

**THE APPLICATION OF A SOCIAL NETWORKING LEARNING TOOL IN A  
PRIMARY SCHOOL WITHIN SOUTH AFRICA**

by

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*These hundreds of pages of hard work are not only dedicated to the souls who have built me; they are also dedicated to the souls who have broken me during the course of life...*

# DECLARATION

I, Rushantha Mohabier, declare that this research report is my own, unaided work. It is submitted in partial fulfilment of the requirements of the Master of Business Administration degree at Regenesys Business School, Sandton, South Africa. It has not been submitted before for any degree or examination at any other university or educational institution.

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

Rushantha Mohabier

November 2016

## **ABSTRACT**

The Internet has evolved since its establishment, embedding itself in daily life and paving the way for social networking. The ability to connect and communicate has become seamless, allowing instantaneous access to the Internet and social networking sites.

Social networking has become a global phenomenon, transcending boundaries and transforming mobile technology. It has gained an enormous following and become an indispensable technology. Social networking has expanded into a multi-faceted medium of communication, with an extensive online presence.

The capacity to share information and knowledge is essential in building intellectual capital in professional and academic environments. This research project aims to explore the application of a social networking learning tool in a primary school within South Africa. This study explores social networking technologies and the opportunities they present in facilitating and supporting learning.

Today's youth are following technological advancements closely. At present, primary school and high school learners access a vast range of social networking sites, and the focus of this study is to understand if social networking sites can be applied to benefit learning.

This study elected to explore the social networking as a learning tool in a primary school within South Africa. This research followed a mixed methods approach and its findings indicate that social networking has the potential to be applied positively as a learning tool by school learners, teachers and academic heads.

This study revealed that learners and academics acknowledge the growth of social networking and recognise its potential benefits. This dissertation provides a foundation for schools and learning institutions in South Africa, Africa and the globe, to incorporate social networking into their learning framework in order to build and enhance learning.

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# ABBREVIATIONS

3G	Third generation
4G	Fourth generation
FNC	Federal Networking Council
GDE	Gauteng Department of Education
LAN	Local area network
ICASA	Independent Communications Authority of South Africa
ICT	Information communication technology
LCMS	Learning content management system
IoE	Internet of Everything
IoT	Internet of Things
IP	Internet protocol
PC	Personal computer
PDF	Portable document format
SNS	Social networking sites
Stats SA	Statistics South Africa
TAM	Technology acceptance model
TCP/IP	Transmission control protocol/Internet protocol
UNISA	University of South Africa
URL	Uniform resource locator
US	United States (of America)
VLE	Virtual learning environment
VoIP	Voice over Internet protocol
WAN	Wide area network
WWW	World Wide Web

# CHAPTER 1: INTRODUCTION

## 1.1 BACKGROUND TO THE RESEARCH

Agger (2004) states that the virtual self is connected to the world by information technologies that penetrate not only the home and the office, but also the psyche. This can trap or liberate individuals, either connecting them to others through electronic technologies, including the Internet and cellular phones, or invading their minds and dictating their everyday lives. Such a statement would, by nature, include social networking, which continues to influence interaction and entrench itself into daily living. The focal question, however, is whether social networking can be helpful or a distraction and whether primary school students would derive any benefit using social networks for learning.

Social networks are prominent across the world. Statista (2016: Internet) reports that market front-runner, Facebook, was the first social network to surpass one billion registered accounts, and currently has 1.59 billion active users. Social networks throughout the world have attained prominence by ensuring their sites can be accessed in numerous languages, connecting individuals and communities across political, geographical, economic, environmental and social borders.

According to a South African social media report conducted by World Wide Worx (2015: Internet), 1.8 million South Africans access Facebook, representing 22% of the South African population, with 8.8 million accessing Facebook from their mobile phones. These statistics present Facebook as a key platform for marketing to target audiences in South Africa. Richter (2015: Internet) suggests that with 894 million mobile users on an average day, it is clear that Facebook's mobile advertising efforts are successful. Mobile devices have become a major driver in Facebook's growth which has surpassed expectations. In the first nine months of 2015, all of Facebook's growth came from advertising on smartphones and tablets.

Goldstuck (2015: Internet) notes that YouTube remains the second largest social network in South Africa, which may be attributed to its visual content and high entertainment value and formats that are easily consumed. A visual revolution is imminent as online usage continues to escalate and, considering the YouTube statistics, a global video audience is in the making. Social networking sites have

significantly influenced the political and business realms as well as socialisation, privacy and productivity.

Hellweg (2011) states that social networking can only be used in a social context, but it has demonstrated the important role it plays in other arenas such as politics, where social networking sites have influenced several elections around the world. Hellweg (2011) mentions that, following the 2008 US presidential race, President Barack Obama wrote that the mobile youth, having perused the social networking sites he frequented, was instrumental in his victory.

According to Ferriera (2008:4), there is negative press surrounding social networking, but the opportunities it can provide to enhance productivity should be investigated. Teenagers are some of the most frequent users of social networking sites as they are the first generation to have been raised around communication technologies (Ahn, 2011: Internet). Teenagers are technologically aware and have vast practical knowledge of social networking sites. Subsequently, there have been negative media reports and controversies around social networking among school learners and its impact on social capital, privacy and the academic achievement. However, the learning opportunities that social networking offers school students should be explored.

Social networking has become an intriguing field of study, since huge populations of students have become dependent on this form of technology. Its popularity has sparked concerns among parents and educators about effects of social networking on students.

Kauffman (2015: Internet) explains that developments in technology, including the Internet, have affected education delivery across the world, and online learning is growing at a fast pace. Learning paradigms have shifted from only traditional forms of classroom learning to online learning by means of e learning, portals, wikis and blogs. This research study concentrates on the application of a social networking learning tool in a primary school within South Africa.

## **1.2 PROBLEM STATEMENT**

To date there is limited literature on social networking as a learning tool within South Africa. The aim of this study is to therefore explore social networking as a learning tool within a primary school in South Africa. This study will provide an exploration of

social networking and social networking as a learning tool. This information could assist in developing and implementing social networking as a learning tool. Internet World Stats (2015) claims that South Africa's communication sector is one of the most advanced on the African continent, and has greatly changed the way society communicates. Accessing the Internet and social networking sites has become effortless. This global wave has rippled and has transformed communication, especially among students. With the growth in technology in Africa and South Africa this research aims to explore social networking as a learning tool.

Al Terawneh (2014: 200) states that students are devoting excessive amounts of time on social networking sites and have become the largest group to access social networking. As the current student generation has been raised in a technologically-centric era, access to these technologies has become second nature. It would, therefore, be valuable to explore how students would respond to social networking as a learning tool.

The focal purpose of this research was to expand on previous research conducted locally and internationally on social networking and social networking as a learning tool. It explored social networking as a learning tool, in order to determine whether students would find a learning social networking tool beneficial in their learning at school. Exploring social networking as a learning tool will guide future research in determining how students react to learning through social networking tools.

### **1.3 RATIONALE OF THIS STUDY**

Social networking sites have transformed from small user-based niches into sites used by billions of individuals worldwide. Therefore, exploring social networking as a learning tool in a primary school would be helpful, as a gap exists in research, especially within the South African context. If the research is found to be applicable to primary school environments, the study could be replicated in secondary and tertiary education environments. According to Lenhart (2015: Internet), the prevalence of mobile technologies may contribute to the youth becoming dependent on and exploiting these devices to access social networking sites.

Unicef (2012: Internet) indicates that South Africa's social networking and mobile technology user base is the biggest on the African continent. Therefore, it would be worthwhile exploring the potential benefits and implications of the widespread growth in social networking on primary school learners.

The popularity of social networks has generated concerns around engaging in online communication as opposed to face-to-face interaction. Addiction to the Internet has emerged, especially now that mobile devices are able to connect to social networking sites. According to Wanajak (2011:11), addictive Internet behaviour arises from an attempt to meet personal needs, including a sense of belonging and self-actualisation.

From an academic perspective, being unaware of how social networking can be applied as a learning tool could result in underperformance, which could have an adverse effect on advancing student learning and performance in South Africa, the African continent and the globe.

The study would enable academic institutions to obtain leverage from the social networking knowledge students possess. This social skill can be applied as a learning and academic tool, providing a learning advantage that has the potential to empower the growth and development of the student generation.

This study focused on senior primary school learners, specifically grade seven learners, and explored their use of and reasons for using social networking sites. The study further explored the activities students would possibly engage in if a social networking learning tool were applied. This research highlighted the importance of taking cognisance of this issue, especially the connection between social networking and learning, as technology continues to evolve and embed itself into human life.

#### **1.4 RESEARCH OBJECTIVES**

The main aim of this study was to explore the application of social networking as a learning tool.

**The following objectives were formulated:**

- Objective one: To discuss social networking and to identify the various social networking sites but not limited to Facebook, Twitter, WhatsApp.
- Objective two: To explore the types of activities learners and teachers would engage in when employing a social networking learning tool.
- Objective three: To explore the perceptions of senior primary grade seven students and teachers pertaining to social networking as a learning tool.



## **1.5 RESEARCH QUESTION AND SUB-QUESTIONS**

Based on the purpose of this research study, the primary research question is:

**How can the application of social networking as a learning tool enhance the student learning experience?**

In order to answer the primary question. The following sub-questions have been formulated:

1.5.1 What is social networking?

1.5.2 What types of technological devices do learners use?

1.5.3 How do people learn online?

1.5.4 What do senior primary grade seven learners use social networking for?

1.5.5 What are grade seven school learners' and teachers' perceptions of a social networking learning tool?

1.5.6 How does South Africa compare in terms of participation in social networking sites?

1.5.7 What are the potential benefits and barriers to access online learning?

## **1.6 RESEARCH APPROACH**

This research study revolves around interpretive research philosophy, which regards reality as comprising individuals' subjective experiences of the external world, thereby implying that reality is socially constructed. According to Orlikowski & Baroud (1991), researchers pursuing interpretive philosophy attempt to comprehend phenomena by assessing the meaning participants assign to the associated phenomena. Interpretive philosophy understands that the social process involves entering the world of the individuals generating the social context.

## **1.7 RESEARCH DESIGN AND METHODOLOGY**

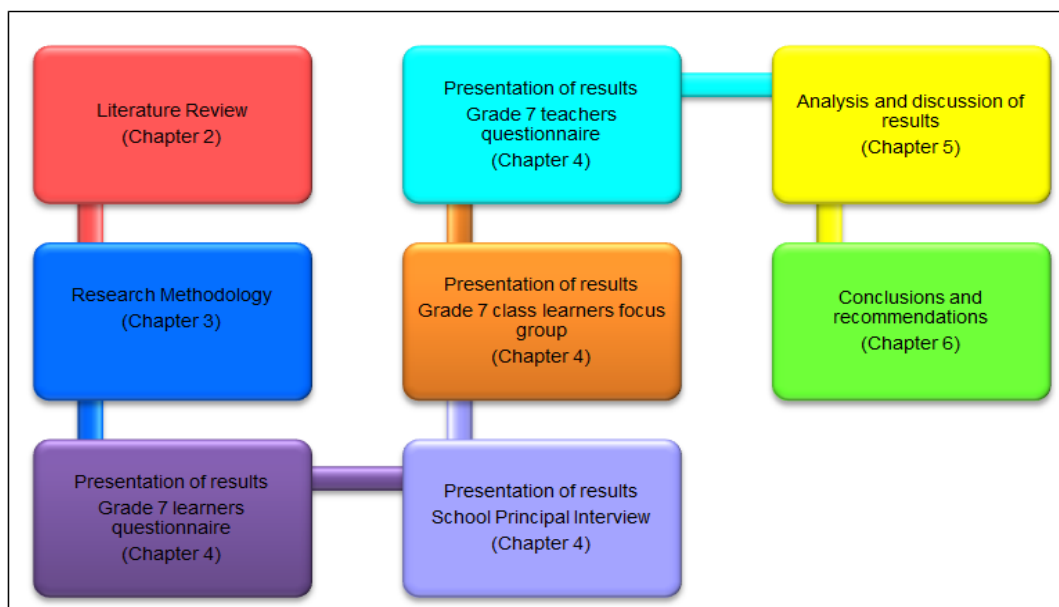
As research design is vital to the success of empirical research, it is crucial that attention is given to selecting a design that will appropriately answer the research. A detailed description is documented in Chapter 3. This section serves to highlight the key methodology and approaches followed.

This research study was mixed method and the instruments employed for data collection were questionnaires, a focus group and an interview. This research study focused on the following four core components:

- Four grade seven classes completed an online questionnaire comprising closed-ended questions.
- A focus group was conducted with one of the four grade seven class and consisted of 32 students.
- The grade seven teachers completed an online questionnaire comprising both closed-ended and open-ended questions, to allow for greater insight into the research question.
- An interview was conducted with the school principal to validate the research and to obtain the principal's perspectives of the research.

All results were stored in an online database and all data results are available on request. A pre-determined set of questions was used for the interview.

The numeric data of this study is illustrated with figures and tables that reflect the results in a visual format.



**Figure 1.1: Research process conducted for this research study**

Source: Own research

The research process depicted in Figure 1.1 includes the compilation of the literature review in Chapter 2. The literature review cites previous research conducted on social networking and learning and is followed by the discussion of the research approach and research methodology presented in Chapter 3.

This research included four different perspectives of the application of social networking as an online learning tool. The first is learners' perspectives obtained by

means of a questionnaire, the second is a verbal representation of learners' perceptions from the focus group, the third is the teachers' views of the research topic and the fourth was the principal's perspective.

## 1.8 EMPIRICAL INVESTIGATION

The stages of the empirical research were aligned to the complete set of objectives for this research project and entailed the following steps:

- The author familiarised herself with terminology and concepts of the subject matter that were included in the literature review (Chapter 2).
- Ethical clearance and permission to proceed with the study was obtained from the Regenesys Business School Ethics Committee where the author is completing her MBA qualification (Appendix I).
- Ethical clearance and permission to proceed with the study was obtained from the Gauteng Department of Education (GDE) (Appendix F and Appendix G).
- Permission to conduct the study at the primary school in Sandton, northern Johannesburg was obtained from the school principal and deputy principal (Appendix H).

## 1.9 ETHICAL CONSIDERATIONS

A multitude of ethical principles need to be considered when performing a master's research dissertation. The central principles for a researcher conducting master's research include to do good and to do no harm.

The stated considerations by Laerd (2012) were employed for this research study. Laerd (2012: Internet) has segmented research considerations into the five points listed below:

- **Minimising the risk of harm:** The dissertation should not harm participants or cause the participants any discomfort.
- **The researcher needs to obtain informed consent:** This entails the respondents granting informed consent on the basis of being aware of what the research is about, including the purpose and methods of research, and the type of information that is required (Appendix A 1).

- **Anonymity and confidentiality must be maintained:** Participants in research settings may be apprehensive about providing information if their identities are not protected. For the purpose of this research study, all participants' responses were anonymous.
- **Deceptive practices should be avoided:** The purpose of the research should not be modified and must be communicated clearly and concisely.
- **The right to withdraw:** The researcher needs to provide respondents with the option to withdraw at any time during the research process. For this research study, the researcher completed the ethics consent application form (Appendix I) to obtain approval from the Regenesys Business School Ethics Committee to conduct the research needed for this master's dissertation.

The researcher remained unbiased and maintained high levels of integrity throughout the research process by:

- Not providing participants personal identities.
- Obtaining informed consent.
- By allowing participants the option to withdraw.
- By securing responses in a database.

According to Mouton (2001:240), when researchers present their research findings, they should be reported completely and should not be misrepresented. The representation of results should reflect degrees of expertise precisely.

## **1.10 LIMITATIONS OF THIS RESEARCH STUDY**

This research study focused on the application of a social networking tool primarily from a South African perspective. It was restricted to the primary school segment and did not include high schools or tertiary education segments. As the study was limited to the Gauteng province, it cannot be deemed to be representative of all primary schools in South Africa. In order to gain a comprehensive view on the research topic, responses were received from the students, teachers and the principal. This study was centralised around social networking and its application as a learning tool.

## **1.11 STRUCTURE OF THIS MASTER'S DISSERTATION**

This section provides an outline of the total structure of this dissertation as depicted in Figure 1.2.

## **Chapter 1: Introduction**

This chapter provides an introduction to the study. The research problem and significance of this research are indicated, the research questions and objectives are presented, and the research is described.

## **Chapter 2: Literature review**

This chapter aims to align the research question to the collated literature. The literature provides a theoretical framework for the research study and all research questions are discussed. The aim of Chapter 2 is to define the core concepts of the research. The literature provides an overview of the Internet and how it relates to social networking. Social networking is discussed in detail, including its history, trends and major social networking platforms.

This chapter also provides a global picture of social networking usage in comparison to the local picture of South African social networking usage. Included in the literature review is a section on online learning which discusses how people learn, and how they use online technologies and social networking for learning and education. The literature then discusses online learning and the surge of online learning tools. Chapter 2 concludes with the benefits and barriers to access to social technologies.

## **Chapter 3: Research design and methodology**

Chapter 3 details the research study philosophy and research paradigm, and details the research approach for acquiring data from study participants.

The chapter further discusses the sample profile used in the research study. The key techniques and procedures are highlighted, reinforcing how the researcher ensured validity, reliability and generalisability. The researcher documents the measures taken to ensure minimal error and to maximise ethical practice.

## **Chapter 4: Presentation of results**

The results of the study are discussed and presented in Chapter 4.

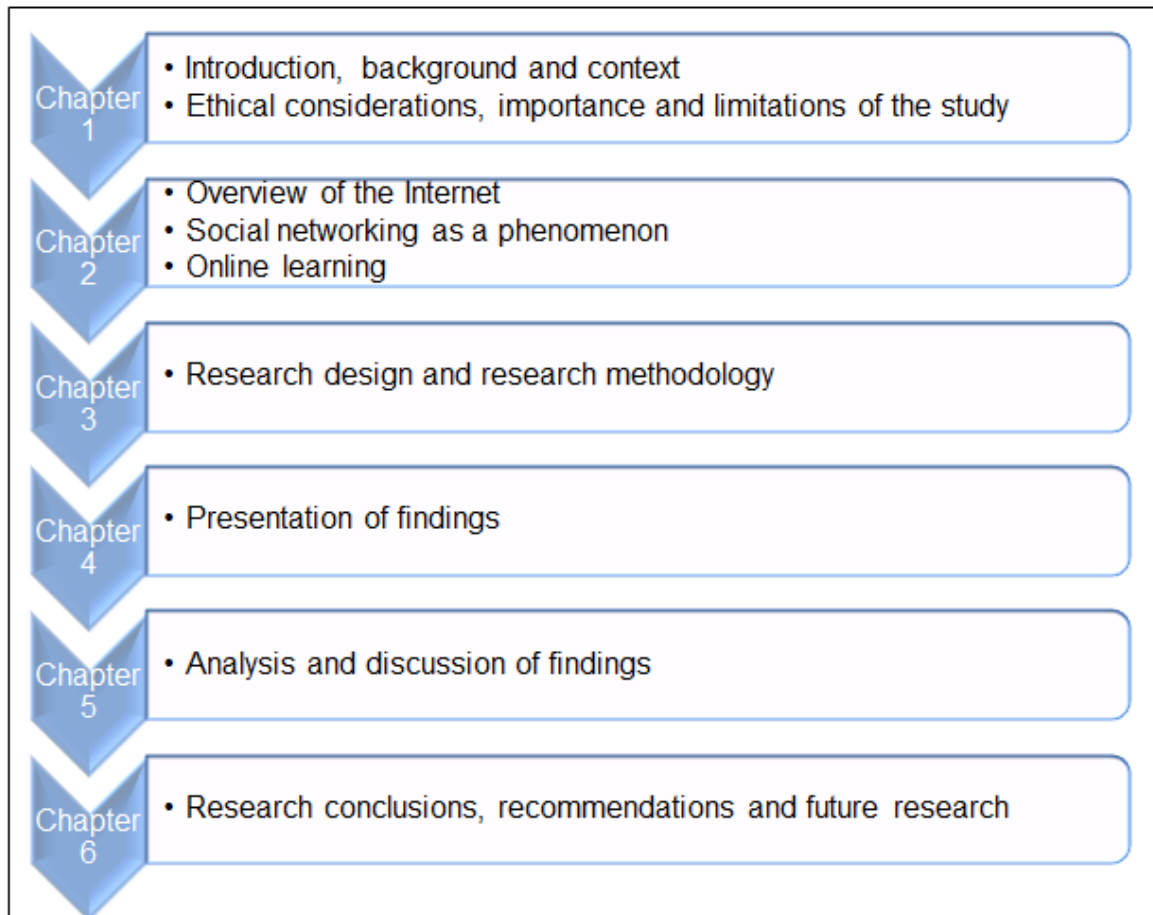
## **Chapter 5: Analysis and discussion of findings**

This chapter details the research findings of the empirical research component. Research findings are provided in relation to the research questions compiled in this research. The findings from the data collected reflect the participants' perceptions

concerning social networking and learning through social networking.

## Chapter 6: Conclusions and Recommendations

This section concludes the findings of this research study. Recommendations are discussed to provide an overview of areas for future research.



**Figure 1.2 : Structure of this research study**

**Source:** Own research

# CHAPTER 2: LITERATURE REVIEW

## 2.1 INTRODUCTION

Since its introduction, social networking has enjoyed a massive following across the globe, giving rise to the growth of global communities. This chapter explores social networks and online learning platforms to provide a context for the concepts on which this dissertation is founded. The primary research question is:

**How can the application of social networking as a learning tool enhance the student learning experience?**

Section 2.2 presents an overview of the Internet, which has become the sole platform for enabling continual connectivity. Section 2.3 discusses social networking and examines its key frameworks locally and internationally. Section 2.4 considers online learning and how individuals learn in this technologically centric era. The key aim for this study was to explore social networking as a learning tool.

## 2.2 THE INTERNET DEFINED

According to Kahn and Cerf (1999:1), the Internet has transformed the way the world communicates, and no one knows how far the Internet will evolve. Despite the innovation surrounding the Internet and its technologies, it cannot be assumed that the Internet has reached its peak or that it has developed to the extent that it cannot change anymore. The Internet will continue to evolve, enhancing computing and communication technologies.

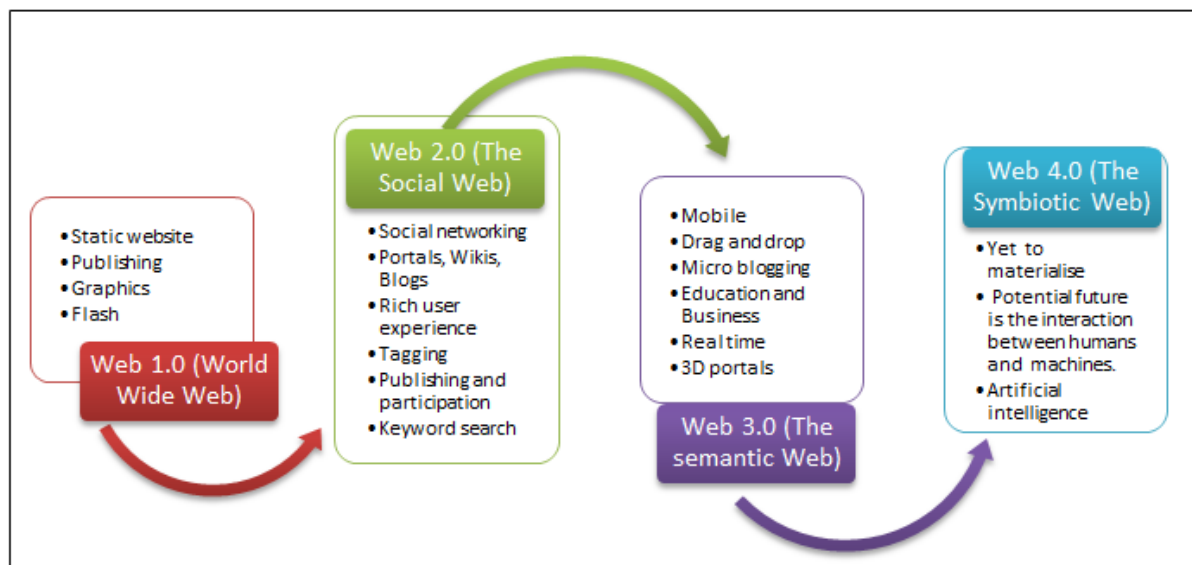
According to Leiner *et al.* (2009:30) the Internet is defined as a global information system that is logically linked together by a unique address based on an Internet Protocol (IP). It is able to support communications through Transmission Control /Internet Protocol (TCP/IP) and it provides private and public access to communication services. The Internet facilitates the transfer of data and information seamlessly through a network infrastructure that has reached a global magnitude.

### 2.2.1 The World Wide Web

The (WWW) World Wide Web represents the applications that use the Internet to communicate. The WWW has led to the formation of social networking sites on the

Web 2.0 platform. According to Anderson (2007:4), the Web 2.0 concept describes a collection of technologies and services that websites use. Web 2.0 reinforces collaboration and information sharing, resulting in the creation of online communities including social networking sites such as Facebook, video sharing sites such as YouTube, wikis and blogs.

According to Arthur (2014:20), the terms ‘Internet’ and ‘WWW’ should not be used interchangeably as each concept is different. The Internet is a network infrastructure and the WWW is an application running on and using the Internet to function.



**Figure 2.1: The evolution of the Web**

**Source:** Own research

Figure 2.1 represents the evolution of the four generations of the web. Following the Web 1.0 era, Web 2.0 produced the social web, which was founded on innovative applications. Ferreira and du Plessis (2009:3) state that the social web describes the Web 2.0 interactive technologies and includes blogs, wikis, folksonomies, podcasts, Really Simple Syndication and social networking sites. Web 2.0 is synonymous with social interaction, content sharing and collective intelligence. Aghaei, *et al.* (2012:5) have defined Web 3.0 as the third generation of the web, resulting in discovery, automation and integration. In addition, Aghaei, *et al.* (2012:8) emphasise that although web 4.0 technologies are yet to materialise, it is evident that they are progressing towards an intelligent web.

### **2.2.2 The Internet of Things and the Internet of Everything**

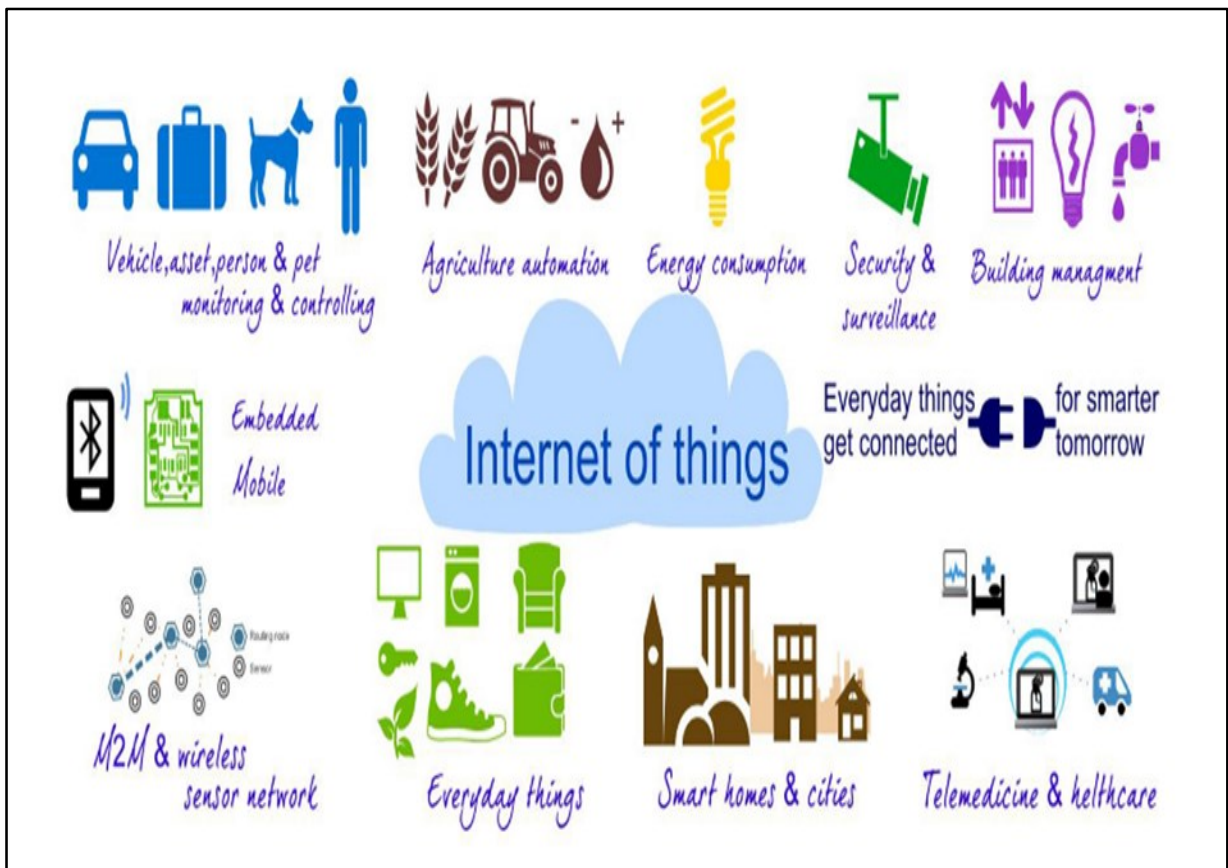
According to Vermesan and Friess (2013:2), the Internet of Things is developing and



has yet to mature, but when it does, it will increase the potential for cloud computing, future Internet, big data, robotics and semantic technologies. The Internet has become the foundation of connectivity leading to key concepts such as The Internet of Everything (IoE) or the Internet of Things (IoT). According to Kaushik (2016: Internet), IoT connects machines to machines, using the Internet, which connects human to human, ultimately resulting in the Internet of everything (IoE), which is the networked connections of everything such as people, data, objects and processes. The internet of things is founded on the reality that all entities are constantly connected or continuously on.

Kaushik (2016: Internet), explains that because there are key differences between IoE and IoT, these terms should not be used interchangeably. The word “things” refers to objects, for example a smartwatch or a smartphone. However, the Internet does not only include objects; services including websites such as Google, Facebook and Dropbox do not exist in physical spaces. The Internet allows for data streams across multiple connected computers. The Internet of Everything requires several technologies including 3G, 4G, WiFi, LTE, VoIP, Bluetooth and heterogeneous networks. The interconnected relationship of these technologies leads to an efficient web of interaction on WAN and LAN connections.

According to Rose, Eldridge and Chaplin (2015:4), organisations have made a range of projections on the impact of IoT on the Internet. For example, Cisco projects 24 billion networked devices by 2020, and McKinsey Global believes that the financial impact of IoT could be \$3.9 to \$11.1 trillion by 2025. Figure 2.2 paints a picture of the influence IoT has on connecting a multitude of things.



