social media as a teaching and learning tool: a study of the Rundu circuit, Kavango-east, Namibia.**

I am humbly requesting your office to permit me to conduct my research at five (5) Senior Secondary Schools in Rundu circuit, Kavango East education region. This research is about generating knowledge on learners and teachers perceptions of social media as teaching and learning tool, therefore the findings of this study will be share with the Ministry of Education, Arts and Culture as a copy of final report will be submitted to your office.

As per condition stipulated in the ethical clearance certificate, I am cautioned NOT to interrupt school programmes and activities. All leaners (minors) to be involved in the study will seek parental consent whereby the researcher (I) will issue parent consent forms to the minors for their parents to sign before commencing with the study. I have attached the clearance certificate together with proof of registration.

Your consideration and support in this regard is highly appreciated.

Yours Sincerely

T.M Kadhimo

Appendix 5: Permission letter from the Ministry Of Education.

REPUBLIC OF NAMIBIA

MINISTRY OF EDUCATION, ARTS AND CULTURE

Tel: +264 61 -2933200
Fax: +264 61- 2933922
Enquiries: C. Muchila
Email: Cavin.Muchila@moe.gov.na

Luther Street, Govt. Office Park
Private Bag 13186
Windhoek
Namibia

File no: 11/1/1

Mr Theofillus Kadhimo
P.O Box 2465
Rundu, Namibia
0812966492
kadhimot@gmail.com

Dear Mr T. Kadhimo

SUBJECT: PERMISSION TO COLLECT DATA IN KAVANGO EAST REGION, RUNDU CIRCUIT

Kindly be informed that permission to conduct research for your Master's Degree, "*Is Grade 11 Geography teachers and learner's perceptions of social media as a teaching and learning tool: a study of the Rundu Circuit in Kavango East*" is herewith granted. You are further requested to present the letter of approval to Heads of Directorates/Divisions to ensure that research ethics are adhered to and disruption of normal activities is avoided.

Furthermore, we humbly request you to share your research findings with the ministry. You may contact Mr C. Muchila at the Directorate: Programmes and Quality Assurance (PQA) for provision of summary of your research findings.

I wish you the best in conducting your research and I look forward to hearing from you soon.

Sincerely yours

Ministry of Education, Arts and Culture
Office of the Permanent Secretary
2017 -11- 03
Private Bag 13186
Windhoek, Namibia

SANET L. STEENKAMP
PERMANENT SECRETARY

All official correspondences must be addressed to the Permanent Secretary

Appendix 6: Permission letter to the Director of Education, Kavango East Region.

T.M Kadhimo
P.O. Box 2465
Rundu
Cell: 0812966492
Email:kadhimot@gmail.com

The Director of Education, Arts and Culture
Kavango Regional Council
Directorate of Education
Kavango East Region

Dear Mr F.Kapapero

Subject: Requesting permission to conduct research at five (5) Senior Secondary Schools in Rundu Circuit, Kavango-East Education Region.

I am Theofillus Kadhimo, student number 200436872, currently registered with the University Of Namibia, and pursuing a Master of Educational Technology Degree. I am at the last stage of the programme, where I am required to conduct research in the area of education. The title of my research **is grade 11 geography teachers' and learners' perceptions of social media as a teaching and learning tool: a study of the Rundu circuit, Kavango-east, Namibia.**

I am humbly requesting your office to permit me to conduct my research at five (5) Senior Secondary Schools in Rundu circuit, Kavango East education region. This research is about generating knowledge on learners and teachers perceptions of social media as teaching and learning tool, therefore the findings of this study will be share with the Ministry of Education, Arts and Culture as a copy of final report will be submitted to your office.

As per condition stipulated in the ethical clearance certificate, I am cautioned NOT to interrupt school programmes and activities. All leaners (minors) to be involved in the study will seek parental consent whereby the researcher (I) will issue parent consent forms to the minors for their parents to sign before commencing with the study. I have attached the clearance certificate together with proof of registration.

Your consideration and support in this regard is highly appreciated.

Yours Sincerely

T.M Kadhimo

Appendix 7: Permission letter from the Director of Education.

REPUBLIC OF NAMIBIA
KAVANGO EAST REGIONAL COUNCIL

DIRECTORATE OF EDUCATION, ARTS AND CULTURE

Telephone Number : 066 – 258 9000 / 258 9212
Fax Number : 066 – 255 404 /267 070
Enquiries : **F. Kapapero**
File No. : 19/11/1

Private Bag 2134
RUNDU
NAMIBIA

Date : 21 November 2017

Mr. T.M. Kadhimo
P.O. Box 2465
RUNDU

Dear Mr. Kadhimo

SUBJECT: PERMISSION TO CONDUCT RESEARCH IN KAVANGO EAST REGION

Kindly be informed that approval has been granted to you to conduct research at five (5) Senior Secondary Schools in Kavango East Region.

The normal teaching and learning activities should **NOT** be disrupted in the process.

Yours sincerely,

KAVANGO EAST REGIONAL COUNCIL Directorate of Education, Arts & Culture 2017 -11- 22 DIRECTOR PRIVATE BAG 2134, RUNDU

F. Kapapero
REGIONAL DIRECTOR
KAVANGO EAST REGIONAL COUNCIL

22.11.2017
Date

All official correspondence must be addressed to the Chief Regional Officer

Appendix 8: Ethical Clearance Certificate

UNAM
UNIVERSITY OF NAMIBIA

ETHICAL CLEARANCE CERTIFICATE

Ethical Clearance Reference Number: FOE /309/2017 **Date: 10 October, 2017**

This Ethical Clearance Certificate is issued by the University of Namibia Research Ethics Committee (UREC) in accordance with the University of Namibia's Research Ethics Policy and Guidelines. Ethical approval is given in respect of undertakings contained in the Research Project outlined below. This Certificate is issued on the recommendations of the ethical evaluation done by the Faculty/Centre/Campus Research & Publications Committee sitting with the Postgraduate Studies Committee.

Title of Project: Grade 11 Geography Teachers' And Learners' Perceptions Of Social Media As A Teaching And Learning Tool: A Study Of The Rundu Circuit, Kavango-East, Namibia

Researcher: Theofillus Kadhimo

Student Number: 200436872

Faculty: Faculty of Education

Supervisor(s): Dr. Perien Joniell Boer (Main) Mr. Erkkie Haipinge (Co)

Take note of the following:

(a) Any significant changes in the conditions or undertakings outlined in the approved Proposal must be communicated to the UREC. An application to make amendments may be necessary.

(b) Any breaches of ethical undertakings or practices that have an impact on ethical conduct of the research must be reported to the UREC.

(c) The Principal Researcher must report issues of ethical compliance to the UREC (through the Chairperson of the Faculty/Centre/Campus Research & Publications Committee) at the end of the Project or as may be requested by UREC.

(d) The UREC retains the right to:

(i) Withdraw or amend this Ethical Clearance if any unethical practices (as outlined in the Research Ethics Policy) have been detected or suspected,

(ii) Request for an ethical compliance report at any point during the course of the research.

UREC wishes you the best in your research.

Prof. P. Odonkor: UREC Chairperson

Ms. P. Claassen: UREC Secretary