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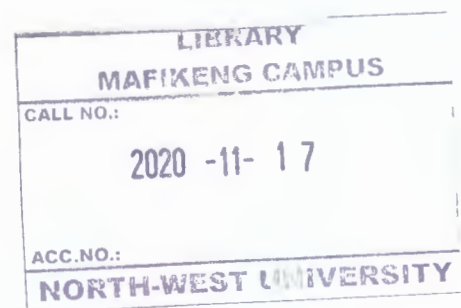
Investigating factors affecting social media usage at North-West University Mafikeng Campus.

L Bogatsu
20967489

Research proposal for the Dissertation submitted in *partial* fulfillment of the requirements for the degree *Magister Curationis* in Commerce in Computer Science and Information Systems in at the North-West University

Supervisor: ... Dr O. Jokonya

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Abstract

Formal learning platforms have showed poor turnover over the years (Yuan & Powell 2013). Social media however has and continues to grow. The study explores how students' understanding and usage of social media in the learning process can contribute to the improvement of e-learning.

The study explores the concept of e-social learning through a unified theory of technology acceptance model. The study examines social learning, e-learning, social media and how they can all work together to improve the edification process in academia.



Keywords

Social learning, social media, social media history, e-learning, unified theory of acceptance of use of technology

Declaration

I hereby declare that the work submitted in this dissertation is the result of my own investigation, except where otherwise stated. All relevant sources have been cited as such. It has not already been accepted for any degree, and is also not being currently submitted for any other degree



Name of Candidate

20-11-2017

Date

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1.1 Introduction

The study is done in light of the new social era, where there is a trend of decentralization as people are starting to customise and adopt technologies in a manner, which suits them. The study investigates how the students use social media with respect to e-learning. The case of this study takes place in North West University Mafikeng campus, which has a population of 11,842 students.

Overall 2,031 are postgraduate students and more the 9,794 students are undergraduates consisting of 3486 1st year students. The institution has e-learning platform called e-fundi. This platform is a standard e-learning platform. It is mandatory for students to use this application, as it is an education support platform.

Although the e-learning platform exists and offers a variety of features such as blogs and chatrooms. Students engage in social media for academic activity. This phenomenon can be noted as e-social learning. This study investigates factors affecting social media usage in e-learning at North West University Mafikeng campus.

1.2 Background

Several social networks offer learning in a social manner, which is not as formalized as traditional e-learning platforms. Agarwal et al. (2013) states that social sites create user centred content such as Pinterest and deviant art. The users embrace the social platforms. The users contribute content, yielding an online community.

A community of practice is a virtual application of technologies between participants with the aim of sharing knowledge between participants (Chikh et al., 2010). The challenge is, e-learning platform lack the versatility to deal with the nature of different educational approaches. This platform can hold information however the platforms yields frustration for learners and lectures as feedback and interaction is not well encapsulated.

E-social learning phenomenon can be closely compared to a community of practice (Lave & Wenger, 1991). Which is a community of people who share problems and solutions within the same domain of practice. However, upon closer inspection, the

community of practices are more controlled and subject experts oversee the interaction between community members and other members rate the topics and discussions, particularly in virtual communities.

1.3 Problem statement

E-learning on the other hand has traditionally being applied by institutions as a formalized learning delivery or support system for learning (Chang, 2016). E-learning led to educational systems that allow those who cannot afford university to gain an opportunity to learn through open educational systems known as massive open online courses.

The growth in e-learning led to niches of Massive Open Online Courses Yuan & Powell(2013) and open e-learning (Stoffregen, 2015).This type of learning is based on learnerism by Holmes(2004) in which students actively measure themselves up according to completed learning outcomes and progress reports as a form of merit.

Despite this, the acceptance and usage of “Open- learning” by the public is low and has shown poor turnover or completion rate according to Yuan & Powell (2013) (Stoffregen, 2015).There is a substantial amount of research on e-learning and social networks which can collectively unravel the e-social learning phenomenon.

Social sites do not have user manuals, yet these sites attract willing learners to specific learning areas or topics of interest. According to Ebrahimi (2014) online communities’ have confidence in their communities particularly when good sources and expert advisors give presence and endorsement. This informal type of learning is phenomenal and could be coined as e-social learning.

1.4 Research objectives

The objective of the study is to investigate the factors influencing usage of social media by students at North-West University Mafikeng.

Sub-objective

- Identify what a social medium offers with regard to social learning.

- Investigate social media usage in skilling users.
- Identify challenges in using social media for learning.
- Comprehend how students use and social platforms.

1.5 Research questions

Social media is widely adopted; e-learning seems not to be widely adopted as social media. The research question is then, what can be learned or adopted from social media which can be applied in e-learning to improve it? There are several underpinning questions which arise from the research question in order to comprehend the phenomenon of social media adaptation in North West University Mafikeng Campus.

Main research questions:

What are the factors influencing usage of social media by students at North-West University Mafikeng?

- What does a social medium offer with regard to social learning?
- Can social media be used to skill the users?
- What would be the challenges in using social media for learning?
- How do students comprehend and use social platforms?



1.6 Structure of study

Chapter 1: This is the overview of the study on the investigation of factors affecting social media usage in e-learning in NWU Mafikeng campus. The chapter captures the heart of the case study and describes the fundamental research approach design.

Chapter 2: Literature review addresses the four aspects, learning or education frameworks, e-learning, social media and technology adoption model. The theme is mainly about the technological adaptation model framework of e-social learning.

Chapter 3: Research Method for this research, the data and factorization of variables will indicate the prospects of the subject matter. A population sample is initialized as a subset for the applicability of observation and data gathering.

Chapter 4: Data Discussion is an analysis of data. The analysis will contrast and test relationships and certain claims against the proposed research questions.

Chapter 5: Answer Guide is the final chapter illustrated and explains the theory against the statistical finding. This chapter gives the final overview and findings.

The research instrument that will be used in the research is a survey. The survey was sent to 1st year population. The ethical and legal considerations to the study will be to comply with the standards and policies of the North West University.

1.7 Delineation of study

The North West University Mafikeng campus has a population of 11,842. Overall 2,031 are postgraduates and more the 9,794 which 3486 account as 1st year students. The time for the research to be conducted is within a year. Data to be collected on online platforms since the topic generally addresses general internet users on social Media in NWU Mafikeng Campus. The study is aimed at understanding e-social learning and contextualizes it with respect to the NWU Mafikeng Campus. The Journals not released at the time of research will not be able to be read and used in time to contribute to this research.

1.8 Significance of study

The study aims to understand the phenomenon of social learning. The study will make an empirical contribution to the body of knowledge in information systems. The study will also distinguish the differences and similarities between e-learning and social learning. The research hopes to add value to the edification of disadvantaged communities and unravel ways knowledge can be dispersed freely into more disadvantaged communities. It may hopefully give light to how social media can be spun off effectively in the education process effectively.

1.9 Summary

E-learning is an area that has been extensively studied, however the social media phenomenon with e-learning has a much greater area to be covered. The study investigates a different adoption to learning, which is less formal and more social and student centric hence e-social learning.

There are various aspects of learning through a social medium (social learning) in contrast to e-learning. The paper looks at the education and adaptation frameworks that can be used to comprehend and perhaps help give understanding to how open learning can better implemented.

2 Literature review

2.1 Introduction:

The literature review undertakes a view into the three aspects that will be used as determining factors affecting social media usage in e-learning for the NWU Mafikeng campus with regard to 1st year students. The research paper will apply types of frameworks; the social learning theories, which examines the learning process.

The other accompanying framework will be the technology acceptance model, which will differentiate between the adoption of e-learning and e-social learning. The main aspects are social learning theories, social media and the technology acceptance model. These aspects are and will be mindful of the research questions.

- What does a social medium offer with regard to social learning?
- Can social media be used to skill the users?
- What would be the challenges in using social media for learning?
- How do students comprehend and use social platforms?



Theories of learning such as social learning theories from Bandura, will unravel and give light to the nature of learning and how it actually takes place in a social environment.

The social media aspect discusses the transition for traditional socialization to digital social behaviour. The digital natives and millennia make up a majority of student population. This means that social media is an essential or daily part of life and perhaps offers some value with regard to learning.

The third aspect is the technology acceptance model. The model is used to measure and determines how individual users perceive a technology and use it. The model will be applied to measure factors affecting social media usage in e-learning for the NWU Mafikeng. The model is a necessity in getting to understanding the adaptation of social media and e-learning platforms.

2.2 Social media

Social media is a platform for interacting and exchanging information. The platforms have grown and advanced since the inception of web 2.0. The advanced social media platforms allow for multimedia and hence creating a platform for a greater space of freedom of expression (Lu, 2014).

Social networks such as Blogger, Facebook, WhatsApp and perhaps even YouTube allow students to express themselves with ease. Students can share their views, thoughts and experiences. Students are often interested in the blogs and comments from people they are familiar with. Students also tend to share videos, audios and photos resulting in a co-productive environment as oppose to a passive learning environment (Lu 2014).

When informal socializing or interaction takes place between students, this encourages and improves the formal learning process. This improvement in learning can take place when students are placed in a social setting (McKinlay et al, 2016). This can happen physically or happens as a result of social networking.

A contrast of social media to e-learning is that students may often have negative attitude towards e-learning platforms and due to the fact that it yields feeling of isolation and un-involvement, students are often left frustrated and de-motivated. Social platforms offer a richer experience and create a virtual world through interaction and multimedia content (Sabah,2016).

Historically media has always been presented and disseminated from a descending view. The media is primarily written and developed from a nationwide perspective and distributed. There is no consideration of transnational and transmedial aspects of media according to Cronqvist & Hilgert(2017). Transnational implies media exchange or interaction across borders by different entities. Transmedial implies that there are multiple exchanges and transfer of information across different Media.

Social media has a history and this media communication has evolved over the years. Media such as newspapers and magazines has become digitalised. The media was not as dynamic and widely spread years ago compared to now.

Technology has introduced a remarkable way of managing data (Cronqvist & Hilgert, 2017).

Technology has rapidly developed, resulting in rich interface and interaction on multimedia platforms. Social networks are great beneficiaries of these technologies. The core feature of social network is to establish and build relationships between users. Through these connections, learning and growth opportunities are realised (Jiang 2014).

Technology has changed the intensity and structure of how information flows in a society. There is positive and negative prospective to this. A positive side is that information is wide spread and the general quality of life and welfare is enhanced globally. A negative prospect is that there is a probability of a “global lock in”, (Sanditov B, 2006).

The internet is and has created vast pockets of online libraries and information such as encyclopaedia, open databases and social media content. (Stanoevska-Slabeva K et al 2015). Technological media breaks a distance barrier between learners or even colleagues. The platforms create vast opportunities of interaction differing from platform to platform. There are various types of Social media available that allow for this (Latemann & Stieglitz, 2012).

It enables us to share and replicate information without limitations. A piece of information can be copied, shared and replicated. Social media has further added a new dimension allowing individuals to create their own content and community engaging with the content (García, P., Schiaffino, S., & Amandi, A. 2008).

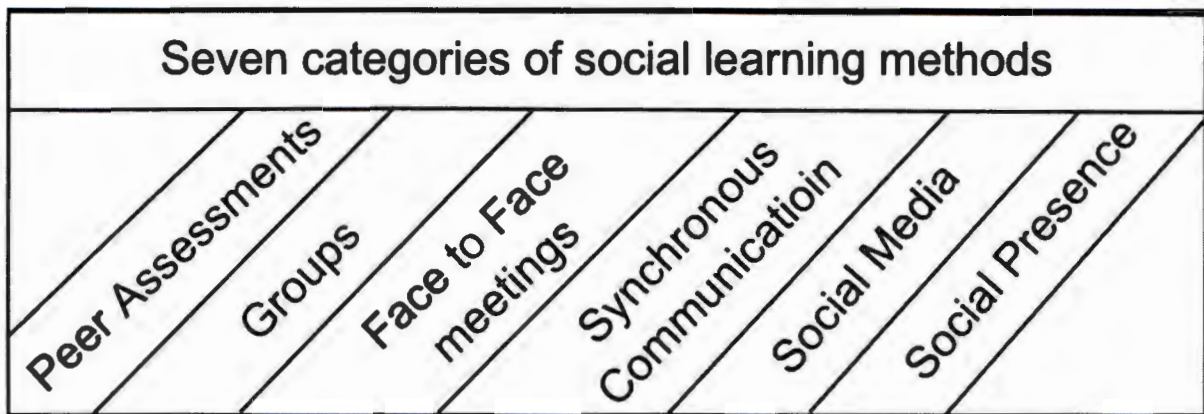


Figure 1 Seven categories of social learning adapted from Stanoevska- Slabeva 2015

Social media creates virtual surroundings in which information can be searched and used and co-created by the users of the media. (Stanoevska-Slabeva K et al 2015)
 This also has a spin off effect such as user centred content. The media can be a platform for different communities (Cronqvist & Hilgert 2017).



Social media has changed how communication takes place in various industries. Social media has allowed for broader communication as main industry uses social media to keep in touch with consumers. It can also be used to recruit talent, maintain business-to-business relationships as well (Paluch S at el 2015).

A good advantage of social media discussions is that it involves a collective of information by participation of different individuals. The collective involvement of content creation is a key characteristic in social media (Wegener R et al ,2012).

Since the inception of web 2.0 multimedia interactivity on social media has allowed for rich content generation and exchange, such examples can be found on wiki, blogs, twitter, Tumblr and Facebook etc.

Most of the research towards social media is focused towards individual users with respect to how they privately apply it. Most studies focus on behaviour usage patterns and how content moves about in the networks.

Little literature can be found on how an organisational user exploits social media within this context (Paluch S at el 2015). The study focuses on students as organisational users and how social media is used within the context of learning.

The culture of learning and its environment is changing. Learning has not changed however, the learning platform has changed; this in itself is an environmental change. The environmental change has a bearing in the effect and behaviour of those in it.

Teaching traditionally involves deploying various types of methods and strategies. Even in electronic based learning e-moderation is applied alongside mentoring and motivation of students. The problem is that these methods need to be applied pragmatically in and actively through social media (Latemann & Stieglitz, 2012).

The influence of social media and the rapid explosion in information and specialization is creating a phenomenon. Social media has its own culture that is employed through its landscape, by media systems that encapsulate communication. This enables a “wisdom of crowds” which is a result of gathering information from the general public in order to form a pool of expertise (Dissanayake et al, 2014).

Research on social media has revealed that social media has shown a negative effect on students ability to engage in learning activities. The poor engagement in learning activities results in poor performance in studies.

Memory recall was generally poor in students who use social media excessively. Students develop a habit of skimming through information on social media instead of processing it. This results in students developing a poor ability to process information (Hassell & Sukalich, 2015).

Buckingham & Ferguson (2012) can be used as further reference to explain what is required in social media learning and what is key in developing interpersonal and conceptual connection based on the following concepts illustrated below.

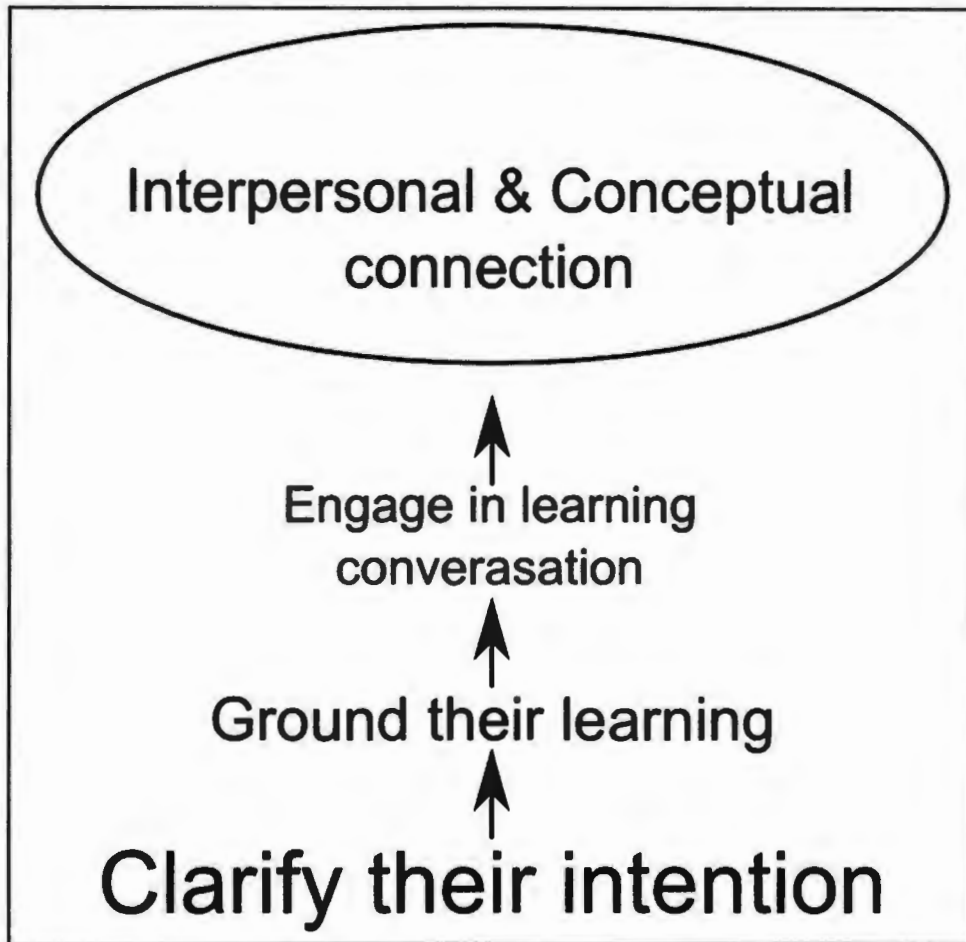


Figure 2 interpersonal and conceptual connection adopted from Buckingham & Ferguson 2012

Indicated in The first concept is clarified intention. The student must have a clear intention to learn something as oppose to scheming and browsing. The second concept is called grounding their learning, which means students must have clear questions. The third is engaging in learning conversation in order to learn and gain understanding.

Social learning has an important aspect regarding a “Rule of thumb” when it comes to the use of a popular media. Users observe it and then attempt to capture the process of learning. Users will then apply the rule of thumb by imitating others. Through popularity and imitation, the development of a homogenous population is developed into followers (Sanditov B, 2006).

Frequency based imitation is when something is the most popular choice. This results in a process of conformity and inherent characteristic of social learning. The same effect extends into the use of social media or popularity use and performance of technology (Sanditov B, 2006).

2.3 E- Learning

E-learning has grown over the years from a learning support system to complex, highly innovative systems that are capable of teaching students without any physical classes as classes are virtual. The majority of e-learning systems are traditionally for support (Chang 2016).

However the technology has seen poor turn over as it seems that users have a poor adoption it usability of the e-learning system. According to Yuan & Powell (2013) E-learning systems are riddled with constraints as the projects are often pressed for time in order to meet academic calendar and schedules. This results in development life cycles that are quick with many shortcomings (Bruff, D. O., Fisher, D. H., McEwen, K. E., & Smith, B. E. (2013).

The shortcomings of e-learning systems can be identified in the poor design, poor documentation and designs that are generally not understood and properly used by end users (Mertz, et al 2013). This lack of consultation or involvement of the members of the academic community such as students is the cause of such developments (Allen, I. E., & Seaman, J. 2015).

ICT departments can often utilize students and focus on the technology and skill of students. This results in projects neglecting the actual needs and practical needs of the end users (Mertz, et al 2013).

Based literature it can be clearly observed that, there is a lot of problems in e-learning. The problems are a collection of problems ranging from application design methodologies. Poor implementation and a lack of involvement of students in the development process resulting in a pitiable performance by e-learning system.

2.4 Social learning theory

Social learning theories have been around for many years the most comprehensive one belong to Bandura(1977). The social learning theory accounts for internal and external learning process of subject. The instrumental part of learning is the individual and the environmental factors involved in the process.