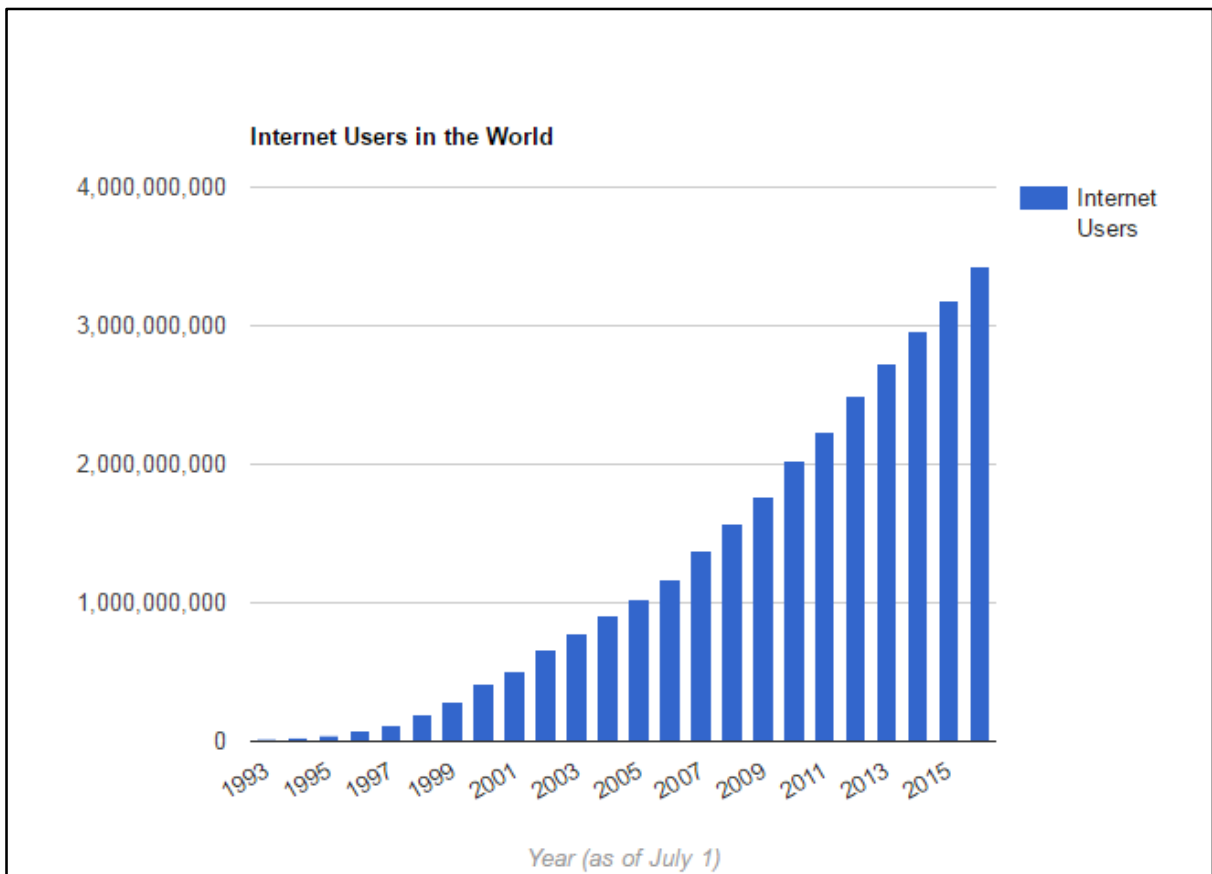
**Figure 2.2: The Internet of Things**

**Source:** Omnibridge, 2015: Internet

### 2.2.3 Global Internet usage

The world population is harnessing connectivity to the Internet. The Internet user base is increasing exponentially and Internet Live Statistics (2016: Internet) announced that the first billion Internet users was reached in 2005, the second billion in 2010 and the third billion in 2014. Figure 2.3 represents the dramatic growth of Internet use worldwide every year.

According to Internet Statistics (2016: Internet), the Internet user refers to the individual who can access the Internet at home or from any device that can connect to the Internet. The Internet has penetrated the lives of the global population and in 2015 there were more than 7 billion mobile subscriptions globally. The Internet is breaking its boundaries and has rippled towards the mobile platform. Internet Statistics (2016: Internet) states that, with a three billion Internet user base, the Internet model has fuelled the acceleration of mobile subscriptions, which stood at one billion in 2000.



**Figure 2.3: Internet usage globally**

**Source:** Internet Statistics, 2016: Internet

According to Sanou (2015:1), globally 3.2 billion people use the Internet, two billion of whom are from developing countries. The development of the Internet has altered the way in which people communicate and interact, and the birth of a digital society is imminent. Despite the revolutionary capabilities of the Internet to date, one cannot assume that the Internet has reached its climax, but rather that the Internet will reach even greater heights, alongside mobile technologies. This will culminate in an information society in which individuals are constantly connected. Table 2.1, reflects incremental Internet usage and penetration of the population from 2000 to 2016.

**Table 2.1: World Internet Statistics**

Source: Internet Stats, 2016

Year	Internet users	Penetration % of Population
2016	3 424 971 237	46.1%
2015	3 185 996 155	43.4%
2014	2 956 385 569	40.7%
2013	2 728 428 107	38.0%
2012	2 494 736 248	35.1%
2011	2 231 957 359	31.8%
2010	2 023 202 974	29.2%
2009	1 766 403 814	25.8%
2008	1 575 067 520	23.3%
2007	1 373 226 988	20.6%
2006	1 373 226 988	17.6%
2005	1 030 101 289	15.8%
2004	913 327 771	14.2%
2003	781 435 983	12.3%
2002	665 065 014	10.6%
2001	502 292 245	8.1%
2000	414 794 957	6.8 %

Although social networking is the key focus of this research study, it is necessary to also consider the profound impact the Internet has had on the creation of social networking sites. The Internet has transformed and has no limitations to embedding its footprint onto the mobile platform. The We Are Social Report (2016: Internet) reveals the following digital trends which have given rise to global internet penetration:

- 7.395 billion global total population
- 3.419 billion Internet users, representing 46% global penetration
- 2.307 billion active social networking users, delivering 31% global penetration
- 3.79 billion mobile users, representing 51% global penetration
- 1.968 billion mobile social networking users, equating to 27% global penetration

Figure 2.4 provides a snapshot of global Internet and social network usage.



**Figure 2.4: Global Internet usage snapshot**

**Source:** We are Social Report, 2016: Internet

### 2.2.4 Internet usage in South Africa

Shezi (2016: Internet) states that South Africans have been actively accessing the Internet, with a 24.9 million user base in January 2015 and 26.8 million users in January 2016, depicting a significant rise in active Internet usage in the country.

Mzekandaba (2016: Internet) states that, according to the 2016 Statistics SA report, the number of South African households connected to the Internet has increased. Statistics SA (2016) released its general household survey on 2 June 2016 stating that there had been an increase in Internet usage, with 48.7% of South African households connected to the Internet in 2015 and 53.3% in 2016. The research by Statistics SA revealed that at least one member of the household has access to the Internet, either at home, work, place of study or Internet cafes (Mzekandaba 2016: Internet). Figure 2.5 illustrates Internet and social network usage in South Africa. We are Social (2016) indicated that 26.84 million users actively access the Internet in South Africa and there are 13 million active social networking users. Of the 85.53 million mobile connections, 10 million are mobile social users.



**Figure 2.5: South Africa's digital snapshot as of January 2016**

Source: We Are Social Report, 2016: Internet

### 2.2.5 Telecommunications sector in South Africa

The telecommunications sector in South Africa contributes significantly to the infrastructure that facilitates services that include fixed, mobile and Internet service offerings. The Independent Communications Authority of South Africa (ICASA) (2016:6) states that the total annual capital expenditure for telecommunication services for the 12-month period ending 30 September 2015 was close to R24 billion. At 68%, the investment in mobile networks contributed the highest percentage. ICASA (2016, pp 8–10) reported the following revenues:

- Fixed line voice revenue for the annual period ending 30 September 2015 was R15.8 billion. Fixed line refers to fixed telephone lines, voice-over-IP (VoIP) subscriptions, integrated services digital network (ISDN) and fixed payphones.
- Fixed internet revenues were R10.6 billion with fixed wired broadband services contributing 79%.
- Mobile services revenue was R78.8 billion.

- Total Internet revenue was R40.8 billion, with 74% attributed to mobile data, fixed wired internet revenue at 21% and other fixed wireless services at 5%.

These figures suggest that the South African market has budgeted and gained significant revenue within the information communication and technologies (ICT) sector. Social and economic development in South Africa has enhanced ICT infrastructure, with technologies and satellites facilitating access to these ICT services. This reinforces South Africa's vision to foster technologies that will allow communities to access the Internet and digital services.

According to the Department of Telecommunications and Postal Services (2016: Internet), effective ICT legislation controls development and strategy in the ICT sector through support, informed decision making and understanding the ICT landscape.

#### **2.2.5.1 Teledensity**

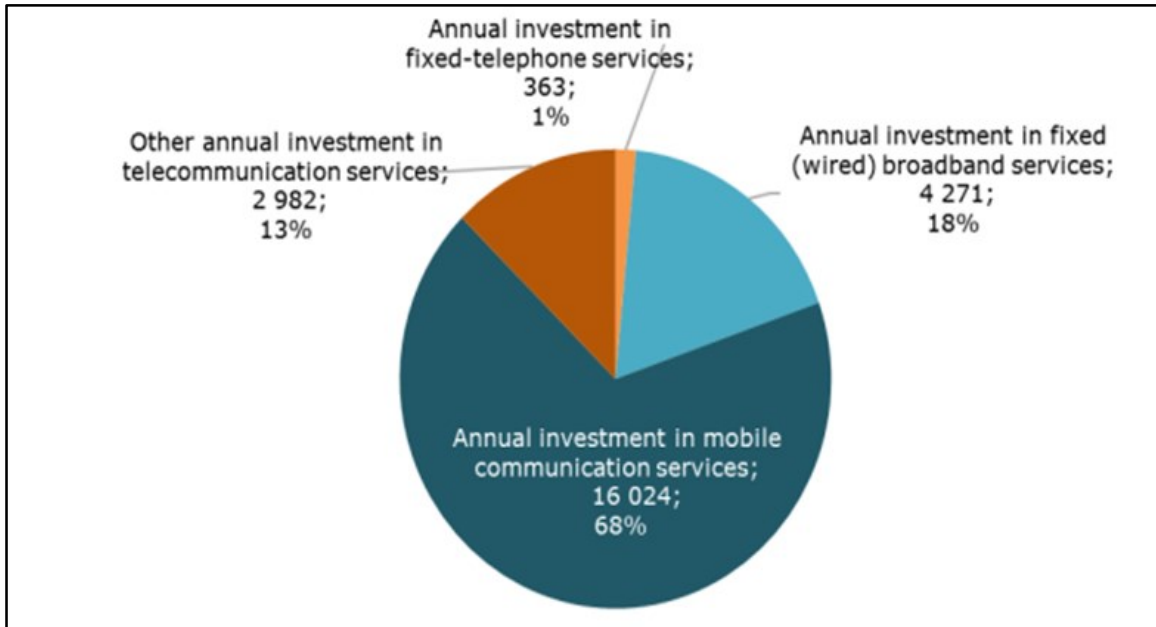
The Macmillan Dictionary (2016) defines teledensity as “a measurement of how many telephone lines are available, expressed as the number of telephone lines for every 100 people in a country”. There are three key views around teledensity: past, present and future.

The past view is that fixed line connections were popular at one point in time, but this has since shifted, as illustrated in Figure 2.6, which reveals that fixed line connections have the lowest user base at just 1%.

The present view is that there is a prolific mobile generation. Users are accessing the Internet primarily from their mobile devices, representing 68% of South Africans, as reflected in Figure 2.6.

The future view encompasses fibre connections. According to MWEB (2016: Internet), fibre is the newest, fastest and most advanced connectivity type that exists. Fibre technology is named after the fibre optic cables that use light impulses to transfer data, instead of the electrical impulses transmitted on traditional cables. Fibre connections replace the traditional landline and fibre to the home is being rolled out in homes and small businesses. MWEB (2016: Internet) has given the following reasons for installing fibre connections:

- Fast speeds and no buffering
- Uninterrupted connections, stream as though the user is watching television
- Reliability, as there is seamless access to the Internet
- Flexibility as there is no need for a landline
- Choice to select from multiple infrastructure providers



**Figure 2.6: South African telecommunications investment 12 months ending 30 October 2015 (R million)**

Source: ICASA, 2016

### 2.2.6 The growth of the social web

Information and digital technologies are changing how words and ideas are created, transforming the way they are studied. Social networking sites are cultivating contemporary trends, creating avenues for authorship and education. The Cambridge Dictionary (2016: Internet) defines the social web as “the Internet used as a way of people communicating with others and forming relationships of various types”.

While the growth in the Internet provided almost limitless possibilities, a key aspect that appeared to be lacking was a sense of community. However, the emergence of social networking sites has cultivated a sense of community that has been embraced by the masses locally and internationally. The social web is incorporated into daily living, resulting in connectivity in communities and across the world. According to Stafford and Mearns (2009:2), social networking culture has changed the way in which people communicate on a social and professional level.

Social Web Tactics (2016: Internet) argues that the social web is no different from



other forms of human interaction and synergy. Humans are tribal beings, and human relationships become complex and are sustained by time, engagement and trust. People's connection to the social web uses the same blueprint, and the evolution of the social web will become dependent upon trust and integration.

### **2.3 SOCIAL NETWORKING BACKGROUND**

According to Mayayise (2008:28), participants in social networking sites are provided with a location for acquiring new skills and learning through interaction with other individuals. The conception of social networking sites (SNS) has attracted significant following, with individuals incorporating these sites into daily life. The features of social networking sites may be similar, but the communities that emerge vary. Research reveals that while the majority of social networking sites maintain pre-existing relationships, others build new relationships with strangers who communicate and connect based on shared interests.

According to Larsen (2014:1), social networking sites are an attractive arena for young people, where identities are continuously constructed and co-constructed. Social networking sites incorporate diverse audiences from different backgrounds, languages, and identities. A significant technological development is that social networking sites have transformed to become available on mobile platforms.

Boyd and Ellison (2007) provide a comprehensive definition of social networking as follows:

- Social networking sites are web-based services
- Social networking sites allow individuals to create profiles that can be public, private or semi-public
- Social networking sites express lists of shared connections
- Social networking sites allow users to view other user profiles within the system
- The nature and alias names/names may differ on each site

Online social networks enable users to share information with their connections. Users entrust social networking sites with personal information, including phone numbers, religious views, sexual preferences, occupations, friend profiles and pictures (Baden, Bender, Spring, Bhattacharjee; 2009).

Technopedia (2016: Internet) states that a social networking site is an online platform

for users to create public profiles and interact with other users on the site. Sharing connections is paramount, allowing users to search, link and build more connections.

### **2.3.1 The history and evolution of social networking**

#### **The 1800s**

For centuries, people have found communicating with friends and family across vast distances challenging. According to Hendricks (2013) although social networking seems like a new trend, its origins can be traced back to centuries of social development. In past eras, people found ways to interact and the earliest methods of sending and receiving messages included handwritten letters and telegraphs.

Baruah (2012:4) states that the telegraph, telephone and radio ushered in a new era of communicating over long distances. Towards the late 1800s, the telephone and radio were invented, and these technologies are still used today, albeit more modern versions of their predecessors. In past centuries, radio signals and telephone lines enabled verbal communication across long distances, a phenomenon that had not been experienced until then. Each of these developments have, in some way, contributed to the evolution of social networks as they are experienced today, having transformed into a modern and digital platform where user-generated content is published and consumed.

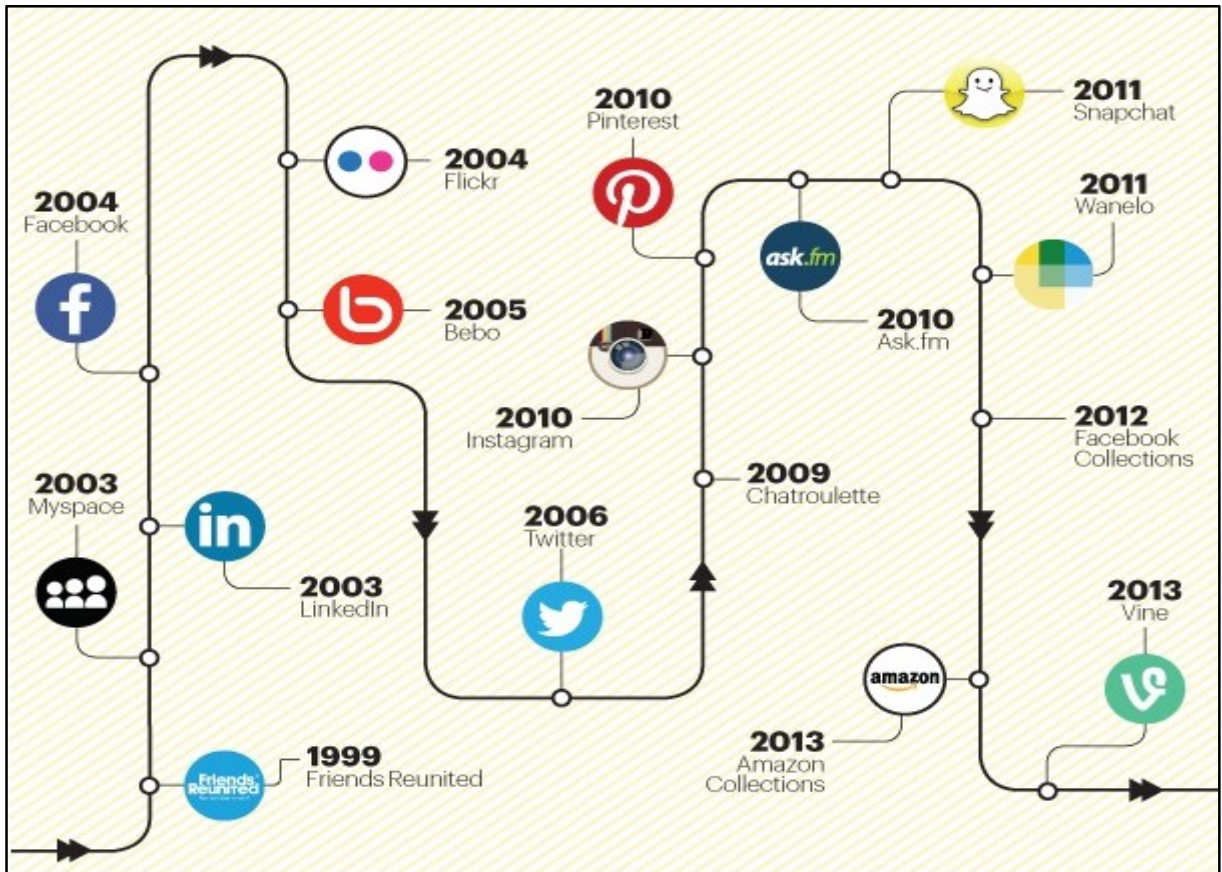
#### **The 1990s**

The twentieth century witnessed a surge in technology following the emergence of the modern computer. Edosomwan, Prakasan, Kouame, Watson and Seymour (2011) state that social networking sites developed in the 1990s include Six Degrees, BlackPlanet, Asian Avenue and MoveOn, niche sites that allowed individuals to interact. Boyd and Ellison (2007) maintain that Six Degrees was the first social networking site launched that enabled users to create profiles.

#### **2000s and present**

According to Baruah (2012:4), major social networking sites in the 21<sup>st</sup> century modify their sites frequently, suggesting that social networking sites will continue to evolve into the future. The millennium and beyond have witnessed the rise of the major social networking sites, the most famous of which include LinkedIn which was released in 2003, YouTube in 2005 and Facebook in 2004, followed by Twitter in

2006 and Instagram in 2010. Figure 2.7, depicts the launch dates of popular social networking sites from 2000 to 2013. According to Hendricks (2013: Internet), while many may speculate about how social networking sites will look in the next hundred years, they will continue to exist in some form as long as human life prevails. The present decade has seen social networking sites progressing to the point where each site has a multitude of innovative distinct features such as buttons and share buttons, attracting and occupying the minds of a massive following.



**Figure 2.7: Social networking sites release dates timeline**

Source: Drapers, 2014: Internet

The impact of the Internet has been enormous especially in relation to the way people have communicated since the emergence of social networking sites (Wiese et al., 2014:2).

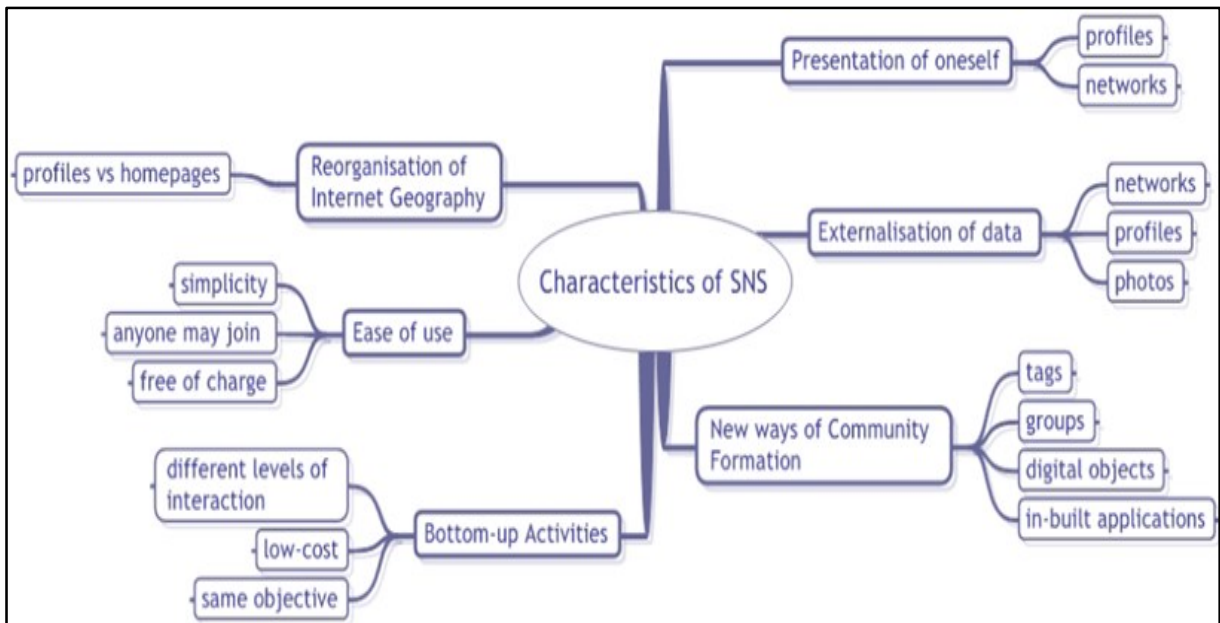
### 2.3.2 Characteristics of social networking sites

Considering the characteristics of social networking sites, as discussed by Cachia (2008:3), Table 2.2 and Figure 2.8 provide an overview of the way users operate in different social environments.

**Table 2.2: Characteristics of social networking sites**

(Source: Cachia, 2008:3)

<b>Features</b>	<b>Description</b>
Presentation of oneself	Creating a profile allows the user to develop a personalised page. This page presents the user to other users through a variety of means, e.g. text, videos and pictures. Social networking sites (SNS) organise the user's contacts.
Externalisation of data	Once a profile is created, users can view their network profiles and their own profiles. This view can be shared with friends and the general public.
New ways for community formation	SNS cultivate dynamic ways for people to connect and build virtual communities, using digital objects such as tags, or forming groups. Online users may join virtual communities based on their preferences, e.g. an online book community, or an online learning community.
Bottom-up activities	Social networking sites deliver a platform that unites users with similar interests, facilitating collaboration and knowledge sharing.
Ease of use	A key attribute of SNS is ease of use. Any individual with basic Internet skills can create and manage their virtual presence. SNS allow people to join from anywhere at any time and are free of charge. Most SNS require users to register and create a password that will be linked to their personal profile. Once profiles have been created, users may invite other users, thereby building a network of connections.
Reorganisation of Internet geography	SNS have facilitated platforms that support different points of entry to the Internet. Location, e.g. cities and addresses has been shifted to personal metaphors, e.g. profile pictures and videos that can be accessed globally.



**Figure 2.8: Characteristics of social networks**

Source: Cachia, 2008:3

### 2.3.3 Global social networking trends

Social networking has been the fastest expanding form of media across the world. Audiences consume significant quantities of data on the social network platform. According to Reuters Institute Annual Digital study (2016:7), for the first time, more than a quarter of 18–24 year olds (28%) say that social networking sites are their main source of news, compared with television at 24%.

According to Forbes (2016: Internet), much of Facebook’s prosperity can be attributed to Mark Zuckerberg’s leadership. The social network recorded 1.65 billion users as at March 2016, reflecting a 15% increase on the previous year.

Recent research conducted by Statista (2016: Internet) reveals September 2016’s figures, with Facebook boasting a 1.71 billion monthly active user base. A comparison of the number of Facebook users in March 2016 and September 2016 reveals that Facebook’s user base is steadily increasing daily.

Internationally, Facebook has the highest number of active users, followed by WhatsApp at one billion users. According to Statista (2016: Internet), major social networks with more than a 100 million users were initiated in the US. Global trends indicate that a diverse range of users access social networking sites for a variety of reasons. For example, users seeking strong, focused interaction will log onto

Facebook, those wanting to share photographs with digital filters will opt for Instagram, and if instant communication is required, then Twitter will be the social network of choice (Table 2.3).

**Table 2.3: Social networking sites – number of active users**

(Adapted from Statista, 2016: Internet)

<b>Social networking site</b>	<b>Number of active users globally (September 2016)</b>
Facebook	1.712 billion
WhatsApp	1 billion
Facebook Messenger	1 billion
WeChat	808 million
Tumblr	555 million
Instagram	500 million
Twitter	313 million
Skype	300 million
Viber	249 million
Snapchat	200 million
LinkedIn	106 million
Pinterest	100 million
BBM	100 million

Pew Research Centre (2015:4) suggests that there is a link between age and social networking site usage. Ages 18–29 are the biggest users of social networking sites, with 90% of young adults using social networking platforms, compared with 12% in 2005, representing a 78% increase.

#### **2.3.4 Social networking trends in South Africa**

Social networking usage has gained rapid momentum locally. According to Erasmus (2012:75), South Africa ranks amongst the top ten countries in the world using social networking sites. A study conducted by World Wide Worx (2016: Internet) on the South African social media landscape reported that Facebook users increased 8% from 12 million to 13 million, Twitter increased by 12% from 6.6 million to 7.4 million followers, YouTube increased from 7.2 million to 8.28 million users, Instagram enjoyed a ground-breaking increase of 143% from 1.1 million to 2.68 million users.

The study further indicated that 77% of the 13 million South Africans are on Facebook and 77% access the site on their mobile devices.

According to van Zyl (2015: Internet), social networking technologies in South Africa are proliferating and social networking applications are becoming increasingly popular.

South Africa leads the way when it comes to social networking on the African continent. According to Parke (2016: Internet), South Africans spend an average of 3.2 hours a day on social networks, compared with the global average of 2.4 hours.

The perceptions of social networks as platforms for personal interaction only are changing. According to Van der Berg (2014: Internet) several companies use social networking platforms to interact with their customers. Companies aiming to gain leverage from social networks should focus on the number of users and how often they interact. Despite the positive statistics, Africa and South Africa face significant challenges in terms of reaching certain segments of the population.

According to Schaubroeck (2016: Internet), a seminar was held in Stellenbosch, South Africa, where Alan Knott-Craig Jr, CEO of MXit, Africa's largest mobile social network said: "MXit fosters a sense of community amongst youth across all ages and ethnic groups. The social network allows users to interact freely and openly and has created a virtual community that can be monitored by MXit programmers and altered to the behaviour and needs of users; a virtual society if you like."

Key questions raised by Knott-Craig were: "What if government invested in social networking? What if social networking could be expanded on the African continent?" This could allow the youth to learn and teach one another. Knot- Craig elaborated: "Social networking platforms, coupled with mobile platforms, are potentially the largest focus of the youth. The youth in particular understand the language of social networking technologies and it would be helpful to determine the benefits the technologies could have on the youth and students."

According to Unicef (2011: Internet), the Internet, social networks and mobile technologies can make information available to children, developing platforms that facilitate discussion and participation and build a channel for learning and teaching in South Africa and on the African continent.

## **2.4 LEARNING ONLINE: DIGITAL EDUCATION LITERACY**

The University of South Africa's Gauteng technical report on secondary school learners using online learning tools (2012:10) reveals the following:

- Approximately seven in ten learners (73.8%) have used mobile devices, specifically cell phones, as learning tools.
- Approximately 80% of Gauteng learners would like to receive reminders for school assignments.
- Approximately 80% of the learners have online tutors to assist with school assignments and projects.

This report reveals that the youth are reliant on online technologies, and have clear preferences for receiving school content. Unicef (2011) stated that ICT has the potential to empower the youth, particularly in the developing world. The erosion of traditional methods of communicating has culminated in the advent of modern communication technologies including advances in digital and online learning.

According to Livingston and Brake (2010:82), if digital and online literacy remains contested and schools remain unwilling to incorporate social networking education into the training of teachers and classroom curricula, children's knowledge will lag behind and they will be unable to navigate the fast-changing practices in existence.

Online literacy is paramount and if the value of online learning is not explored, there will be inequalities in digital literacy. Hargittai (2007) states that when a society is divided in terms of digital literacy, it means that not all young people benefit from the new opportunities online resources have to offer.

Prensky (2001:1) refers to the new students of today as "digital natives", stating that learners in the current era speak a digital language of computers, technology and the Internet, representing a fundamental shift in the learners of today compared with learners of past generations.

### **2.4.1 Learning environments**

#### **2.4.1.1 Distance learning / distance education**

According to Moore (2010:129), distance education is a preferred term to use when research references distance learning. Distance education provides access to



learning irrespective of geographical location. Understanding distance education requires an appreciation of the context of the field. Gunawardena and Mclsaac (2003:356) state that distance education is dependent on communication technologies for delivery, including print material, electronic media, online conferencing, online mailing lists, interactive videos and multimedia. Thanks to rapid developments in technology, media formats can be delivered to students in remote locations to meet their educational needs.

#### **2.4.1.2 e-Learning**

The origins of the term e-learning are uncertain but research suggests it originated in the 1980s given its similar delivery method to online learning (Moore 2011:130). The Herridge group (2003:1) further clarifies that e-learning entails using the Internet or wireless technologies to deliver a vast range of training solutions. e-Learning has gained significant momentum. According to research by Noesgaard and Ørngreen (2015:278) the effectiveness of e-learning has increased in recent years, owing to advances in information technology. Oye, Salleh and lahad (2012:48) point out that e-learning is not limited to training and instruction, but that it also encompasses learning tailored to individuals.

#### **2.4.2 Online learning tools**

According to the US Department of Education (2012), educational structures are under pressure to reduce costs while sustaining outcomes for students. In an effort to improve educational productivity and in keeping with the proliferation of online learning globally, many school districts are turning to online learning. Njoroge (2011:26) states that school professionals are producing learning communities and communities of practice for sharing learning, for example educational blogs, chats and discussion threads. Wang, Chen and Liang (2011:3) indicate that as the popularity of social networking sites increases, technology will play a fundamental role of students' success.

Njoroge (2011:27) states that for teachers, social networking sites provide a new way to end the isolation and alienation many students and teachers experience.

The wide range of online learning tools that can be used to learn via the cyberspace platform are summarised as follows:

#### **2.4.2.1 Social networking sites**

According to Manjunatha (2013:15), social networking sites link participants virtually, enabling rapid exchange of knowledge, dialogue and collaborative communication. Users create profiles that can be shared to create a network of contacts. McCarthy (2008) claims that social networking sites create a sense of belonging for international learners by building cross-cultural connections and fostering interaction with local learners.

Several studies have showcased the benefits of online social interaction for the purposes of learning. User-generated content harnessed by online communities can be used for learning and education purposes.

McCarthy (2010) remarks that engaging learners should not be limited to understanding their attitudes towards academic life, but that cognisance should also be taken of their social life. Livingston and Brake (2010:75) indicate that social networking has been embraced by youngsters, specifically teenagers and the youth, across the world, creating opportunities that promote self-presentation and learning, and creating new relationships.

#### **2.4.2.2 Online interactive whiteboards**

According to Smart Technologies (2006:5), interactive whiteboards enrich teaching and learning, using digital content in an interactive environment. Learning activities with an online whiteboard include authoring digital lessons, writing notes with digital ink capabilities perusing presentation tools to enhance learning content. One of the major challenges with the integration of ICT and learning is maintaining learner interaction as each learner focuses on their own digital screen. Online whiteboards promote interaction and a dynamic exchange between learners and teachers.

#### **2.4.2.3 Virtual learning environments**

Trafford and Shirota (2011: 143) define a virtual learning environment (VLE) as a collection of software tools that support learning using the Internet. The VLE provides a central point for learning and teaching, irrespective of their geographical location.

#### **2.4.2.4 Online discussion forums**

According to Gallini and Barron in Song and McNary (2011:1), online discussion forums allow learners to engage and interact by reading and responding to peers'

and instructors' postings. Online discussion boards build communities by promoting discussion and open communication, and a coherent understanding of online content is generated.

#### **2.4.2.5 Learning content management systems**

According to Sejzi and Aris (2013:216), a learning content management system (LCMS) connects learners to instructors, facilitating the online sharing of information, library resources and material. An LCMS connects learning content and learners as a collective unit. It manages learning material which forms the foundation of the content management system. Irlbeck and Mowat (2005) outline the key features of LCMS as: managing learners, managing content, creating content, assessment evaluation and feedback, collaboration, and locating and delivering rich content to a user base.

#### **2.4.2.6 Portals, wikis and blogs**

Beal (2016: Internet) defines portals as a website or service that offers a wide range of services, including emails, forums, search engines and access to information based on the portal.

According to the University of Melbourne (2008:1), wikis are collaborative websites allowing any individual within the community to contribute or edit content and, as such, is a form of peer reviewing. A wiki can be made available to a global audience, covering a spectrum of topics or subject areas.

According to Laughton (2011:5), wikis are distinctive as they enable learners to communicate with their peers instead of with their teachers in traditional environments. A popular example of a wiki on the social web platform is the web-based encyclopaedia, Wikipedia (Ferriera (2008:23).

Anderson (2007:7) coined the term web-log or blog, which refers to a simple webpage comprising brief paragraphs of opinions, diary entries, posts or online journals. Ideally, blogging represents an exchange of views between author and reader.

According to Koohang *et al.* (2010:35), technologies such as social networking, wikis, blogs, and image and video sharing lend themselves to online learning, but must have a purpose in the learning process; these tools should be used in driving the learning process.



Figure 2.9: Top 100 Tools for learning

Source: Hart, 2014

## 2.5 BENEFITS AND BARRIERS OF ONLINE LEARNING

Online learning addresses the needs of populations that cannot always attend traditional classroom settings by allowing students to continue to learn independently.

The minimum requirements for engaging in online learning are access to a technological device and an Internet connection, whereafter the learner is unimpeded by time or space.

Research conducted by Stern (2012:4) highlights the benefits of online learning:

- Convenience: 24/7 access to accommodate busy schedules.
- Enhanced learning experience: The content is understood and retained, students are able to access and download content, and meaningful content is generated.

- Levelling the playing field: Learners can take more time to mull over subject matter before communicating. Shy learners feel comfortable communicating and asking questions that they avoided asking in a classroom environment.
- Interaction: Stronger interactions between students. A student-centred learning environment is cultivated, creating synergy and a sense of community.
- Innovative teaching practices: Innovation, variety and creativity is incorporated into the online learning platform and a diversity of learning styles addressed.
- Improved administration: An online platform where student work and interaction can be monitored, documented and recorded. Grading of learners can be managed online.
- Savings: More students can be accommodated which will increase student satisfaction.

Asmal (2003:7) states that, as Africa is a developing continent, a digital divide exists with respect to access, connectivity and infrastructure disparities. The lack of developed infrastructure for information communication technologies is exacerbating the digital gap between Africa and the developing world. Asmal (2003:8) contends that improving Internet access in schools and colleges and the development of digital libraries for universities is required.

Sarisakaloglu (2015:62) documents key potential barriers that are prevalent in online learning, such as technical, physical, cultural, emotional, gender and personal barriers. In order for individuals to use new technologies for online learning, the technical equipment, hardware, software and Internet connections are of great importance. Since face-to-face communication will lead to online communication, emotional barriers come to the fore. While internationally countries have embraced technology, social networking and learning online to a large degree, there are significant obstacles to harness the benefits of social networking in the South African context.

According to Chen, Tan and Lim (2012:4), a lack of ICT infrastructure is a potential barrier, especially when students try to log on and experience Internet problems, such as poor bandwidth, which may exclude them from online learning. Webopedia (2016: Internet) defines bandwidth as the amount of data that can be transmitted in a

fixed amount of time. According to the State Educational Technology Directors Association (2012), bandwidth considerations affect the consumption of learning resources as bandwidth determines which online content learners and teachers are able to use.

Firewalls could be potential barriers in preventing access to social networking tools from school locations. Beal (2016: Internet) defines a firewall as a network security system that prevents unauthorised access to or from a private network.

Information security and loss of information privacy can also become barriers to access. According to Beye *et al.* (2012:15) privacy may be breached by fellow social networking users or unregistered visitors. This may be deliberate (hacking, snooping) or unintentional (mismanagement of privacy settings). Privacy issues are myriad in the social networking realm, and to mitigate this, users are expected to control their privacy using the tools offered.

When applied in a learning context, a social networking strategy would need to be formulated and aligned to a security policy, which will determine the rules of engagement. Although social networking sites offer advanced technology, there are concerns regarding privacy and security issues (Al Mushayt, 2013:61), but acceptable use policies will help to monitor and control online behaviour and interaction. According to Chew Valley School (2012:1), social networking policy requires between innovation and providing a framework for good practice.

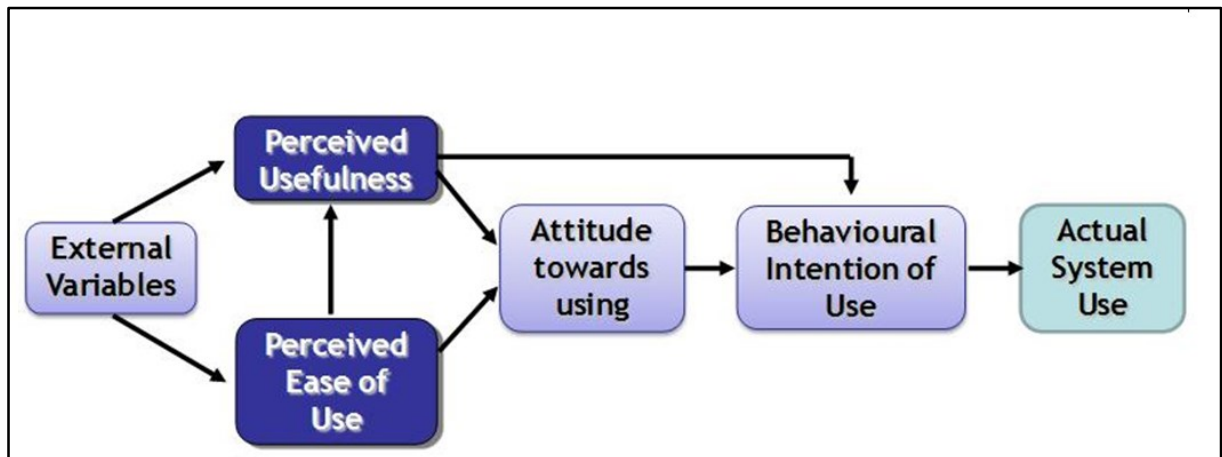
PricewaterhouseCoopers (2012:6) states that strong security policies can be reinforced with monitoring solutions that protect against malware, data leakage and any other security challenges. According to Ollmann, (2007:2), a phishing guide was formulated by IBM. Phishing is the process of socially engineering individuals by impersonation. Cyber criminals find social networking sites useful, resulting in phishing, where usernames and passwords are obtained to introduce malware and steal information. Therefore, the formulation of a security policy will ensure that cyber threats are detected and that social networks can be accessed only by authorised users.

## **2.6 TECHNOLOGY ACCEPTANCE MODEL**

Although numerous models predict system usage, the Technology Acceptance Model (TAM) has received the highest ranking (Chattur, 2009:1).

TAM (Figure 2.10) encompasses external variables that influence four critical factors:

- The perceived usefulness of technology
- The perceived ease of technology
- The attitude towards the use of technology
- The frequency of use of technology



**Figure 2.10 Technology Acceptance Model (TAM)**

Source: Davis *et al.*, 1989

According to Park (2009:151), TAM is a proven model for explaining and predicting user behaviour on information technology platforms. External variables act as the trigger that set the four factors in motion. The first factor, perceived usefulness, refers to the extent to which an individual thinks that using online technology would enrich their daily learning and performance. The second factor, perceived ease of use, refers to the extent to which individuals recognise information technology that requires minimum effort. The third TAM factor is the human attitude towards effectively using online technologies. The fourth behavioural intention reflects the likelihood that an individual would purchase information technology products and accept service offerings. Higher behavioural intentions depict user acceptance of the technology and their inclination to continuously access the web. These four factors determine actual information technology or system usage pertaining to the time individuals devote online, such as frequency of accessing social networking sites.

## **2.7 CONCLUSION**

In this chapter an overview of social networking was presented. Social networking trends in South Africa and globally were discussed. In addition statistics of Internet and social networking usage in South Africa and globally were addressed. Learning

online was discussed detailing the diverse learning online platforms that have become catalysts in digital education. The chapter concluded with documenting the benefits and barriers of online learning and discussing the technology acceptance model.



## **CHAPTER 3: RESEARCH DESIGN & METHODOLOGY**

By virtue of the magnitude of its influence locally and internationally, the popularity of social networking is undisputed. Schools in the education sector have the opportunity to explore social networking as a learning tool. This chapter discusses the research paradigm, research design used and provides a representation of the research methodology for resolving the research question and sub-questions. The choice of methodology for this study is a combination of qualitative and quantitative approach, deeming this study a mixed methodology.

### **3.1 RESEARCH DESIGN AND METHODOLOGY**

The primary aim of this research study is to explore social networking as a learning tool in a primary school within South Africa. A discussion of the interpretive research paradigm, considered most suitable for this study, is presented. This is followed by the research design, research methods and data collection methods employed in this research project.

### **3.2 RESEARCH QUESTION AND SUB-QUESTIONS**

The research question that was formulated for this research study was:

**How can the application of social networking as a learning tool enhance the student learning experience?**

The following sub-questions were formulated to address the research question:

- What is social networking?
- What types of technological devices do learners use?
- How do people learn online?
- What do senior primary grade seven learners use social networking for?
- What are grade seven school learners' and teachers' perceptions of a social networking learning tool?
- How does South Africa compare in terms of participation in social networking sites?
- What are the potential benefits and barriers to access online learning?

### **3.3 RESEARCH APPROACH**

#### **3.3.1 A definition of research**

Before embarking on a comprehensive research process, the researcher needed to identify the research approach, design and methodology. This was vital in ensuring that the most suitable methods were applied for proceeding with the data collection and data analysis stages of this research study.

Oxford Dictionaries (2016: Internet) defines research as the “systematic investigation into the study of materials and sources in order to establish facts and reach new conclusions”.

Therefore, research can be regarded as a process for unearthing knowledge. Research explicitly sets out to find out new things in a disciplined manner, with the use of the most appropriate methods.

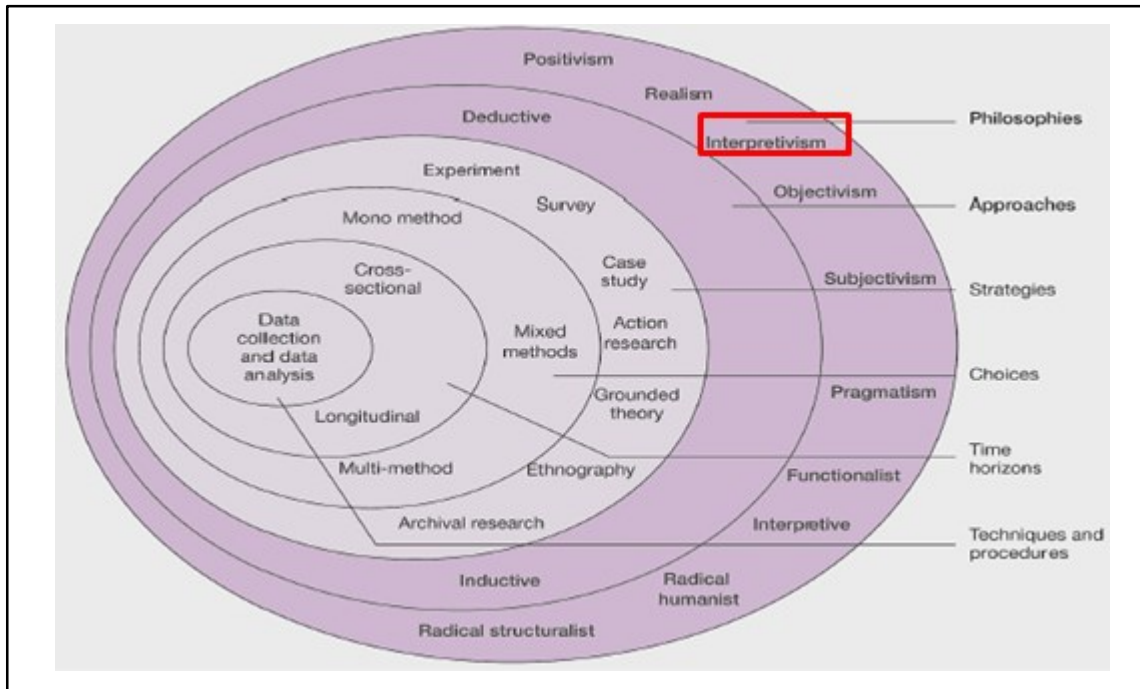
This research study strived for high quality. According to Salkind (2012:3), high quality research:

- Is based on the work of other authors
- Can be replicated
- Is generalisable to other settings
- Is based on rationale and linked to theory
- Produces new questions

It is imperative that research studies align to the purposes of research. Welman and Kruger (1999: 19) outline the following purposes of research:

- To describe how things are, that is, define the nature of the study object.
- To explain why things are the way they are. The relationships between things should be explained.
- To predict phenomena with the sole aim of using this information for the setting or environment to which the research is relevant.

Saunders (2008), developed the research onion (Figure 3.1), which depicts various research philosophies, approaches and methods. Highlighted in red in Figure 3.1 is interpretivism, the research philosophy selected for this research study.



**Figure 3.1: The research onion**

Source: Saunders *et al.*, 2013

### 3.3.2 The interpretive research paradigm

According to Rowlands (2005:81), interpretive research is conceptualised around knowledge gained through social interactions. It emphasises the relationship between the researcher and what is being explored and the situational context influencing the research process. Interpretive research was selected for this study to create meaning from information extracted.

The product of this research study will be to present recommendations to the primary school sector which can be used to introduce social networking as a learning tool. The mixed methods design was selected for this study, incorporating a combination of qualitative and quantitative research, it is therefore important to discuss qualitative and quantitative research designs.

## 3.4 OVERVIEW OF RESEARCH APPROACH

### 3.4.1 Qualitative and quantitative research designs

Research can be done using multiple methods. Creswell (2014:3) defines research approaches as plans and procedures for research that entail moving from broad assumptions to detailed methods of data collection, analysis and interpretation. The design of a research study commences with a research topic and a structured research methodology. The research design is the blueprint for fulfilling research

objectives and answering questions. It becomes the foundation that specifies the methods and procedures for collecting and analysing data (Adams *et al.* 2007:81).

Research can entail collecting qualitative data, quantitative data or a combination of the two, referred to as the mixed method approach. For the context and purposes of this study mixed method research methods were applied.

Qualitative research is an approach for discovering the meanings people assign to a social or human problem (Creswell, 2014:21). This study combined facets from qualitative and quantitative research, through the use of qualitative research, this study acquired explanations of social phenomena.

Quantitative research quantifies the data and utilises measurable data to uncover patterns in research. Through the use of quantitative research this study generated numerical data that can be transformed into useable statistics. This study implemented a quantitative research design through the use of an online questionnaire to collect numerical data. According to the University of Southern California (2007) quantitative research allows for greater objectivity and accuracy of results through the summarisation of information.

### **3.4.2 Differences between qualitative research and quantitative research**

#### **3.4.2.1 Qualitative research**

According to Moriarty (2011:2), qualitative research underpins providing an in-depth understanding of the social world of research participants by studying their experiences and perspectives. Qualitative research acknowledges the perspectives of the participants involved in the research study and advocates attempting to understand individuals by observing their behaviour, attitudes and perceptions. The research approach for this research study was to focus on individuals (students, teachers and the school principal), specifically to explore their behaviour and attitudes to social networking and its application as a learning tool. According to de Lange (2008:23) qualitative research aims to obtain secondary data in the form of literature reviews that considers both local and international research. This research study compiled a detailed literature review citing local and international sources explored in this study.

Smuts (2011:31) states that qualitative research is an interpretive approach to investigating subjects in their natural surroundings. The qualitative research

methodology is not as rigid as the quantitative method, but demands that the researcher follow a well-defined data collection framework with a structured research design. In the qualitative approach, the researcher seeks to create meaning of a phenomenon from the views of participants.

Through the use of the focus group information-rich data, with extensive detail was reflected. In addition qualitative research is investigative and provides the groundwork for quantitative research (Smuts, 2011:33).

#### **3.4.2.2 Quantitative research**

This research study had drawn from facets of quantitative research that being achieving high levels of reliability of gathered data through the distribution of questionnaires in a controlled environment. In addition observations were drawn from the collected data. Quantitative research aims to quantify the data collected in the research process. According to Smuts (2011:30), quantitative research attempts to answer questions using measured variables to explain, predict and control phenomena. Creswell (1994) states that quantitative research explains phenomena by means of collecting data that is numerical and analysed using statistical methods. There are multiple types of quantitative research, including survey research, correlational research, and causal-comparative research.

Limitations associated with quantitative research state that it could be inflexible. For example, when a researcher compiles questionnaires and surveys, participants are asked questions in the same order. Mixed method research, on the other hand is more flexible in that open-ended questions can be asked. In addition standard question formats could lead to structural bias. In this research study the quantitative research design included the online questionnaire that was completed by students and teachers. This online questionnaire translated results into numerical data.

**Table 3.1: Comparison of quantitative and qualitative research**

(Family Health International: n.d: 3)

	Quantitative	Qualitative
<b>General framework</b>	<p>Seek to confirm hypotheses about phenomena</p> <p>The instruments used are of a rigid style and elicit responses to questions</p>	<p>Seek to explore phenomena</p> <p>Instruments used are flexible and elicit responses to questions</p>
<b>Analytical objectives</b>	<p>To quantify variation</p> <p>To predict causal relationships</p> <p>To describe characteristics of the population.</p>	<p>To describe variation</p> <p>To describe and explain relationships</p> <p>To describe individual experiences</p> <p>To describe group norms</p>
<b>Question format</b>	Closed-ended questions	Open-ended and closed-ended questions
<b>Data format</b>	Numerical, obtained by assigning numeric values to responses	Textual
<b>Flexibility in research design</b>	<p>The study is stable from the start to the end.</p> <p>Participants' responses do not influence or determine how and which questions researchers ask next</p> <p>Study design is subject to statistical assumptions and conditions</p>	<p>Some parts of the study are flexible, for example, the inclusion or exclusion of interview questions</p> <p>Participants' responses affect how and which questions researchers ask next</p> <p>Study design is iterative. Data collection and research questions are adjusted according to what is learned</p>
<b>Data collection methods</b>	Surveys, structured observation, online surveys, online questionnaires, online polls	Questionnaires, interviews, focus groups

The researcher selected a mixed method research design for this study, specific aspects were drawn from both qualitative and quantitative designs in order to form the mixed method approach.

### **3.4.3 MIXED METHODS RESEARCH**

According to de Lange (2008:23) a two pronged research methodology includes following both qualitative and quantitative research approaches. Creswell (2003:17) highlights that a mixed method approach entails collecting numeric data as well text data that can be represented as open ended data. This data is stored in a database and reflects qualitative and quantitative datasets. This research study deemed the research design to be mixed methodology based on the procedures followed.

In this research study, data was collected and then explored in a sequential manner. The data exploration phase was followed by measuring the data and reflecting the data in tables and charts. The qualitative research design of this research study compiled a comprehensive literature review detailing the facets of the subject matter. The literature review addressed the research question and sub-questions formulated. In addition a focus group was conducted with the students ascertaining their views to social networking and social networking as a learning tool. An interview was also conducted with the school principal.

The quantitative research design was performed by conducting an online questionnaire with students and teachers regarding various social networking sites and social networking as a learning tool see Appendix B and Appendix C. The online questionnaire was made available on Survey Monkey. The questionnaire was accessible via a URL. The questionnaire consisted of open ended and closed ended questions. The introduction of the questionnaire explained the procedure to access the questionnaire. Once the numerical data was gathered, the online questionnaire was processed by Survey Monkey. Survey Monkey statistically analysed the data received in this study. The Survey Monkey site processed the responses from the student questionnaire and the teachers questionnaire. The responses were converted into charts and cross tabular format for ease of analysis. With reference to the above this research study, followed a mixed method research design.

According to Creswell (2003:17) mixed method research includes:

- Open ended and closed ended questions
- Collects data sequentially
- Collects both qualitative and quantitative data
- Presents visual representations
- Executes the practices of both qualitative and quantitative research

- Involves multiple forms of data drawing
- Statistical and data analysis is conducted

Based on the reference by Crewell (2003) this research study followed the steps mentioned above and is therefore is a mixed method design.

### **3.5 SAMPLING**

Research reveals that sampling is an essential element for conducting a research study. It is crucial, therefore, to have an accurate description of the population that will be sampled for the research study. The sample is predetermined and comprises features conforming to set specifications.

Ross (2005:2) states that formulating an appropriate description of the sample includes identifying:

- The population for which the results are required
- The desired target population
- The population that is involved in the actual research study

The topic for this research study:

**The application of a social networking learning tool in a primary school within South Africa.**

The specifications of this research study were as follows: The population involved in this study was specifically grade seven learners and grade seven teachers, and an interview was conducted with the school principal.

The sample of the learner population was four grade seven classes:

- Grade 7 A
- Grade 7 B
- Grade 7 C
- Grade 7 D

The sample for the grade seven student focus group:

- One grade seven class consisting of 32 students.



The sample of the teacher population:

- The grade seven school teachers employed at the school where the study was conducted.

The interview with the principal was the last validation step in the research.

### **3.5.1 Probability and non-probability sampling**

Researchers collect information through a variety of research methods and they have a choice to select between probability and non-probability sampling. This research study used non-probability sampling. According to Trochin (2006: Internet), non-probability sampling does not apply random selection whereas probability sampling does. This does not necessarily imply that non probability samples are not representative of the population, but emphasises rather that non-probability samples cannot be governed by the rationale of probability theory. Statistics Canada (2013: Internet) explains that in probability sampling, every element has an equal chance of being selected, whereas in non-probability sampling there is an assumption that there is a balanced distribution of certain features within a population.

Research concurs that in non-probability sampling the sample chosen becomes representative and because of this, the results are accurate. Non-probability is derived from the researcher's judgement with one of its main strengths being convenience. Masteller (2014: Internet) explains that non-probability sampling is frequently used in mixed method research. Its advantages include idea generation, discovery and greater affordability.

In probability sampling, each constituent of the population has an equal and independent chance of being selected for the sample, and is not influenced by any personal preferences or considerations. Kumar (2005:175) differentiates between the three categories of probability samples:

- **Simple random sampling** is when any individual in the target population has an equal probability of being selected for the sample.
- **Stratified random sampling** is dependent on variables that are heterogeneous within the study population. The researcher stratifies the population based on characteristics such as gender, age, income, status, and attitude.
- **Cluster sampling** is the process whereby the sampling population is divided

into groups or clusters that are selected based on certain features of the cluster.

### 3.5.2 Non-probability sampling selected for this study

#### 3.5.2.1 Convenience sampling

According to Research Methodology (2016: Internet), convenience sampling is used to define a sample in which the core elements have been selected from the target population on the basis of their accessibility or convenience to the researcher. Figure 3.2 represents the convenience sampling technique. This research study used non-probability sampling and convenience sampling. This research was conducted in geographically convenient area.

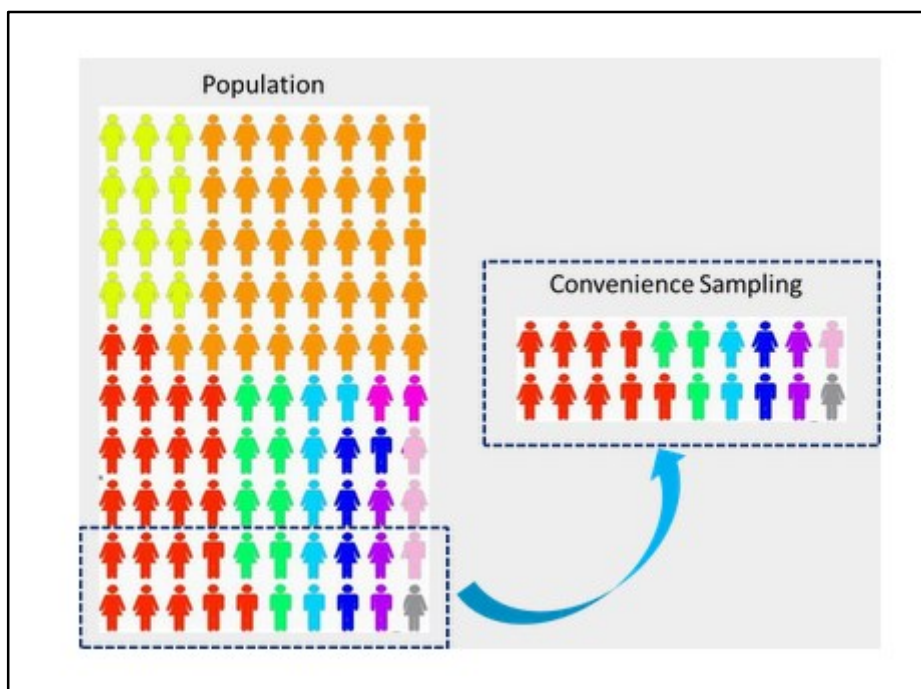


Figure 3.2: Convenience sampling

Source: Research methodology: 2016: Internet

## 3.6 DATA COLLECTION METHODS

### 3.6.1 Questionnaires

According to Denscombe (2003:145), questionnaires rely on information supplied directly by individuals in response to questions asked by the researcher. They consist of a list of questions and instructions on how the participant should respond to each question. A questionnaire is a survey instrument used to collect data and addresses the objectives of the research study.

The questionnaire employed in this study had mixed facets as it was considered to

be standardised as each respondent was exposed to the same questions and the same system for coding responses. Some questions required only one answer and other questions required multiple answers. This was done to balance out the responses and to overcome the potential advantages and disadvantages associated to questionnaires.

This research included questionnaires in order to collect factual information and to decipher basic attitudes and perceptions related to a specific topic. Table 3.2: Advantages and disadvantages of questionnaires summarises the key advantages and disadvantages of using questionnaires.

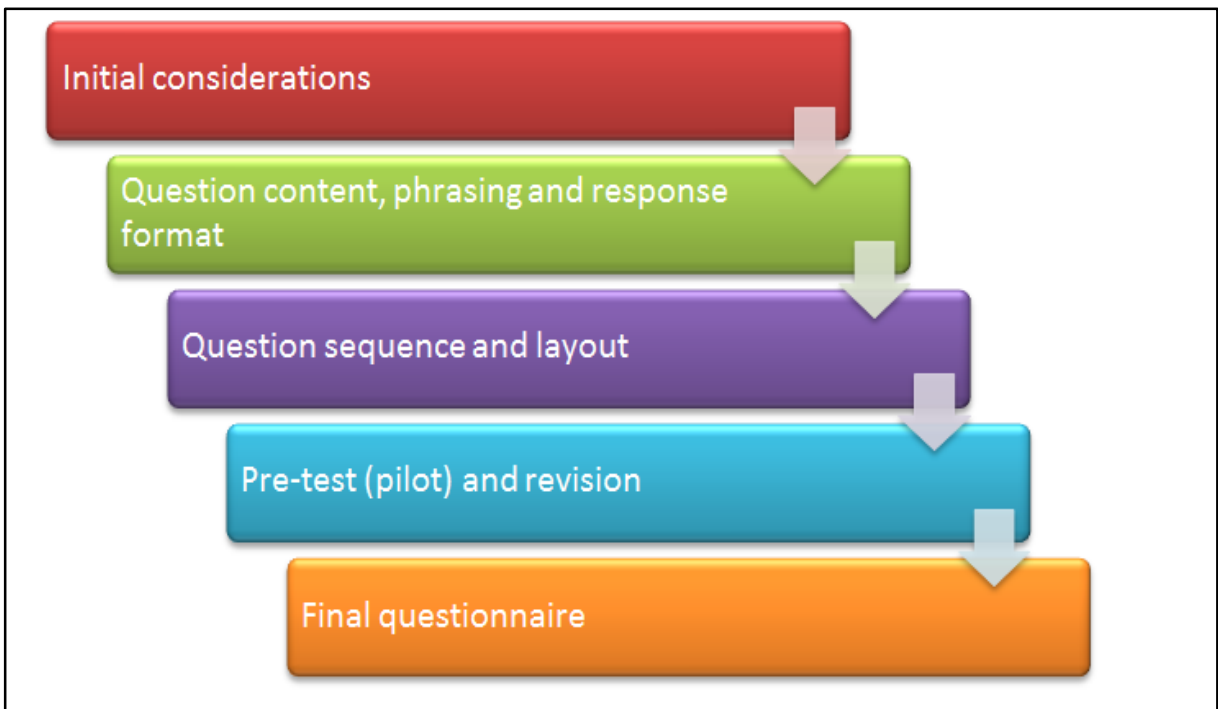
**Table 3.2: Advantages and disadvantages of questionnaires**

Source: Kirklees Council, 2006

Advantages of questionnaires	Disadvantages of questionnaires
<b>Can contact a large number of participants at a relatively low cost.</b>	Response rates can be low (postal) and refusal rates high (telephone or face-to-face).
<b>It is easy to reach people who are spread across a geographical area.</b>	There is little control over who completes a questionnaire, which may lead to bias.
<b>Respondents are able to complete questionnaires in their own time.</b>	Certain questionnaires are unsuitable for people who may have reading challenges or visual impairments.

### 3.6.1.1 Questionnaire design

It is imperative that careful consideration is given to the design of the questionnaire for a research study. This research study implemented the questionnaire design depicted in Figure 3.3. Kirklees Council (2006:3) states that a well-developed questionnaire requires effort and thought and can be developed according to the stages outlined in Figure 3.3. To ensure that the questionnaire layout was suitable for the research study, the researcher was aware of initial considerations; the question content and phrasing reflected the true essence of the stated question. The researcher ensured that the questions followed a logical flow. A pilot questionnaire was then circulated to a group of students. The students provided feedback on the layout and question format. The feedback was taken into consideration and certain parts of the questionnaire were revised. The final questionnaire was then distributed to the student sample.