The theory argues that environment can cause individual behaviour and the individual can cause environmental changes. Bandura (1976) explains that most of people's behaviour is learned directly and indirectly through observation.

Kitchenham (2008) summaries the Mezirow's transformative learning theories over the years and illustrates the types of learning that may occur. Social learning is a process of individual making an observation in the environment of other people. Then adopting or changing behaviour based on observation. The key to this learning is regular interaction or contact with peers (Bandura, 1977).

Learning that takes place on web based mediums can arguably be considered to fall into a dialogical learning. Dialogical is further explained as adding ideas into your own perspective. Social media can be considered to fall into this type of learning as the user's takes ownership of the media. They go on to acquire knowledge and develop new prospective within the environment.

The notion of a mixed or blended approach to learning involves the active integration of multimedia into the learning process. However, there exists no formal or standardization of the application of these methods (Alammary,2015).

Social learning theory by Albert Bandura states learning is a cognitive process that takes place in a social context and can occur purely through observation or direct instruction, even in absence or motor reproduction or redirect reinforcement.

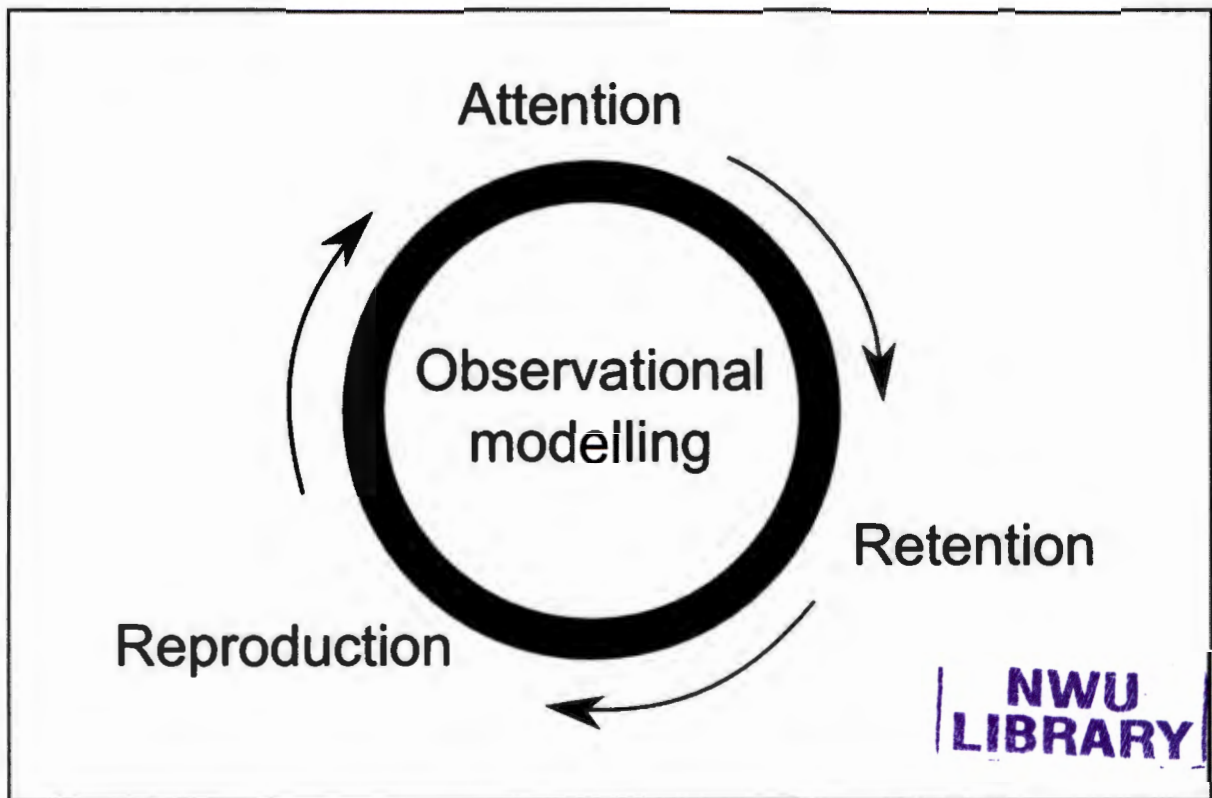


Figure 3 Observational modelling diagram adopted from Sanditov B 2006

The nature of observational learning is that, it does not require a verbal exchange of information. Information can be extracted, by the observer from the model. The observer will then retain the information (Sanditov B, 2006). Skills cannot be inherited or learned effectively through trial and error. Skills transference within the social learning context is done through observation and imitation. Imitation occurrence is not limited to an individual. Behavioural imitation can occur on a large scale.

People learn by rapidly observing behaviours of others. This is a combination of behavioural theory and cognitive theory. Behavioural theory is determined by personal factors such as attitudes, personal beliefs and knowledge. There are also environmental factors to consider such as resources, consequences of actions as well as physical settings of environment (Sanditov B, 2006).

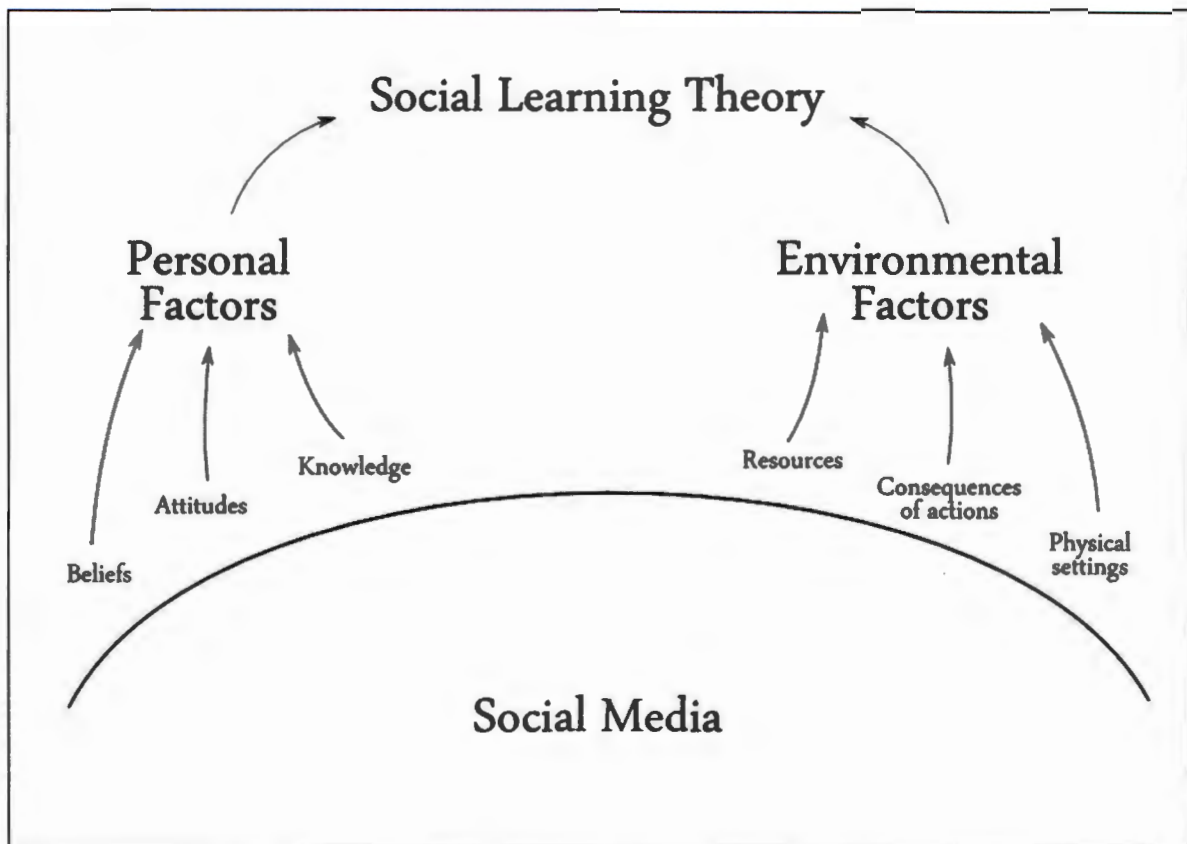


Figure 4 Social Learning in Social media adopted from Sanditov B 2006

The social learning theory can take place in the digital environment. Technology and platforms such as social networks allowed for an environment that enables the social learning to take place within personal space and features the environmental factors conducive for social learning.

Kitchenham (2015) assess through Mezirow's transformative learning theory over the years that learning has changed. There is a clear gap between how old people, and the new generation of students learn. These differences are furthered even more by technology.

The transition from direct personal interaction to a technological media as means of interactive support between two or more individuals is the essence of social media. The media offers new tools and new protocols of interaction (Siemens 2004).

It has been observed that people learn better in groups than individuals. When people group together learning is an easier process and helps develop personal

skills. Groupings of students to perform particular tasks or school work can prove to be highly beneficial to students. Students have reported developing close relationships from working in small groups. The small groups range from synchronous social media group meeting to face to face meetings. Small scale groups with synchronous communication resulted in students forming social connections (Sanditov 2006).

The explosion in information has also caused a problem as things are always changing and students can find themselves outdated if they do not keep abreast with new developments in industry. Participating in groups such community of practices can be greatly beneficial to students (Agarwalet al, 2013).

The challenge with the social learning is that the students do not comprehend or understand the process as learning. The term learning is associated with the formal process of learning. However students were able to identify the positive outcomes from social learning experiences (Sanditov B, 2006).

This practice is actually encouraged in cooperates or industry so that professionals remain competitive and up to date with the latest practices.

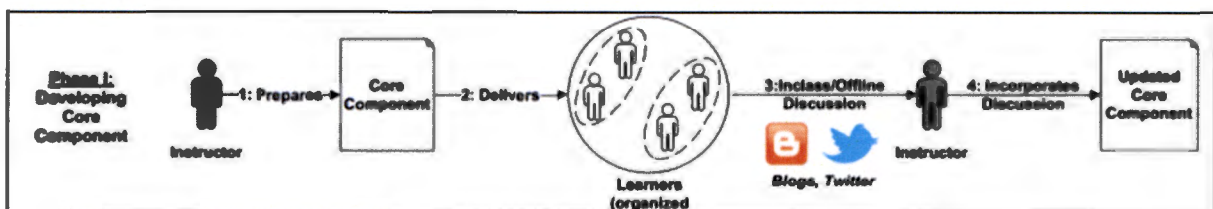


Figure 5 Social media integrated learning (Agarwalet al.2013)

The inclusion of social media into this is proposed as an extension for practice as support to aid students Social media can be used as discussion areas students can organise meetings and engage other activities such assignments (Agarwal et al 2013).

Social learning is seen as a general manner in which a society learns. The learning transpires as society interaction occurs among individuals. Social media amplifies this by becoming a transnational media that allows interaction in a wider scale in a mediated form (Buckingham & Ferguson 2012).

Social learning perpetuates through community interaction. The individual observes the way of life or culture of the community and learn societal norms. The observed community behaviour is then perceived as a norm and then it becomes adopted as common practice by the individual (Yıldız&Christiansen2017). Students need to be aware of social learning, with respect to why and how it works, in order to harness its benefits (Sanditov B, 2006).

In organisations, instructions are given formally through writing and verbal instruction. However the actual learning occurs when practices happen. Then through observation of how execution is performed, tasks and policies are applied and executed (Sanditov B, 2006).

Traditionally, information has always disseminated through formal process such as formal education. The challenge with attaining information in this manner is that the information takes a longer time to be disseminated and be attained. Through social teaching individuals' passion and knowledge become instrumental instigators of information dissemination.

Through creating interpersonal connections as well as rapid exchange of information social learning becomes a very good way of in which organisations can deal with a fast paced information changing world (Buckingham & Ferguson 2012). The biggest problem with learning on electronic platforms is structuring learning process. The content structure and teaching process should be important so that students feel compelled to interact. Most e-learning platforms deploy forums (Sanditov B, 2006).

The comprehension of content occurs effectively when the content is conversed over socially. The interaction allows for addressing of problems such misunderstanding of content and similar contents (Buckingham & Ferguson 2012).

2.5 Unified theory of acceptance and use of technology (UTAUT)

The model holds four key constructs, performance, expectancy, effort expectancy, social influence and facilitating conditions in the use of a technology.

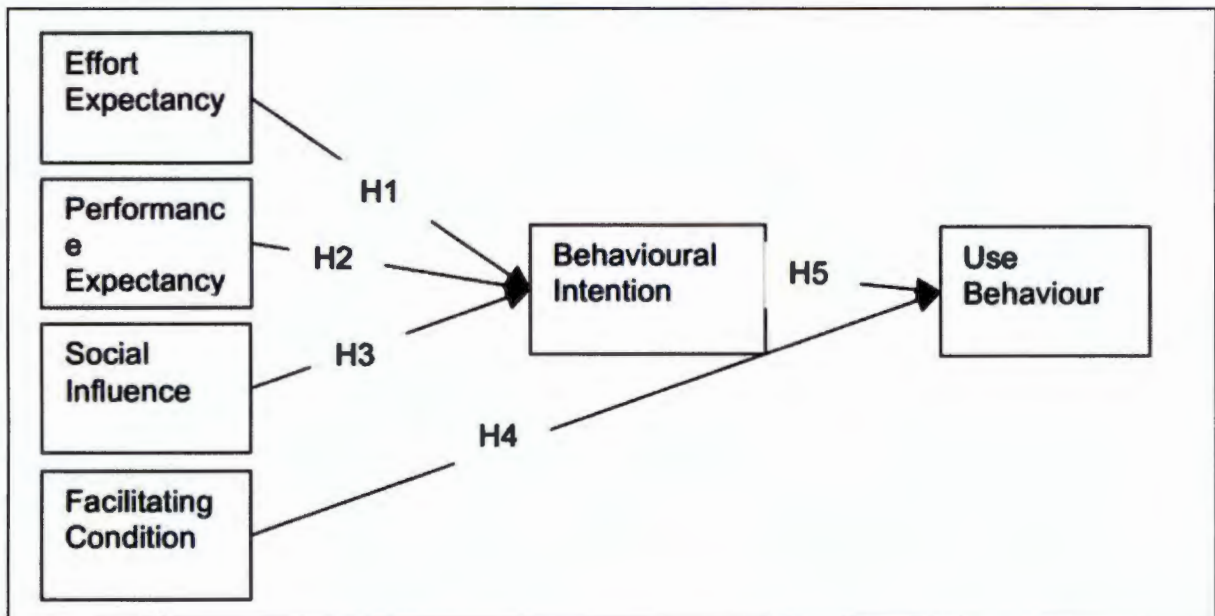


Figure 6 Theoretical framework of hypothesis. TAUT model (Venkatesh et al 2003)

The unified theory of acceptance and use of technology is applied as a framework that can help investigate the phenomenon of e-social learning. The model will be direct to the investigation to understand how things such as perception of use and perception of usefulness direct the usage of the social media for learning.

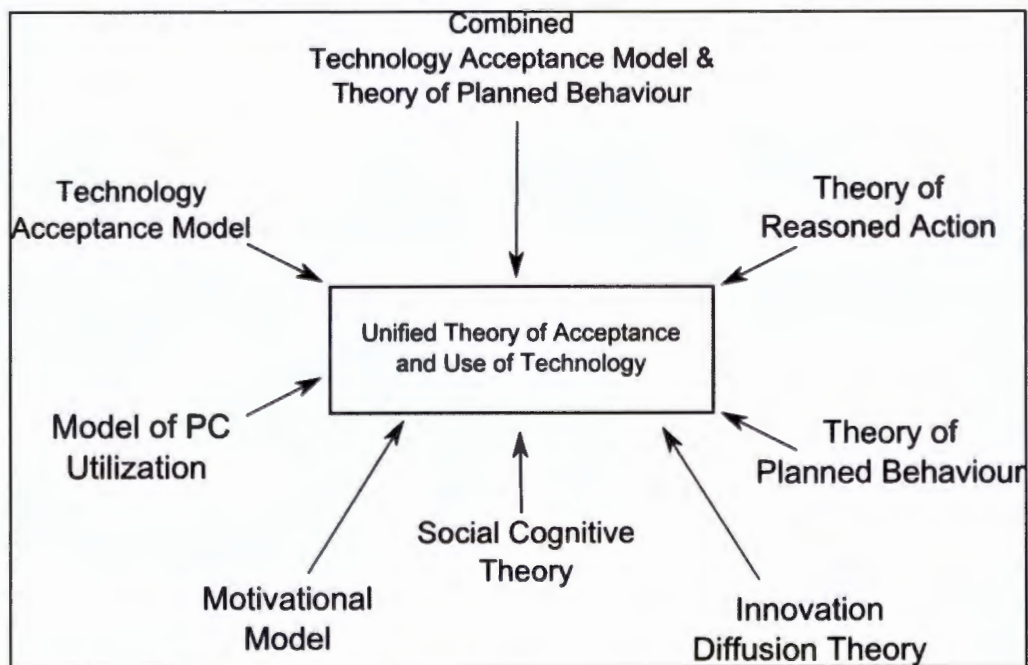


Figure 7 illustration of combined theories forming UTAUT: Adapted from Venkatesh et al 2003

The model is derived from a combination of eight acceptance models as illustrated above. The theory is appropriate, given the issues identified in the social learning and media theories mentioned earlier.

According to (Hair et .al 2014) the model shows co efficiency an explanation of 0.75 of intentional behaviour. This makes the model more appropriate and suitable for the adopted model for this research.

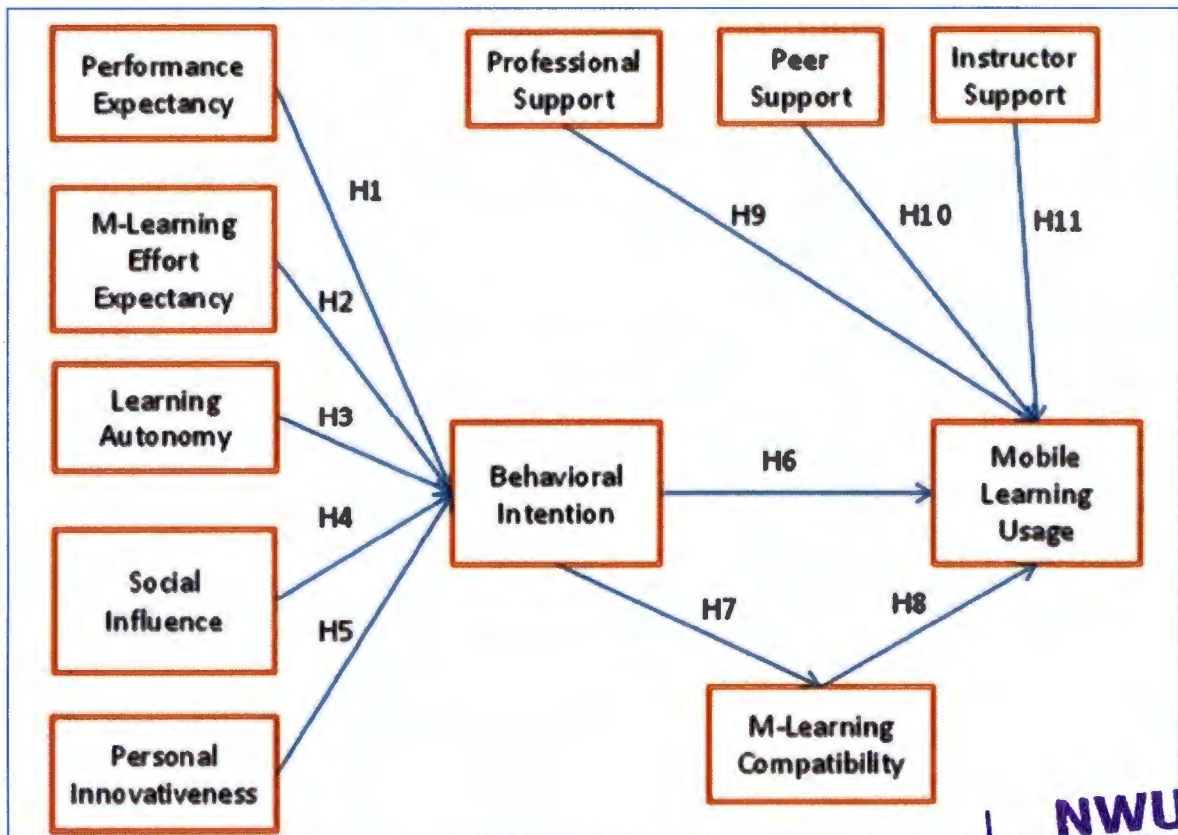


Figure 8 Xiaoqing Li (2017)

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Based on the Figure 8 the selected model will be appropriate for the investigation of factors affecting social media usage in e-learning. A similar study illustrated in figure 7 was conducted on the adaptation of M-learning. Similar constructs have been adopted for this research.