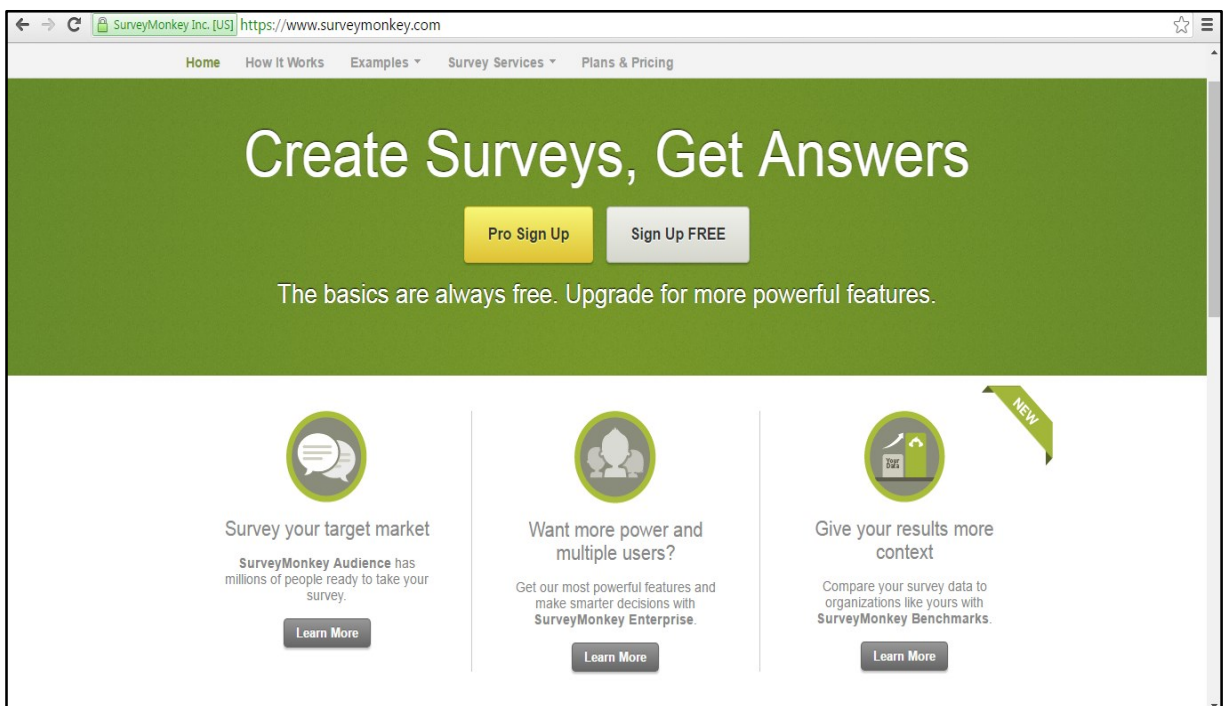


**Figure 3.3: Questionnaire development stages**

(Adapted from Kirklees Council, 2006)

### 3.6.1.2 Questionnaire construction for the research study

For this research study two separate online questionnaires were developed using the Survey Monkey website platform (Figure 3.4). The prerequisite was that learners and teachers were willing to access and complete separate questionnaires online. Survey Monkey generated two separate URLs that provided access to the learner questionnaire and the teacher questionnaire.



**Figure 3.4: Survey Monkey website where online questionnaires were designed**

The steps followed to design the online questionnaires for this study were:

- i. The researcher initially defined the objectives of the study.
- ii. The questionnaire was designed to collect data that followed a logical flow in order to reach reliable conclusions.
- iii. The researcher defined the target population from which the data would be collected. The distinct population selected was the grade seven primary school learner population and the grade seven school teacher population from one school in the geographical area of Johannesburg.
- iv. The researcher embarked on formulating the questionnaire content to align it to the research questions of the study. The student questionnaire consisted of only closed-ended questions. The teacher questionnaire consisted of open- and closed-ended questions. When compiling the questions, the researcher considered clarity, phrasing and precision to ensure that respondents understood what was being asked of them and could complete the questionnaire with ease.
- v. Questionnaire pilot testing was conducted randomly to pre-test the questionnaire.

#### **3.6.1.3 Open-ended and closed-ended questions**

According to Lefika (2012:72) the methods nominated to collect data should complement both qualitative and quantitative aspects of a mixed method study. This was achieved through construction and the inclusion of open-ended questions, closed-ended questions or a combination of the two types. In order to manage the associated advantages and disadvantages both open- ended and closed- ended questions were utilised. Open- ended and closed- ended questions was designed as key advantages and disadvantages were taken into consideration for this study. Open-ended question formulation facilitates obtaining insights that are detailed and creates experiences that are multidimensional. A key advantage of open-ended questions is that the questions permit the participant to provide in-depth responses and elaborate on their thoughts, ideas and views relating to the research study. Disadvantages associated with open-ended questions include having to evaluate data, which may be time-consuming. In contrast closed ended questions limit possible answers, these questions are in the form of multiple choice selections.

#### **3.6.1.4 Student questionnaire**

The first questionnaire was designed online for the primary school grade seven learners and comprised 10 closed-ended questions (Appendix B). Closed-ended questions were used to allow for students to select an answer and avoid having to provide more detail.

#### **3.6.1.5 Teacher questionnaire**

The second questionnaire was developed online for the grade seven school teachers and comprised 10 questions in all, both closed-ended and open-ended (

Appendix c). This allowed for the teachers to provide further insights and information on the questions being asked. The teacher questionnaire consisted of 10 questions (refer to Appendix C) that included open ended and closed ended questions.

### **3.6.2 Focus groups**

According to Struwig and Stead (2004:99) focus groups observe group interaction to generate data. These discussions are used to formulate hypotheses about how participants perceive a certain research topic. Participation in focus groups is voluntary and hinges on questions that are carefully constructed to initiate discussion. The researcher ensured that that all participants were aware that they could withdraw at any time. Gibbs (1997:2) states that focus groups enable the researcher to conduct a large amount of research in a shorter period of time.

### **3.6.3 Interviews**

Bertram and Christiansen (2014:18) explain that an interview is a conversation between the researcher and the respondent, but it is different from a normal conversation in that the researcher sets up the questions. An interview is a face-to-face interaction with a specific purpose in mind and may be structured, unstructured or semi-structured. The unstructured or semi-structured interview gives the interviewer the freedom to formulate questions as the interview progresses or based on responses from the interviewee. The structured interview format follows a rigid structure and pre-defined set of questions. This study incorporated both structured and semi structured questions.

## **3.7 STATISTICAL DATA ANALYSIS**

The results obtained from the online questionnaires were statistically analysed on the Survey Monkey online platform. The results were reflected in cross tabular formats. Cross tabular formats were converted into charts and tables for data interpretation. An online database stored all data from the online questionnaire completed by the students and the online questionnaire completed by the teachers. The analysis of the data was performed to identify key trends amongst the variables stipulated in the questionnaires.

## **3.8 ETHICAL ISSUES**

Researchers may face ethical concerns during a study and should carefully consider issues including informed consent, benefits of the study, risks of the study, and

confidentiality. Reliability and validity need to be maintained throughout the research process. For this study, the researcher obtained ethical clearance and approval from the Gauteng Department of Education, the primary school, principal, learners and teachers. This research study achieved all ethical approvals prior to commencement. The researcher eradicated ethical concerns throughout the entire research process by obtaining informed consent and ensuring that participants understood the terms of participation. The researcher read out the letter of informed consent and answered questions that participants had about the study.

### **3.9 VALIDITY AND RELIABILITY**

According to Phelan and Wren (2005) validity refers to how well a test measures what is purported to measure, whereas reliability is the degree to which an assessment tool yields stable and consistent results. In addition the letter of informed consent was explained in detail to all participants, who were aware that they could withdraw at any time. The questionnaire allowed for the collection of subjective and objective data, while protecting the privacy of the respondents. Questionnaire results were stored on an online database. Responses were generated and stored on the online database. The researcher cannot modify results as all results were generated and stored immediately this therefore ensures that there can be no bias or misrepresentation of data.

### **3.10 LIMITATIONS OF THE STUDY**

This research study was limited to the primary school environment and specifically to the grade seven learner population. This study focused primarily on social networking, social networking tools and learning tools. The study was conducted in Gauteng only.

### **3.11 CONCLUSION**

The researcher presented a detailed discussion on aspects that included the research paradigm and research approach. A mixed method research design was executed for this specific study combining qualitative and quantitative research descriptions. In addition sampling techniques were discussed. Data collection methods were clarified; this was achieved through the implementation of questionnaires, a focus group and an interview.



# CHAPTER 4: PRESENTATION OF RESULTS

## 4.1 INTRODUCTION

This chapter presents the results from the mixed method questions for this research study, which was founded on four key datasets. The first dataset included responses from student questionnaire that were analysed and presented in a graphical layout. The student questionnaire consisted of closed-ended questions. The second dataset entailed ten questions from the teacher questionnaire that were analysed and presented. The teacher questionnaire consisted of open-ended and closed-ended questions. The third dataset describes the results obtained from key questions asked in the focus group. The fourth dataset highlights key themes from the interview with the school principal. The data collected was analysed individually and then merged reflecting the four datasets in an all-inclusive view.

The characteristics of each data set are described below.

### 4.1.1 Student questionnaire

The student questionnaire was circulated to the following four grade seven classes:

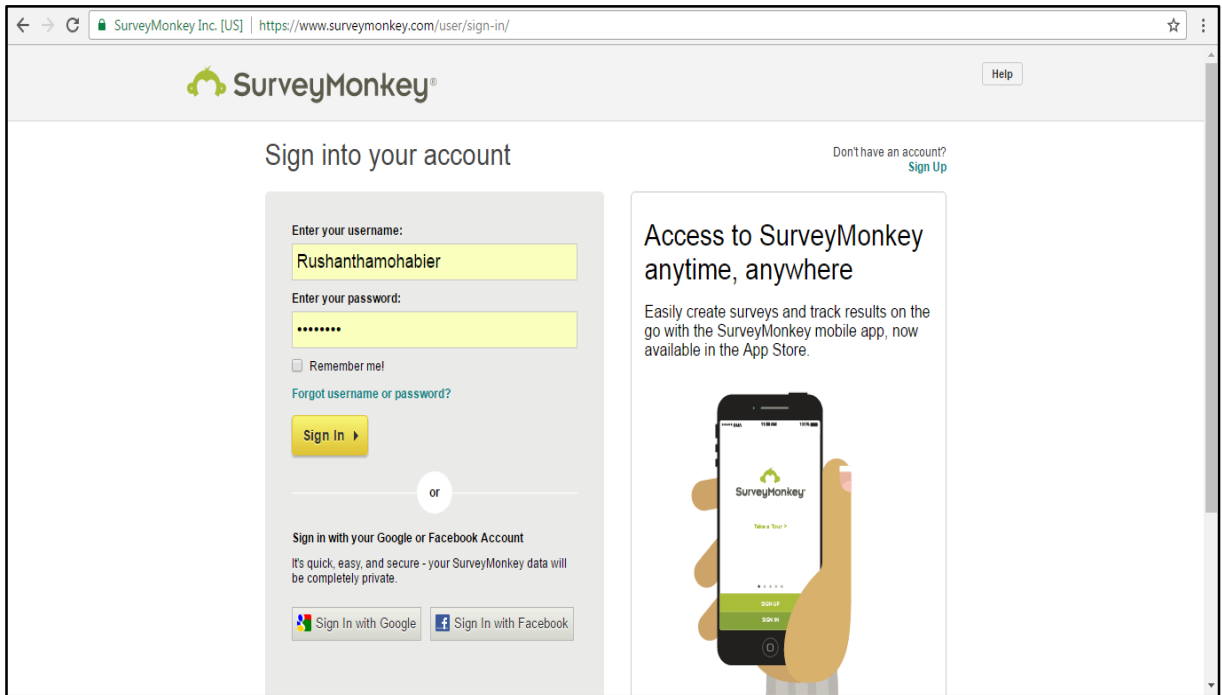
- Grade 7 A
- Grade 7 B
- Grade 7 C
- Grade 7 D

The student questionnaire was presented at a primary school. The Gauteng Department of Education (GDE) had approved the study (Appendix F and Appendix G) and the principal and deputy principal of the primary school had granted their permission for the research study to be conducted (

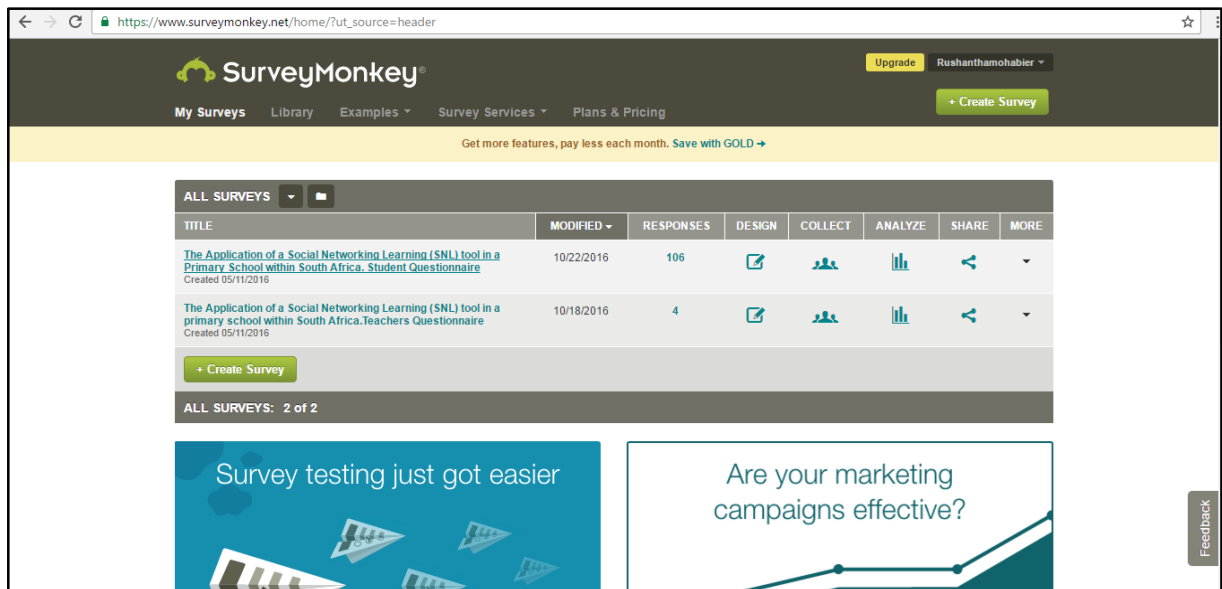
Appendix H). The researcher created an individual account on the Survey Monkey online platform where the questions were formulated (Figure 4.1).

The formal student questionnaire was made available online to 106 pupils on the Survey Monkey platform and was accessible via a URL. The letter of informed consent was explained to all participants. (Appendix A 1 and Appendix A 2). After the data had been gathered, it was processed by Survey Monkey. A total of 106 grade

seven student responses were obtained, representing a 100% response rate as the sample was derived from all the grade seven class participants. Figure 4.2 reflects the responses received from both questionnaires.



**Figure 4.1: Researcher’s user account for designing and analysing questionnaires**



**Figure 4.2: Summary of responses to questionnaires**

#### 4.1.2 Teacher questionnaire

The teacher questionnaire was circulated to eight grade seven teachers. The formal questionnaire was made available online on the Survey Monkey platform and was accessible via a URL. Four responses were obtained, yielding a response rate of

50%.

#### 4.1.3 Student focus group

One grade seven class, comprising 32 students, was selected randomly to participate in the focus group. The purpose of conducting the grade seven class focus group was to obtain a verbal representation of the attitudes and perceptions students had about the research topic. Key questions were asked and the responses were recorded verbatim by the researcher.

#### 4.1.4 Principal interview

The interview with the school principal of the primary school formed the fourth and final dataset for this research study. The researcher conducted a structured interview where questions were pre-defined in an interview guide. The answers to the interview questions were recorded.

The following section presents an analysis of the data obtained from each of the four datasets – the student questionnaire, teacher questionnaire, student focus group and principal interview.

### 4.2 PRESENTATION OF RESULTS: FORMAL STUDENT QUESTIONNAIRE

**Question 1** was asked to ascertain the breakdown of the grade seven learners by gender. Figure 4.3 presents male respondents at 46.23% and female as 53.77%, thus reflecting that the majority of respondents were female.

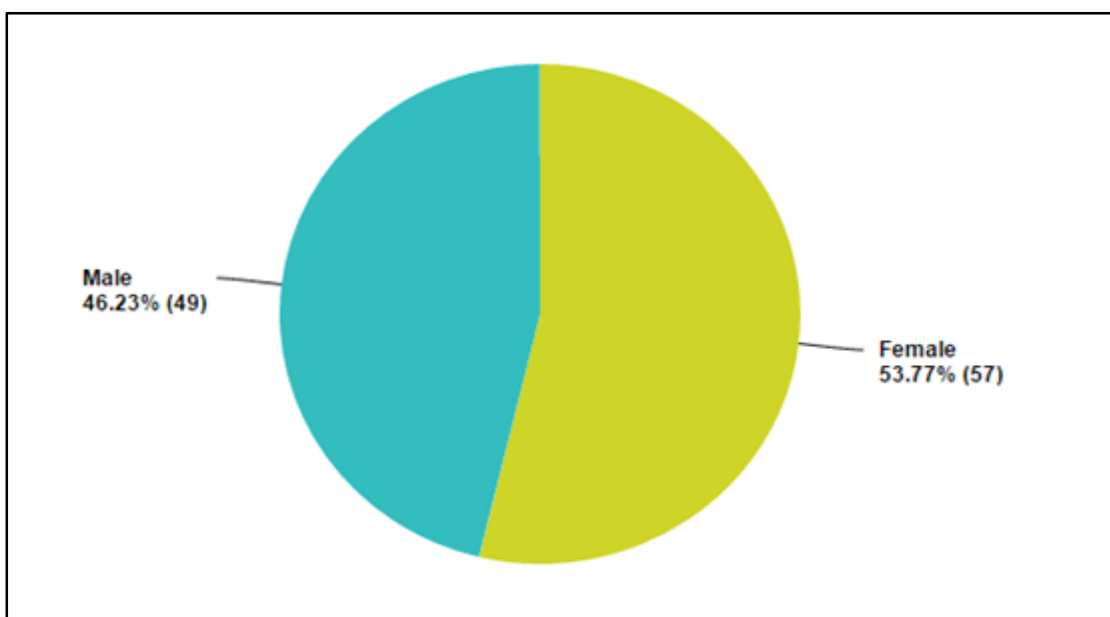
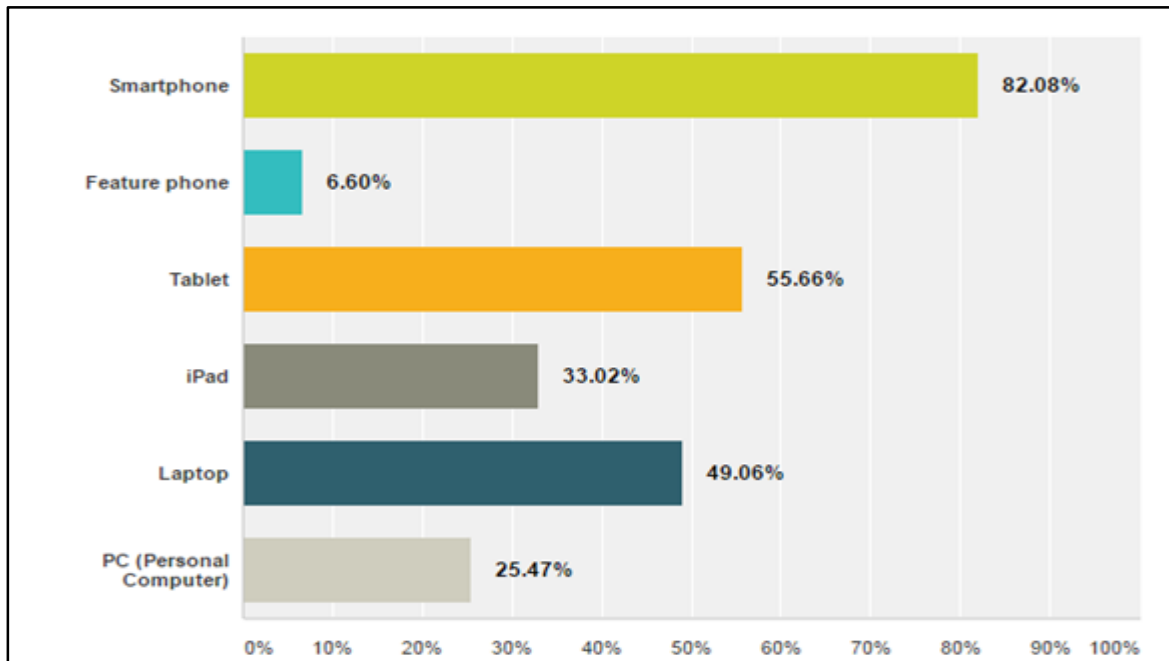


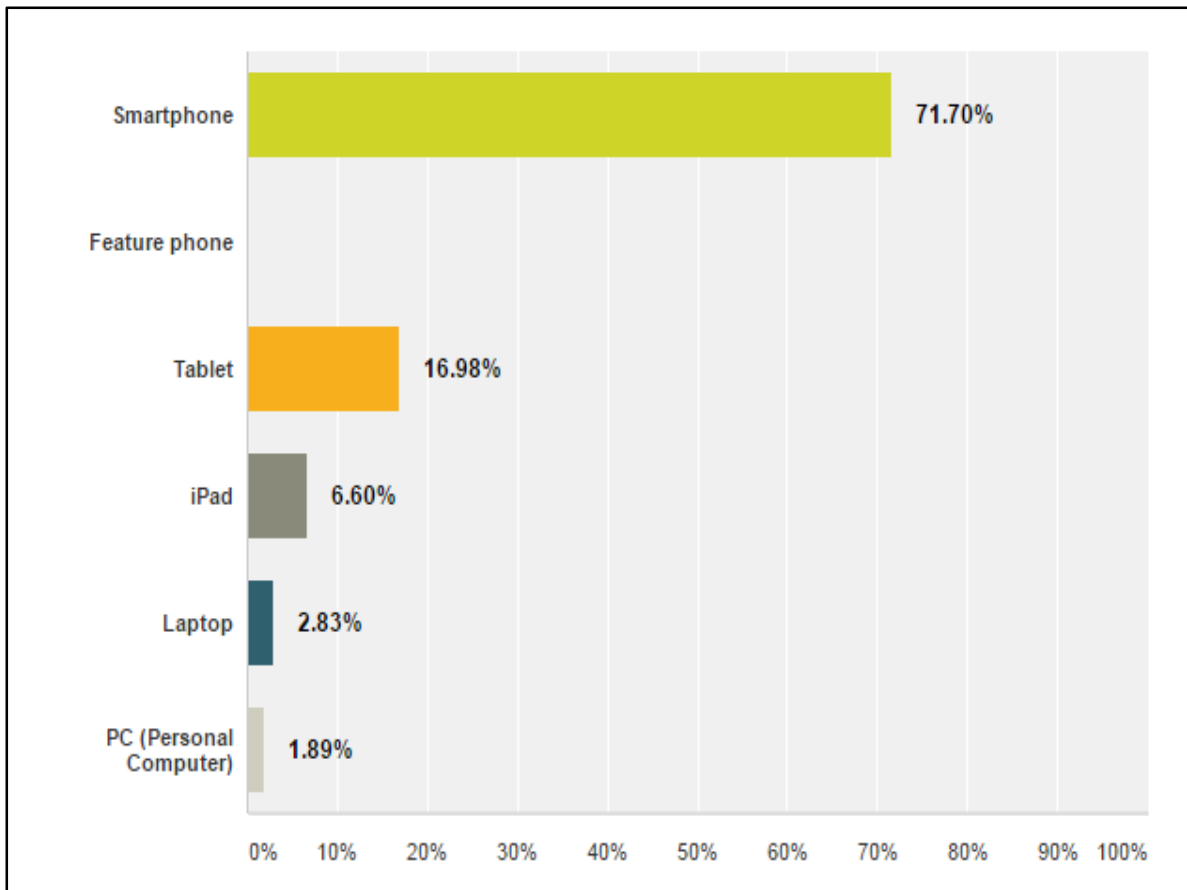
Figure 4.3: Gender breakdown of grade seven learner population

**Question 2** was aimed at indicating all the technological devices that the students use, thereby answering one of the research questions formulated for this research study. This question would provide a perspective of the types of devices school learners use. Figure 4.4 illustrates that 82.08% of the sample uses smartphones, 6.6% uses feature phones, 55.66% uses tablets, 33.02% uses iPads, 49.06% uses laptops and 25.47% uses personal computers (PCs). Therefore, the majority of the sample uses smartphones and the minority uses feature phones.



**Figure 4.4: Devices used by grade seven learners**

**Question 3** of the formal questionnaire aimed to determine which device the sample uses the most frequently (Figure 4.5), to ascertain the most popular device in the learners' lives. The sample was asked to select only one device for this question, and 71.7% indicated that smartphones are the most used device. Feature phones received a 0% response, tablets 16.98%, iPads 6.60%, laptops 2.83% and personal computers 1.89%. It is therefore apparent that smartphones are the most popular technology used by learners.



**Figure 4.5: Devices most used by students**

**Question 4** of the formal student questionnaire prompted participants to identify the categories of several social networking sites that they access (Table 4.1). The social networking sites were segmented into nine categories:- **chat**, e.g. WhatsApp; **social**, e.g. Facebook; **photo sharing**, e.g. Instagram; **music/video** e.g. YouTube; **professional**, e.g. LinkedIn; **gaming**, e.g. Candy Crush, **read/interact**, e.g. blogging; **educational**, e.g. Wikipedia; and **other**. Respondents were given the option of indicating other social networking sites not on the list. Question 4 was included in the questionnaire in order to gain insight into the sample's familiarity with social networking and the diverse social networking categories. Table 4.1 reveals that the social networking category, chat, was the most popular, representing 86.67% of the

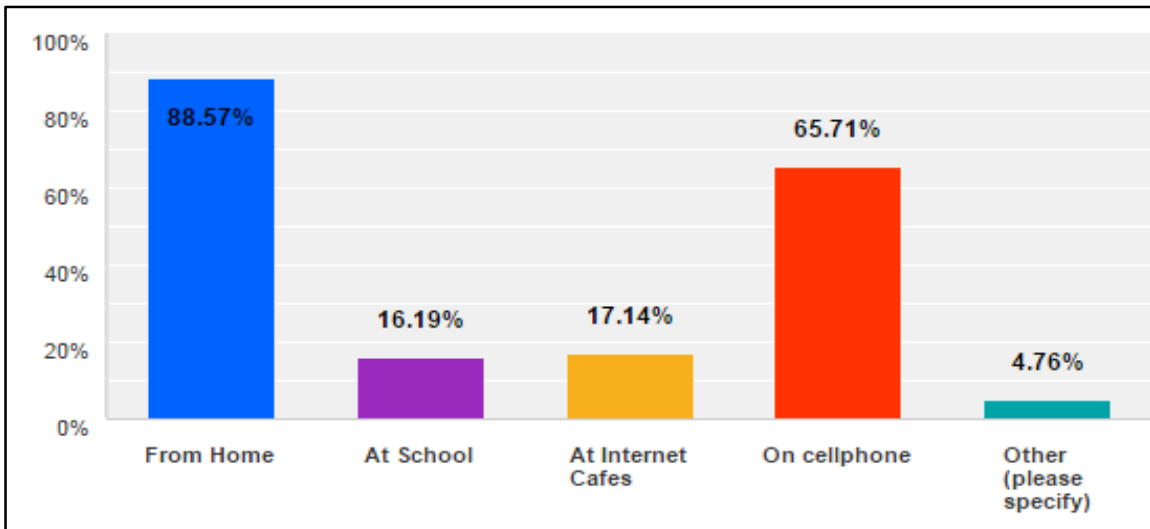
sample. This was followed by the music and video category at 68.57%. Photo sharing social networking sites comprised 63.81% of the sample. The gaming social networking category scored 60%, followed by educational sites at 40.95% and social networking sites at 42.86%.

**Table 4.1: Social networking categories respondents could select**

Answer Choices	Responses
Chat:Examples: Mxit, Whatsapp, BBM, WeChat, Facebook Messenger, Google Talk (GChat), 2go	86.67% 91
Social :Examples: Facebook, Twitter, Google+, Skype, FaceTime, Twitter, MySpace, Flickr, imo	42.86% 45
Photo sharing:Examples Instagram,Pinterest,Tumblr,Snapchat	63.81% 67
Music/video:Example:YouTube, Vine	68.57% 72
Professional:Example:LinkedIn	2.86% 3
Gaming:Example:Candy Crush, Farmville	60.00% 63
Read/Interact:Example: Blogging, Podcasting	7.62% 8
Educational Sites:Example:Wikipedia	40.95% 43
Other (please specify) <span style="float: right;">Responses</span>	3.81% 4

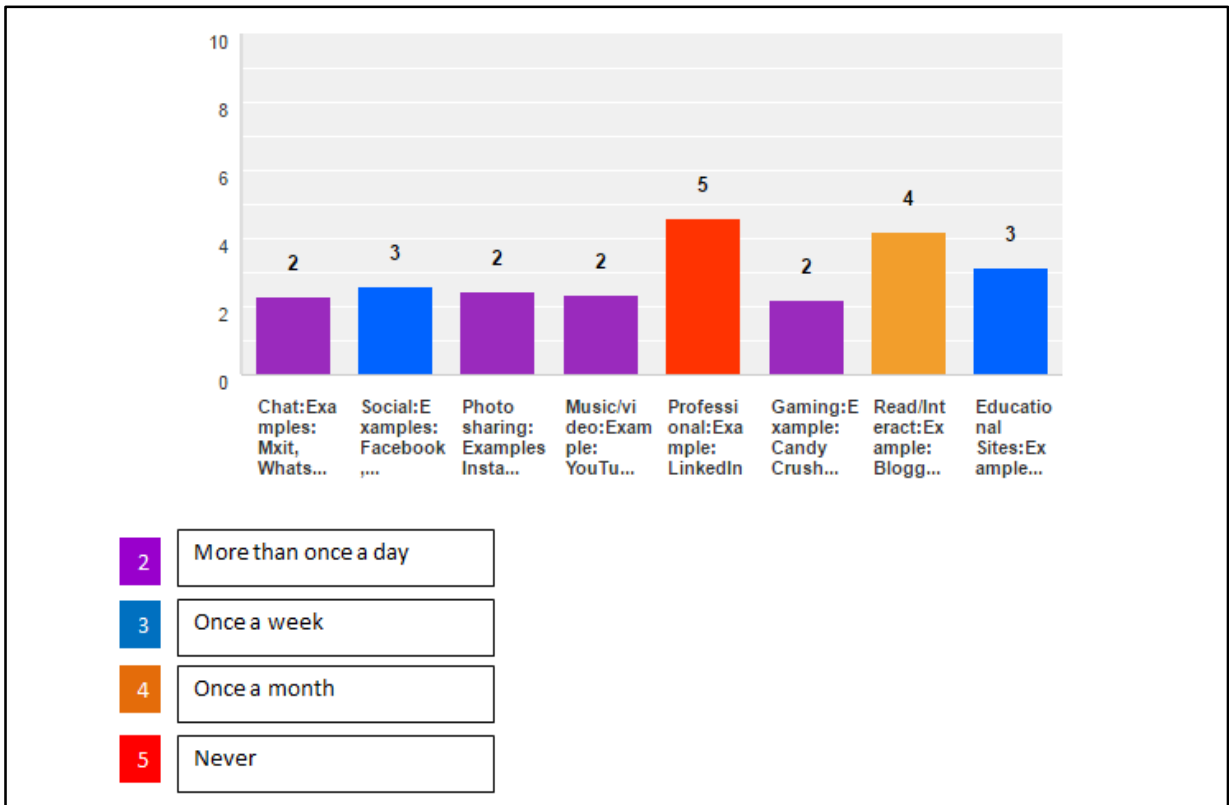
**Question 5** aimed to establish whether the sample who accessed the social networking segment categories did so from home, at school, at Internet cafes, or on their cellphones. An **other** option was provided for respondents to specify a location that had not been provided on the list of options (Figure 4.6). Question 5 gave respondents the opportunity to select more than one option. The results rendered in Figure 4.6 reveal that 88.57% of the sample access social networking sites from home, while 65.71% visit social networking sites from their cellphones, 17.14% access social networking sites at Internet cafes, and 16.19% access these sites from school.

The **other** option indicates that the grade seven students also access social networking sites from their parents' workplaces. In summary, the majority of the student sample accesses social networking sites from their cellphones.



**Figure 4.6: Locations for accessing social networking sites**

**Question 6** aimed to determine the frequency of accessing the various social networking categories by respondents who specified that they peruse social networking sites. This question would show which social networking categories were accessed more than others. The frequency of visits is depicted in (Figure 4.7).



**Figure 4.7: Frequency of accessing social networking sites**

Figure 4.7 reveals that the social networking categories, chat, photo sharing, music and video and gaming are accessed more than once a day. The social category and

educational category were accessed once a week and professional social networking sites were the category that the majority of the respondents did not access at all. This can be attributed to the age and demographics of the sample (grade seven learners).

Table 4.2 expands on question 6. The respondents were prompted to select only one frequency option for each category.

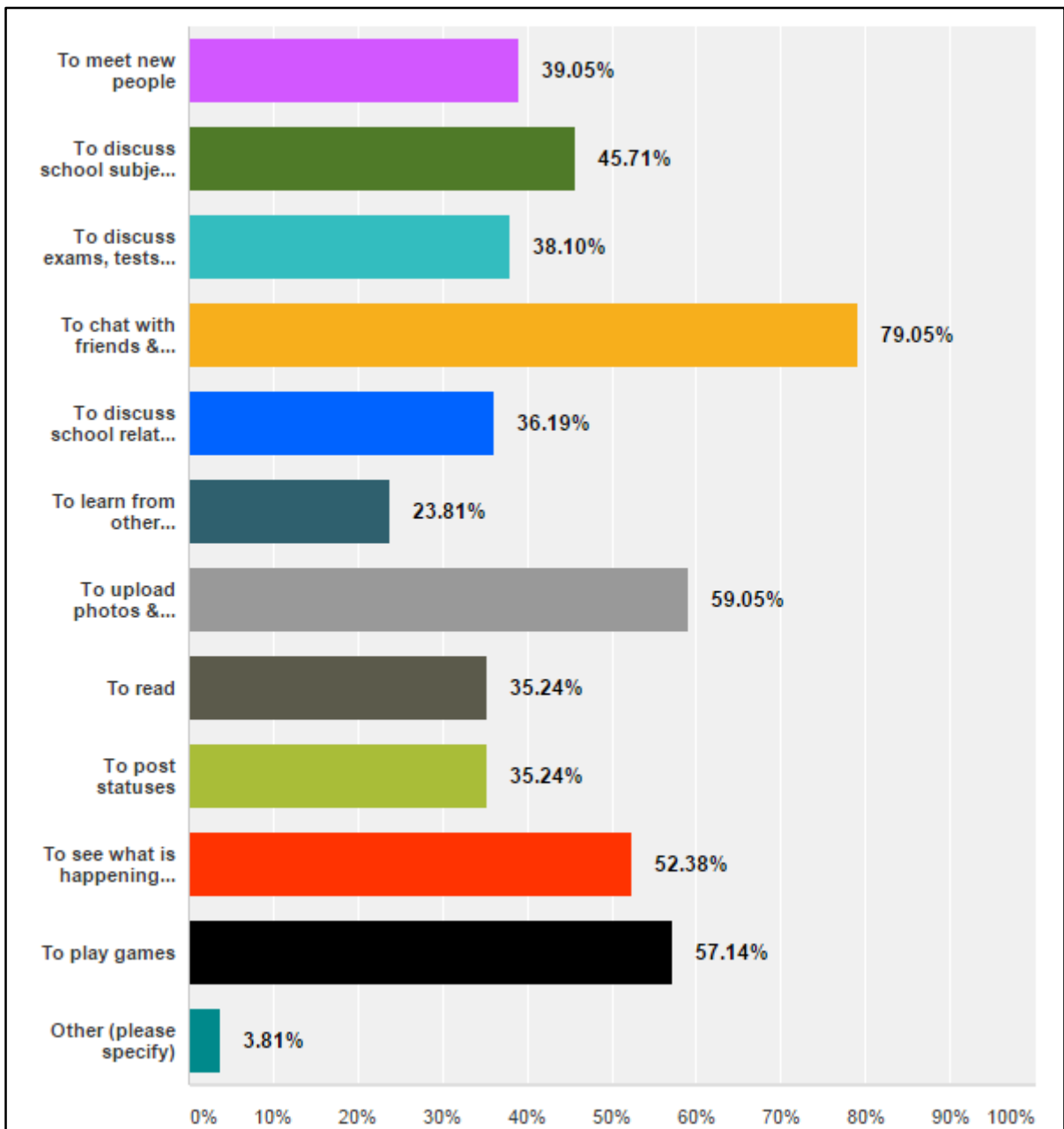
**Table 4.2: Frequency of accessing social networking sites**

	Once a day	More than once a day	Once a week	Once a month	Never	Total	Weighted Average
Chat:Examples: Mxit, Whatsapp, BBM, WeChat, Facebook Messenger, Google Talk (GChat), 2go	17.50% 7	60.00% 24	2.50% 1	15.00% 6	5.00% 2	40	2.30
Social:Examples:Facebook, Twitter, Google+, Skype, FaceTime, Twitter, MySpace, Flickr, imo	32.26% 10	16.13% 5	19.35% 6	25.81% 8	6.45% 2	31	2.58
Photo sharing:Examples Instagram, Pinterest,Tumblr,Snapchat	29.27% 12	21.95% 9	29.27% 12	14.63% 6	4.88% 2	41	2.44
Music/video:Example: YouTube, Vine	28.13% 9	28.13% 9	28.13% 9	12.50% 4	3.13% 1	32	2.34
Professional:Example: LinkedIn	4.17% 1	0.00% 0	8.33% 2	8.33% 2	79.17% 19	24	4.58
Gaming:Example: Candy Crush, Farmville	14.89% 7	59.57% 28	17.02% 8	6.38% 3	2.13% 1	47	2.21
Read/Interact:Example: Blogging, Podcasting	6.67% 3	4.44% 2	13.33% 6	11.11% 5	64.44% 29	45	4.22
Educational Sites:Example:Wikipedia	18.06% 13	16.67% 12	23.61% 17	16.67% 12	25.00% 18	72	3.14

Table 4.2 reveals that 59.57% of the sample access gaming social networking sites more than once a day, 32.26% access social sites like Facebook and Twitter at least once a day and 16.13% stated that they access the social category more than once a day. Sixty percent of the sample indicated that they access the chat category more than once a day, compared with 17.50% who access the chat category once a day. The chat category was the most accessed category by the grade seven school learners.

**Question 7** of the learner questionnaire prompted learners to select the purposes for which they use social networking. The significance of this question relates back to the research question formulated for this research study: For what purposes do students use social networking? Figure 4.8 illustrates the responses delivered by the sample group in this research study.





**Figure 4.8: The purposes for which learners use social networking sites**

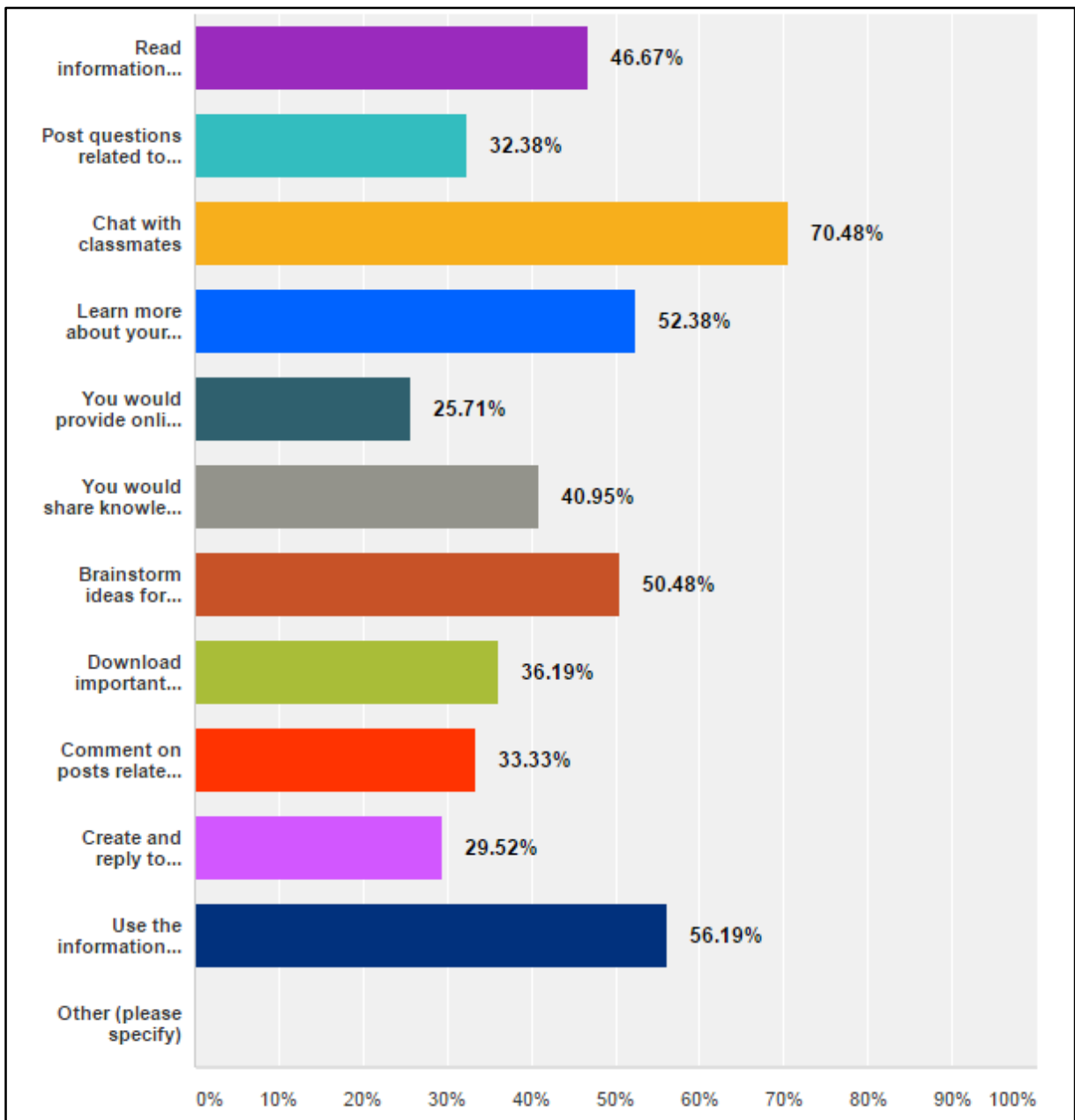
The research study revealed that the majority of the sample (79.05%) stated that they chat with friends and family, 59.05% use social networking sites to upload photos and pictures and 45.71% use these sites to discuss school subjects such as Mathematics and English. This confirms that learners are using social networking sites to learn.

**Table 4.3: The purposes for which learners use social networking sites**

Answer Choices	Responses	
▼ To meet new people	39.05%	41
▼ To discuss school subjects eg Maths, English	45.71%	48
▼ To discuss exams, tests, assignments & projects	38.10%	40
▼ To chat with friends & family	79.05%	83
▼ To discuss school related issues	36.19%	38
▼ To learn from other classmates	23.81%	25
▼ To upload photos & pictures	59.05%	62
▼ To read	35.24%	37
▼ To post statuses	35.24%	37
▼ To see what is happening around	52.38%	55
▼ To play games	57.14%	60
▼ Other (please specify) <b>Responses</b>	3.81%	4

Table 4.3 shows that 38.10% of the sample discuss exams, tests, assignments and projects on social networking sites, which links back to the research topic. Students perusing social networking sites to learn from each other are prevalent and 35.24% of the sample indicated that they read and post statuses. Respondents were given the opportunity to add other uses that were not included in the list and these entailed obtaining news on soccer and observing celebrities lives.

**Question 8** aimed to establish which activities school students would be involved in if a social networking learning tool existed. The focal purpose of this study was to ascertain the application of a social networking learning tool. An authentic indicator of whether social networking sites can be applied for learning purposes within the grade seven classes sample is their response pertaining to the activities they would be involved in if the tool existed.



**Figure 4.9: Activities students would engage in given a social networking learning tool**

Table 4.4 summarises the respondents' reply to the question about what activities the sample would be involved in if a social networking learning tool existed. A majority of 70.48% of the sample indicated that they would chat to classmates, 56.19% would use the information posted for tests and exams, and 52.38% of the sample confirmed that they would learn more about school subjects, for example Mathematics and English. About half (50.48%) indicated that they would brainstorm ideas for school projects, 46.67% stated that they would read information posted about their school subjects, and 40.95% said that they would share knowledge with their classmates.

**Table 4.4: Social networking learning tool uses**

Answer options	Response Percent	Response Count
Read information posted about school subjects	46.7%	49
Post questions related to school work	32.4%	34
Chat with classmates	70.5%	74
Learn more about your school subjects e.g. Maths	52.4%	55
You would provide online exam assistance to others	25.7%	27
You would share knowledge with classmates	41.0%	43
Brainstorm ideas for school projects	50.5%	53
Download important articles related to school work	36.2%	38
Comment on posts related to school subjects	33.3%	35
Create and reply to discussion topics that are posted	29.5%	31
Use the information posted for tests and exams	56.2%	59
Other (please specify)	0.0%	0

**Question 9** consisted of 13 statements in which the sample had to specify their choices on a Likert scale. The sample group had to indicate whether they strongly disagreed, disagreed, agreed, strongly agreed or were undecided for each of the 13 statements. Table 4.5 lists the questions set to gain a comprehensive understanding of the perceptions students have to social networking statements.

**Table 4.5: Perceptions: Question 9.1–9.13 of formal student questionnaire**

9.1	Social networking encourages students to share information
9.2	Social networking can be used as a learning tool for students
9.3	Do you think a social networking tool e.g. a Facebook page will increase your ability to learn school subjects e.g. Maths, English?
9.4	Social networking is addictive
9.5	Making use of social networking will increase your involvement in school activities and tasks
9.6	Mobile devices (smartphones, tablets) make it more convenient and easy to access social networking sites
9.7	Social networking tools are designed for teenagers and students
9.8	You enjoy using social networking sites and would use the social networking tool
9.9	An academic social networking tool will allow you to learn better
9.10	Learning through social media will become a future trend
9.11	A social networking tool will encourage you to ask questions about school work at any time for example: If you forgot to ask an important question in class you would post the question on the social networking Facebook page
9.12	You cannot go a day without accessing social networking sites e.g. Facebook, Twitter etc
9.13	If you knew that the school work discussed in class could also be downloaded e.g. in a Word document, or PDF article would you download this for your own reading?

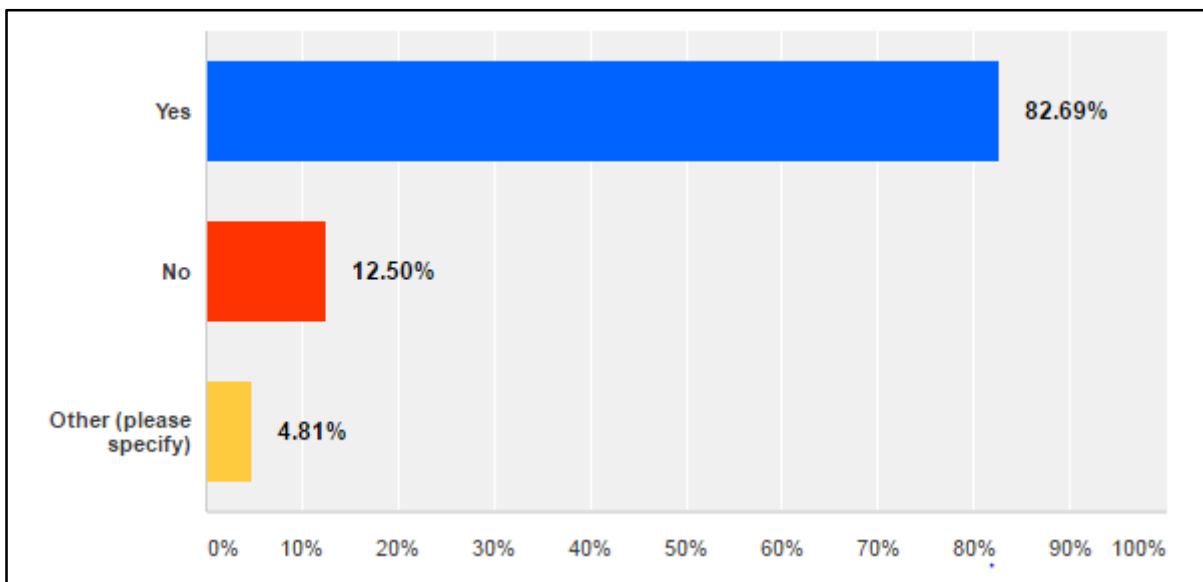
Question 9 was aimed at establishing the attitudes and perceptions of the respondents concerning social networking and learning. Table 4.6 presents the learners' opinions of the statements.

**Table 4.6: Students' perceptions of social networking and learning**

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total	Weighted Average
Social networking encourages students to share information.	4.55% 1	4.55% 1	27.27% 6	50.00% 11	13.64% 3	22	3.64
Social networking can be used as a learning tool for students.	0.00% 0	14.29% 2	14.29% 2	57.14% 8	14.29% 2	14	3.71
A social networking tool, e.g. a Facebook page, will increase your ability to learn school subjects, e.g. Maths, Biology or English.	25.00% 5	30.00% 6	35.00% 7	10.00% 2	0.00% 0	20	2.30
Social networking is addictive.	13.04% 3	26.09% 6	8.70% 2	21.74% 5	30.43% 7	23	3.30
Making use of social networking will increase your involvement in school activities and tasks.	30.00% 6	20.00% 4	15.00% 3	15.00% 3	20.00% 4	20	2.75
Mobile devices (e.g. smartphones and tablets) make it more convenient/easy to access social networking sites.	0.00% 0	13.33% 2	20.00% 3	46.67% 7	20.00% 3	15	3.73
Social networking tools are designed for teenagers and students.	25.00% 5	50.00% 10	0.00% 0	5.00% 1	20.00% 4	20	2.45
You enjoy using social networking sites and would use a social networking learning tool.	18.18% 2	27.27% 3	18.18% 2	27.27% 3	9.09% 1	11	2.82

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total	Weighted Average
An academic social networking tool will allow you to learn better.	10.53% 2	5.26% 1	21.05% 4	36.84% 7	26.32% 5	19	3.63
Learning through social media will become a future trend.	0.00% 0	13.64% 3	45.45% 10	27.27% 6	13.64% 3	22	3.41
A social networking learning tool will encourage you to ask questions about school work at any time, e.g. If you forgot to ask an important question in class, you would post the question on the social networking Facebook page.	12.90% 4	12.90% 4	32.26% 10	25.81% 8	16.13% 5	31	3.19
You cannot go a day without accessing social networking sites, e.g. Facebook, Twitter, etc.	43.14% 22	19.61% 10	9.80% 5	7.84% 4	19.61% 10	51	2.41
If you knew that the schoolwork discussed in class could also be downloaded, e.g. in a Word document or PDF article, would you download this for your own reading?	0.00% 0	4.41% 3	19.12% 13	35.29% 24	41.18% 28	68	4.13

**Question 10** was the last question on the formal student questionnaire and was aimed at examining the reaction the student sample had towards the question: If your school had a social networking learning tool, do you think it would help you finish your school work more quickly (Figure 4.10). This question tested the response to the possibility of having a social networking learning tool aimed specifically at the grade seven learners. The question asked if learners thought the learning tool would help them finish their school work more quickly. Figure 4.10 illustrates that a noticeable majority of the sample (82.69%) indicated that they believed a social networking learning tool would help them finish their school work more quickly, 12.50% indicated that a social networking learning tool would not help them finish their school work more quickly and 4.81% selected the **other** option and specified 'maybe' as their response.



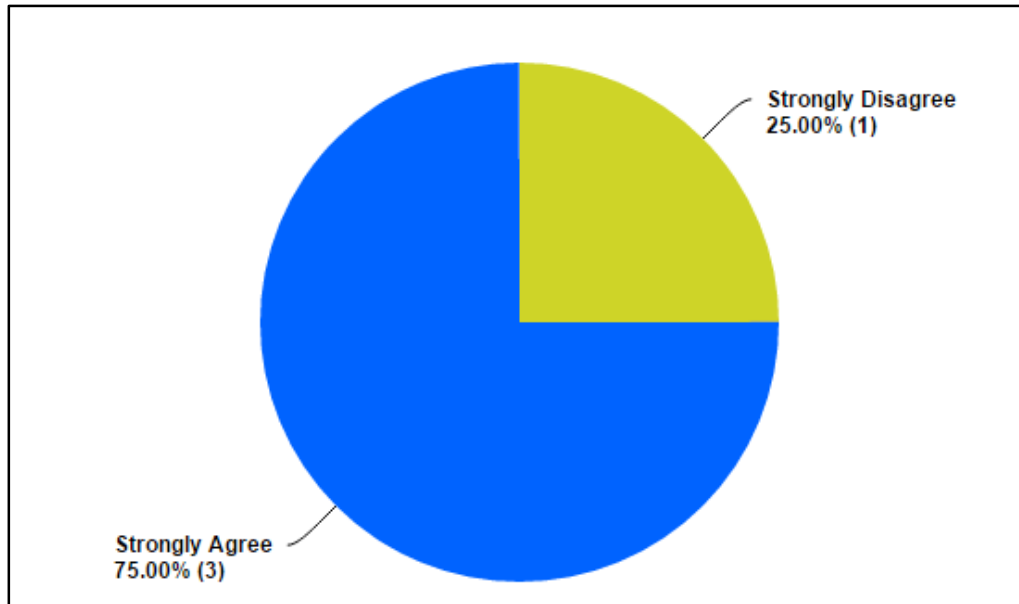
**Figure 4.10: Responses to whether a social networking learning tool could help students finish their school work more quickly**

### **4.3 PRESENTATION OF RESULTS: FORMAL TEACHER QUESTIONNAIRE**

Since all four grade seven classes formed the student sample of this research study, the teachers' formal online questionnaire was only circulated to the eight grade seven teachers at the primary school. Four responses were obtained, yielding a 50% response rate from the grade seven teachers. The teachers' formal online questionnaire consisted of ten questions.

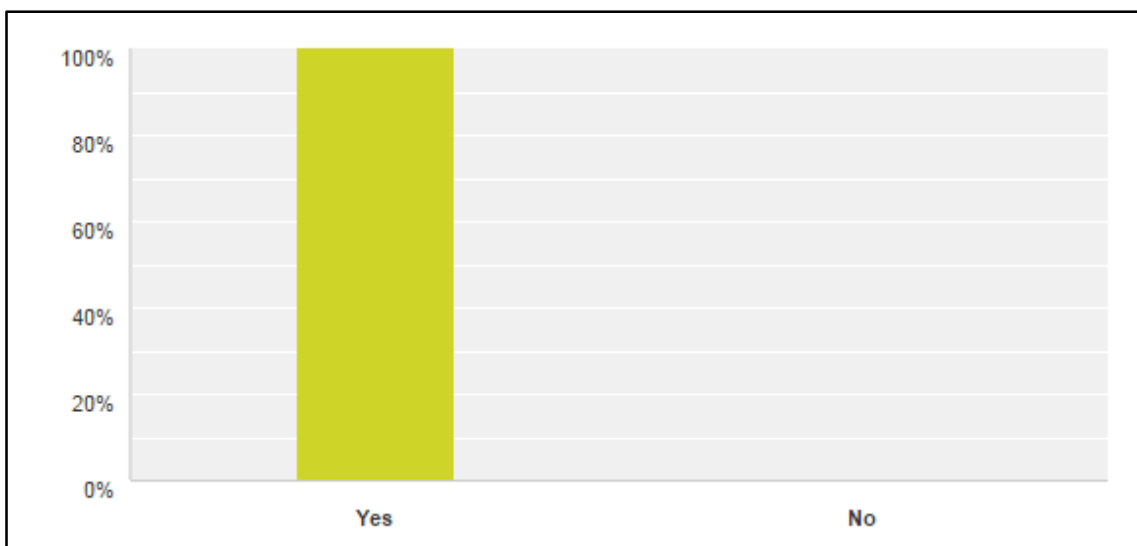
**Question 1** asked to what extent teachers agree with the statement: *Social networking is gaining huge momentum in the world and especially South Africa*

(Figure 4.11).



**Figure 4.11: Teachers' response regarding the momentum of social networking in the world and South Africa**

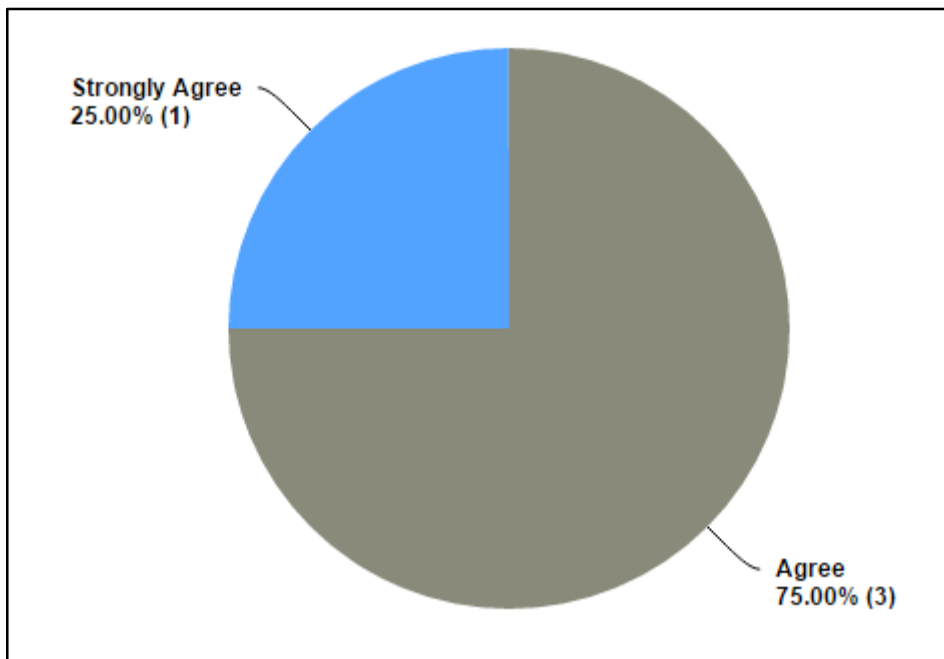
**Question 2** on the teachers' formal questionnaire was aimed at establishing whether the teachers use social networking sites. The total sample indicated that they do access social networking sites (Figure 4.12).



**Figure 4.12: Teachers' response to using social networking sites**

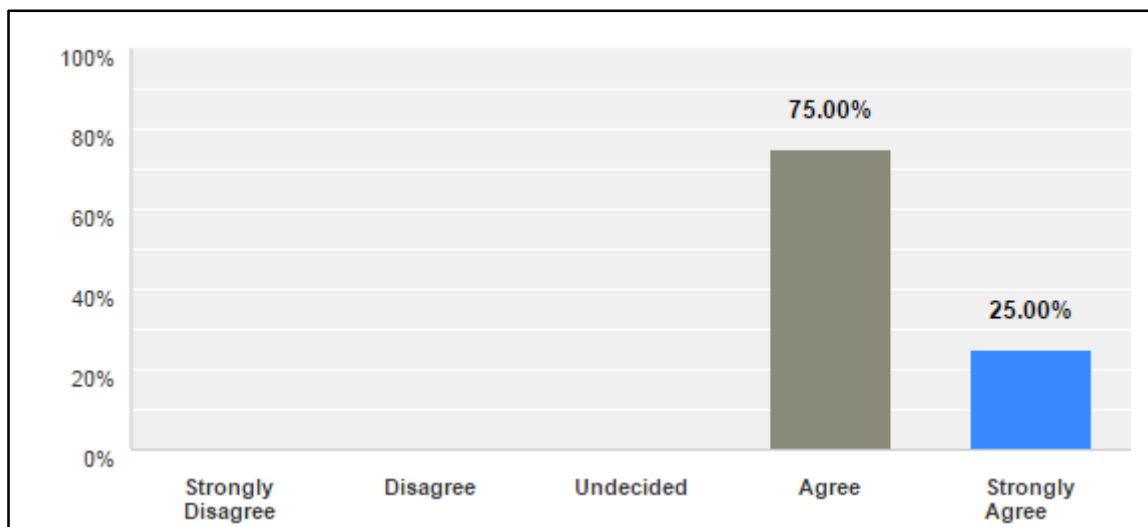
Question 3 asked whether educators can leverage from the social networking technology knowledge that students have, to enrich the learning experience (Figure 4.13).





**Figure 4.13: Teachers' response to whether teachers can leverage from the students' social networking technology knowledge**

Figure 4.14 illustrates the response to the statement in **Question 4** that social networking is an effective way to increase student engagement. Seventy-five percent of the teacher sample agreed with the statement, while 25% agreed strongly.