Proposed conceptual Framework

The objective of the study is to investigate the factors influencing usage of the social media by first year students at North-West University Mafikeng campus. The framework for the hypothesis testing is as follows.

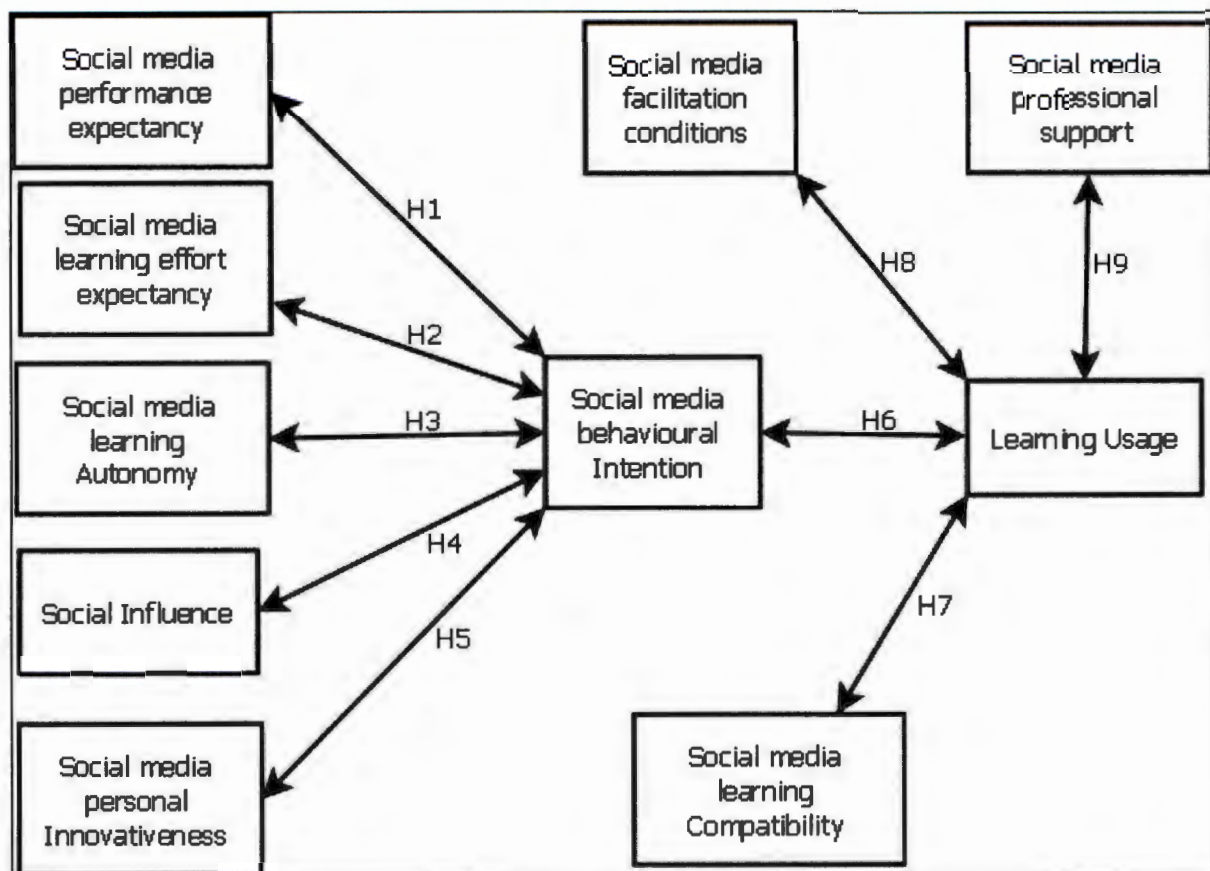


Figure 9 Research Framework adapted (XiaoqingLi ,2017)

The framework for determining our hypothesis is based on the above model and loading factors where determined for all hypothetical bases and questions.

The H1 Social media performance expectancy of social media in learning, tests how students expect the social media to perform in the usage for learning. The expectation in usage is will have an impact on the actual usage.

The H2 Social media learning effort expectancy, tests how much effort is expected and experienced in the usage of social media for the learning process.

The H3 Social media learning Autonomy tests how students automatically apply themselves in the usage of social media.

The H4 Social Influence of social media usage, tests how students are affected or influenced by the usage of social media by other students or peers.

The H5 Social media personal Innovativeness in using social media for learning, test the ability for students to be innovative in their application of social media for learning purpose.

The H6 Social media behavioural Intention in using social media for learning, tests the behavioural intentions of students to learn through social media.

The H7 Social media learning compatibility for learning, tests if social media is compatible or suitable for the learning process.

The H8 Social media facilitation conditions for the usage of social media in learning, tests if social media can be applied by facilitators/lectures in the education process.

The H9 Social media professional support in using social media, tests if students where channelled or trained to apply social media in a different manner would they participate.

2.6 Summary

The literature review touches on the factors affecting social media usage in e-learning. The literature shows gap between e-learning platforms and social media platforms. The literature also made considerations for social learning and the roles it plays.

The study denotes the differences and similarities between e-learning and social learning. Identifying the strengths, weakness, challenges and user preferences in e-learning and social media will help in creating the best preferences by users in e-learning. Social media has shown large success and perhaps the successes of social media can be better understood and be applied in e-learning to improve and add value to the learning process.

3 Research Methodology

3.1 Introduction

The investigation would use North West University Mafikeng as a case study in investigating and understanding the phenomenon. The research onion below illustrates the overall approach or design of the research: The ontology, epistemology and axiology are generally positivist.

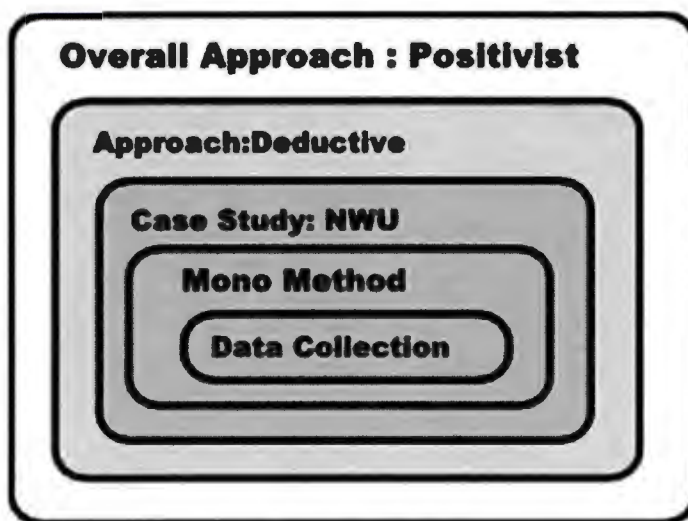


Figure 10 Applied research onion

The nature of this research is descriptive as it aimed at investigating factors affecting social media usage in e-learning in NWU. The collection of data will paint a picture of the state of affairs due to the ex post facto research. The research is fundamental and in its approach is coupled with a technology acceptance model as a framework.

The variables being used or assessed with respect to the nature of the investigation can be denoted numerically, which makes a quantitative study feasible or more suitable for the study. A few questions will allow responders to allow respondents to give semantics to their response. This however does not make the research a mixed method research.

The empirical study derives its variables from the technology acceptance model. The variables are applied to the hypotheses for testing. A sample of the NWU Mafikeng campus students will be taken to assess and get a better understanding of the phenomenon through statistical analysis of correlations.

The research aims to uncover the nature of investigating factors affecting social media usage in e-learning. The research falls within the context of information technology usage and social learning. The section will give a detailed explanation of the method applied in the research.

The literature review uncovered the issues concerning, factors affecting social media usage and the social learning paradigms. The issues and factors mentioned in the chapter two, however do give some light into how a particular instance of a population uses social media in the learning process.

What are possible limitations prohibiting investigating factors affecting social media usage in e-learning? The problem regarding social media is that it seem to be largely untapped as the correct application to contribute greatly to e-learning.

The chapter begins by examining description of the research approach. The study of the environment will be described, along with research strategy, method and data handling.

3.2 Research approach

It becomes necessary for us to outline the true meaning of a research philosophy. A research philosophy simply means the engaged process of suppose involved in the creation/developing of new knowledge in a particular field of sketch and the nature of that knowledge.

Epistemology is the investigation of knowledge, and all things considered epistemological suspicions essentially allude to a specialist's mission to secure bona fide information in the field of study. This by and large implies that specialists will undoubtedly unravel and legitimize look into inquiries through logical means. This could additionally be converted into the techniques an analyst would utilize so as to know something and obtain learning (Ambrose et al., 2010).

Epistemology accordingly likewise appears as two developments, the first is objective/positivist epistemology and the second is subjective/interpretivist epistemology. All things considered, the positivist's view sets are that genuine information, is one that can be achieved through logical means. Where the interpretivist see places that the exploration ought to have the capacity to recognize the distinctions that exist amongst people and different articles. (Ambrose et al., 2010).

Epistemology turns into the suitable logic of this investigation as in we are worried about the production of worthy social media usage as it identifies with students, through statistical hypothesis testing...

3.3 Case study

North West University Mafikeng campus has a population of 11,842 students. Overall 2,031 are postgraduate students and more the 9,794 students are undergraduates and 1st year consists of 3486 students. The institution has e-learning platform called Efundi. This platform is a standard e-learning platform. It is mandatorily for students to use this application, as it is an education support platform.



The study will investigate the behaviour of the new population of 1st years and how they use social media with respect to the learning process. The development of questionnaires was based on the combination of literature, hypothesis and research questions as illustrated above.

3.4 Research approach

The research approach is an encompassment of the research strategy and denotes the type of study and how samples will be obtained and carried out.

3.4.1 Research strategy

The research follows a uniformed sequence in the application of the research method. The method includes data collection, sampling technique, method of data collection, data analysis. Issues of ethical considerations and trustworthiness, reliability and validity are also addressed.

There are two main approaches to research, quantitative and qualitative. Qualitative research is an interpretive approach to research, where the researcher observes the problem with its multiple complexities with the aim of unravelling the issues. Qualitative research believes that there is no simple or singular truth to a problem. The nature of this research is to reveal the nature of multiple perspectives (Leedy, 2009).

Quantitative data	Qualitative data
Based on meanings derived from numbers	Based on meanings expressed through words
Collection results in numerical standardised data	Collection results in non-standardised data requiring classification into categories
Analysis conducted through the use of diagrams and statistics	Analysis conducted through the use of conceptualisation

Figure 11 Quantitative vs. Qualitative Adopted from (Bopape 2008)

Qualitative research methodology is a methodology, which aims to observe and study a phenomenon without the use of statistics based on Figure 11 Quantitative vs. Qualitative Adopted from (Bopape 2008). A qualitative research can be used to reveal the nature of a particular subject. It also enables a researcher to be enlightened about a specific phenomenon allowing them to gain new insight and perception.

Qualitative research ultimately allows a researcher to observe the effect of events on a particular subject. This approach is popular in social sciences (Leedy 2009). The population is a sample of the subject of study. The sample can be attained using different techniques (Leedy 2009).

Quantitative research is performed through techniques such as correlation study which studies how variables affect each other. However sometimes correlations do not necessarily imply a cause and effect relationship, it illustrates relationship status. The regression analysis is a procedure, which may allow us to study the cause and effect of different variables (Leedy 2009).

3.4.2 Data collection

The questionnaire was deployed through survey monkey. All question are based on selection criteria. The questions are based on the questions arising from the hypothesis and issues raised in literature. The students will be in a controlled environment as the survey will take place at several intervals in computer laboratories on campus over several days.

3.4.3 Sampling technique

The target of the research is 1st years they are newly exposed to the e-learning platform. They make a significant number of undergraduate populations. . The data collection will be conducted through a survey via survey monkey. The students will be in a controlled environment, as the survey will take place at several intervals in computer laboratories on campus.

3.4.4 Data analysis

Survey monkey collected and tallied the data, which was analysed to identify correlations and valid relationships were identified. SPSS was then applied as it was capable of using data to illustrate correlation and regression analysis between constructs and variables.

3.4.5 Trustworthiness

The trustworthiness of the research comes down to the general manner in which the research is conducted. A study should be transferrable, credible, dependable and conformable to its given environment. Transferability would imply that the combination of literature and statistics should be passed on to others for replication or expunction. Creditability is the issue of merit of the research, and dependence involves being objective.

3.4.6 Ethical considerations

Efforts have been made to ensure that the research is above all ethical manners. The privacy of participants is protected. The participants are not harmed during the process.

- Participants understand that they are free not to participate in the research.
- Participants should understand the nature of the research
- The research has been cleared and approved by the institution.
- The questionnaire is language appropriate and non-offensive.

3.4.7 Reliability

The survey quality and pretesting before conducting the survey is done to ensure that any flaws or misunderstanding in the questionnaire or sampling procedure can be identified. A flawed research instrument can do damage or create flawed finding in the research.

Cronbach Alpha Reliability

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.824	.846	10

Table 1 Reliability Statistics

The Cronbach Alpha test of the model in Table 1 Reliability Statistics is at an acceptable level of internal consistency and indicates a reliable coefficient of **0.824**.

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
H1_PE	-20.6126	155.244	.554	.400	.811
H2_LE	-20.4618	155.716	.582	.414	.810

H3_LA	-21.5429	142.604	.596	.403	.801
H4_SI	-20.7481	130.521	.548	.351	.807
H5_PI	-21.0067	142.314	.586	.372	.801
H6_BI	-21.0105	136.759	.669	.469	.792
H7_SLC	-20.4027	113.396	.694	.537	.791
H8_FC	-19.8063	144.796	.449	.227	.815
H9_PS	-21.5344	156.769	.579	.374	.811
LU	-18.0105	161.464	.181	.048	.839

Table 2 Model Items Test

The Table 2 Model Items Test above indicates what the Cronbach Alpha would be if the items would be removed from the model. All the items seem suitable and do not have much of a varying impact on the overall coefficient.

3.4.8 Validity

The validity is the construct test of the questionnaire. The questionnaire should be statistically viable for analysis. The variable should be linkable to the constructs. The choice of language should be non-derogatory. The instrument needed to be tested prior to the full survey conduct.

3.5 Summary

This chapter covered the research methodology and research approach; the overview of the questionnaire and its variables to be examined. A description of the population and sampling techniques to be deployed in the data gathering has been described in detail.

This chapter has shown the value of the quantitative research in the context of this research. There are a lot of studies on social media usage and most use a quantitative approach. The approach seemed appropriate as the study is of a similar nature.

The next chapter is on how data was analysed. The chapter indicates the approach and illustrate how data will be analysed. The research method is applied and the test results are yielded.

4 Analysis of results

4.1 Introduction

The questionnaire is composed of 58 items measuring nine constructs based on the unified theory of acceptance and use of technology (UTAUT). The items were compiled based on different studies on research areas of social media and m-learning context. The questionnaire was distributed to the computer lab facility that all first year students have to mandatorily attend; the questions were answered through survey monkey.

First year students from all faculties of NWU Mafikeng campus participated in the questionnaires. The population of 1st year consists of 3486 students, which is composed of different faculties. Agriculture science and technology consists of 837 students, Commerce and administration consists of 950 students, Education and training consists of 652 students, Human and social sciences consists of 881 students, Law consists of 266 students.

Questionnaires were conducted at the computer lab facility known as the Reading Lab. A total number of 1263 responses were obtained and then 205 questionnaires were discarded due to being incomplete and some respondents were not first years. The reported data is from 1058 participants.

4.2 Demographic Characteristics

The characteristics of the participants are shown in Table frequencies and charts of the student demographics. The section that follows will show the graphs and frequencies of the data collected and analysed.

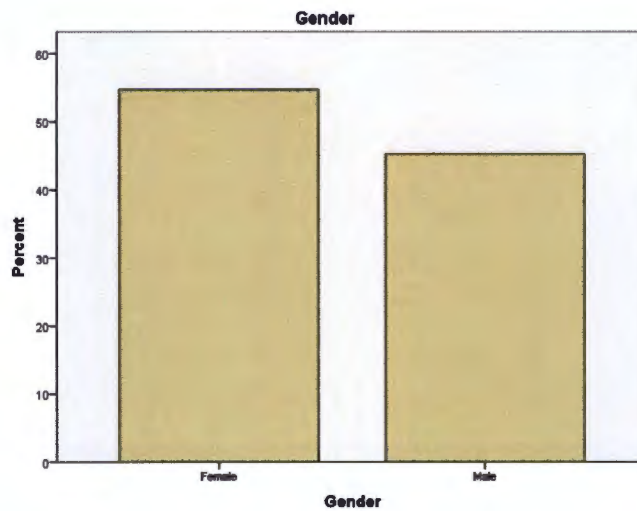


Figure 12 Male and female

There was a slight difference between males and females illustrated in Figure 12 Male and female. The females make up a larger number of respondents by 55%, while the male responders make up a small number of 45%.

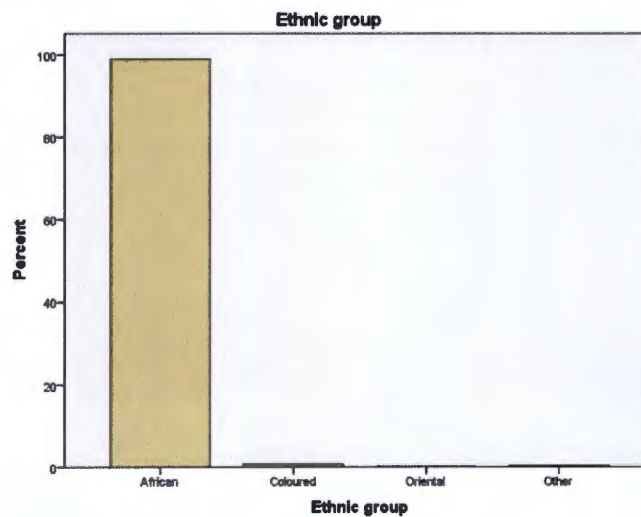


Figure 13 Demographics

The majority of students are mainly African, which is 99% as Figure 13 Demographics illustrates. The coloureds, Oriental's and others make up the less than 1% of the respondents.

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	12	1	.1	.1	.1
	17	22	2.1	2.1	2.2
	18	181	17.1	17.1	19.3
	19	255	24.1	24.1	43.4
	20	251	23.7	23.7	67.1
	21	152	14.4	14.4	81.5
	22	94	8.9	8.9	90.4
	23	43	4.1	4.1	94.4
	24	24	2.3	2.3	96.7
	25	15	1.4	1.4	98.1
	26	8	.8	.8	98.9
	27	6	.6	.6	99.4
	29	2	.2	.2	99.6
	32	1	.1	.1	99.7
	34	1	.1	.1	99.8
	47	2	.2	.2	100.0
	Total	1058	100.0	100.0	

Table 3 Age frequency

The age distribution is mainly in the 20's. A large portion of the student population of first years is students are between 18 and 22 as illustrated in Table 3 Age frequency.