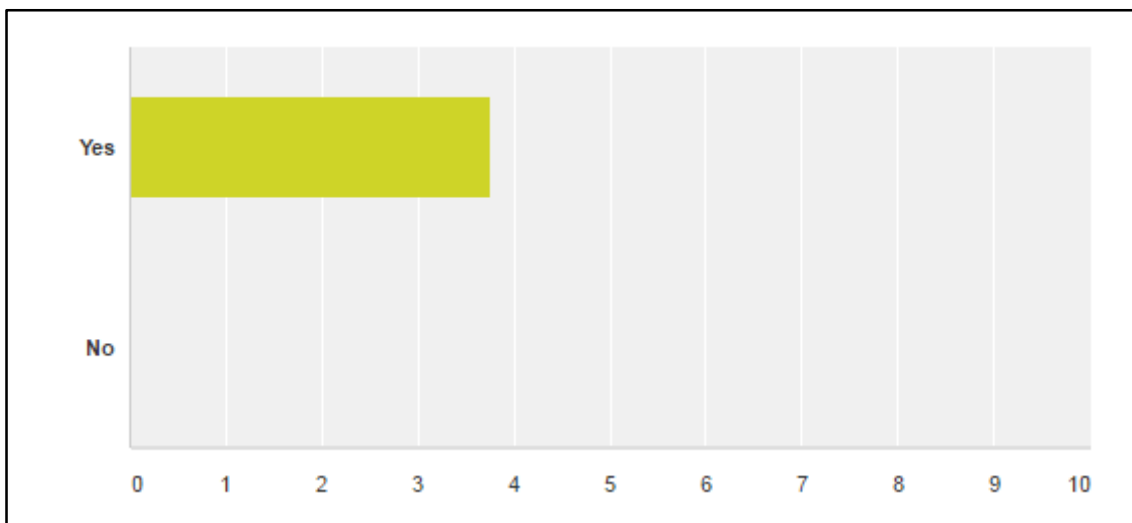


**Figure 4.14: Teachers' responses as to whether social networking is an effective way to increase student engagement**

**Question 5** on the formal teachers' questionnaire asked the teachers if they had students who rarely raised their hand in class to ask about school subjects. If their response was 'yes', they were asked a follow-up question as to whether they thought that a social networking learning tool would encourage students to express

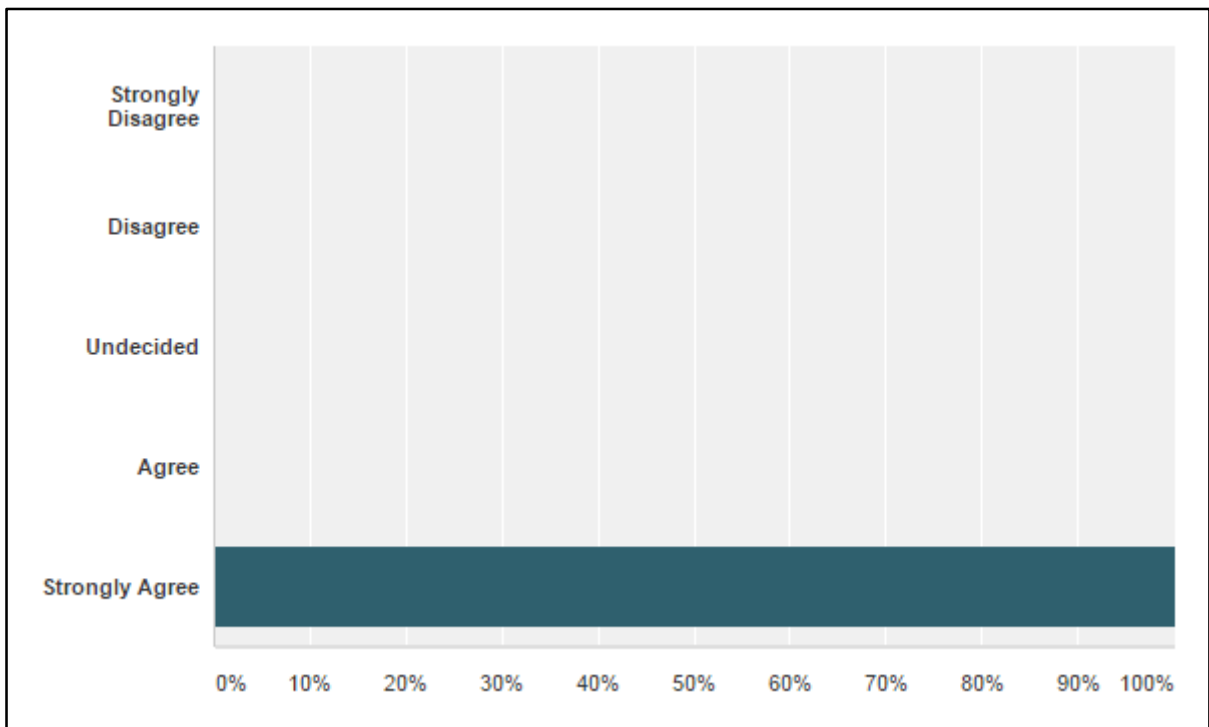
themselves more freely about school-related subjects. All teachers in the sample group responded in the affirmative. Question 5, was structured in an open-ended manner, allowing for teachers to elaborate further and the following comments were given:

- The students' responses would be read without fear of ridicule from fellow students, feedback received and thus knowledge gained.
- A strictly learning-centred social networking website would ensure that learners are focused on the academic task.
- Certain limiting parameters have to be built into the app and control should be in the hands of the teacher.
- The students would be more comfortable, as they would be using a tool that they are comfortable with. Often the students are afraid to write their opinions because they feel that they are not good enough. Many students are also afraid to talk in front of their peers as they feel their peers will make nasty comments.



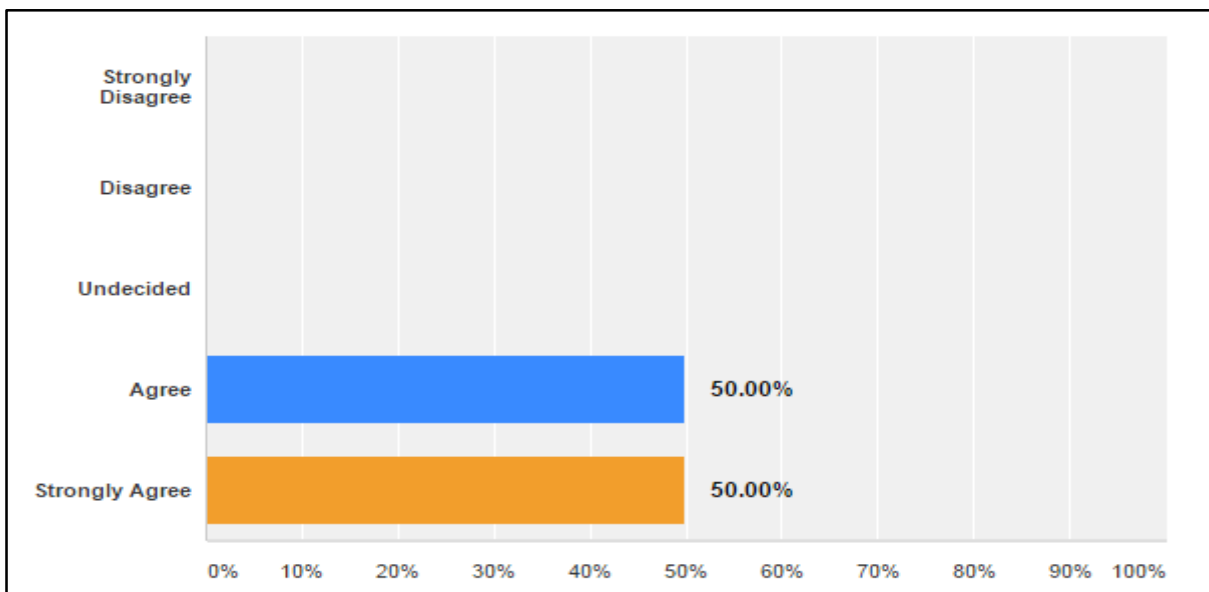
**Figure 4.15: Do teachers have students who rarely raise their hands in class?**

**Question 6** asked the teachers whether they thought that social networking fosters discussions and the sharing of ideas. The teacher sample all strongly agreed (Figure 4.16).



**Figure 4.16: Teachers' response to whether social networking fosters discussion**

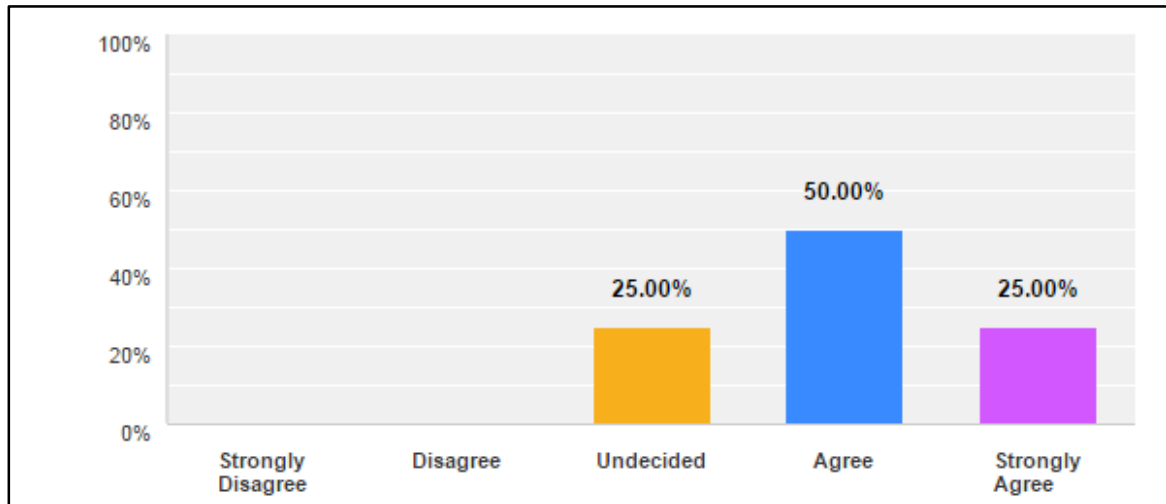
**Question 7** aimed to establish whether the teachers believed that the possibility of a social networking learning tool could increase the students' ability to learn school subjects such as Mathematics. According to Figure 4.17, 50% of the teacher sample strongly agreed that a social networking tool could increase the student's ability to learn school subjects and 50% of the teachers sample agreed.



**Figure 4.17: Teachers' response to a social networking learning tool increasing students' ability to learn**

Question 8 presented the statement that social networking learning tools provide

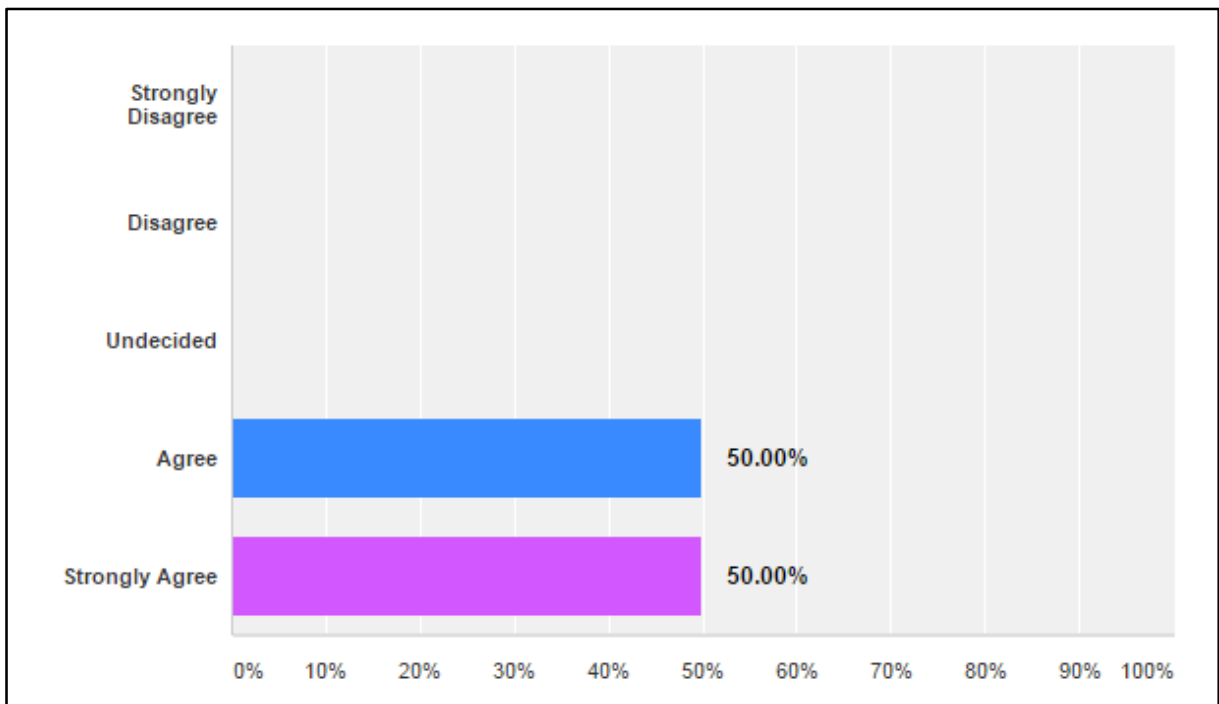
learners with the opportunity to become independent in their study and research. According to Figure 4.18, 50% of the teacher sample agree that social networking learning tools allow students to become independent in their study. Twenty-five percent of the sample strongly agree, whereas 25% are undecided.



**Figure 4.18: Teachers' response to social networking learning tools allowing students to become independent in their research**

Question 9 was designed in an open-ended format. The aim of the question was for participants to respond to the following statement: The addition of a social networking learning tool in parallel to the teaching curriculum could complement student learning experiences. According to Figure 4.19, 50% of the study sample agreed and 50% strongly agreed. Once the relevant response had been selected, each teacher was allowed to provide additional comments, which were as follows:

- More opportunities to explore even further than the limited knowledge a teacher may have on a particular subject.
- Provided that no other social engagement except academic content is accessible.
- With safeguards and parameters the tool could be used in parallel.
- Explanations or summaries of lessons learnt could be posted; reminders of tests and exams could be posted. The potential is limitless.



**Figure 4.19 : Teachers’ response to social networking learning tools in parallel to teaching**

**Question 10** was the last on the teachers’ formal online questionnaire and was aimed at establishing which activities the teachers would engage in if a social networking tool existed. Table 4.7 shows that 100% of the sample confirmed that they would be involved in uploading useful articles and posting homework and tasks. Seventy-five percent would be involved in posting questions for students to think about, posting subject content, replying to student posts and creating discussion forums.

**Table 4.7: Activities teachers would be involved in given a social networking learning tool**

Answer Choices	Responses
Post questions for students to think about, answer and engage on	75.00%
Post subject content	75.00%
Reply to student posts and questions	75.00%
Upload useful articles and information	100.00%
Post homework activities/tasks	100.00%
Post group work activities	50.00%
Create discussion forums	75.00%
Other (please specify)	Responses 50.00%

#### 4.4 PRESENTATION OF RESULTS: STUDENT FOCUS GROUP

One grade seven class from the four grade seven classes was randomly selected to form part of the focus group, which addressed key questions and was recorded in a video format. The purpose of the focus group was to encourage verbal input regarding what the students actually thought about a social networking learning tool. This would build on the purpose of this research study and create value on the research study topic. The focus group were asked six questions:

- i. If the primary school had a social networking learning tool, e.g. you could log in and access Maths homework, chat to each other, share ideas for assignments and projects and access exam and test tips, who would use this online platform?
- ii. If the primary school had a social networking learning tool, who would not use this platform?
- iii. Why would you use a social networking learning tool?
- iv. Would social networking learning help students learn better?
- v. Who thinks that the social networking tool, Facebook, will die out eventually?
- vi. Who thinks that social networking is addictive and can you go a day without it?

For **question 1**, all 32 students raised their hands in agreement that they would use a social networking learning tool and that it would help them learn better.

When **question 2** was asked, no student raised their hands confirming again that all students in the class would use the tool.

When asked **question 3**, why students would use a social networking learning tool, a student responded that if they were to be absent from school, they would be able to follow up on the content they missed in class.

**Question 4** established if the grade seven class thought a social networking tool would help them learn better. The class of 32 students agreed.

**Question 5** aimed to establish students' perceptions regarding the longevity of social networking sites such as Facebook. Half of the class of 32 respondents agreed that Facebook would die out eventually and emphasised that this cannot be denied.

**Question 6** prompted students to respond to the question of who thinks social networking is addictive. All 32 students responded in the affirmative that social networking is addictive, representing 100% in agreement.

#### **4.5 PRESENTATION OF RESULTS: INTERVIEW WITH SCHOOL PRINCIPAL**

The fourth and final dataset presented in this chapter is the results obtained from the interview with the school principal. The interview followed a structured format whereby questions were pre-defined prior to the interview. The interview with the principal was recorded to ensure that the presentation of results was consistent. The interview commenced with the principal introducing herself and stating her title. The researcher welcomed the school principal and the interview comprising 11 structured interview questions was conducted (Appendix E).

The principal's responses to questions are detailed below:

Question 1: The principal said yes, she does use social networking sites, and enjoys using Pinterest, LinkedIn and WhatsApp. The principal explained that she tries not to participate too much because of the position she holds.

Question 2: The principal agreed that social networking does encourage student engagement, provided it is used responsibly.

Question 3: She stated that students would enjoy it because of the ease of having access through devices

Question 4: Her response regarding the effects of a social networking learning tool on students was that, on the positive side, they would be curious to learn what the next step was, what teachers want and what their peers need. The negative side is that the long-term effects of using an online tool are unknown.

Question 5 was aimed at establishing the effects a social networking learning tool would have on teachers. The principal stated that it would take the teacher into the home of the learner, not just the teacher interacting at school; it would now be everywhere and not only limited to the school environment. However, it would then take the learner into the home of the teacher, which may not be desirable.

Question 6 examined whether the principal thought that a social networking tool would uplift the image of the school. The principal stated that she had no doubt that a social networking learning tool would uplift the image of the school, allowing students

to engage via their devices one-on-one and, therefore, improve the standard of the school.

Question 7 asked what would be required for a social networking learning tool to be implemented. The principal responded that commitment and enthusiasm would be needed from all parties involved and a champion needed to drive the process. “If everyone is not on board, if one student or one teacher is not on board, there could be a potential challenge. Everyone should be involved,” she said.

Question 8 was directed at understanding the financial implications of a social networking learning tool. The principal remarked that the majority of people have access to these social networking sites and that she does not anticipate this being a burden on anyone who is already there. The principal added that this would be dependent on the companies offering this service as they may have to lower their rates to align themselves to other countries. However, she said there were no foreseeable financial impacts on the individual.

Question 9 was aimed at establishing if process changes would be required. The principal specified that a shift in mindset is required. She explained that teachers and students have technology at work, and the subsequent step would be about making technology and social networking part of their everyday life. The principal highlighted that at present the students and teachers are so involved in social networking, it is only a matter of taking it to the next level.

Question 10 was aimed at gaining the principal’s perspective on the future of social networking and learning. The principal responded that “it opens up the whole world”. She mentioned a television programme she had watched in which steps were being taken in rural India to use social networking as a learning tool. The principal stated that if it can happen in the poorest countries, it can happen elsewhere too.

Question 11 encouraged the principal to add any comments before the interview was concluded. She stressed that if people did not stay on par with the world today, they would struggle to do business and individuals will struggle to learn. The principal indicated that she attended a conference where students could ask questions immediately over an online platform instead of having to wait. She added that it is not possible to know what will be expected from students in five years’ time, but that if one does not stay up to date with developments in technology, opportunities for success will be limited.



## **4.6 CONCLUSION**

In this chapter results attained from the student questionnaire, student focus group, teacher questionnaire and principal interview were reflected. The findings on social networking usage purposes, frequency, activities and utilising social networking for learning were discussed. Through the use of a student questionnaire, teacher questionnaire, student focus group and principal interview a diverse dataset was obtained. Based on the findings of this chapter, the analysis and discussion of results are discussed in the following chapter.

# CHAPTER 5: ANALYSIS & DISCUSSION OF RESULTS

## 5.1 INTRODUCTION

According to Johnson (2011: Internet), there are several benefits to data analysis but the most crucial is that it assists in structuring the findings from data collection sources, and segments macro problems into micro parts. This research study aimed to explore social networking as a learning tool in a primary school in South Africa.

In this chapter the analysis and discussion of results are discussed. The data analysed originates from the four datasets that formed the foundation for this research study – the formal student questionnaire, the formal teacher questionnaire, the grade seven class focus group and the interview with the school principal.

## 5.2 RESEARCH FINDINGS

This research study aimed to provide answers to the research questions formulated in Chapter 1. Basic content analysis was used to interpret data collected for this research study.

### 5.2.1 Student questionnaire: discussion of results

#### 5.2.1.1 Demographics

The gender breakdown indicated that there were more female students (53.77%) than male students (46.23%).

#### 5.2.1.2 Technological devices used by learners

This question was established to obtain a perspective of technology's footprint in the lives of school students. When responding to questions, the students were able to select all the devices they use. Smartphone usage was the largest at 82.08%, followed by tablets at 55.66%, iPads at 33.02% and personal computers at 25.47%. The responses to this question confirm that students are actively using a range of technological devices on a daily basis, with smartphones having become the prevailing trend for students.

The minority of the sample use feature phones, which Technopedia (2016: Internet) defines as a mobile phone that is not equivalent to a smartphone. Feature phones are used primarily for calls and texting, and have limitations when compared with a

smartphone. The evidence suggests that students are attracted to the advanced features and user interface that smartphones offer. When prompted to identify the device they use the most, 71.70% of the sample selected smartphone, compared with 0% for feature phones.

### **5.2.1.3 Social networking category segmentation and access**

The researcher segmented social networking sites into nine categories to provide a clear view of the respondents' access to these sites. These categories included chat, social, photo sharing, music/video, professional, gaming, read/interact, educational and other. The majority of the sample confirmed that at 86.67%, chat was the most accessed social networking category. The least accessed social networking category was the professional category, which could be attributed to the demographic of the students who were grade seven learners. Photo sharing, music/video and gaming categories gained significant percentages, with photo sharing at 63.81%, music/video at 68.57% and gaming at 60% of the sample. The social category attained 42.68% of the sample.

When examining the key locations where the school students accessed social networking sites, the majority (88.57%) accessed them from home, followed by 65.71% from their cellphone. School and Internet Cafes received the lowest percentage, while 4.76% of the sample cited the key other location as their parents' workplaces.

### **5.2.1.4 Frequency of accessing social networking sites**

The frequency of accessing social networking sites indicates how much time school students spend on these sites, thus contributing to the sites' popularity. Sixty percent of the grade seven sample stated that the chat category was accessed more than once a day, 59.57% accessed gaming social networks more than once a day and 32.26% accessed the social category once a day. The category scoring highest for being accessed once a day is the social category, e.g. Facebook and Twitter, and the category scoring highest for more than once a day is the chat category, e.g. WhatsApp and MXit. The results revealed that 18.06% of students access the educational category once a day. These results confirm that social networking sites have become an integral part of students' lives and the majority of social networking sites are frequented either once a day or more.

### **5.2.1.5 Student social networking utilisation**

The results for this question indicate that social networking sites are used to a significant extent by school students, with 79.05% of the sample using social networks to chat to friends and family, 59.05% to upload photos and 57.14% to play games.

The purpose of this study was to explore social networking as a learning tool in a primary school in South Africa. The results endorsed this concept as 45.71% of the sample used social networking sites to discuss school subjects such as Mathematics and English; 38.10% of the sample group discussed tests, exams, assignments and projects on social networking platforms, and 36.19% discussed school-related issues. These results suggest that school students are aware of the academic and learning purposes that social networking sites propose, reinforcing the objective of this research study that social networking sites can be applied as a learning tool.

### **5.2.1.6 Application of a social networking learning tool**

The question: "If your school had a social networking tool, e.g. a Facebook page or a Twitter feed that was updated every day, which activities would you be involved in?" was formulated to explore which activities students would engage in, aligning to the research topic. Of the sample selected, 70.48% said that they would chat with classmates, and 56.19% would use the information posted for the purposes of tests and exams.

More than half (52.38%) of all the grade seven classes in the primary school sample conveyed that they would use a social networking learning tool to learn more about their school subjects, such as Maths and English. In addition, 50.48% stated that they would use the social networking learning tool to brainstorm ideas for school projects; 46.67% acknowledged that they would read information posted about school subjects; 40.95% stated that they would share knowledge with classmates; 36.19% said they would download important articles related to schoolwork, assignments and projects; and 33.33% indicated that they would comment on posts related to school subjects. These findings confirm that the school students would use a social networking tool for multiple learning purposes.

Students were asked to rate various statements on a Likert scale: 41.18% of the sample strongly agreed that they would download and read the schoolwork discussed in class if it was available in downloadable formats such as Word and PDF

documents; 36.84% agreed and 26.32% strongly agreed that academic social networking would help them to learn better.. These responses demonstrate that 63.16% of the four grade seven classes believe a social networking learning tool would help them to learn better.

When asked if the students thought that learning through social media would become a future trend, 45.45% of the sample were undecided. This may be attributed to learning on a social networking platform being a fairly new phenomenon in South Africa, thus strengthening the reasoning behind the application of a social networking learning tool in a primary school in South Africa.

Edudemic (2015: Internet) states that social networking can be useful rather than distracting. Since students are already using social networking sites outside of the classroom, integrating social networking into the classroom will help learners to acquire best practices, offering a new feel to school subject lessons.

#### **5.2.1.7 Application of a social networking learning tool, learning faster and completing school work at a faster rate**

School work is the product of daily interactions at school as students attend classes and interact with their teachers. The question: “If your school had a social networking learning tool, do you think it would help you finish your school work more quickly” was formulated.

At 82.69%, a substantial portion of the sample stated that a social networking learning tool would help them to complete their school work more quickly. A minority of 12.50% stated that a social networking learning tool would not help them complete their school work more quickly and 4.81% were undecided. These results align to the research topic as the grade seven students do indeed see a need and purpose for a social networking learning tool, thus confirming this study to be noteworthy and relevant.

#### **5.2.2 Teacher questionnaire discussion of results**

There was a 50% response rate to the grade seven teacher questionnaire. All participants in the sample stated that they used social networking sites, suggesting that teachers are aware of social networking. The sample agreed that educators can leverage from students’ knowledge of social networking learning technology. A key question was whether the teachers have students who rarely raise their hands in

class to ask questions and whether the presence of a social networking learning tool would make them feel more comfortable to ask questions. The entire sample responded in the affirmative, which indicates that teachers acknowledge that a social networking learning tool would increase student engagement, especially if students cannot ask questions in class.

The sample strongly agreed that social networking technology fosters knowledge sharing and discussions and that a social networking learning tool could enable the student to learn more effectively. The findings further showed that the teachers would use the tool and engage in multiple activities, such as posting questions for students, posting content, and replying to comments. In summary, the findings from the teacher questionnaire reveal that teachers would apply a social networking learning tool and recognise the potential learning benefit of using social networking technologies.

### **5.2.3 Student's focus group discussion of results**

One grade seven class was selected from the four classes to participate in the focus group, which aimed to provide a visual and verbal representation of what students thought about the research topic. Six key questions were formulated and asked to the class of 32 grade seven students. When the students were asked who would use this tool, all 32 raised their hands in agreement and said that they would use a social networking learning tool and that it would help them learn better. This depicted a 100% response rate from the students who participated in the focus group, which indicates that school students would use a social networking learning tool.

### **5.2.4 Principal interview discussion of results**

The principal of the primary school concurred that social networking would promote social engagement. She stated that the students would respond positively to a social networking learning tool as they possess the devices be required to access the tool. The principal asserted that social networking and technology is part of life. She highlighted the positive and negative effects of a social networking learning tool on students and teachers. The positive effect is that students would be curious to learn and understand what is required from their teachers and their peers. The negative side of a social networking learning tool is that the long term implications of using an online tool are unknown.

Another effect cited by the principal is that the tool would take the teacher into the

home of the learner so that teaching is not limited to the school environment. The negative effect is that it would then take the learner into the home of the teacher, which may infringe on the teacher's privacy. The principal stated that she had no doubt that a social networking learning tool would elevate the school's image. For this tool to be successfully implemented, commitment and enthusiasm and the buy-in of all parties are crucial.

In terms of the financial implications of implementing a social networking learning tool, the principal maintained that because the majority of people have access to these social networking sites, no financial implications are anticipated for the individual. She pointed out, however, that companies offering this service companies may have to lower their rates to become better aligned to those charged by other countries.

The school principal reasoned that because teachers and students have access to technology at work and home, the subsequent step would be to make technology and social networking part of everyday life. Students and teachers are so involved in technology and social networking that it is simply a matter of taking it to the next level for learning and academic purposes. The principal emphasised that South Africa needs to stay on par with the world as technological shifts occur, otherwise it runs the risk of falling behind and limiting opportunities for success.

### **5.3 KEY STUDY FINDINGS SUMMARISED**

Some of the significant findings of the mixed method research are summarised as follows:

- Many online learning technologies exist, including e-learning and learning through social networking.
- School learners currently use social networking for many different purposes including chatting, uploading pictures, discussing school subjects. Table 4.1 reveals that the social networking category, chat, was the most popular, representing 86.67% of the sample. This was followed by the music and video category at 68.57%. Photo sharing social networking sites comprised 63.81% of the sample. The gaming social networking category gained 60%, followed by educational sites at 40.95% and social networking sites at 42.86%.
- Teachers and learners agree that social networking sites can and should be

used as social networking learning tools.

- Learners and teachers have confirmed that they would use a social networking learning tool and participate in multiple activities, e.g. posting content and downloading content for tests and exams.
- There is an awareness of the possibility of introducing social networking into the school environment, combined with an optimistic attitude should the primary school consider the development and implementation of a school-specific social networking learning tool.
- There is interest and curiosity of the application of a social networking learning tool. The potential for social networking sites to enhance learning in an academic environment has been acknowledged.
- There is vast evidence that social networking is growing and will continue to grow in South Africa and the global landscape.
- South Africa has one of the highest user bases of social networking sites in the world.
- Social networking sites have a massive following from learners and teachers, with the type of site preferred being based on their individual preferences.
- School students have access to a wide range of cutting-edge technological devices such as smartphones, tablets, iPads and laptops. These mobile devices increase accessibility to social networking sites.
- There is an absence of a formal primary school social networking strategy and security policy. This will need to be formulated to govern acceptable use, cyber security and privacy concerns that are potential barriers to access.
- Learners, teachers and the school principal approve of using social networking learning tools and are cognisant of the possibilities of such a tool being introduced into the school environment. Respondents indicated that they are willing to apply academic learning, specifically social networking technology to perform their school work daily.



## **5.4 CONCLUSION**

In this chapter the results have been interpreted from the student questionnaire, teacher questionnaire, student focus group and principal interview. The results depicted that the most utilised device by students are smartphones. Social networking sites were accessed at least once a day by students. The students and teachers indicated that they would be involved in a variety of activities if a social network learning tool was implemented. The majority of the student sample revealed that a social networking learning tool would help them learn better. The results reflect the popularity of technology and social networking in the lives of students. In addition the results reflect that teachers are cognisant of being able to benefit from the social networking knowledge students possess. In addition a key summary of the findings were highlighted.

# CHAPTER 6: CONCLUSION & RECOMMENDATIONS

## 6.1 INTRODUCTION

The remarkable growth of online education has transformed the traditional learning environment to learning in cyberspace. Sarisakaloglu (2015:68) states that the reversal of traditional learning formats to virtual learning formats have prompted professionals, educators and researchers to analyse learners and the learning process on this new online platform.

The main aim of this research was to explore social networking as a learning tool in a primary school within South Africa. This study took into consideration the views of the school learners, school teachers and school principal. To summarise, the use of online technologies specifically social networking sites is massive. Thanks to the rapid rise in technology globally, the gap between learning and face-to-face interaction can be bridged by the use of online technologies.

This research study was designed around three key objectives. The first objective was to discuss social networking and to segment the vast range of social networking sites into categories that can be analysed. The second objective was to perform a research study to determine which activities learners would engage in if a social networking learning tool were implemented into the school learning environment. The third objective was to explore the perceptions of senior primary grade seven students and teachers and the school principal with respect to the application of a social networking learning tool at school.

The results of this research study suggest that learners, teachers and the school principal use multiple social networking sites and have access to a vast range of modern communication devices. Due to the technology-centric background of the school learners and teachers, a social networking learning tool would facilitate online learning and interaction. The results reveal that school learners and teachers would apply a social networking learning tool platform for multiple educational and learning purposes. All three objectives of the study were fulfilled successfully.

All seven research questions formulated for this research study (Section 1.5) were successfully addressed and answered. It is evident that learners have access to a

range of technological devices. There are multiple online learning technologies. School learners use social networking sites for diverse purposes such as learning and chatting. School learners and teachers are cognisant of the possibilities and benefits of social networking in the learning dimension. There are potential barriers, but with the formulation of acceptable use policies and social networking strategies, these barriers can be mitigated.