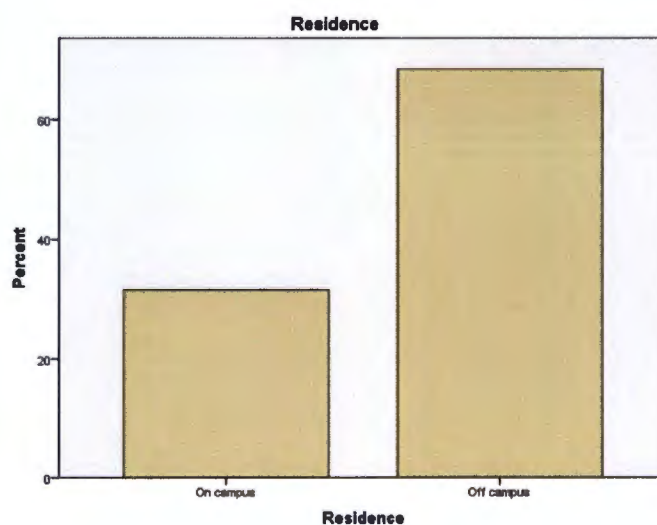


Figure 14 Residence

The results regarding the above Figure 14 Residence indicate that 31.6% of students reside on campus while 68.4 % reside off campus.

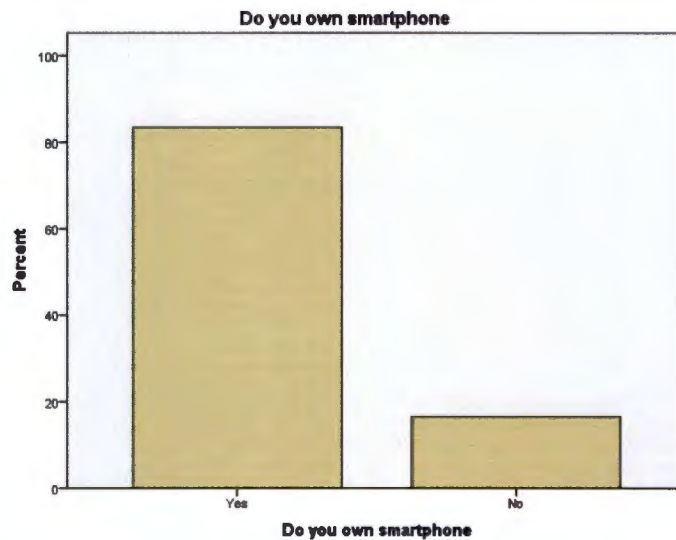


Figure 15 Phone ownership

The results regarding the above Figure 15 Phone ownership indicate that 83.5% of students do own smart phones while 16.5 % do not own smart phones.

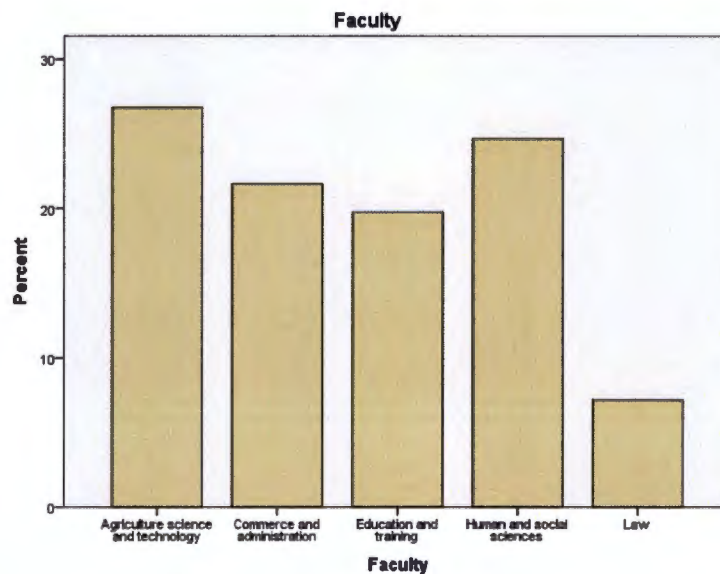


Figure 16 Faculty

Figure 16 Faculty distribution paints a picture of how the questionnaire responses are disturbed. The distribution is a fair representation of the first year student population as it is proportional to the 1st year population.

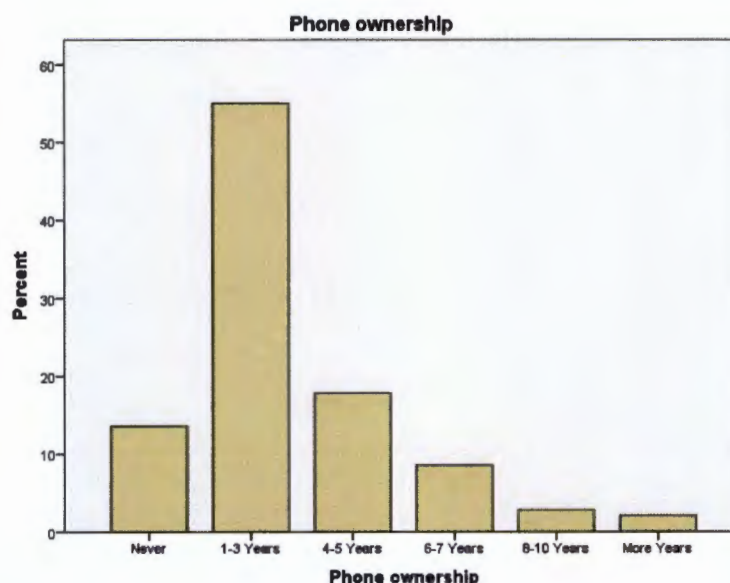


Figure 17 Duration of phone ownership

The results regarding the above Figure 17 Duration of phone ownership indicate that the amount of time the respondents have owned mobile phones. While 13% claim to have never owned phones, 55% have owned phones for more 1- 3 years, 18% have ownership for 4-5 years and 9% have ownership of 6-7 years. Eight to ten years and more than 10-year ownership make up 3% and 2% respectively.

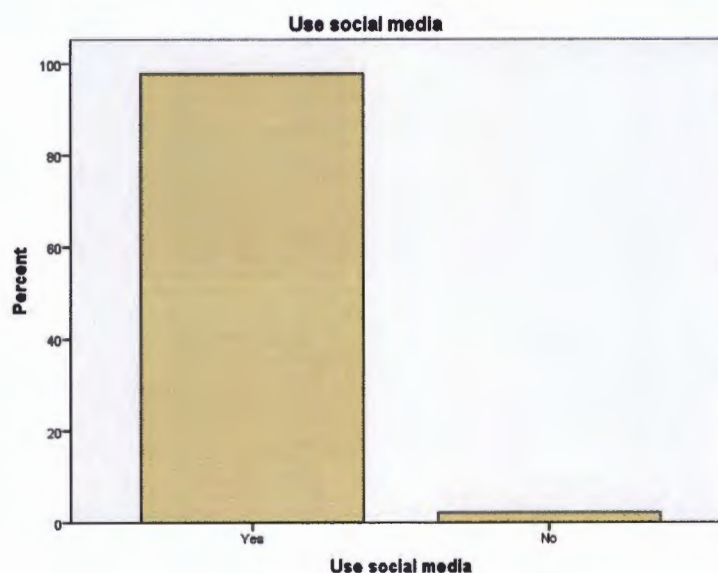
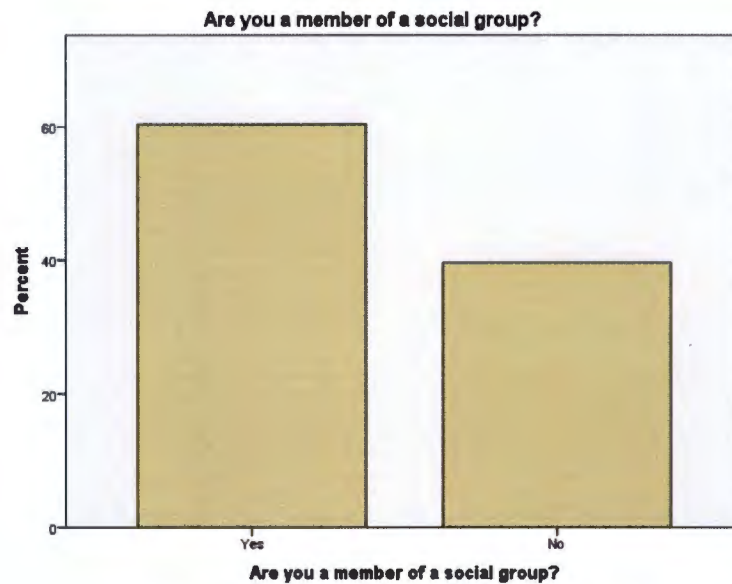


Figure 18 Social media usage

The results regarding the above Figure 18 Social media usage indicate that the usage of social media is at a rate of 98% by respondents. Respondents are interested are indicating a high use of social media in the population.



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Figure 19 Social group membership

The results regarding the above Figure 19 Social group membership indicate that 60% of the respondents belong to a social group. Respondents are interested or participating in social groups.

The usage social media among students was distributed according to the following. Among the respondents, 87% of them used Facebook, 92% used WhatsApp, 2% used Pinterest, 3% used LinkedIn, 33% used Google+, 53% used YouTube, 20% used twitter, 3% used WeChat, 9% used snap chat, and 47% used Instagram. While less than 1% used Blogs and 3.5% claim to use other social media not mentioned in the survey.

4.3 Frequency results

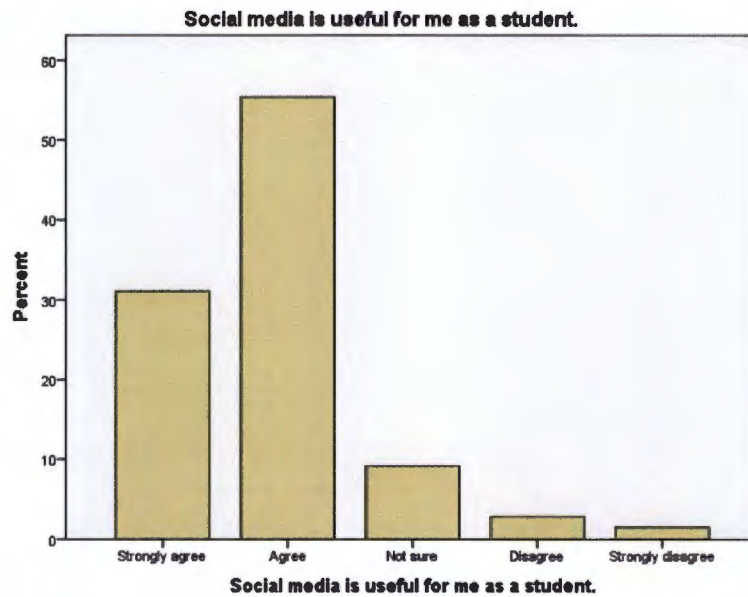


Figure 20 Usefulness

The results regarding the above Figure 20 indicate that there is a depiction of usefulness of social media. A collective 85% of respondents find it useful. While 22% remain unsure of its usefulness and 14% collectively disagree.

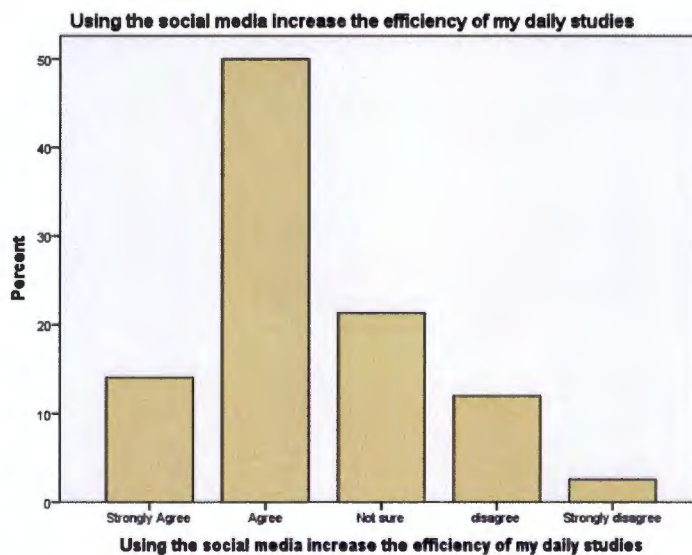


Figure 21 Daily studies efficiency

The results regarding the above Figure 21 indicate that there is a depiction of efficiency in using social media for studies daily. A collective 64% of respondents find it useful. While 21% remain unsure of its efficiency and 14% collectively disagree.

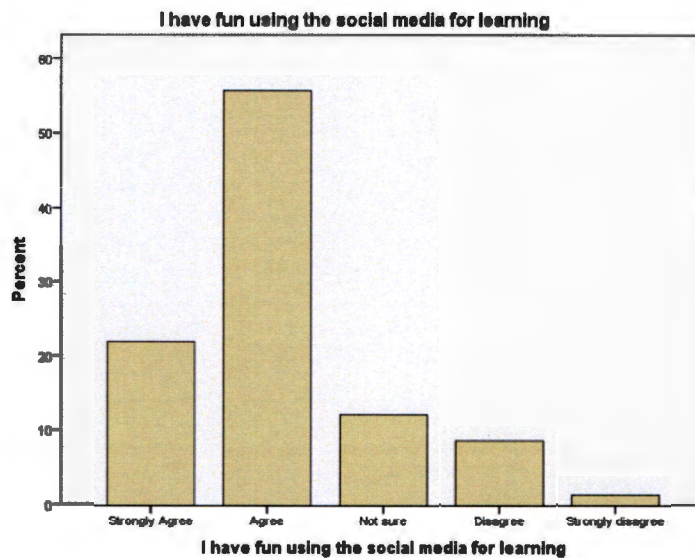


Figure 22 Fun learning

The results regarding the above Figure 22 indicate that there is a depiction of efficiency in using social media for studies daily. A collective 64% of respondents find it useful. While 21% remain unsure of its efficiency and 14% collectively disagree.

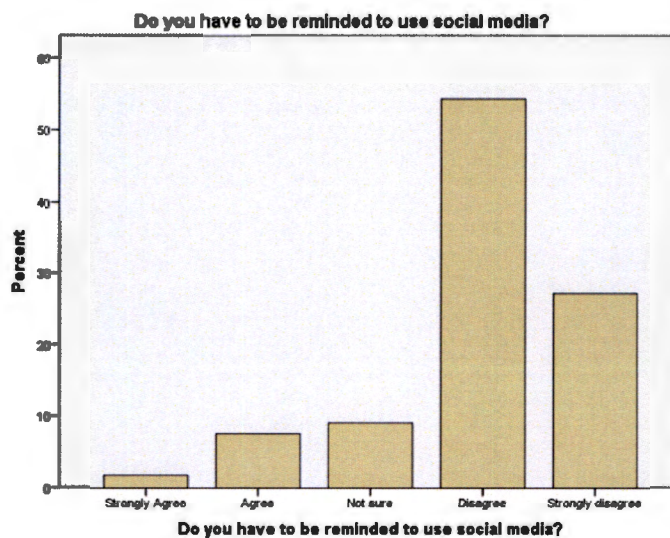


Figure 23 Automatic usage

The results regarding the above Figure 23 indicate that respondents do not have to be reminded to use social media. A collective 81% of respondents indicated that they do not need to be reminded. While a collective of 11% indicate that they need to be reminded to use it and 9% is unsure.

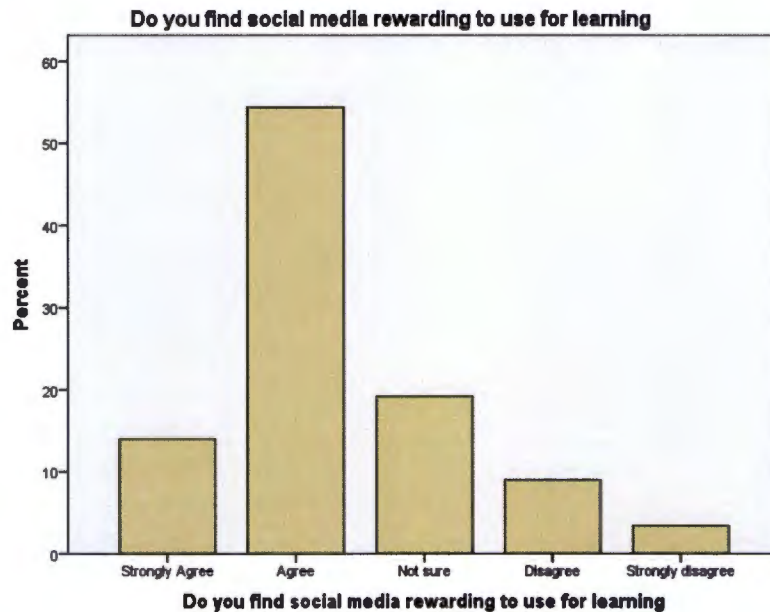


Figure 24 Rewarding usage

The results regarding the above Figure 24 indicate that there is a depiction of rewarding usage in using social media for learning. A collective 68% of respondents find it agree. While 20% remain unsure of its efficiency and 13% collectively disagree.

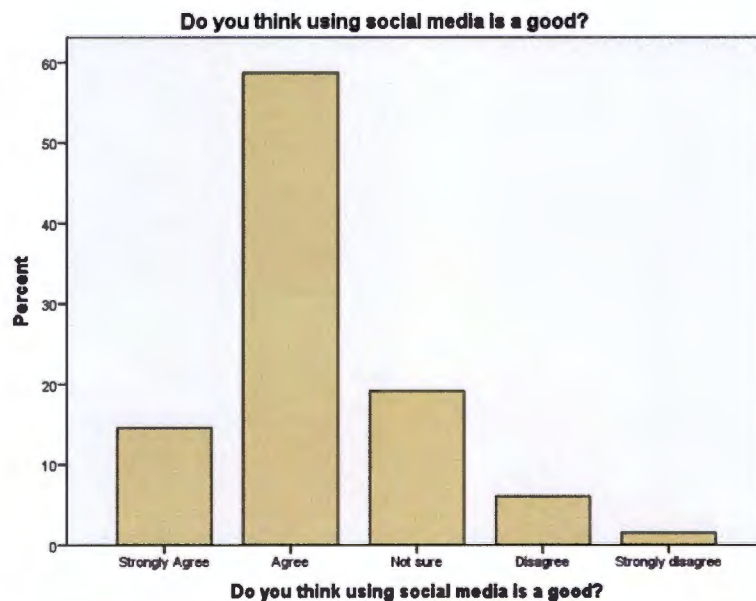


Figure 25 Social media goodness

The results regarding the above Figure 25 indicate that there is a depiction of rewarding usage in using social media for learning. A collective 68% of respondents

find it good and agree. While 20% remain unsure of its efficiency and 13% collectively disagree.

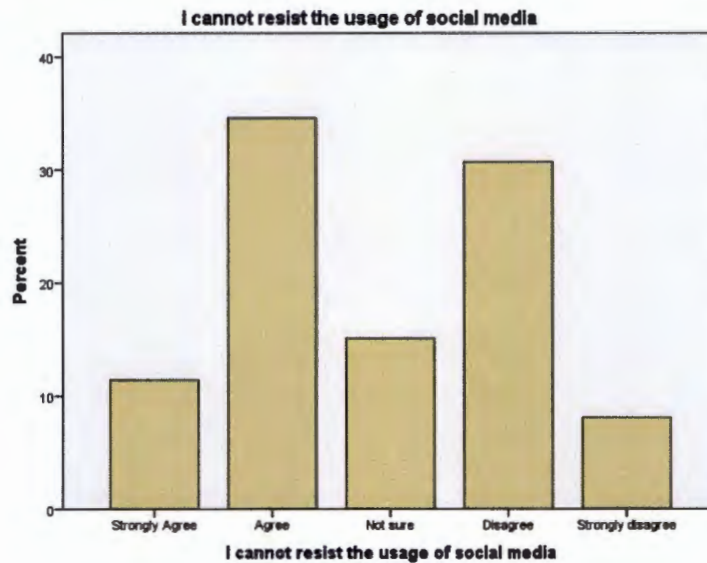


Figure 26 Social media resistance

The results regarding the above Figure 26 indicates respondents cannot resist using social media. A collective 46% of respondents seem to agree. While 15% remain unsure of its efficiency and 39% collectively disagree.

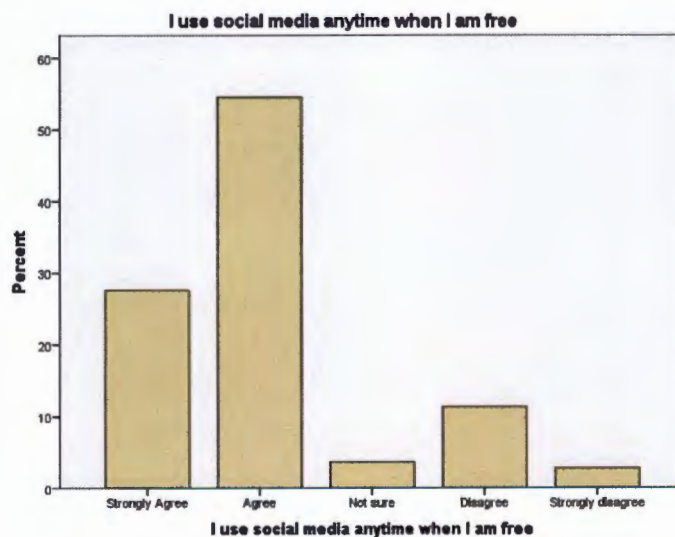


Figure 27 Social media freedom

The results regarding the above Figure 27 indicate whether respondents use social media anytime when they are free. A collective 82% of respondents seem to agree. While 3% remain unsure of its efficiency and 12% collectively disagree.

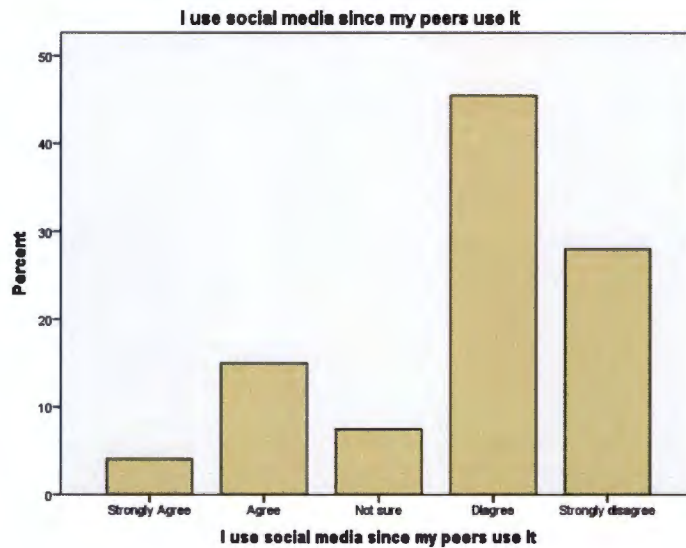


Figure 28 Peer usage

The results regarding the above Figure 28 indicate if using social media usage in due to peer pressure. A collective 19% of respondents seem to agree. While 7% remain unsure of its efficiency and 73% collectively disagree.

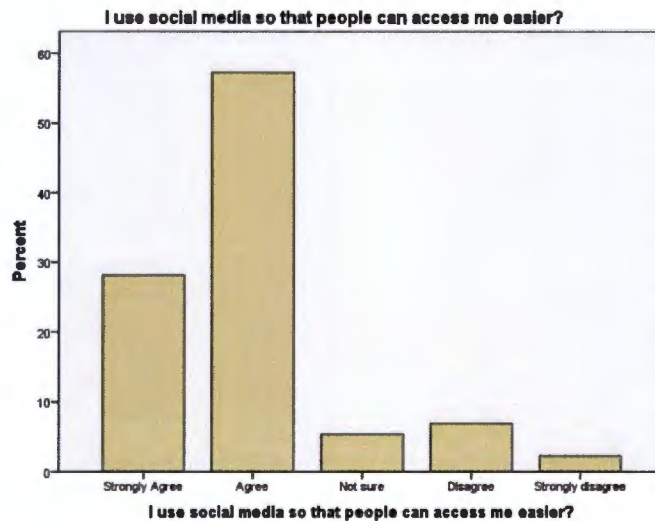


Figure 29 Accessible

The results regarding the above Figure 29 indicate respondents use social media so they can be accessed easier. A collective 85% of respondents seem to agree. While 6% remain unsure of its efficiency and 9% collectively disagree.

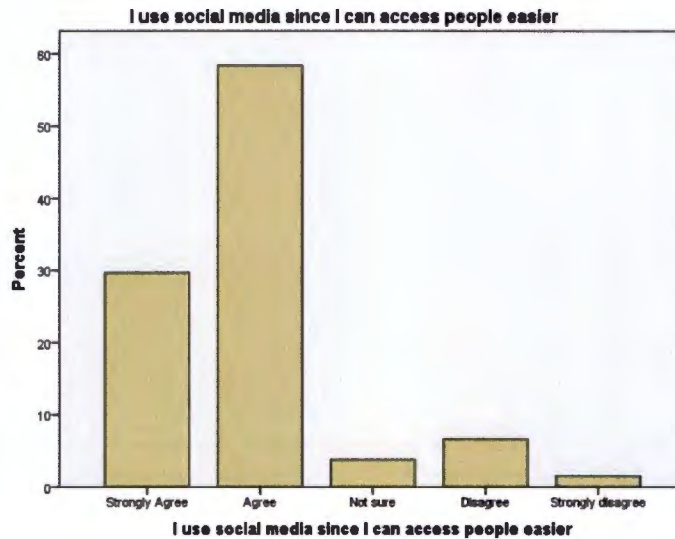
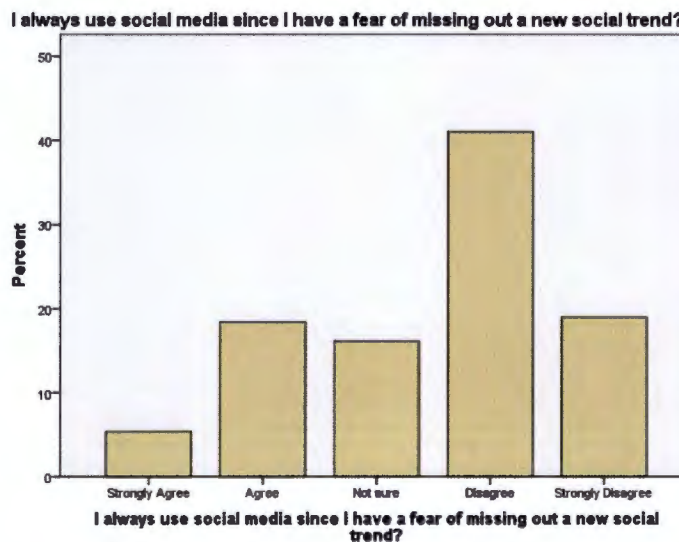


Figure 30 Accessible

The results regarding the above Figure 30 indicate respondents use social media so they can access others easier. A collective 88% of respondents seem to agree. While 4% remain unsure of its efficiency and 8% collectively disagree.



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Figure 31 FOMO (Fear of missing out)

The results regarding the above Figure 31 indicate if respondents are using social media out of FOMO (fear of missing out). A collective 24% of respondents seem to agree. While 16% remain unsure of its efficiency and 60% collectively disagree.

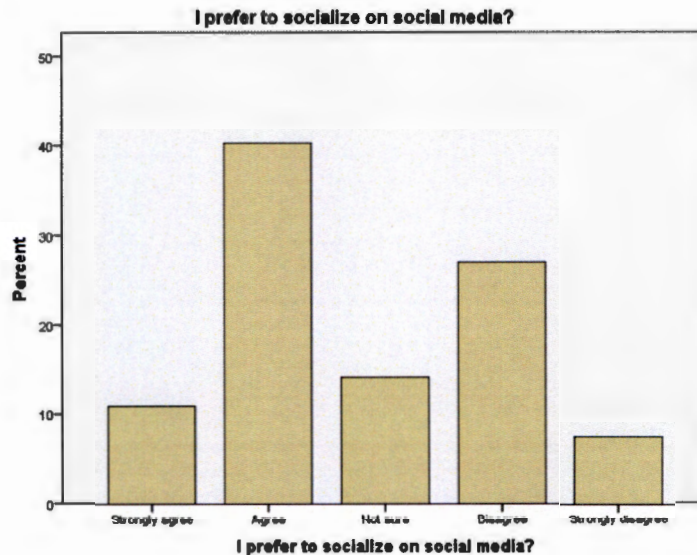


Figure 32 Socialize

The results regarding the above Figure 32 indicate respondents prefer using social media to socialize. A collective 51% of respondents seem to agree. While 14% remain unsure of its efficiency and 34% collectively disagree.

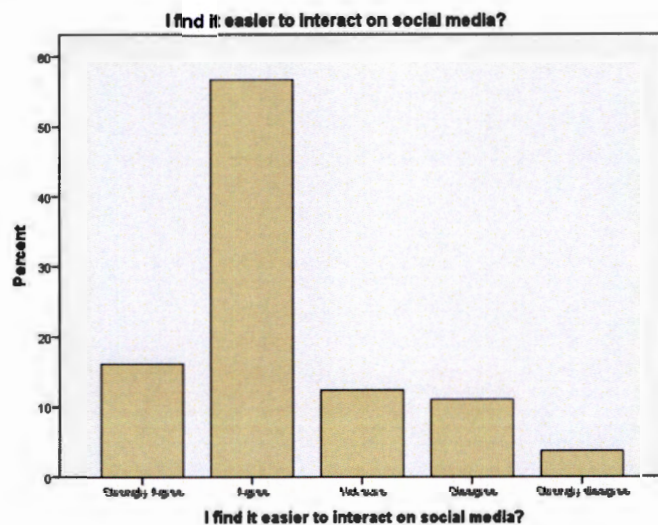


Figure 33 Interaction

The results regarding the above Figure 33 indicate if respondents find it easier to interact using social media. A collective 73% of respondents seem to agree. While 12% remain unsure of its efficiency and 15% collectively disagree.

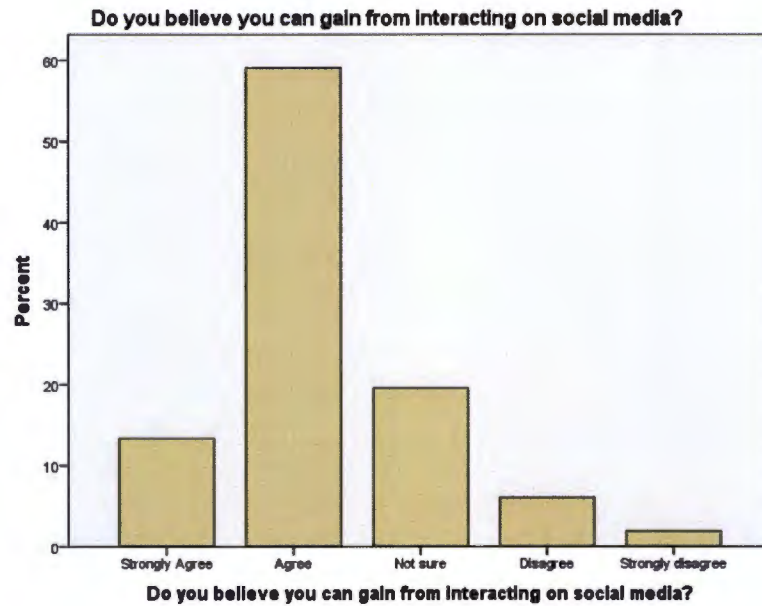


Figure 34 Interaction gain

The results regarding the above Figure 34 indicate if respondents gain from interacting on social media. A collective 73% of respondents seem to agree. While 6% remain unsure of its efficiency and 8% collectively disagree.

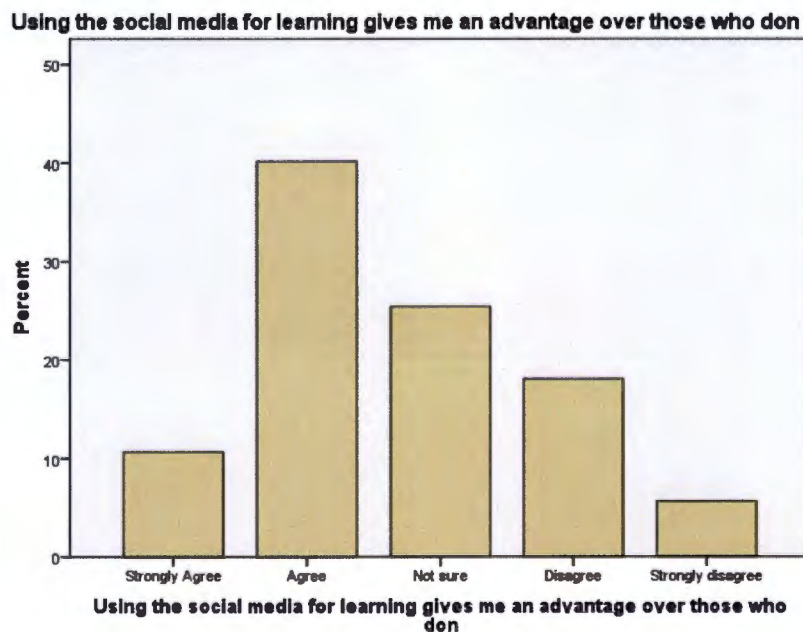


Figure 35 Advantage

The results regarding the above Figure 35 indicate if using social media for learning gives them an advantage over those who do not. A collective 51% of respondents seem to agree. While 25% remain unsure of its efficiency and 24% collectively disagree.

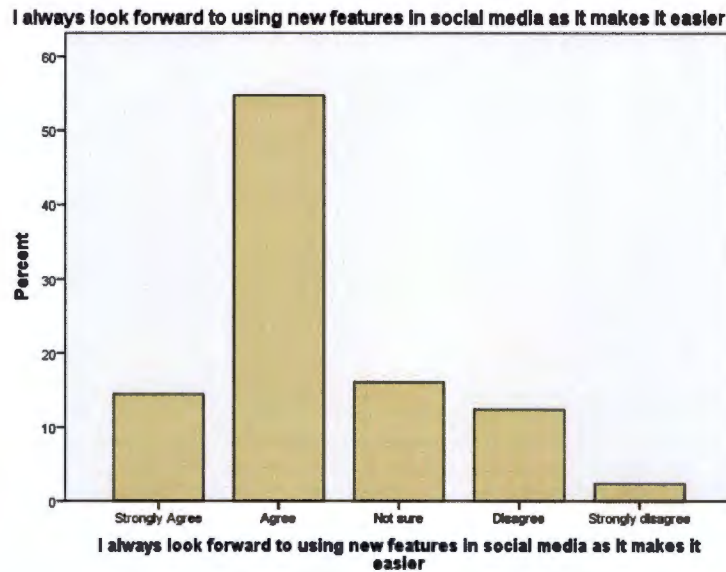


Figure 36 New features

The results regarding the above Figure 36 indicate like it when new features of social media are added. A collective 69% of respondents seem to agree. While 16% remain unsure of its efficiency and 15% collectively disagree.

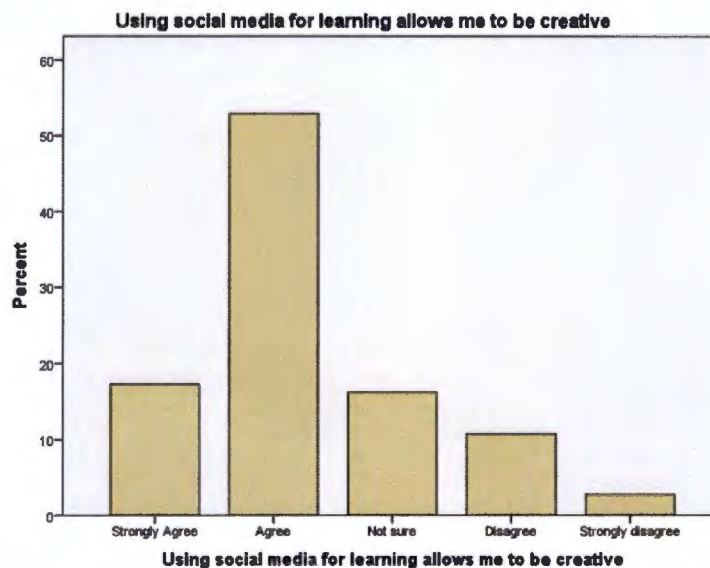


Figure 37 Creativity

The results regarding the above Figure 37 indicate if using social media for learning allows them to be creative. A collective 70% of respondents seem to agree. While 16% remain unsure of its efficiency and 14% collectively disagree.

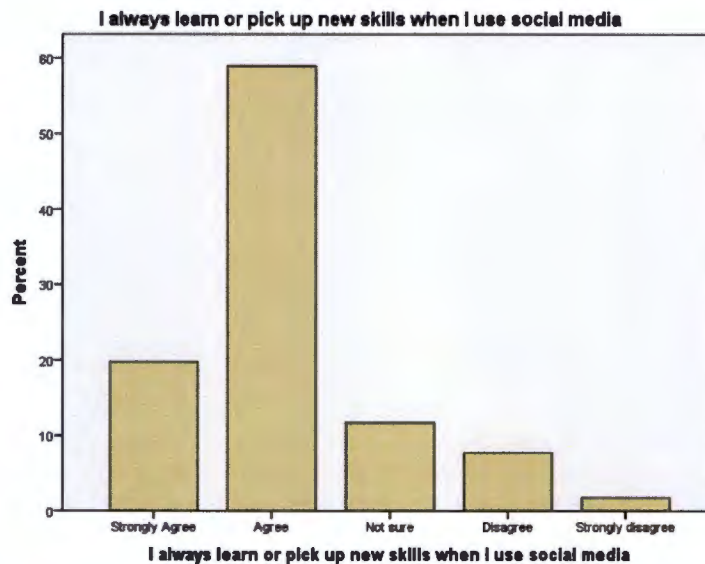


Figure 38 New skills

The results regarding the above Figure 38 indicate if using social media teaches them new skills. A collective 79% of respondents seem to agree. While 12% remain unsure of its efficiency and 9% collectively disagree.

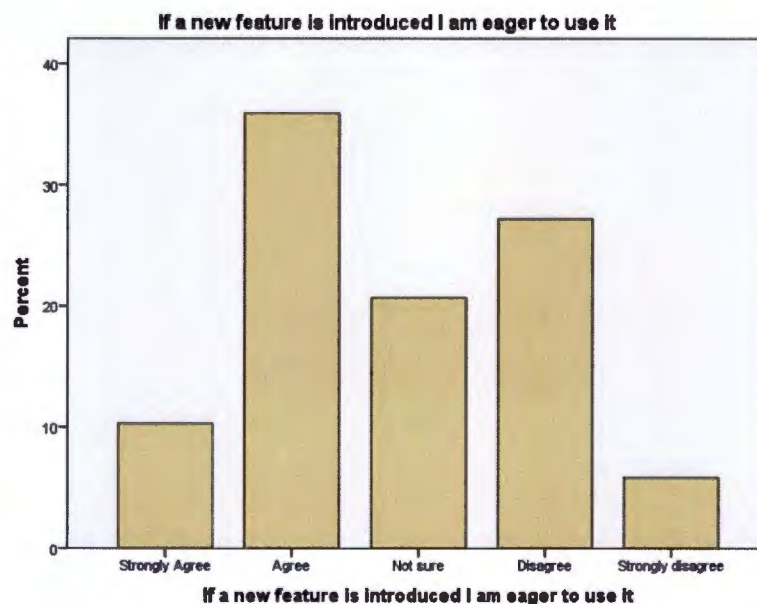


Figure 39 New features

The results regarding the above Figure 39 indicate when a new social media feature is added are student eager to use it. A collective 46% of respondents seem to agree. While 21% remain unsure of its efficiency and 33% collectively disagree.