Social networking presents a robust platform for collaboration, learning and interaction. In order to maximise the potential of social networking sites, it is recommended that schools elect networks that will be used primarily for social networking and online learning. Education is a fundamental concern in South Africa, Africa and the world. The rapid evolution of technology has demanded that learning institutions follow technology trends and use them to promote learning and development opportunities.

The final conclusion based on this research study is that:

**Social networking has the potential to be positively applied as a learning tool by learners, teachers and academic heads, provided these tools are implemented and controlled within the school environment.**

## **6.2 RECOMMENDATIONS**

6.2.1 This research detailed social networking trends, online learning tools, benefits and barriers to access, and technology acceptance frameworks. It is therefore advised that primary schools take into the consideration the benefits that could be achieved by implementing a social networking learning tool within their current environments. It is suggested that a social networking strategy for schools be formulated by applying the findings of this study.

6.2.2 The findings of this research study can be applied to adopt a school-specific social networking learning tool.

6.2.3 A social networking learning tool could be designed by applying the key activities formulated in addressing which activities learners would engage in.

6.2.3 The findings of this study can be used to transform the manner in which learners interact, learn and engage.

6.2.4 It is recommended that the school in this study consider a pilot project that

effectively tests the practical application of a social networking learning tool. This pilot project could become a blueprint that other schools in the surrounding provinces could use should a provincial social network learning tool be rolled out in the future.

6.2.5 This study indicated that a number of respondents access social networking sites and would use a social networking learning tool. Therefore, the school in this research study would need to formulate an acceptable use policy and process manual that would act as a guideline in defining acceptable use, participation, acceptable boundaries and communication guidelines.

6.2.6 The findings of this study can be used to adopt social networking learning tools and change the current negative view some schools have of social networking and online technologies.

### **6.3 FUTURE RESEARCH**

6.3.1 The literature review in this research study emphasised that academic research pertaining to social networking and learning in South Africa was lacking. It is evident that social networking and learning benefits are acknowledged globally. Research should, therefore, be aimed at harnessing the benefits of social networking and online learning technologies.

6.3.2 Future research should aim at replicating this study across other learning environments, e.g. high schools, universities, colleges, technikons and business schools. Learning occurs in environments outside academic settings, e.g. corporate organisations. Therefore, it may be valuable to research whether it is viable to implement social networking learning technologies in corporate contexts.

6.3.3 The information era has resulted in a multitude of technologies coming to the fore. Future research could analyse other online technologies that could potentially enhance learning, e.g. portals, wikis, blogs, virtual learning environments and e-learning platforms.

6.3.4 The mobile generation is in full swing, and future research could specifically analyse mobile learning and its advantages and disadvantages.

6.3.5 Schools need to take cognisance that this generation of learners has incorporated social networking into their daily lives. Leveraging from the social networking technology knowledge that learners possess is vital. Further research in

the social networking arena will need to be conducted to assess the benefits of learning through social networking technologies.

#### **6.4 CONCLUSION**

Recommendations and future research were discussed in this chapter. The research findings reflected important insight that could assist school adoption of a social networking learning tool. It is evident that students, teachers and the principal comprehend the possible benefit that can be leveraged from a social networking learning tool. The findings of this study could be used not only to draw potential benefits of implementing a social networking tool but to act as a change agent in exploiting the learning benefits social networking could offer. The recommendations emphasise considerations that the academic sector could implement to maximise learning through the use of online social networking learning technologies.

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# APPENDICES

## Appendix A 1: Letter of informed consent

### LETTER OF INFORMED CONSENT Regenesys Business School Sandton

#### The Application of a Social Networking Learning tool in a Primary school within South Africa

**You are being asked to participate in a research study. Before you give your consent to volunteer, it is important that you read the following information to be sure you understand what you will be asked to do.**

Researcher: Rushantha Mohabier, MBA Student

Supervisor: Dr Hanlie Smuts

#### **Purpose of the Research**

This research study is designed to research the application of a social networking learning tool within a Primary school in South Africa.

#### **Procedures**

If you volunteer to participate in this study, you will be asked to complete an anonymous questionnaire. Your participation will take approximately 5–10 minutes.

#### **Potential Risks or Discomforts**

There are no foreseeable risks associated with the study.

#### **Potential Benefits of the Research**

Once the study has been completed, the researcher will compile a master's research dissertation. The researcher may provide recommendations regarding methods that could increase more awareness to the research topic. The research will be shared on request.

#### **Confidentiality**

This research is conducted on the understanding that the information provided in the study may be used for only research purposes including publications in research journals. All the participants' information will be coded and their identification will be protected for ethical purposes.

#### **Participation and Withdrawal**

Your participation in this research study is voluntary. You may refuse to participate or stop participation at any time without penalty.

#### **Remuneration**

I acknowledge that neither the researcher, nor I, will not be rewarded or receive money for performing or participating in this study.

**I have read the information provided above. I understand that by returning a completed questionnaire or by agreeing to be recorded, I am agreeing to participate in this research study.**

## **Appendix A 2: Parent consent**

### **Parent consent**

Dear Parent

Kindly provide consent for your child to participate in a master's degree research study. The student will be required to fill in a short questionnaire that will take approximately five minutes to complete. The study will be about social networking and learning in the school environment.

This research study is voluntary and all responses will be anonymous. The data collected will be stored in a secure database. The findings can be shared on request.

Background: Technology has entrenched itself into daily life globally and it would be important to see the potential uses a social networking learning tool could provide to learners. It is imperative that students are continuously learning and have access to school learning material and information for assignments, tests and exams at any time. It would be important to explore how an online learning tool could assist students and help them to learn their school subjects better, for example Mathematics or Biology. The school children of today will be the future leaders of this country tomorrow and therefore need to perform well at school in order to reach their future goals, such as studying further. It would be important to conduct this research to explore the thoughts around a learning tool. This is only a research study, meaning that data collected from students will be only be used to write a research report (dissertation) with research findings. Should you not want your child to participate, please ask the learner to decline during the data collection phase.

Research method: The student will be required to fill in a questionnaire comprising 10 questions. The questions include what grade the student is in followed by what social networking sites students' access and what activities students would participate in if a social networking learning tool existed, for example learning about subjects or posting content.

Once the report has been written and submitted, the research study will end. Once the questionnaire has been completed by students no further participation will be required. The findings of the research will be available on request.

Thanking you

**Appendix B: Grade 7 student questionnaire**

1. Gender

Male	
Female	

2. Indicate the devices you use. Select options applicable to you

Smartphone	
Feature phone	
Tablet	
iPad	
Laptop	
Personal Computer (PC)	

3. Which device do you use the **most** to access social networking sites? **Select ONE option.**

Smartphone	
Tablet	
iPad	
Laptop	
Personal Computer (PC)	

4. Which social networking sites do you access? **Select the options that are applicable to you.**

<b>Chat</b>	Examples: MXit, WhatsApp, BBM, WeChat, Facebook Messenger, Google Talk (GChat)	
<b>Social Media</b>	Examples: Facebook, Twitter, Google+, Skype/FaceTime, Twitter, Myspace, Flickr, Imo	
<b>Photo sharing</b>	Examples Instagram, Pinterest, Tumblr, Snapchat	
<b>Music/video</b>	Example: YouTube	
<b>Professional</b>	Example: LinkedIn	
<b>Gaming</b>	Example: Candy Crush, Farmville	
<b>Read/Interact</b>	Example: Blogging, Podcasting	
<b>Educational Sites</b>	Example: Wikipedia	

5. Where do you access social networking sites? Mark the options applicable to you

From home	
At school	
At Internet cafés	
On cellphone	
Other	

6. How often do you visit these social networking sites?

		Once a day	More Than once a day	Once a week	Once a month	Never
<b>Chat</b>	Examples: MXit, WhatsApp, BBM, WeChat, Facebook Messenger, Google Talk (GChat)					
<b>Social</b>	Examples: Facebook, Twitter, Google+, Skype/FaceTime, Twitter, Myspace, Flickr, Imo					
<b>Photo sharing</b>	Examples Instagram, Pinterest, Tumblr, Snapchat					
<b>Music/video</b>	Example: YouTube					
<b>Professional</b>	Example: LinkedIn					
<b>Gaming</b>	Example: Candy Crush, Farmville					
<b>Read/Interact</b>	Example: Blogging, Podcasting					
<b>Educational sites</b>	Example: Wikipedia					

7. What do you use social networking for? Select the options applicable to you.

To meet new people	
To discuss school subjects e.g. Maths, English	
To discuss exams, tests, assignments & projects	
To chat with friends and family	
To keep in touch with friends and family	
To discuss school related issues	
To learn from other classmates	
To upload pictures	
To read	
To post statuses	
To see what is happening around	
To play games	
Other (Please specify)	

8. If your school had a social networking learning tool, e.g. a Facebook page, which activities would you be involved in? Select the options applicable to you.

Read information posted about school subjects	
Post questions	
Chat with classmates	
Learn more about your subjects	
Provide online exam assistance to other students	
Share knowledge with classmates	
Brainstorm ideas for school projects	
Download important articles related to school work/assignments/projects	
Comment on posts related to school subjects	
Create and reply to discussion topics that are posted by teachers and students	
Use the information posted for tests and exams	

9. To what extent do you agree with the following statements?

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Social networking encourages students to share information.					
Social networking can be used as a learning tool for students.					
A social networking tool will increase your ability to learn school subjects, e.g. Maths or Biology.					
Social networking is addictive.					
Making use of social networking will increase your involvement in school activities/tasks.					
Mobile devices (phones, tablets) make it more convenient to access social networking sites.					

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Social networking tools are designed for teenagers and students.					
You enjoy using social networking sites and will use the social networking tool.					
An academic social networking tool aimed at your school will allow you to learn better.					
Online learning through social media will become a future trend.					
A social networking learning tool will encourage you to ask questions about school work at any time, e.g. If you forgot to ask an important question in class, you would post the question on the social networking Facebook page.					

**10.** If your school had a social networking learning tool do you think it would help you finish your school work more quickly?

Yes	
No	
Other	

**Appendix C: Teacher questionnaire**

**To what extent do you agree with the following statement?**

- 1. Social networking is gaining huge momentum in the world and especially South Africa.**

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

- 2. Do you use social networking sites, for example Facebook, LinkedIn?**

Yes	
No	

- 3. Educators can leverage from the social networking technology knowledge that students have to enrich the learning experience.**

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

- 4. Social networking is an effective way to increase student engagement.**

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

- 5. Do you have students that rarely raise a hand up in class?**

Yes	
No	

**If yes, do you think a social networking learning tool, e.g. a Facebook page or a Twitter feed could make students feel more comfortable to express themselves about school subjects? Please also comment on this.**

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If no, do you think a social networking learning tool could enhance learning and interaction? Please also comment on this.

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**6. Social networking fosters discussions and the sharing of knowledge and ideas?**

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

**7. A social networking learning tool could increase the students' ability to learn school subjects, e.g. Maths or Biology?**

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

**8. Social networking learning tools provide learners with opportunities to become independent in their study and research.**

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

**9. The addition of a social networking learning tool in parallel to teaching the curriculum could complement student learning experiences.**

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

**Kindly provide your comments on the above statement**

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10. If a social networking learning tool were available, which activities would you engage in? Select the options applicable to you.

<b>Post questions for students to think about, answer and engage on</b>	
<b>Post subject content</b>	
<b>Reply to student posts and questions</b>	
<b>Upload useful articles and information</b>	
<b>Post homework</b>	
<b>Post group work activities</b>	
<b>Create discussion forums</b>	
<b>Other (please specify)</b>	

## **Appendix D: Student focus group**

**Focus group question 1:** Who would use a social networking learning tool?

**Focus group question 2:** Who would not use a social networking learning tool?

**Focus group question 3:** Why would students use a social networking learning tool?

**Focus group question 4:** Who thinks that the social networking tool would help them learn better? Please show by a raise of hands.

**Focus group question 5:** Who thinks that Facebook will die out over the next few years?

**Focus group question 6:** Who thinks social networking is addictive?

## **Appendix E: Principal interview questions**

**Principal interview question 1:** Do you participate in social networking?

**Principal interview question 2:** Do you think that social networking is an effective way to increase student engagement?

**Principal interview question 3:** This research is centred around a social networking learning tool, e.g. a Facebook page that has content that can be uploaded or downloaded. If a social networking learning tool did exist how do you think students would respond to it?

**Principal interview question 4:** In your professional opinion what effects would a social networking learning tool have on students?

**Principal interview question 5:** What effects would the social networking tool have on teachers?

**Principal interview question 6:** If students were able to learn better, do you think that this could improve the image of the school?

**Principal interview question 7:** If this social networking learning tool had to be implemented, what would you think would be necessary to allow such a tool to work or be applicable?

**Principal interview question 8:** Would there be a financial impact?

**Principal interview question 9:** In term of processes, would processes have to amended?

**Principal interview question 10:** In terms of the future, how do you see social networking impacting and facilitating learning?

**Principal interview question 11:** Are there any closing comments on social networking and learning?

## Appendix F: Approval email from Gauteng Department of Education (GDE)

**From:** Diane Buntting (GPEDU) [mailto:[Diane.Buntting@gauteng.gov.za](mailto:Diane.Buntting@gauteng.gov.za)]

**Sent:** Thursday, 22 September 2016 11:45 AM

**To:** [rushantha.m@gmail.com](mailto:rushantha.m@gmail.com)

**Cc:** [hanliesmuts@mweb.co.za](mailto:hanliesmuts@mweb.co.za)

**Subject:** GDE AMENDED Research Approval letter

Good Day

Your request has been approved subject to the conditions as stipulated in the attached GDE AMENDED Research Approval Letter.

Please remember, once completed, either before graduation or after graduation, or in the case of a project after completion, you need to send us an electronic and (if possible) a hard copy of your Research Report, as well as a Research Summary on the template attached.

It will be appreciated if your Supervisor will remind you about the Research Report and Research Summary. Research Findings and Recommendations MUST be shared in order to make a difference and improve education. Please assist in this regard.

**Failure to submit your Research Report, Thesis, Dissertation and Research Summary on completion of your studies / project – a month after graduation or project completion - may result in permission being withheld from you and your Supervisor in the future.**

All the best with your research!

Kind regards

**Diane Buntting**

Deputy Chief Education Specialist: Research Co-ordination

**Department of Education**

**Tel:** 011 843 6503 **Fax:** 086 594 1781

**Email:** [diane.buntting@gauteng.gov.za](mailto:diane.buntting@gauteng.gov.za) **Website:** [www.education.gpg.gov.za](http://www.education.gpg.gov.za)



Disclaimer: This message may contain confidential information and is intended only for the individual named. If you are not the named addressee you should not disseminate, distribute or copy this e-mail. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system. E-mail transmission cannot be guaranteed to be secured or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. The sender therefore does not accept liability for any errors or omissions in the content of this message, which arise as a result of e-mail transmission. The Gauteng Provincial Government does not take responsibility for Gauteng Provincial Government users' personal views. Gauteng Provincial Government services available online at: [www.gautengonline.gov.za](http://www.gautengonline.gov.za)

**Appendix G: Signed approval letter from Gauteng Department of Education (GDE)**



For administrative use:  
Reference no. D2017 / 300 A  
Enquiries: Diane Bunting 011 843 6503

**GAUTENG PROVINCE**  
EDUCATION  
REPUBLIC OF SOUTH AFRICA

## GDE AMENDED RESEARCH APPROVAL LETTER

Date:	21 September 2016
Validity of Research Approval:	21 September 2016 to 30 September 2016
Previous GDE Research Approval letter reference number	D2017 / 079 dated 18 May 2016
Name of Researcher:	Mohabier R.
Address of Researcher:	Postnet Suite 319; Private Bag X26; Sunninghill; 2157
Telephone / Fax Number/s:	011 516 7544; 072 504 0929; 072 432 9168
Email address:	rushantha.m@gmail.com
Research Topic:	The application of a social networking learning (SNL) tool in a High School within South Africa
Number and type of schools:	ONE Primary and ONE Secondary School
District/s/HO	Johannesburg North

### **Re: Approval in Respect of Request to Conduct Research**

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved. A separate copy of this letter must be presented to the Principal, SGB and the relevant District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted. However participation is VOLUNTARY.

The following conditions apply to GDE research. The researcher has agreed to and may proceed with the above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be flouted:

#### ***CONDITIONS FOR CONDUCTING RESEARCH IN GDE***

1. The District/Head Office Senior Manager/s concerned, the Principal/s and the chairperson/s of the School Governing Body (SGB,) must be presented with a copy of this letter.
2. The Researcher will make every effort to obtain the goodwill and co-operation of the GDE District officials, principals, SGBs, teachers, parents and learners involved. Participation is voluntary and additional remuneration will not be paid;

*21/09/2016*  
2016/09/21

1

*Making education a societal priority*

**Office of the Director: Education Research and Knowledge Management ER&KM)**

9<sup>th</sup> Floor, 111 Commissioner Street, Johannesburg, 2001  
P.O. Box 7710, Johannesburg, 2000 Tel: (011) 355 0506  
Email: David.Makhado@gauteng.gov.za  
Website: www.education.gpg.gov.za

3. Research may only be conducted after school hours so that the normal school programme is not interrupted. The Principal and/or Director must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.
4. Research may only commence from the second week of February and must be concluded by the end of the THIRD quarter of the academic year. If incomplete, an amended Research Approval letter may be requested to conduct research in the following year.
5. Items 6 and 7 will not apply to any research effort being undertaken on behalf of the GDE. Such research will have been commissioned and be paid for by the Gauteng Department of Education.
6. It is the researcher's responsibility to obtain written consent from the SGB/s; principal/s, educator/s, parents and learners, as applicable, before commencing with research.
7. The researcher is responsible for supplying and utilizing his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institution/s, staff and/or the office/s visited for supplying such resources.
8. The names of the GDE officials, schools, principals, parents, teachers and learners that participate in the study may not appear in the research title, report or summary.
9. On completion of the study the researcher must supply the Director: Education Research and Knowledge Management, with electronic copies of the Research Report, Thesis, Dissertation as well as a Research Summary (on the GDE Summary template). Failure to submit your Research Report, Thesis, Dissertation and Research Summary on completion of your studies / project – a month after graduation or project completion – may result in permission being withheld from you and your Supervisor in future.
10. The researcher may be expected to provide short presentations on the purpose, findings and recommendations of his/her research to both GDE officials and the schools concerned;
11. Should the researcher have been involved with research at a school and/or a district/head office level, the Director/s and school/s concerned must also be supplied with a brief summary of the purpose, findings and recommendations of the research study.

The Gauteng Department of Education wishes you well in this important undertaking and looks forward to examining the findings of your research study.

Kind regards



**Dr David Makhado**

**Director: Education Research and Knowledge Management**

DATE: 2016/09/21

## Appendix H: Emails sent to Buccleuch Primary School Sandton Johannesburg

Research Inbox x 📄 🖨️ 📧

---

**Sharon Shiers** <admin@bucleuch.co.za> Aug 12 ☆ ↶ ↷  
to me ▾ Add to circles  
📧 📧 ⌵  
[Show details](#)

Good morning Rushantha

I gave Mr Wadvalla your request for doing research at the school - he said you must apply to the Department of Education to do research at a school and there is an application form that can be downloaded off their website.


hope this is helpful.

Kind regards  
Sharon Shiers

**Bucleuch Primary School**

---

**Sharon Shiers**  
Email: [admin@bucleuch.co.za](mailto:admin@bucleuch.co.za)  
Phone: 011 804 1086 / 7  
<http://www.bucleuch.co.za>



Beatty Street | Bucleuch | Sandton | 2090 | Gauteng

This message contains confidential information and is intended only for the individual(s) addressed in the message. If you are not the named addressee, you should not disseminate, distribute, or copy this e-mail. If you are not the intended recipient, you are notified that disclosing, distributing, or copying this e-mail is strictly prohibited.

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**Rushantha Mohabier** <rushantha.m@gmail.com> Sep 21 ☆ ↶ ↷  
to Sharon ▾

Hi Sharon

Please see email below the GDE is busy finalising the request to do the study at Buccleuch Primary. In the interim please can you speak to Mr Wadvalla on scheduling a meeting as I would like to discuss what will be required and we can agree on a day that I can come in to facilitate this.

1. Only Grade 7 learners will form part of the research (this will be done in the computer lab one class at a time) approx 5 minutes per class.
2. The teachers can come in to complete the survey during lunch time or when they are free. I will be there the whole day.
3. A short interview with Mr Wadvalla

It would be an honour for me to complete my masters research since i was a student at Buccleuch primary and completed my grade 7 there.

Thanking You  
Rushantha

---

re: Buccleuch Primary Inbox x 📄 🖨️ 📧


---

**Hasan Wadvalla** <hasan.wadvalla@bucleuch.co.za> Sep 27 ☆ ↶ ↷  
to me ▾ Add to circles  
📧 ⌵  
[Show details](#)

Hi Rushantha  
Apologies for the late reply.  
I am able to meet you for a short while today from 11am to 12pm. If you would like to meet, please let me know.  
Regards

---

**Hasan Wadvalla**  
Email: [hasan.wadvalla@bucleuch.co.za](mailto:hasan.wadvalla@bucleuch.co.za)  
Phone: 011 804 1086 / 7  
<http://www.bucleuch.co.za>



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**Rushantha Mohabier** <rushantha.m@gmail.com> Sep 27 ☆ ↶ ↷  
to Hasan ▾

Good day Hassan

Please avail your diary for 11. Is it possible for us to have a telecon. I will call you at 11 to discuss.



**Rushantha Mohabier** <rushantha.m@gmail.com>

Oct 17 (6 days ago) ☆



to kyra.botha, nola.kohen, fatima.abrahams, roxane.vanderw., seshma.bhoopal, principal, Hasan, marius.buys ▾

Good day All,

I would firstly like to extend my gratitude to Mrs Struwig the principal and Mr Wadwalla the deputy principal for allowing me to conduct my masters research at Bucleuch Primary. I would also like to thank Mr Buys for his efforts and support during the data collection phase on 14 October 2016. It was an honor considering I was a student at Bucleuch Primary many years ago.

The research study centered around the topic "The application of a social networking learning tool in a primary school within South Africa".  
( If a social networking learning tool existed eg Facebook page, for schools around the country would it facilitate learning, interaction and collaboration amongst students and teachers given the rise in technology in South Africa and around the world.)

Your participation in the study is required and will be appreciated

Please can the teachers on this email access the following link <https://www.surveymonkey.com/r/67BCKBZ> to complete the questionnaire it will take approx 5 minutes to complete.

Thanking You



Rushantha Mohabier



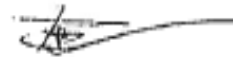
**SECTION 4: FORMALISATION OF THE APPLICATION**

**APPLICANT**

*I have familiarized myself with Regenesys' Code of Conduct for Research and undertake to comply with it. The information supplied above is correct to the best of my knowledge.*

**NB: PLEASE ENSURE THAT THE FORM IS COMPLETED IN FULL**

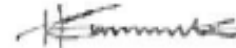
DATE: 19/4/2016..... SIGNATURE OF APPLICANT:



**SUPERVISOR**

**NB: PLEASE ENSURE THAT THE APPLICANT HAS COMPLETED THE FORM IN FULL, AND THAT IT IS FORWARDED TO REGENESYS' RESEARCH COMMITTEE FOR FURTHER ATTENTION**

DATE: 19/4/2016..... SIGNATURE OF SUPERVISOR



**RECOMMENDATION OF REGENESYS' RESEARCH ETHICS COMMITTEE**

The application is (please tick):

Approved	<input checked="" type="checkbox"/>
Not Approved, referred back for revision and resubmission	<input type="checkbox"/>
Other (please specify):	<input type="checkbox"/>

NAME OF CHAIRPERSON: ANGELA VOGT

SIGNATURE:



DATE: 3 MAY 2016

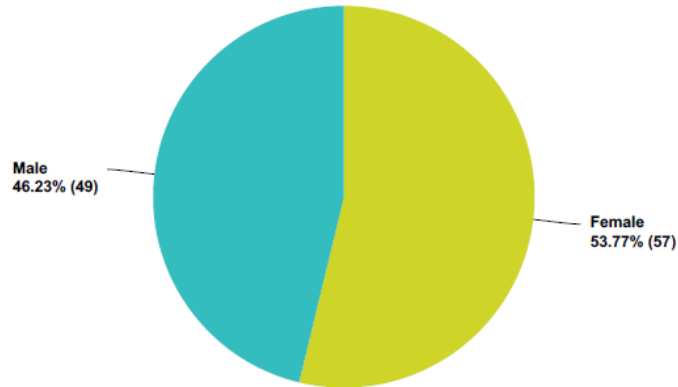
## Appendix J: Student questionnaire data processed by SurveyMonkey

The Application of a Social Networking Learning (SNL) tool in a Primary School within South Africa. Student Questionnaire

SurveyMonkey

### Q1 What is your gender?

Answered: 106 Skipped: 0



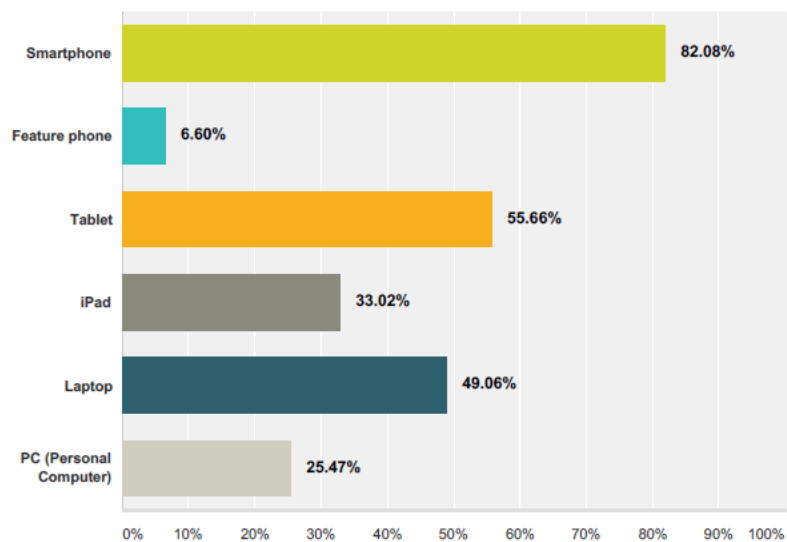
Answer Choices	Responses	Count
Female	53.77%	57
Male	46.23%	49
<b>Total</b>		<b>106</b>

The Application of a Social Networking Learning (SNL) tool in a Primary School within South Africa. Student Questionnaire

SurveyMonkey

### Q2 Indicate the devices you use. Select the options applicable to you

Answered: 106 Skipped: 0



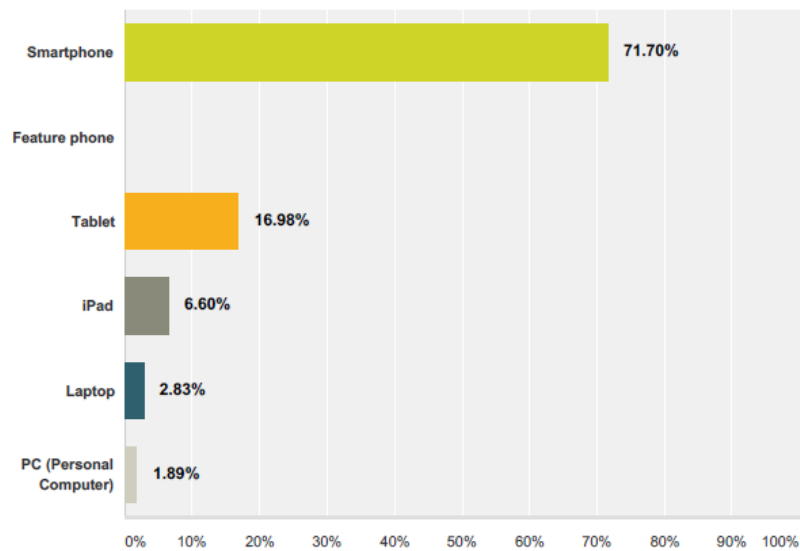
Answer Choices	Responses
Smartphone	82.08% 87
Feature phone	6.60% 7
Tablet	55.66% 59
iPad	33.02% 35
Laptop	49.06% 52
PC (Personal Computer)	25.47% 27
<b>Total Respondents: 106</b>	

The Application of a Social Networking Learning (SNL) tool in a Primary School within South Africa. Student Questionnaire

SurveyMonkey

**Q3 Which device do you use the MOST to access social networking sites? Select only ONE option.**

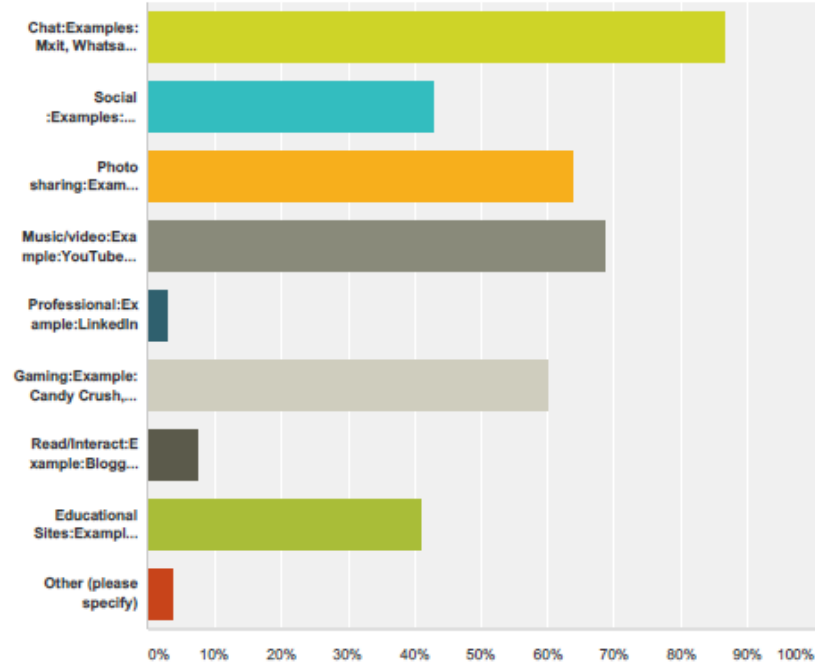
Answered: 106 Skipped: 0



Answer Choices	Responses
Smartphone	71.70% 76
Feature phone	0.00% 0
Tablet	16.98% 18
iPad	6.60% 7
Laptop	2.83% 3
PC (Personal Computer)	1.89% 2
<b>Total</b>	<b>106</b>

**Q4 Which social networking sites do you access. Select the options that are applicable to you.**

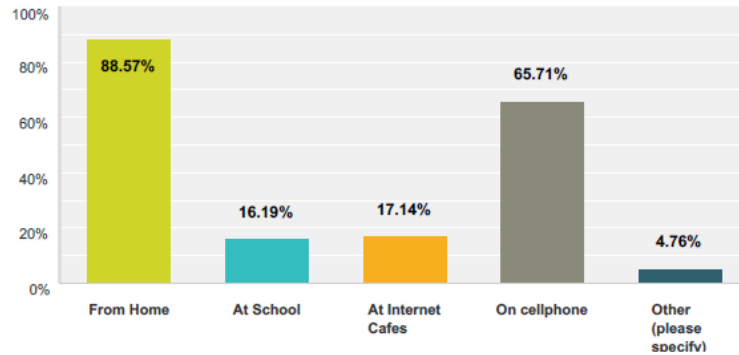
Answered: 105 Skipped: 1



Answer Choices	Responses
Chat:Examples: Mxit, Whatsapp, BBM, WeChat, Facebook Messenger, Google Talk (GChat), 2go	86.67% 91
Social :Examples: Facebook, Twitter, Google+, Skype, FaceTime, Twitter, MySpace, Flickr, imo	42.86% 45
Photo sharing:Examples Instagram, Pinterest, Tumblr, Snapchat	63.81% 67
Music/video:Example:YouTube, Vine	68.57% 72
Professional:Example:LinkedIn	2.86% 3
Gaming:Example:Candy Crush, Farmville	60.00% 63
Read/Interact:Example:Bloggng, Podcasting	7.62% 8
Educational Sites:Example:Wikipedia	40.95% 43
Other (please specify)	3.81% 4
<b>Total Respondents: 105</b>	