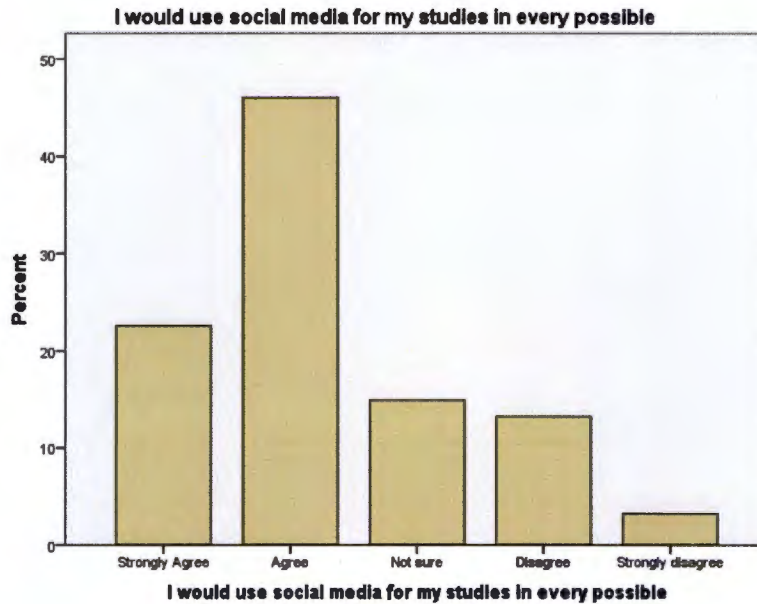


Figure 40 Advance usage

The results regarding the above Figure 40 indicate if respondents would use social media for learning in every possible. A collective 69% of respondents seem to agree. While 15% remain unsure of its efficiency and 16% collectively disagree.



Figure 41 Knowledge

The results regarding the above Figure 41 indicate if respondents expect to acquire knowledge and information when they on social media. A collective 84% of respondents seem to agree. While 9% remain unsure of its efficiency and 7% collectively disagree.

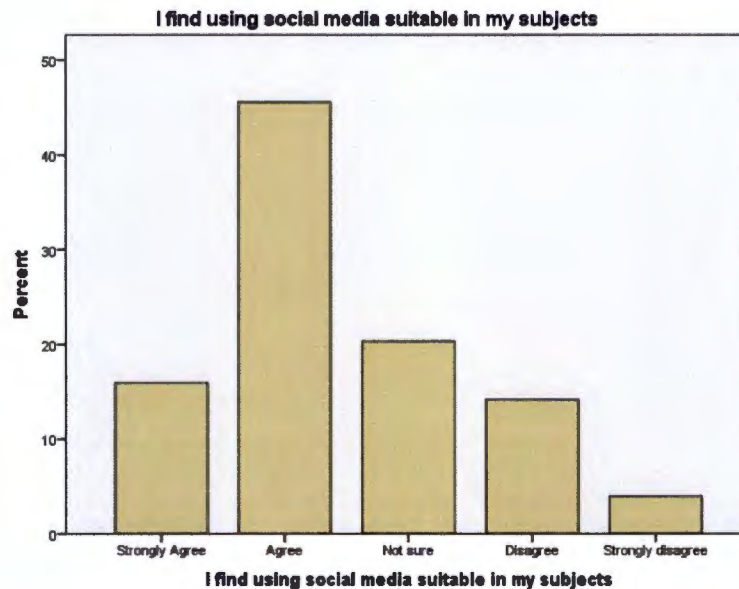


Figure 42 Suitability

The results regarding the above Figure 42 indicate respondents find social media suitable for their subjects. A collective 62% of respondents seem to agree. While 20% remain unsure of its efficiency and 18% collectively disagree.

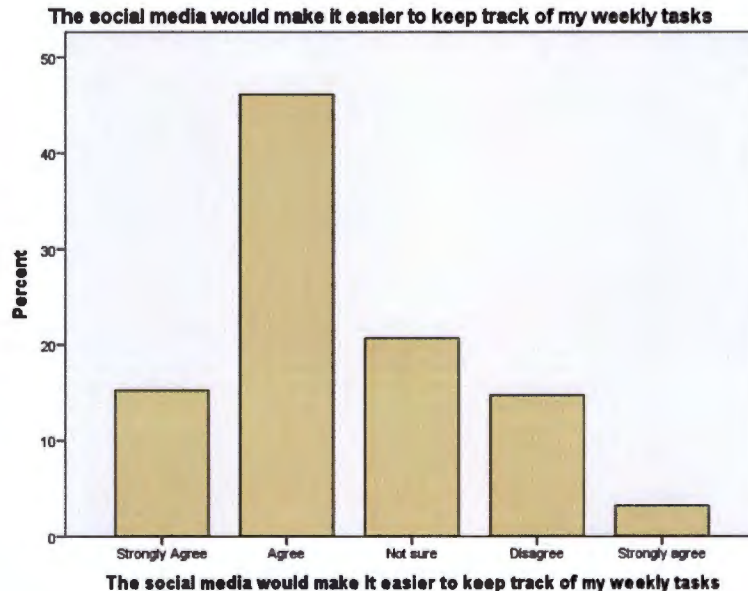


Figure 43 Work track

The results regarding the above Figure 43 indicate if using social media helps students keep track of weekly tasks. A collective 61% of respondents seem to agree. While 21% remain unsure of its efficiency and 18% collectively disagree.

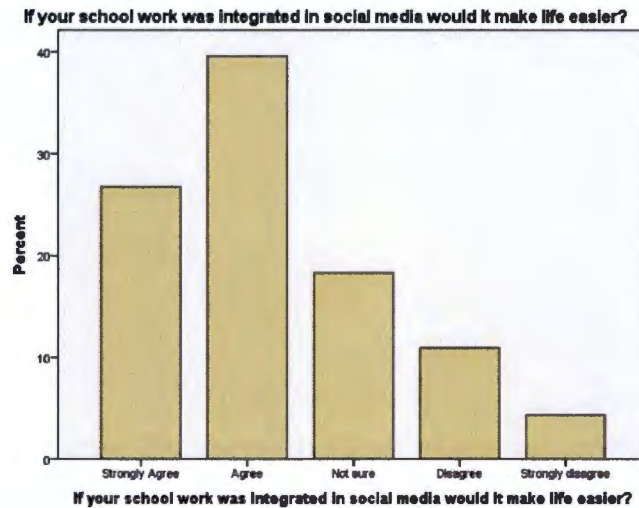


Figure 44 Integration

The results regarding the above Figure 44 indicate if schoolwork were integrated into social media, it would make life easier. A collective 66% of respondents seem to agree. While 18% remain unsure of its efficiency and 16% collectively disagree.

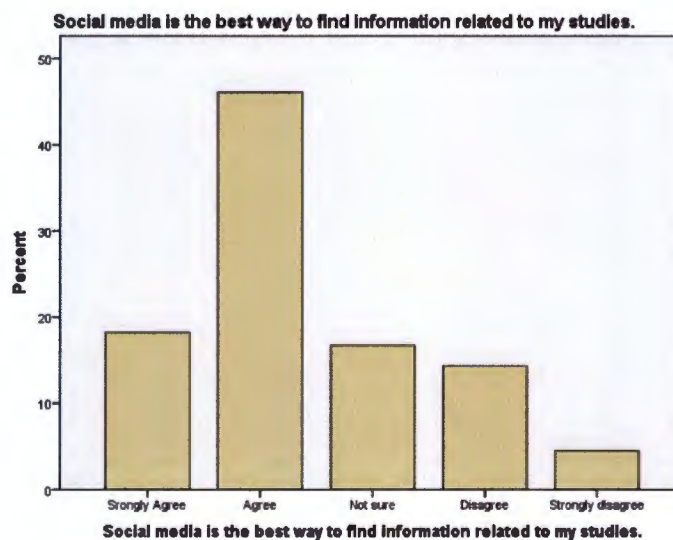


Figure 45 Relevance

The results regarding the above Figure 45 indicate if social media is the best way to find information for students. A collective 64% of respondents seem to agree. While 17% remain unsure of its efficiency and 19% collectively disagree.

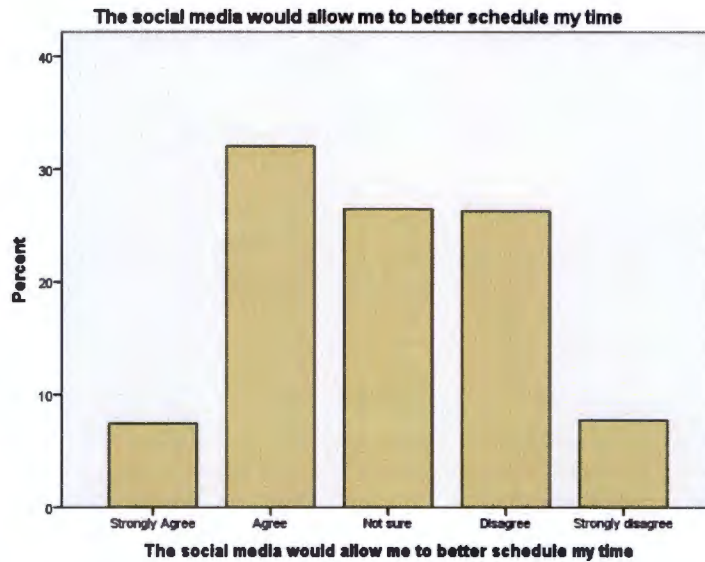


Figure 46 Schedule

The results regarding the above Figure 46 indicate if using social media allows them to schedule their time better. A collective 40% of respondents seem to agree. While 27% remain unsure of its efficiency and 33% collectively disagree.

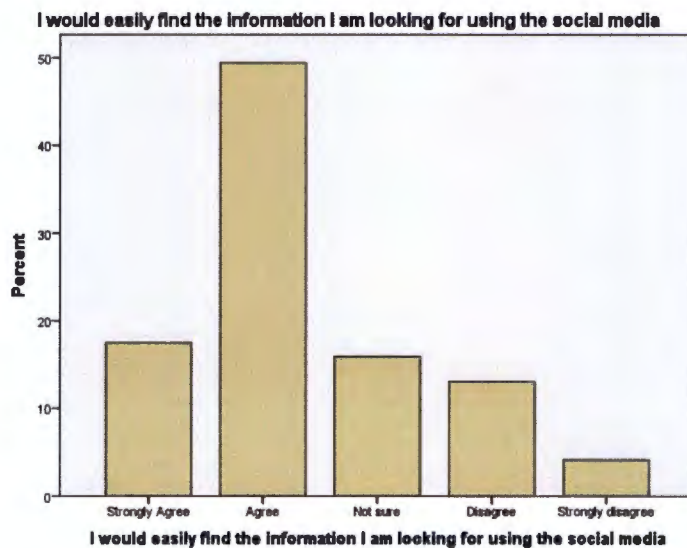


Figure 47 Easy usage

The results regarding the above Figure 47 indicate if using social media helps students find information easily. A collective 67% of respondents seem to agree. While 16% remain unsure of its efficiency and 17% collectively disagree.

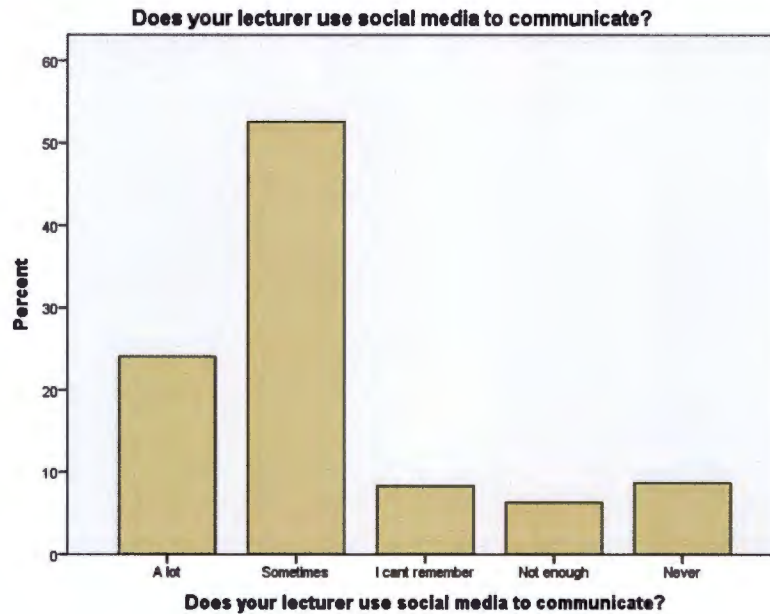


Figure 48 Lecturer communication

The results regarding the above Figure 48 indicate if lecturers are using social media to communicate with respondents. A collective 77% of respondents indicate a lot. While 8%, remain unsure or cannot remember. 15% collectively indicate that they barely do not get communication using social media or it is simply is not enough.

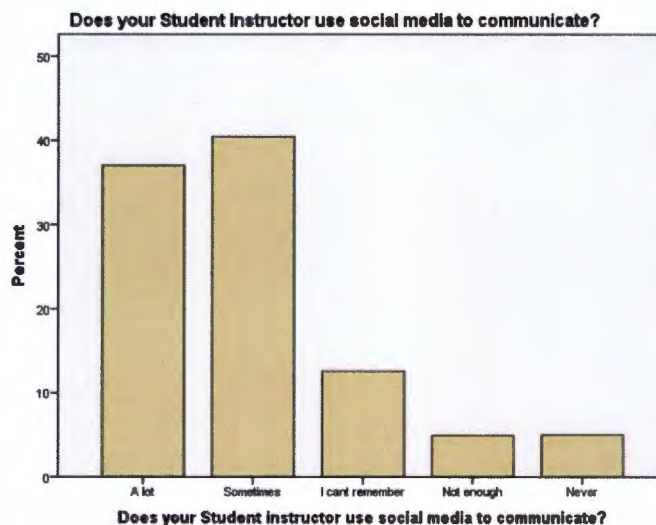


Figure 49 Student Instructor

The results regarding the above Figure 49 indicate if student instructor are using social media to communicate with respondents. A collective 77% of respondents indicate a lot. While 13%, remain unsure or cannot remember. Ten percent collectively indicate that they barely do not get communication using social media or it is simply is not enough.

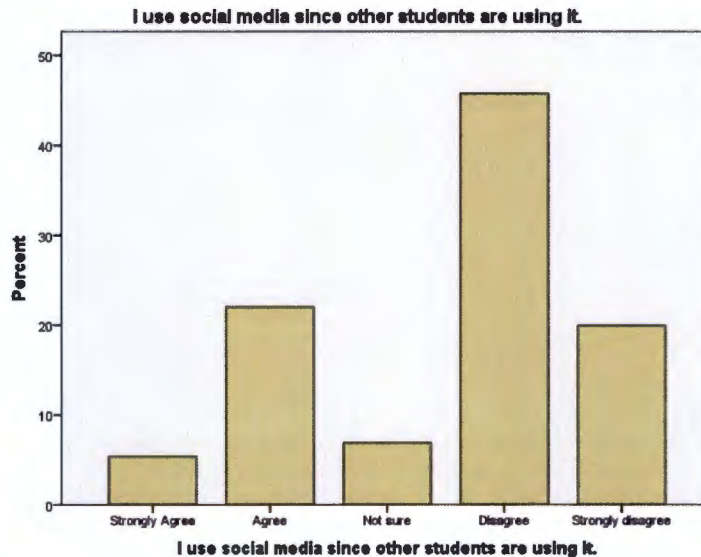


Figure 50 Student usage

The results regarding the above Figure 50 indicate if students are using social media since other students are using it. A collective 27% of respondents seem to agree. While 7% remain unsure of its efficiency and 66% collectively disagree.

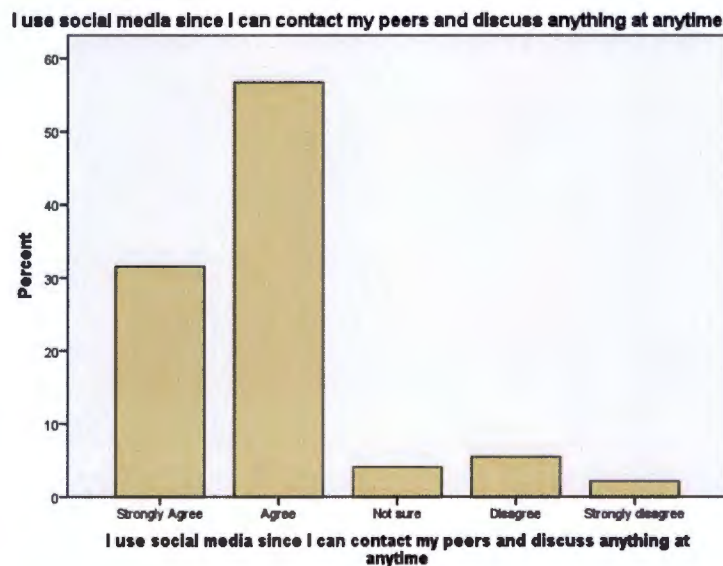


Figure 51 Student Contact

The results regarding the above Figure 51 indicate students use social media since they can contact peers and discuss anything at any time. A collective 88% of respondents seem to agree. While 4% remain unsure of its efficiency and 8% collectively disagree.

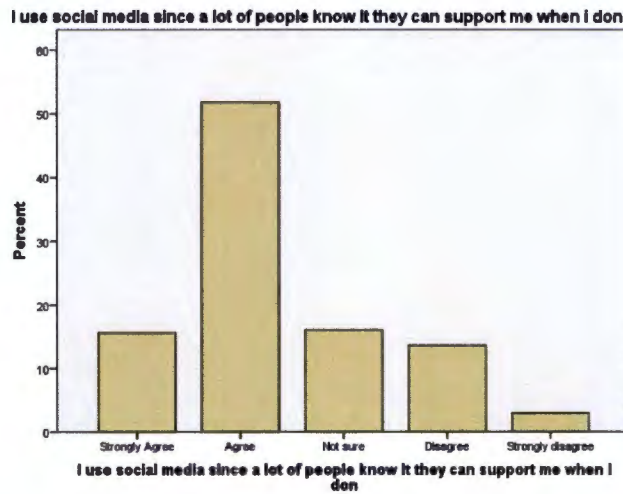


Figure 52 Support

The results regarding the above Figure 52 indicate that students may be using social media since they receive support when they use it. A collective 67% of respondents seem to agree. While 16% remain unsure of its efficiency and 17% collectively disagree.