### Q5 Where do you access social networking sites. Mark the options applicable to you

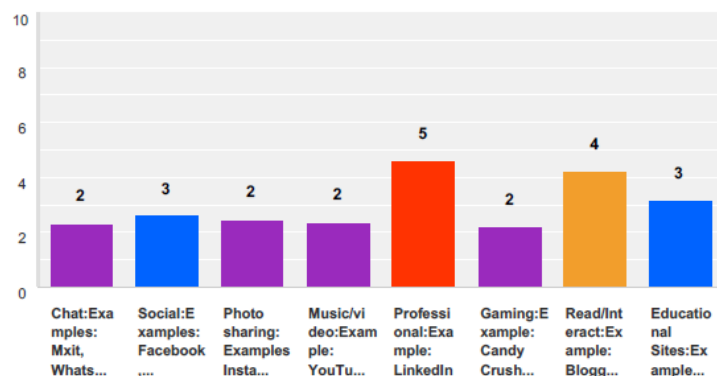
Answered: 105 Skipped: 1



Answer Choices	Responses
From Home	88.57% 93
At School	16.19% 17
At Internet Cafes	17.14% 18
On cellphone	65.71% 69
Other (please specify)	4.76% 5
<b>Total Respondents: 105</b>	

### Q6 How often do you visit these social networking sites?

Answered: 103 Skipped: 3



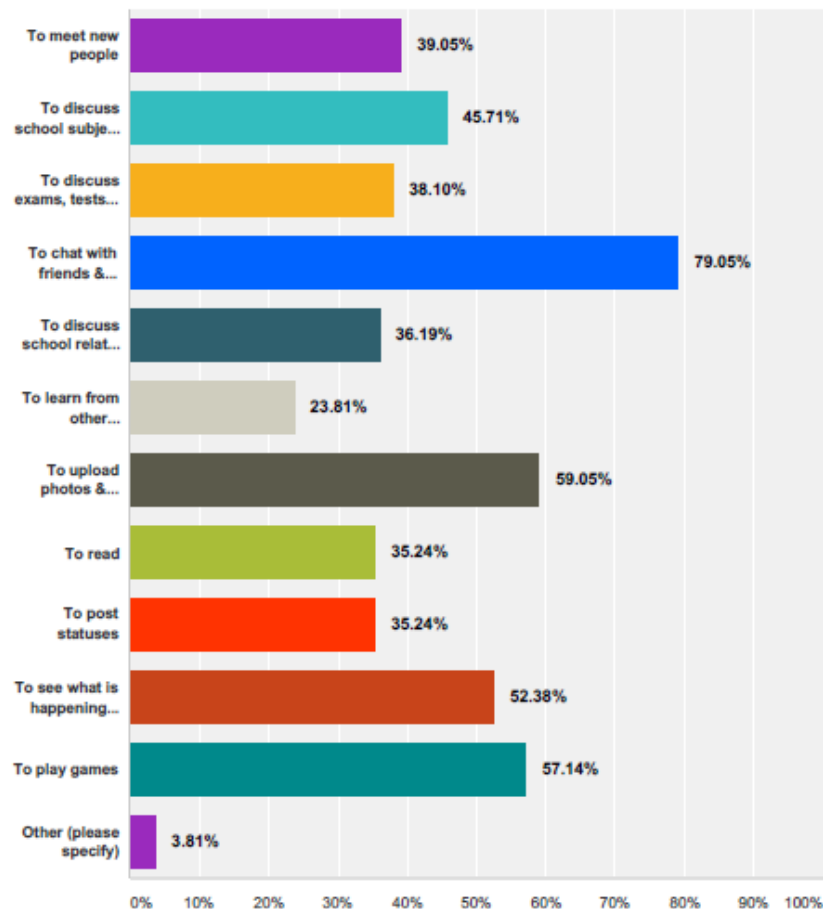
	Once a day	More than once a day	Once a week	Once a month	Never	Total	Weighted Average
Chat:Examples: Mxit, Whatsapp, BBM, WeChat, Facebook Messenger, Google Talk (GChat), Zgo	17.50% 7	60.00% 24	2.50% 1	15.00% 6	5.00% 2	40	2.30
Social:Examples:Facebook, Twitter, Google+, Skype, FaceTime, Twitter, MySpace, Flickr, imo	32.26% 10	16.13% 5	19.35% 6	25.81% 8	6.45% 2	31	2.58
Photo sharing:Examples Instagram, Pinterest,Tumblr, Snapchat	29.27% 12	21.95% 9	29.27% 12	14.63% 6	4.88% 2	41	2.44
Music/video:Example: YouTube, Vine	28.13% 9	28.13% 9	28.13% 9	12.50% 4	3.13% 1	32	2.34
Professional:Example: LinkedIn	4.17% 1	0.00% 0	8.33% 2	8.33% 2	79.17% 19	24	4.58
Gaming:Example: Candy Crush, Farmville	14.89% 7	59.57% 28	17.02% 8	6.38% 3	2.13% 1	47	2.21
Read/Interact:Example: Blogging, Podcasting	6.67% 3	4.44% 2	13.33% 6	11.11% 5	64.44% 29	45	4.22
Educational Sites:Example:Wikipedia	18.06% 13	16.67% 12	23.61% 17	16.67% 12	25.00% 18	72	3.14

The Application of a Social Networking Learning (SNL) tool in a Primary School within South Africa. Student Questionnaire

SurveyMonkey

**Q7 What do you utilise social networking for? Select the options applicable to you.**

Answered: 105 Skipped: 1



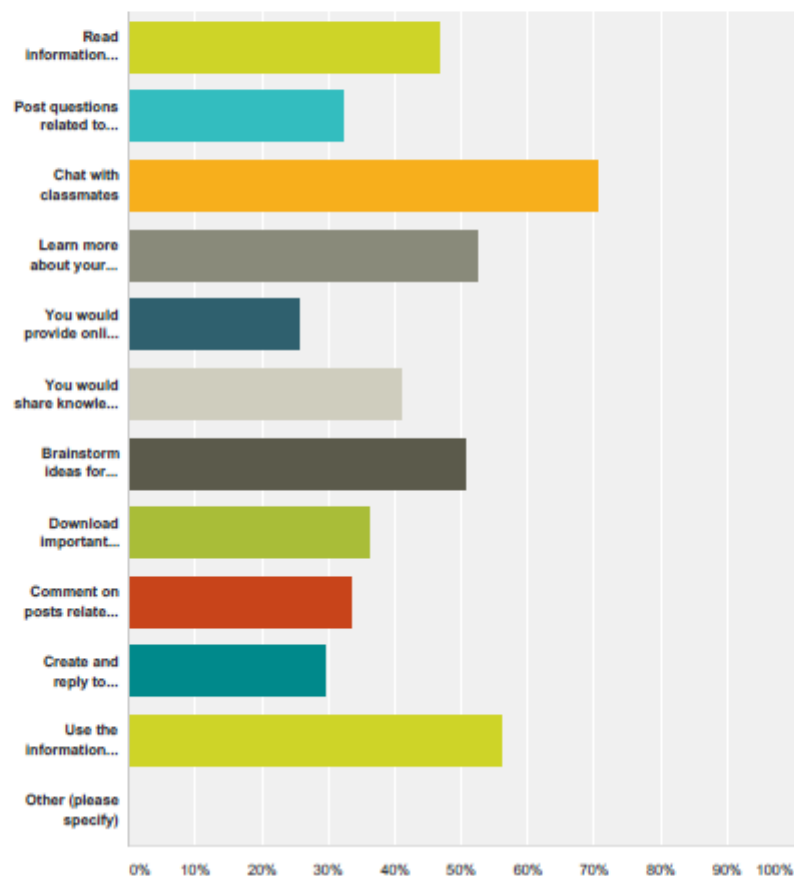
Answer Choices	Responses	
To meet new people	39.05%	41
To discuss school subjects eg Maths, English	45.71%	48
To discuss exams, tests, assignments & projects	38.10%	40
To chat with friends & family	79.05%	83
To discuss school related issues	36.19%	38
To learn from other classmates	23.81%	25
To upload photos & pictures	59.05%	62

The Application of a Social Networking Learning (SNL) tool in a Primary School within South Africa. Student Questionnaire

SurveyMonkey

**Q8 If your school had a Social Networking Learning Tool, example a Facebook page or a Twitter feed that was updated everyday, which activities would you be involved in? Select the options applicable to you**

Answered: 105 Skipped: 1



Answer Choices	Responses	
Read information posted about your school subjects	46.67%	49
Post questions related to school work covered in class	32.38%	34
Chat with classmates	70.48%	74
Learn more about your subjects example Maths, English,	52.38%	55
You would provide online exam assistance to other students	25.71%	27

The Application of a Social Networking Learning (SNL) tool in a Primary School within South Africa. Student Questionnaire

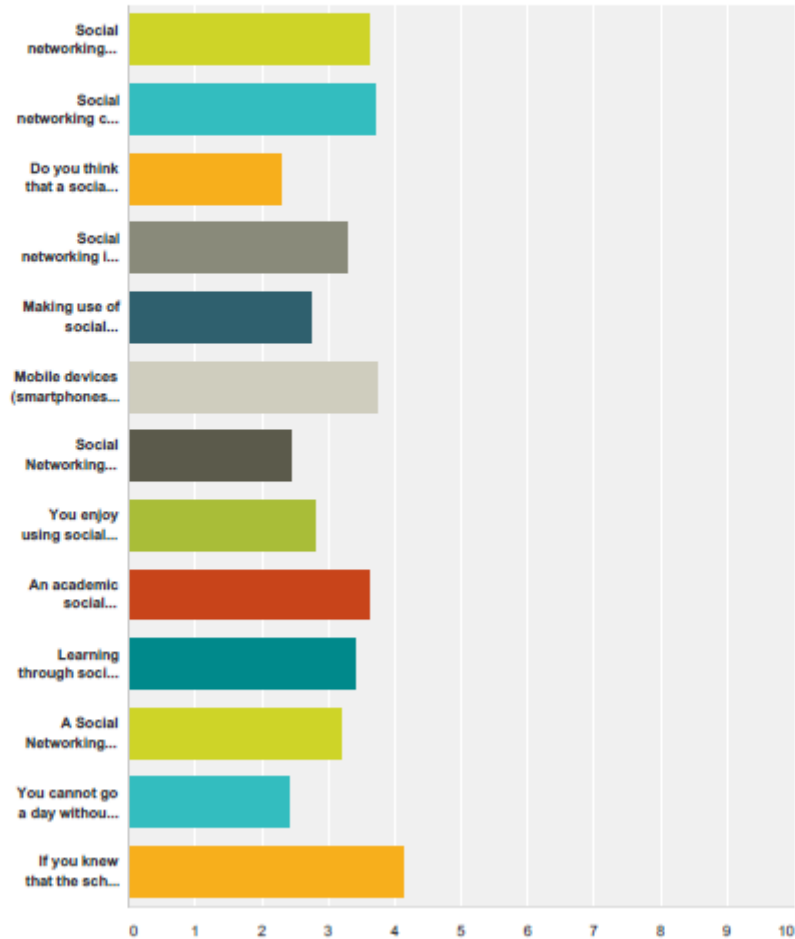
SurveyMonkey

You would share knowledge with classmates	40.95%	43
Brainstorm ideas for school projects	50.48%	53
Download important articles related to school work/ assignments/projects	36.19%	38
Comment on posts related to school subjects	33.33%	35
Create and reply to discussion topics that are posted by teachers and students	29.52%	31
Use the information posted for tests & exams	56.19%	59
Other (please specify)	0.00%	0
<b>Total Respondents: 105</b>		



### Q9 To what extent do you agree with the following statements

Answered: 99 Skipped: 7

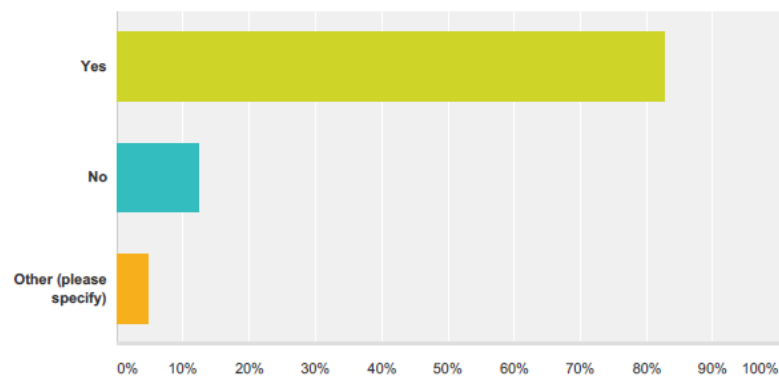


	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total	Weighted Average
Social networking encourages students to share information	4.55% 1	4.55% 1	27.27% 6	50.00% 11	13.64% 3	22	3.64
Social networking can be used as a learning tool for students	0.00% 0	14.29% 2	14.29% 2	57.14% 8	14.29% 2	14	3.71
Do you think that a social networking tool example a facebook page will increase your ability to learn school subjects example Maths, Biology or English	25.00% 5	30.00% 6	35.00% 7	10.00% 2	0.00% 0	20	2.30

Social networking is addictive	13.04% 3	26.09% 6	8.70% 2	21.74% 5	30.43% 7	23	3.30
Making use of social networking will increase your involvement in school activities & tasks	30.00% 6	20.00% 4	15.00% 3	15.00% 3	20.00% 4	20	2.75
Mobile devices (smartphones, tablets) make it more convenient/easy to access social networking sites	0.00% 0	13.33% 2	20.00% 3	46.67% 7	20.00% 3	15	3.73
Social Networking Tools are designed for teenagers and students	25.00% 5	50.00% 10	0.00% 0	5.00% 1	20.00% 4	20	2.45
You enjoy using social networking sites and would use the social networking learning tool	18.18% 2	27.27% 3	18.18% 2	27.27% 3	9.09% 1	11	2.82
An academic social networking tool will allow you to learn more better	10.53% 2	5.26% 1	21.05% 4	36.84% 7	26.32% 5	19	3.63
Learning through social media will become a future trend	0.00% 0	13.64% 3	45.45% 10	27.27% 6	13.64% 3	22	3.41
A Social Networking Learning tool will encourage You to ask questions about school work at any time:Example: If You forgot to ask an important question in class you would post the question on the social networking Facebook page.	12.90% 4	12.90% 4	32.26% 10	25.81% 8	16.13% 5	31	3.19
You cannot go a day without accessing social networking sites example Facebook, Twitter, etc	43.14% 22	19.61% 10	9.80% 5	7.84% 4	19.61% 10	51	2.41
If you knew that the school work discussed in class could also be downloaded example in a word document, or PDF article would you download this for your own reading?	0.00% 0	4.41% 3	19.12% 13	35.29% 24	41.18% 28	68	4.13

### Q10 If your school had a Social Networking Learning Tool. Do you think it would help you finish your school work quicker?

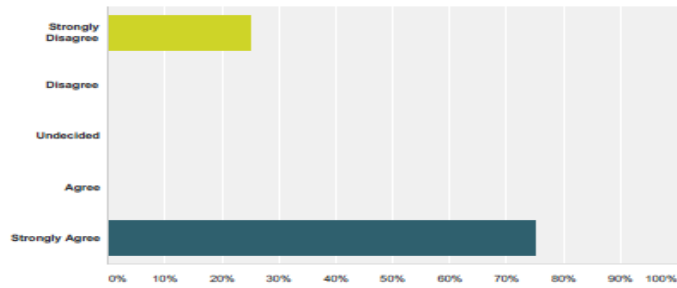
Answered: 104 Skipped: 2



Answer Choices	Responses	Count
Yes	82.69%	86
No	12.50%	13
Other (please specify)	4.81%	5
<b>Total</b>		<b>104</b>

**Q1 To what extent do you agree with the following statement:Social networking is gaining huge momentum in the world and especially South Africa.**

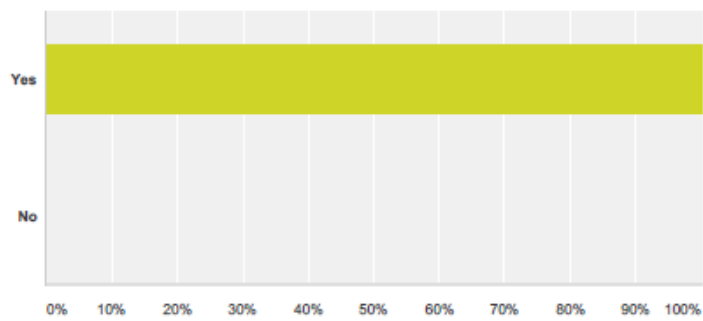
Answered: 4 Skipped: 0



Answer Choices	Responses	Count
Strongly Disagree	25.00%	1
Disagree	0.00%	0
Undecided	0.00%	0
Agree	0.00%	0
Strongly Agree	75.00%	3
<b>Total</b>		<b>4</b>

**Q2 Do you utilise Social Networking sites example Facebook, LinkedIn ?**

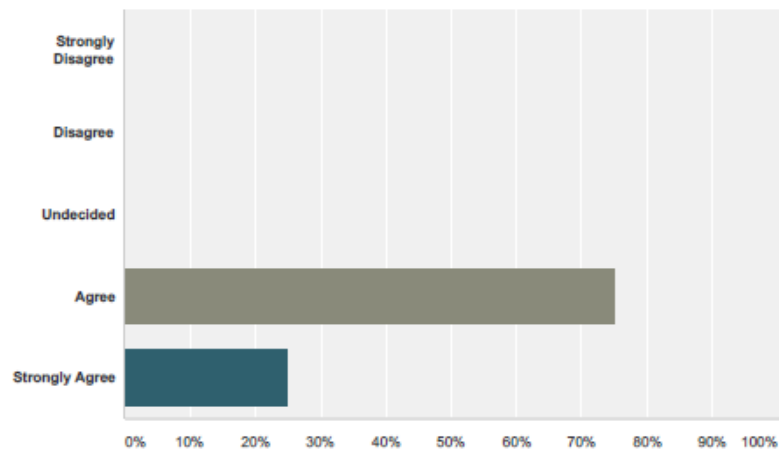
Answered: 4 Skipped: 0



Answer Choices	Responses	Count
Yes	100.00%	4
No	0.00%	0
<b>Total</b>		<b>4</b>

**Q3 Educators can leverage from the social networking technology knowledge that students have to enrich the learning experience.**

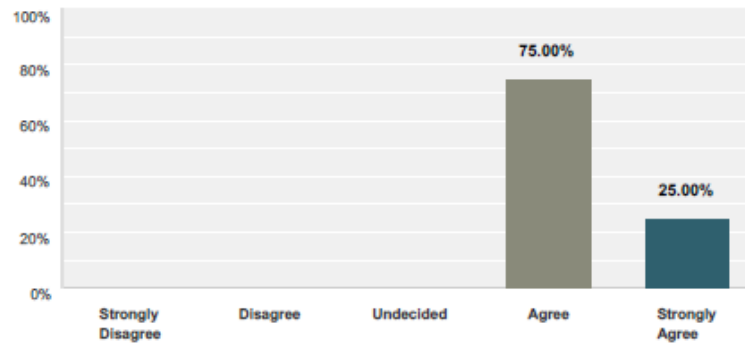
Answered: 4 Skipped: 0



Answer Choices	Responses
Strongly Disagree	0.00% 0
Disagree	0.00% 0
Undecided	0.00% 0
Agree	75.00% 3
Strongly Agree	25.00% 1
<b>Total</b>	<b>4</b>

### Q4 Social Networking is an effective way to increase student engagement

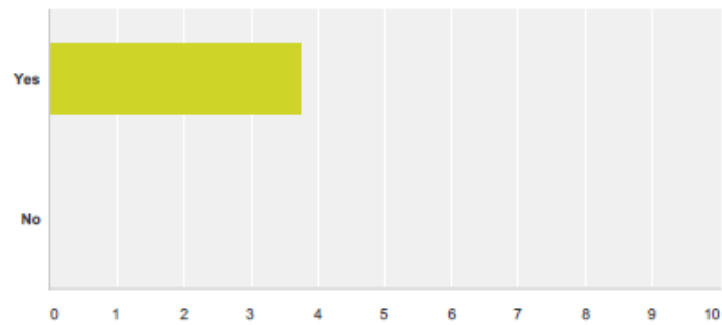
Answered: 4 Skipped: 0



Answer Choices	Responses	
Strongly Disagree	0.00%	0
Disagree	0.00%	0
Undecided	0.00%	0
Agree	75.00%	3
Strongly Agree	25.00%	1
<b>Total</b>		<b>4</b>

**Q5 Do you have students that rarely raise a hand up in class to ask questions about the school subject? If yes, do you think a Social Networking Learning tool example a Facebook page or Twitter feed could make students feel more comfortable to express themselves about school subjects? If no, do you think a Social Networking Learning tool could enhance learning and interaction? Please also comment on this.**

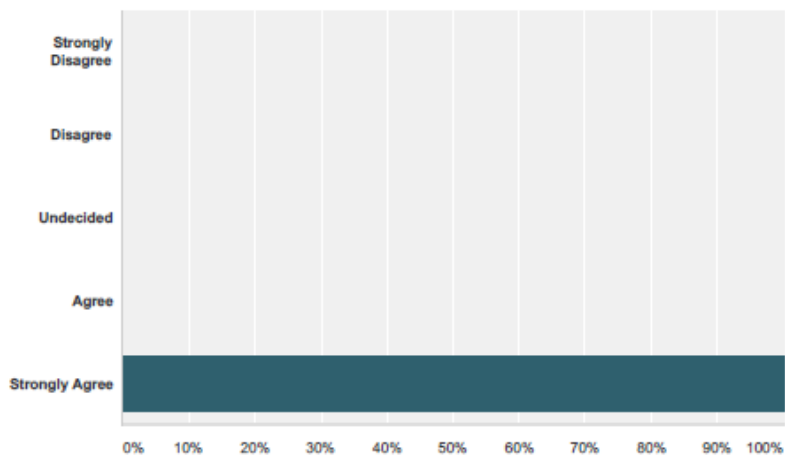
Answered: 4 Skipped: 0



	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total	Weighted Average
Yes	25.00% 1	0.00% 0	0.00% 0	25.00% 1	50.00% 2	4	3.75
No	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0	0.00

### Q6 Do you think that social networking fosters discussions and the sharing of knowledge and ideas?

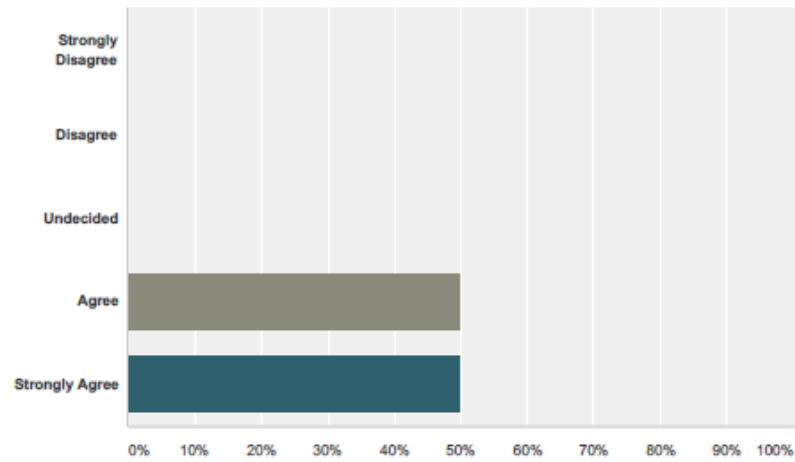
Answered: 4 Skipped: 0



Answer Choices	Responses
Strongly Disagree	0.00% 0
Disagree	0.00% 0
Undecided	0.00% 0
Agree	0.00% 0
Strongly Agree	100.00% 4
<b>Total</b>	<b>4</b>

**Q7 Do you think that a Social Networking Learning tool example a Facebook page or Twitter feed could increase the student's ability to learn school subjects eg Maths or Biology?**

Answered: 4 Skipped: 0

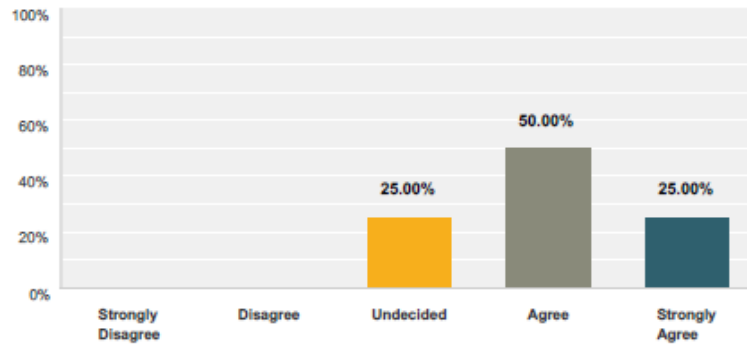


Answer Choices	Responses
Strongly Disagree	0.00% 0
Disagree	0.00% 0
Undecided	0.00% 0
Agree	50.00% 2
Strongly Agree	50.00% 2
<b>Total</b>	<b>4</b>



**Q8 Social Networking Learning tools provide learners with opportunities to become independent in their study and research**

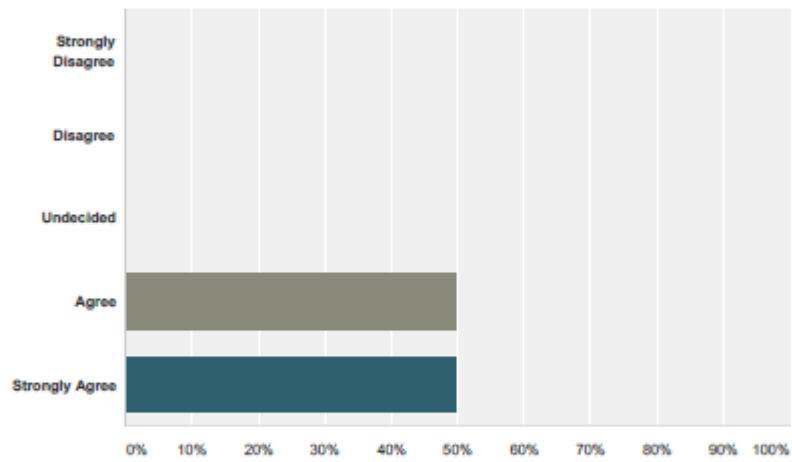
Answered: 4 Skipped: 0



Answer Choices	Responses	Count
Strongly Disagree	0.00%	0
Disagree	0.00%	0
Undecided	25.00%	1
Agree	50.00%	2
Strongly Agree	25.00%	1
<b>Total</b>		<b>4</b>

**Q9 Please comment on the following statement**  
**The addition of a Social Networking Learning tool in parallel to teaching the curriculum could compliment student learning experiences.**  
**After you have selected a response please comment on this in the comment box.**

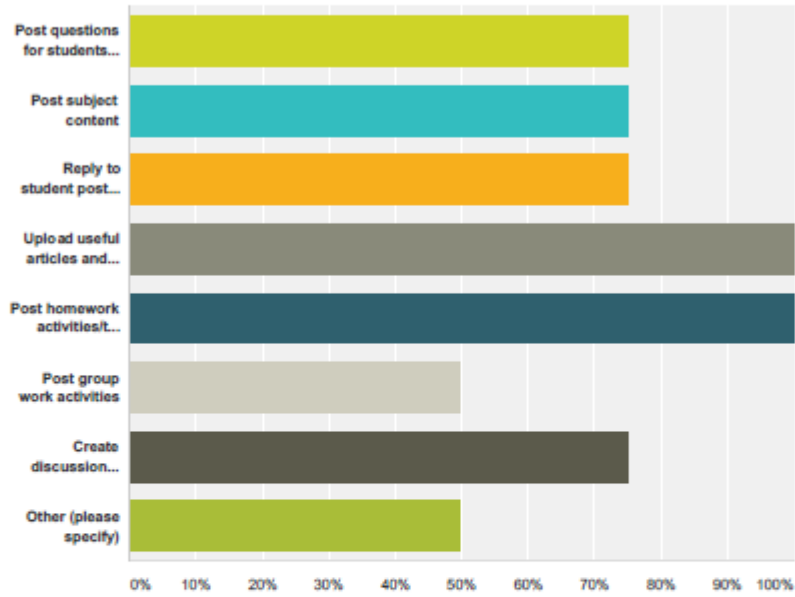
Answered: 4 Skipped: 0



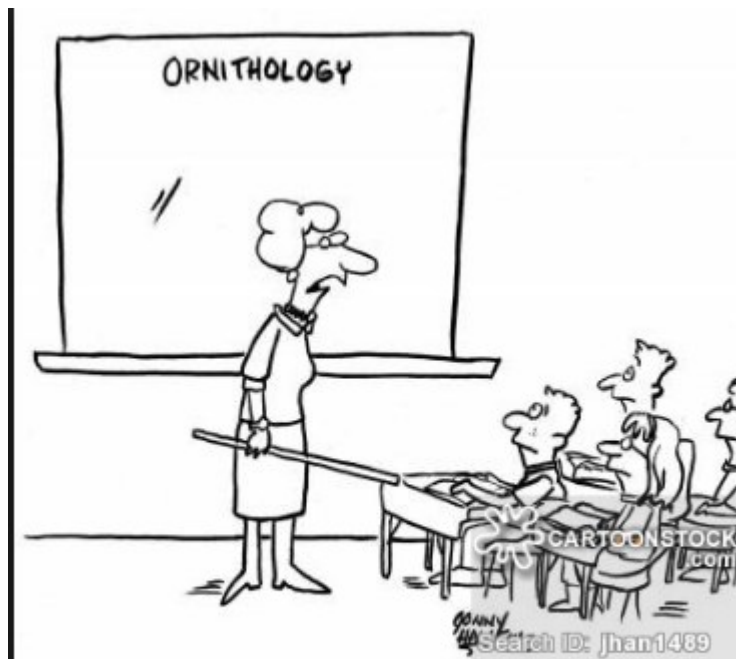
Answer Choices	Responses	Count
Strongly Disagree	0.00%	0
Disagree	0.00%	0
Undecided	0.00%	0
Agree	50.00%	2
Strongly Agree	50.00%	2
<b>Total</b>		<b>4</b>

**Q10 If a Social Networking Learning tool was available which activities would you engage in. Select the options applicable to you**

Answered: 4 Skipped: 0



Answer Choices	Responses
Post questions for students to think about, answer and engage on	75.00% 3
Post subject content	75.00% 3
Reply to student posts and questions	75.00% 3
Upload useful articles and information	100.00% 4
Post homework activities/tasks	100.00% 4
Post group work activities	50.00% 2
Create discussion forums	75.00% 3
Other (please specify)	50.00% 2
<b>Total Respondents: 4</b>	



**“And if you can’t make it to class,  
at least follow me on Twitter.”**

<http://languageacademy.utm.my/yusrina/>