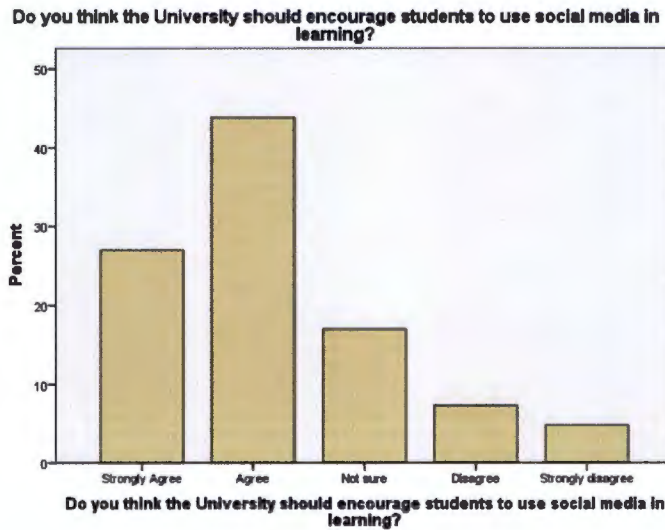


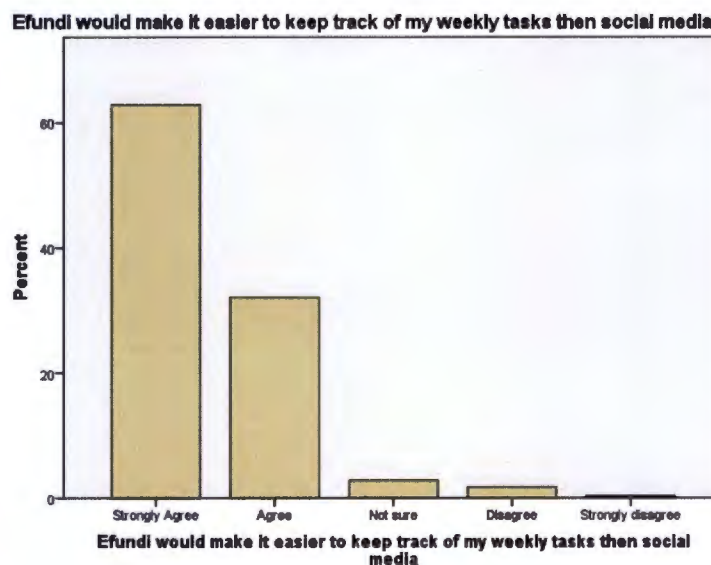
Figure 53 University Support

The results regarding the above Figure 53 indicate if the university should encourage using social media for learning. A collective 71% of respondents seem to agree. While 17% remain unsure of its efficiency and 12% collectively disagree.



Figure 54 Good practice

The results regarding the above Figure 54 indicate if there were user practice training for usage of social media in learning, would students be interested in attending. A collective 76% of respondents seem to agree. While 15% remain unsure of its efficiency and 9% collectively disagree.



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Figure 55 Weekly tasks

The results regarding the above Figure 55 indicate if e-fundi (e-learning platform) can help them keep track of weekly tasks. A collective 95% of respondents seem to agree. While 3% remain unsure of its efficiency and 2% collectively disagree.

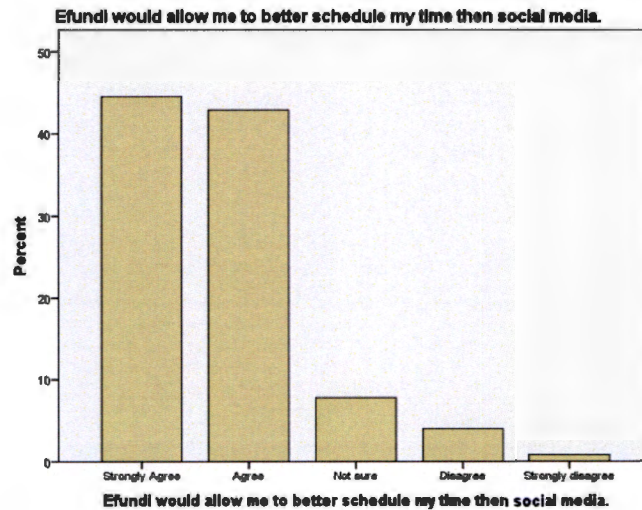


Figure 56 Better schedule

The results regarding the above Figure 56 indicate e-fundi is more suitable for time management then social media. A collective 88% of respondents seem to agree. While 7% remain unsure of its efficiency and 5% collectively disagree.

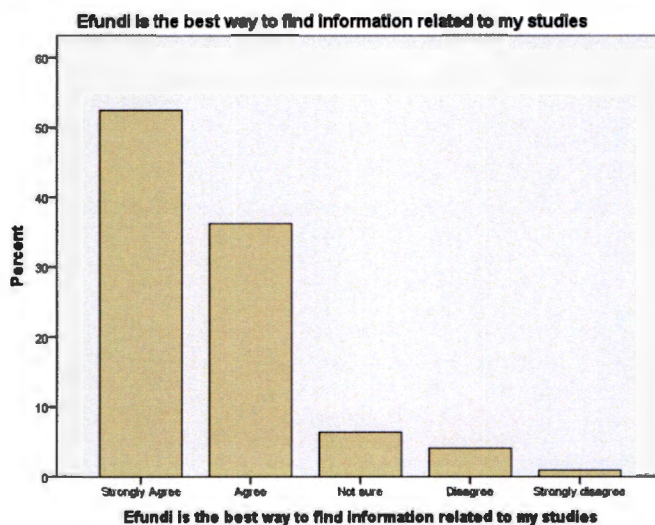


Figure 57 Better information

The results regarding the above Figure 57 indicate that e-fundi is the best way to find information related to their studies. A collective 89% of respondents seem to agree. While 6% remain unsure of its efficiency and 5% collectively disagree.

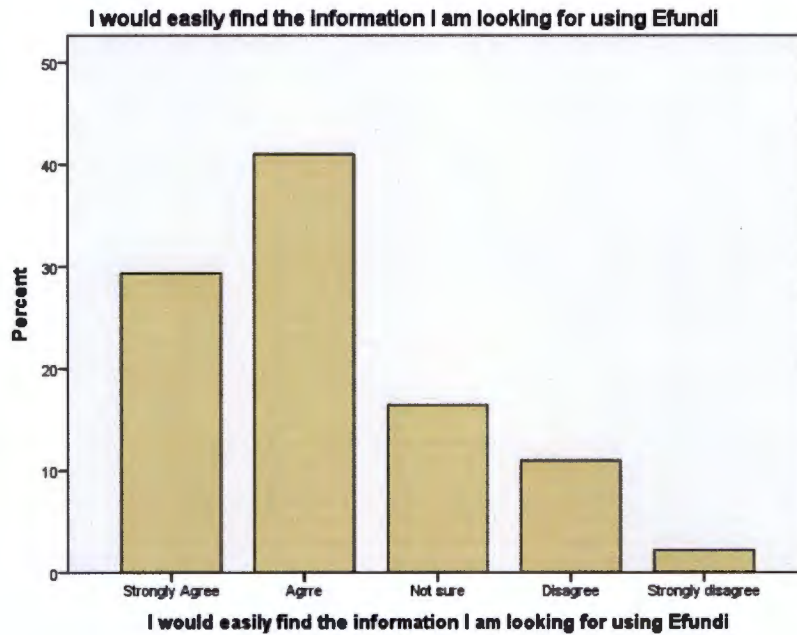


Figure 58 Better suitability

The results regarding the above Figure 58 indicate that students can find information they are looking for using e-fundi. A collective 71% of respondents seem to agree. While 17% remain unsure of its efficiency and 12% collectively disagree.

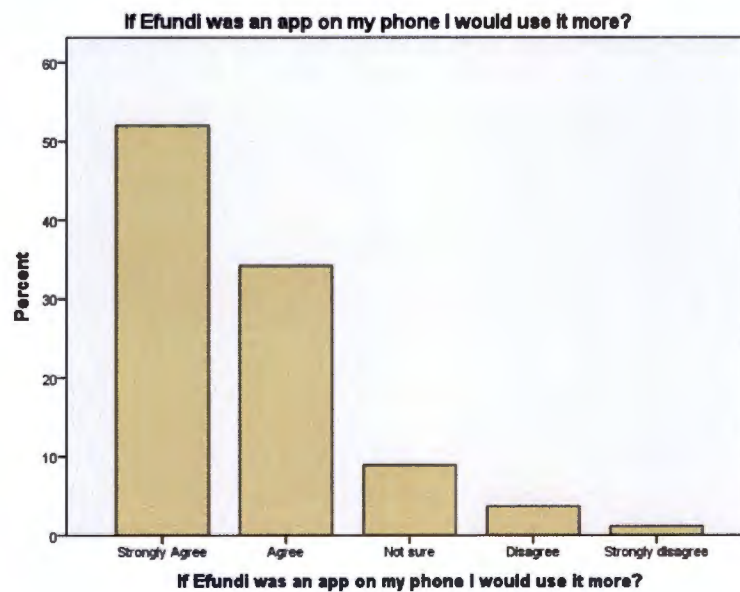


Figure 59 Convenience

The results regarding the above Figure 59 indicate students would use e-fundi more if it was an application on there phone. A collective 86% of respondents seem to agree. While 9% remain unsure of its efficiency and 5% collectively disagree.

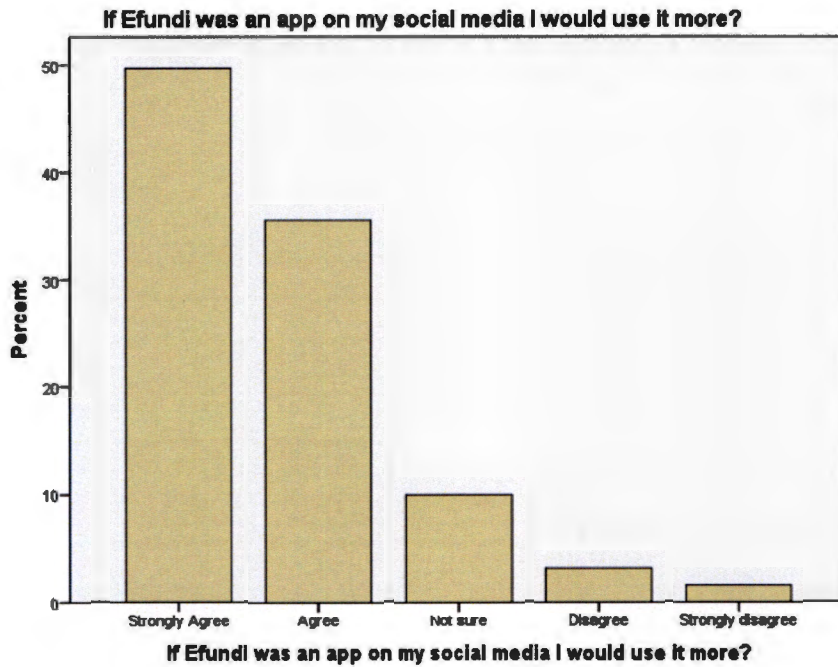


Figure 60 Mobile convenience

Students indicated to use social media according to the following Figure 60, in accordance to their studies. Among the respondents, 63% of them claim to use social media to stay up to date with new work, 64 % claim to use it to share opinions, 15% use it to meet new people, 54% use it to arrange meetings and 10% use it for other purposes not mentioned in the survey.

4.4 Correlation Results

The table above is a correlation finding based on the tests. All hypothesis seem to indicate a strong significance. This gives light to the fact that social media has a strong impact on the learning process of students.

Correlations		H1_PE	H2_LE	H3_LA	H4_SI	H5_PI	H6_BI	H7_SLC	H8_FC	H9_PS	LU
H1_PE	Pearson Correlation										
	Sig. (2-tailed)										
	N	1058									
H2_LE	Pearson Correlation	.542**									
	Sig. (2-tailed)	.000									
	N	1058	1058								
H3_LA	Pearson Correlation	.456**	.431**								
	Sig. (2-tailed)	.000	.000								
	N	1058	1058	1058							
H4_SI	Pearson Correlation	.294**	.310**	.445**							
	Sig. (2-tailed)	.000	.000	.000							
	N	1053	1053	1053	1053						
H5_PI	Pearson Correlation	.405**	.450**	.401**	.362**						
	Sig. (2-tailed)	.000	.000	.000	.000						
	N	1058	1058	1058	1053	1058					
H6_BI	Pearson Correlation	.408**	.447**	.515**	.481**	.479**					
	Sig. (2-tailed)	.000	.000	.000	.000	.000					
	N	1058	1058	1058	1053	1058	1058				
H7_SLC	Pearson Correlation	.496**	.498**	.501**	.418**	.525**	.562**				
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000				
	N	1058	1058	1058	1053	1058	1058	1058			
H8_FC	Pearson Correlation	.255**	.271**	.273**	.410**	.275**	.329**	.359**			
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000			
	N	1058	1058	1058	1053	1058	1058	1058	1058		
H9_PS	Pearson Correlation	.402**	.405**	.383**	.295**	.404**	.438**	.560**	.289**		
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000		
	N	1058	1058	1058	1053	1058	1058	1058	1058	1058	
LU	Pearson Correlation	.072*	.123**	.073*	.119**	.130**	.144**	.152**	.132**	.181**	
	Sig. (2-tailed)	.019	.000	.017	.000	.000	.000	.000	.000	.000	
	N	1053	1053	1053	1048	1053	1053	1053	1053	1053	1053
**. Correlation is significant at the 0.01 level (2-tailed).											
*. Correlation is significant at the 0.05 level (2-tailed).											

The correlations significance at 0.01 shows a strong relationship significance between tested variables, which makes the test valid. The correlations significance at 0.05 illustrates less strong correlation.

4.5 Understanding the results

Sno	Hypothesis	Significance	Accept/ Reject
H1	Performance expectancy	.408**	Accept
H2	Social media learning effort expectancy	.447**	Accept
H3	Learning Autonomy	.515**	Accept
H4	Social Influence	.481**	Accept
H5	Personal Innovativeness	.479**	Accept
H6	Behavioural Intention	.144**	Accept
H7	Social learning Compatibility	.152**	Accept
H8	Facilitation Conditions	.132**	Accept
H9	Professional support	.181**	Accept

The H1 hypothesis tests the relationship between the test results scored on the performance expectancy and behavioural Intention, administered to a sample of 1058 students. The scatter diagrams indicate a linear relationship between the two test scores. Pearson's bivariate correlation coefficient shows a medium positive linear relationship between both test scores ($r = .408$) that is significantly different from zero ($p < 0.001$).

The H2 hypothesis tests the relationship between the test results scored on the social media learning effort expectancy and behavioural Intention, administered to a sample of 1058 students. The scatter diagrams indicate a linear relationship between the two test scores. Pearson's bivariate correlation coefficient shows a medium positive linear relationship between both test scores ($r = .447$) that is significantly different from zero ($p < 0.001$).

The H3 hypothesis tests the relationship between the test results scored on the learning autonomy and behavioural Intention, administered to a sample of 1058 students. The scatter diagrams indicate a linear relationship between the two test scores. Pearson's bivariate correlation coefficient shows a medium positive linear relationship between both test scores ($r = .515$) that is significantly different from zero ($p < 0.001$).

The H4 hypothesis tests the relationship between the test results scored on the social influence and behavioural Intention, administered to a sample of 1058 students. The scatter diagrams indicate a linear relationship between the two test scores. Pearson's bivariate correlation coefficient shows a medium positive linear relationship between both test scores ($r = .481$) that is significantly different from zero ($p < 0.001$).

The H5 hypothesis tests the relationship between the test results scored on the personal innovations and behavioural Intention, administered to a sample of 1058 students. The scatter diagrams indicate a linear relationship between the two test scores. Pearson's bivariate correlation coefficient shows a medium positive linear relationship between both test scores ($r = .479$) that is significantly different from zero ($p < 0.001$).

The H6 hypothesis tests the relationship between the test results scored on the behavioural intent and learning usage, administered to a sample of 1058 students. The scatter diagrams indicate a linear relationship between the two test scores. Pearson's bivariate correlation coefficient shows a minimal positive linear relationship between both test scores ($r = .144$) that is significantly different from zero ($p < 0.001$).

The H7 hypothesis tests the relationship between the test results scored on the social learning compatibility and learning usage, administered to a sample of 1058 students. The scatter diagrams indicate a linear relationship between the two test scores. Pearson's bivariate correlation coefficient shows a minimal positive linear relationship between both test scores ($r = .152$) that is significantly different from zero ($p < 0.001$).

The H8 hypothesis tests the relationship between the test results scored on the Facilitating conditions and learning usage, administered to a sample of 1058 students. The scatter diagrams indicate a linear relationship between the two test scores. Pearson's bivariate correlation coefficient shows a minimal positive linear

relationship between both test scores ($r = .132$) that is significantly different from zero ($p < 0.001$).

The H9 hypothesis tests the relationship between the test results scored on the professional support and learning usage, administered to a sample of 1058 students. The scatter diagrams indicate a linear relationship between the two test scores. Pearson's bivariate correlation coefficient shows a minimal positive linear relationship between both test scores ($r = .181$) that is significantly different from zero ($p < 0.001$).

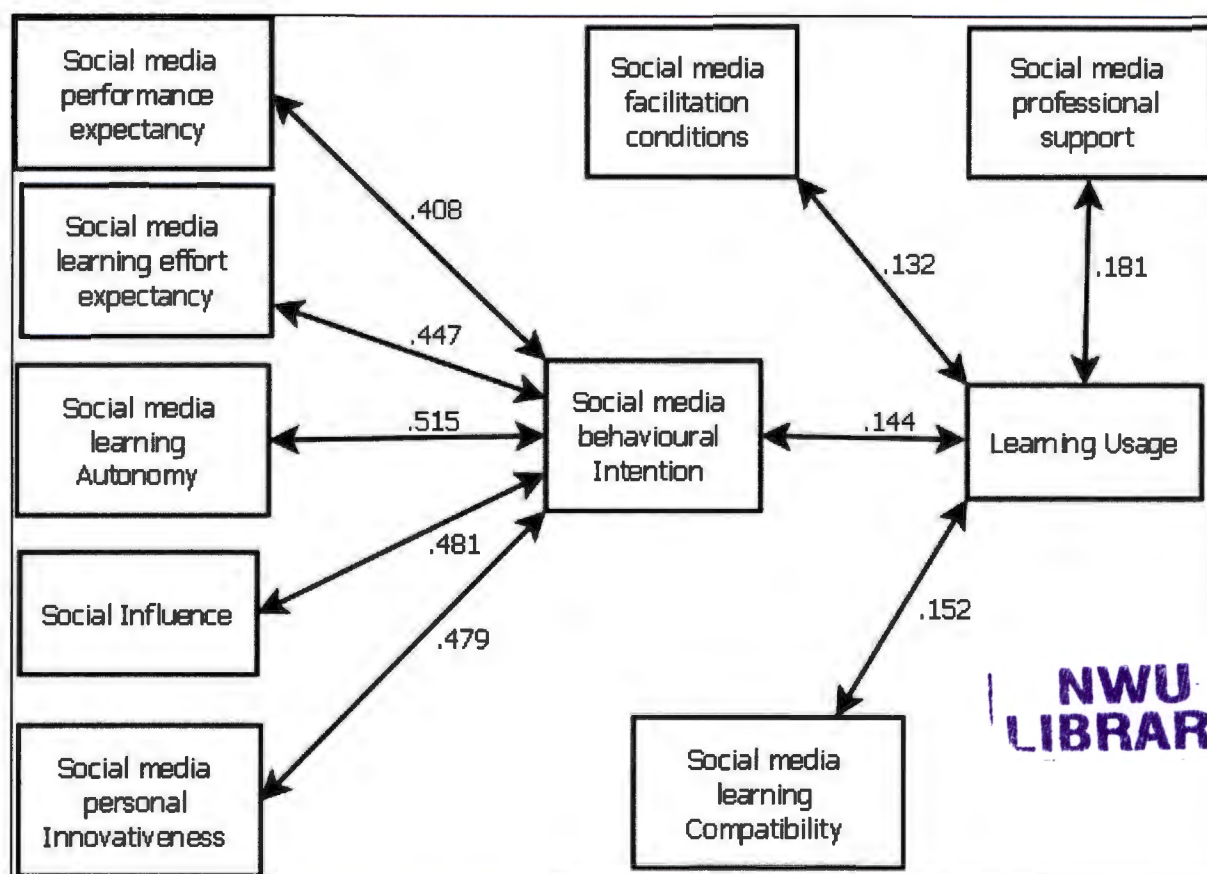


Figure 61 Model with correlations

The correlations plotted against the model indicate the distributed correlations among the different constructs based on the given research model.

4.6 Result summary

The research questions and factors influencing the use of social learning:

Students' comprehension does have an influence on how they use social platforms. This does have a manner of influence in the behavioural intention. Social medium offer does off some learning capability with regard to learning. The relationship does not offer a strong relationship when paired with actual usage. Social media has the potential to be used to skill students as the overall usage has a relationship with how they use it for learning.

The study examined the social learning within social media against formal platforms and it has found that social media platforms have high relationship with behavioural intention to learn. Social media has a lot of potential in becoming a learning tool. The challenges adopting social media for learning can still be further investigated by testing the nature of the coexisting relationships between the constructs to further find how best to improve the learning experience.

5 Conclusion

5.1 Overview

The study investigates the factors affecting social media usage in e-learning. The study has reviewed the social media history and usage. The study examined the social learning within social media against formal platforms. This chapter concludes our research by answering our research questions and meeting our objectives.

The research objective was to investigate the factors influencing usage media by students at North-west University with regard to learning. This gave raise to several questions which needed to be answered.

- What does a social medium offer with regard to social learning?
- Can social media be used to skill the users?
- What would be the challenges in using social media for learning?
- How do students comprehend and use social platforms?

These questions are addressed in the conclusion.

5.2 Discussion of results and findings:

This section discusses the comparison between the research results and the literature.

5.2.1 Social media offer with regard to social learning

Social media does offer learning capability with regard to the learning process. The performance expectancy (H1) for learning on social media is high among students. Many student respondents perceive social media as a useful tool in their studies. Many students even prefer to use it due to its accessibility. However oddly enough only 64.1% believed it increased efficiency on their studies. The comprehension of content occurs effectively when the content is conversed over socially. The interaction allows for addressing of problems such misunderstanding of content and similar contents. (Buckingham & Ferguson 2012).

Social media learning effort expectancy (H2) is the amount of effort that users felt was required to learn through social media. A high amount of respondents found the social media is user friendly, fun to use and flexible to interact with.

5.2.2 Social media be used to skill the users

Social media has the potential to be used to skill students. Learning autonym (H3) involves the voluntary usage of social media for the learning process. A high amount of respondents claimed that they voluntarily use social media. They also indicated that they use social media whenever they are unoccupied. When it comes to personal innovativeness (H5) half of the students believed using social media gave them an advantage over those who did not use it. The “wisdom of crowds” is a result of gathering information from the general public in order to form a pool of expertise. Dissanayake et al (2014) believes this possibly gives advantage to students who use social media.

While a high amount students agree that social media allows for them to be creative in their studies. Even more students claim to learn and pick up new skills on social media. Social media creates virtual surroundings in which information can be searched and used and co-created by the users of the media (Stanoievska-Slabeva K et al 2015). This enables a creative environment.

5.2.3 The challenges in using social media for learning

Social influence (H4) is a factor as high amount of students claim that they do not use social media due to peer pressure. A high amount of students claim that it helps them access people easier and makes it easier for people access them. Sixty percent of respondents do not have a fear of missing on social trends.

Social learning compatibility (H7) for learning was accessed. High amount of students believe social media is beneficial for their studies and could make it easier to keep track of weekly tasks. The biggest problem with learning on electronic platforms is structuring learning process. The content structure and teaching process should be important so that students feel compelled to interact. Most e-learning platforms deploy forums (Sanditov B, 2006).

Teaching traditionally involves deploying varies types of methods and strategies. Even in electronic based learning e-moderation is applied alongside mentoring and motivation of students. The problem is that these methods need to be applied pragmatically in and actively through social media (Latemann& Stieglitz, 2012).

A very high amount of respondents believes E-Fundi the formal learning platform is more suitable to keep track of weekly tasks as oppose to social media. 66.4% believe that if schoolwork was integrated into social media it would make life easier.

Memory recall was generally poor in students who use social media excessively. Students develop a habit of skimming through information on social media instead of processing it. This results in students developing a poor ability to process information (Hassell & Sukalich, 2015). The student must have a clear intention to learn something as oppose to scheming and browsing (Buckingham & Ferguson 2012).Facilitation conditions (H8) involves the conditions that facilitate the use of social media in learning. This creates clear intention and goal orientation within the usage of social media for students.

Communication is a factor as over high amount of students claim that there are lecturers and student instructor who do use social media to communicate. High amount of students use social media but it is not due to other students using it, however a very high amount do agree that one of the reasons they use it is to contact peers and discuss issues anytime.

The term learning is associated with the formal process of learning. However, students were able to identify the positive outcomes from social learning experiences (Sanditov B, 2006). Professional support (H9) is the institution support for the use of social media in studies. High amount of students believe the institution should encourage students to use social media. Higher amount indicate they are interested in receiving training that would teach best practices in using social media for learning.

Participating in groups such as a community of practices can be greatly beneficial to students (Agarwalet al.2013). Students need to be aware of social learning, with respect to why and how it works, in order to harness its benefits (Sanditov B, 2006). The university as an institution could educate and train students how to make the best out of social media.

5.2.4 Students comprehend and use social platforms

A good advantage of social media discussions is that it involves a collective of information by participation of different individuals. The collective involvement of content creation is a key characteristic in social media (Wegener R et al, 2012). Student comprehension of social media platforms will influence how they behave towards it. A high amount of students believes that they can acquire knowledge and information on social media.

Technological media breaks a distance barrier between learners or even colleagues. The platforms create vast opportunities of interaction differing from platform to platform. There are various type of Social media available that allow for this (Latemann & Stieglitz, 2012). High amount of respondents want to use social media in their studies in every way possible.

5.3 How I have answered the research questions

This section summarised how the study achieved its objectives and answered the research question. The objective of the study was to investigate the factors influencing usage of social media by students at North-west University with regard to learning.

- What does a social medium offer with regard to social learning?

Social media offers a huge opportunity for learning through social interaction. It allows for interactive collection of knowledge through informal process. Social media is a preferable tool that students are willing and eager to exploit.

- Can social media be used to skill the users?

Social media can be used to skill users, majority of its users claim to gain knowledge and believe its good tool to transfer skills and knowledge. The key to its usage comes to how students can be channelled to apply it effectively.

- What would be the challenges in using social media for learning?

Compatibility is an issue since social media is designed for socializing and learning is a by-product of socializing. Naturally, social learning occurs on social media. E-learning platforms are better suited for formal learning however not preferable to social platforms.

- How do students comprehend and use social platforms?

Students comprehend social media platforms as areas that they could express themselves creatively and collectively consolidate information. They also see social media as something they use for fun in their spare time. They are willing to explore and use it in any way possible.

5.4 Conclusion

Social media has a lot of potential in becoming a learning tool as the study demonstrated that social learning has transcended into social media. Social media cannot substitute e-learning platforms as E-learning platforms are designed for formal learning.

Social media is a platform for socializing and social learning naturally takes place as a result. Perhaps the integration of one into the other could see a huge change in the effective usage of both platforms. Social media is popular and has more support and development than e-learning platforms, joining the bandwagon is much easier than trying to reinvent the wheel.

5.5 Limitations and future gaps

The study was primarily focused on 1st year students as a case study for the North West University Mafikeng Campus. A future study can explore into the integration of social media and formal learning platform and see how students respond to such.

A recommendation based on some findings, indicate that students are highly interested in training on best practices of social media usage. Social media can prove to be valuable in academia if properly exploited.

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Annexure A- Ethical clearance



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

Private Bag X8001, Potchefstroom,
South Africa, 2520

Tel: (018) 299-4900

Fax: (018) 299-4910

Web: <http://www.nwu.ac.za>

Institutional Research Ethics Regulatory Committee

Tel: +27 18 299 4849

Email: Ethics@nwu.ac.za

ETHICS APPROVAL CERTIFICATE OF PROJECT

Based on approval by the Human Sciences Research Ethics Committee (HSREC) on 06/12/2016, the North-West University Institutional Research Ethics Regulatory Committee (NWU-IRERC) hereby approves your project as indicated below. This implies that the NWU-IRERC grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the project may be initiated, using the ethics number below.

Project title: Investigating factors affecting social media usage in e-learning for students at North West University Mafikeng Campus.																
Project Leader/Supervisor:	Dr O Jokonya															
Student:	L Bogatsu															
Ethics number:	<table border="1"><tr><td>N</td><td>W</td><td>U</td><td>-</td><td>0</td><td>0</td><td>5</td><td>5</td><td>7</td><td>-</td><td>1</td><td>6</td><td>-</td><td>A</td><td>9</td></tr></table>	N	W	U	-	0	0	5	5	7	-	1	6	-	A	9
N	W	U	-	0	0	5	5	7	-	1	6	-	A	9		
Application Type: Master application																
Commencement date: 2016-12-05	Expiry date: 2019-12-05															
Risk:	N/A															

Special conditions of the approval (if applicable):

- Translation of the informed consent document to the languages applicable to the study participants should be submitted to the HSREC (if applicable).
- Any research at governmental or private institutions, permission must still be obtained from relevant authorities and provided to the HSREC. Ethics approval is required BEFORE approval can be obtained from these authorities.

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, please note the following:

- The project leader (principal investigator) must report in the prescribed format to the NWU-IRERC via HSREC:
 - annually (or as otherwise requested) on the progress of the project, and upon completion of the project
 - without any delay in case of any adverse event (or any matter that interrupts sound ethical principles) during the course of the project.
 - Annually a number of projects may be randomly selected for an external audit.
- The approval applies strictly to the protocol as stipulated in the application form. Would any changes to the protocol be deemed necessary during the course of the project, the project leader must apply for approval of these changes at the HSREC. Would there be deviation from the project protocol without the necessary approval of such changes, the ethics approval is immediately and automatically forfeited.
- The date of approval indicates the first date that the project may be started. Would the project have to continue after the expiry date, a new application must be made to the NWU-IRERC via HSREC and new approval received before or on the expiry date.
- In the interest of ethical responsibility the NWU-IRERC and HSREC retains the right to:
 - request access to any information or data at any time during the course or after completion of the project
 - to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process.
 - withdraw or postpone approval if:
 - any unethical principles or practices of the project are revealed or suspected,
 - it becomes apparent that any relevant information was withheld from the HSREC or that information has been false or misrepresented,
 - the required annual report and reporting of adverse events was not done timely and accurately,
 - new institutional rules, national legislation or international conventions deem it necessary.
- HSREC can be contacted for further information via Ethics@nwu.ac.za or 018 299 2873.

The IRERC would like to remain at your service as scientist and researcher, and wishes you well with your project. Please do not hesitate to contact the IRERC or HSREC for any further enquiries or requests for assistance.

Yours sincerely

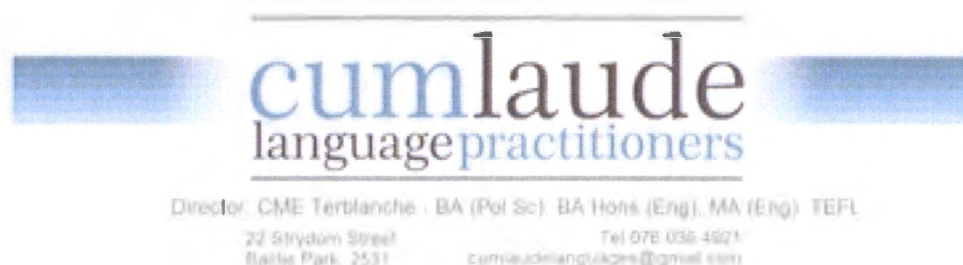
Linda du
Plessis

Digitally signed by Linda du Plessis
DN: cn=Linda du Plessis, o=NWU,
ou=North West University, email=linda.duplessis@nwu.ac.za,
c=ZA
Date: 2016.12.13 17:06:45 +0200

Prof Linda du Plessis

Chair NWU Institutional Research Ethics Regulatory Committee (IRERC)

Annexure B- Language Editing



DECLARATION OF LANGUAGE EDITING

I, Christina Maria Etrechia Terblanche, hereby declare that I edited the research study titled:

Investigating factors affecting social media usage in e-learning for students at North-West University

for L Bogatsu for the purpose of submission as a postgraduate dissertation. Changes were suggested and implementation was left to the discretion of the author.

Regards,

CME Terblanche

Cum Laude Language Practitioners (CC)

SATI accnr: 1001066

PEG registered

Annexure C- Questionnaire

Investigating factors affecting social media usage in e-learning for students at North-West

University: A study case of 1st year students.

Information Systems

North West University

Researcher: Lucky Bogatsu

Supervisor: Dr Jokonya

Note to the respondent

Your help is needed in investigating factors affecting social media usage in e-learning for students at North-West University

Your participation in the study is voluntary.

What you say in this questionnaire will remain private and confidential. No one will be able to trace your opinion back to you as a person.

The questionnaire as three parts:

Part 1 asks permission to use your responses for academic research.

Part 2 asks general personal particulars like your age, gender and home language.

Part 3 ask about social media usage by learners for their studies.

How to complete the questionnaire

1. Please answer the questions as truthfully as you can. Also, please be sure to read and follow the directions for each part. If you do not follow the directions, it will make it harder for us to do our project.
2. We are only asking you about things that you and your fellow researchers should feel comfortable telling us about. If you don't feel comfortable answering a question, you can indicate that you do not want to answer it. For questions that you do answer, your responses will be kept confidential.
3. You can mark each response by making a tick or a cross, or encircling each appropriate response with a PEN(not a pencil), or by filling in the required words or numbers.

Thank you very much for filling in the questionnaire.

Part1:Permission to use my responses for academic research

I hereby give permission that my responses may be used for research purpose provided that my identity is not revealed in the published records of the research.

Signature: _____

Part 2: General personal particulars

No.	Please tell us a little about yourself please mark only ONE option per question below.		
1	My gender is: Female Male		
2	I ethnic group is: 1African 2Colored 3Indian 4Oriental 5White 6A member of another ethnic group:	3	I am in my: 1 st Year 2 nd Year 3 rd Year Post Graduate
4	I am ____ years old.	5	I reside On campus Off campus
6	Do you own a smart phone? Yes No	7	What is your faculty Agriculture science and technology Commerce and administration Education and training Human and social sciences Law
8	How long have you owned a smart phone? Never 1-3. years 4-5. years 6-7. years 8-10. Years More years	9	Do you use social media? Yes No
10	Which social media do you use? 10Facebook 11WhatsApp 12Pinterest 13LinkedIn 14Google+ 15Youtube 16Twitter 17WeChat, 18 Instagram 19Snapchat 20Blog 21Other: 22None	11	Are you a member of a social group? Yes No

Part 3:

H1	Performance expectancy		
12	Social media is useful for me as a student. 1-:5Strongly Agree 1-:4Agree 0-:3Not sure -1:2Disagree -1:1Strongly disagree	13	Using the social media increase the efficiency of my daily studies. Strongly Agree Agree Not sure Disagree Strongly disagree
14	How do you use social media for your studies? 6- 1Stay up to date with new work 7- 2Share opinions 8- 3Meet new people 9- 4Arrange meetings 10-5Other	15	I prefer using social media since it's easier and quicker to access. Strongly Agree Agree Not sure Disagree Strongly disagree

H2	Social media learning effort expectancy		
16	I would find the social media to easy to use (user-friendly) Strongly Agree Agree Not sure Disagree Strongly disagree	17	I have fun using the social media for learning Strongly Agree Agree Not sure Disagree Strongly disagree
18	I would find the social media's system to be flexible to interact with. Strongly Agree Agree Not sure Disagree Strongly disagree		

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H3	Learning Autonomy		
19	Do you have to be reminded to use social media? Strongly Agree Agree Not sure Disagree Strongly disagree	20	Do you find social media rewarding to use for learning. Strongly Agree Agree Not sure Disagree Strongly disagree
21	Do you think using social media is a good? Strongly Agree Agree Not sure Disagree Strongly disagree	22	I cannot resist the usage of social media. Strongly Agree Agree Not sure Disagree Strongly disagree
23	I use social media anytime when I am free. Strongly Agree Agree Not sure Disagree Strongly disagree		

H4	Social Influence		
24	I use social media since my peers use it. Strongly Agree Agree Not sure Disagree Strongly disagree	25	I use social media so that people can access me easier? Strongly Agree Agree Not sure Disagree Strongly disagree
26	I use social media since I can access people easier. Strongly Agree Agree Not sure Disagree Strongly disagree	27	I always use social media since I have a fear of missing out a new social trend? Strongly Agree Agree Not sure Disagree Strongly disagree

28	I prefer to socialize on social media? Strongly Agree Agree Not sure Disagree Strongly disagree	29	I find it easier to interact on social media? Strongly Agree Agree Not sure Disagree Strongly disagree
30	Do you believe you can gain from interacting on social media? Strongly Agree Agree Not sure Disagree Strongly disagree		

H5	Personal Innovativeness		
31	Using the social media for learning gives me an advantage over those who don't. Strongly Agree Agree Not sure Disagree Strongly disagree	32	I always look forward to using new features in social media as it makes it easier. Strongly Agree Agree Not sure Disagree Strongly disagree
33	Using social media for learning allows me to be creative. Strongly Agree Agree Not sure Disagree Strongly disagree	34	I always learn or pick up new skills when I use social media. Strongly Agree Agree Not sure Disagree Strongly disagree
H6	Behavioral Intention		
35	I'm willingly always using social media. Strongly Agree Agree Not sure Disagree Strongly disagree	36	If a new feature is introduced I am eager to use it. Strongly Agree Agree Not sure Disagree Strongly disagree
37	I would use social media for my studies in every possible. Strongly Agree Agree Not sure Disagree Strongly disagree	38	I expect to acquire knowledge and information when I'm on social media. Strongly Agree Agree Not sure Disagree Strongly disagree

H7	Social learning Compatibility		
39	I find using social media suitable in my subjects. Strongly Agree Agree Not sure Disagree Strongly disagree		
40	The social media would make it easier to keep track of my weekly tasks. Strongly Agree Agree Not sure Disagree Strongly disagree	41	If your school work was integrated in social media would it make life easier? Strongly Agree Agree Not sure Disagree Strongly disagree
		42	Social media is the best way to find information related to my studies. Strongly Agree Agree Not sure Disagree Strongly disagree
43	The social media would allow me to better schedule my time. Strongly Agree Agree Not sure Disagree Strongly disagree	44	I would easily find the information I am looking for using the social media. Strongly Agree Agree Not sure Disagree Strongly disagree
H8	Facilitation Conditions		
45	Does your lecturer use social media to communicate? A lot Sometimes I can't remember Not enough Never	46	Does your student assistant use social media to communicate? A lot Sometimes I can't remember Not enough Never
47	Does your Student instructor use social media to communicate? A lot Sometimes I can't remember Not enough Never	48	I use social media since other students are using it. Strongly Agree Agree Not sure Disagree Strongly disagree

49	I use social media since I can contact my peers and discuss anything at anytime. Strongly Agree Agree Not sure Disagree Strongly disagree	50	I use social media since a lot of people know it they can support me when i don't understand. Strongly Agree Agree Not sure Disagree Strongly disagree
H9	Professional support		
51	Do you think the University should encourage students to use social media in learning? Strongly Agree Agree Not sure Disagree Strongly disagree	52	If there were better practices training on learning how to use social media for learning you, would you attend such training? Strongly Agree Agree Not sure Disagree Strongly disagree
extra			
53	<i>Efundi would make it easier to keep track of my weekly tasks then social media.</i> Strongly Agree Agree Not sure Disagree Strongly disagree	54	<i>Efundi would allow me to better schedule my time then social media.</i> Strongly Agree Agree Not sure Disagree Strongly disagree
55	<i>Efundi is the best way to find information related to my studies.</i> Strongly Agree Agree Not sure Disagree Strongly disagree	56	<i>I would easily find the information I am looking for using Efundi.</i> Strongly Agree Agree Not sure Disagree Strongly disagree
57	<i>If Efundi was an app on my phone I would use it more?</i> Strongly Agree Agree Not sure Disagree Strongly disagree	58	<i>If Efundi was an app on my social media I would use it more?</i> Strongly Agree Agree Not sure Disagree Strongly disagree