

**A Quantitative Investigation into the Correlation between Snapchat use
and the Self- Esteem of Generation Y, in Durban.**

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Declaration: I hereby declare that the Research Report submitted for the BA Honours in Psychology degree to The Independent Institute of Education is my own work and has not been previously submitted to another University or Higher Education Institution for degree purposes.

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Abstract

Over the last decade, recent developments in wireless technologies have presented novel means and directions of communication, which have transformed social media into a fundamental facet of modern society. Image-based platforms such as Snapchat have become increasingly popular amongst the younger generation and have introduced a new pattern of social comparison and interaction online. However, despite this proliferation of use, the literature remains divided regarding the latent impact of image-based social media platforms on users. Research regarding the Snapchat application and self-esteem in the South African context is also scant. The present study sought to establish if there is a correlation between Snapchat usage and the self-esteem of users within a South African context. This study was conducted using the application of the positivist quantitative approach. To meet the objectives of the study, 22 respondents between the ages of 24-39 years were selected as the target population and the non-probability method of snowball sampling was utilised. A questionnaire was used to obtain raw data pertaining to the specific phenomena of this study. The analysis indicated that there is a strong negative relationship between Snapchat usage and the self-esteem levels of users. The results of the study elucidate that the intensity of usage may serve as a mediating variable in this relationship. The results also explicate that users who engage with Snapchat more frequently tend to exhibit lower levels of self-esteem as compared to those who use the application less frequently. The results from this study clearly illustrate the need for further research on the topic both globally and in South Africa. Future studies may benefit from utilizing an experimental research design to examine the cause and effect relationship between the two variables.

Keywords: Social Media, Snapchat, Social Comparison, Self-Esteem, Intensity of usage.

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A Quantitative Investigation into the Correlation between Snapchat use and the Self- Esteem of Generation Y, in Durban.

1.1 Introduction

This research study will be conducted to establish the correlation that exists between Snapchat use and the self-esteem of users, within a South African context. This study will additionally attempt to address an identified gap in the literature and contribute towards providing objective and conclusive answers regarding the nature of the relationship between these two variables. In the sections that follow a brief yet concise background to the research study will be provided. Further to this, the rationale, research problem, research questions, objectives and hypotheses will also be discussed.

1.2 Background to the Study

Over the past decade, the use of the internet has transitioned from the mere consumption of information to the active production and sharing of an individual's own content, due to the almost ubiquitous availability and increased use of various social media platforms (Hollenbaugh, 2019). Image-based social media applications such as Snapchat have significantly risen in popularity and the rapid adoption of these technologies is changing the way in which we communicate with others and how we see ourselves in comparison to others (Flecha-Ortiz, Santos-Corrada, Vega, Dones, & Lopez, 2019). Statistics indicate that Snapchat maintains more than 210 million daily users globally, over 10 billion videos and images viewed daily, and a dominant demographic cohort of users who are referred to as Generation Y (Snapchat, 2017).

There are also a multitude of studies which elucidate that other forms of social media such as Instagram and Facebook have been linked to negative changes in the self-esteem levels of users (Trifiro, 2018). According to an international study conducted by the Pew Research Centre in 2018, 45% of young adults reported using the internet almost constantly (Anderson & Jiang, 2018). The data also exemplified the potential negative effects of social media on users, with one quarter of the respondents reporting that social media had a mostly negative effect on their lives because it often leads to cyber bullying, unrealistic views of others' lives, and peer pressure (Anderson & Jiang, 2018).

1.3 Rationale

In a rapidly evolving digital world, there is a need to understand how image-based social media such as Snapchat influences our self-esteem (Dion, 2016). We cannot passively accept these behaviours without regard for how it impacts us emotionally, as self-esteem is one of the key predictors of psychological wellbeing and attaining a satisfactory level of self-esteem is crucial to our development as a society (Valkenburg, Koutamanis, & Vossen, 2016).

Social media allows people to carefully craft and curate their lives online, which showcases their lives as a highlight reel, reflecting only the best and most enviable moments while concealing the struggles of everyday life (Taber & Wittaker, 2018). This can create a need for validation which arises from online social comparison and can lead to a storm of self-doubt for many people (Taber & Wittaker, 2018). A further fallout from these unrealistic standards is that it places increased pressure on individuals to impress their peers or colleagues and to portray an image of perfection online (Valkenburg et al, 2016).

Limitations of previous studies acknowledge that most of the research in this field has been conducted on Facebook and Instagram and fails to recognise that Snapchat is one of the world's fastest growing social media applications with over 210 million users worldwide (Trifiro, 2018). Social media has also been linked to higher levels of envy, anxiety, depression, and decreased social skills (Hollenbaugh, 2019) We therefore need to investigate the correlation between these two variables so that the psychological implications of this increasingly popular practice can be observed.

1.4 Problem Statement

With the rise of technology and the internet, the use of social media has become progressively prominent in society with applications such as Snapchat comprising part of a daily routine for many people (Ganda, 2014). In South Africa, there has more than likely been an increase in social media usage due to the COVID-19 lockdown in our country. Several studies have indicated that using social media can cause people to construct negative social comparisons with the people they follow online, thus leading to decreased self-esteem and overall life satisfaction (Trifiro, 2018). However, limited research has been conducted on the Snapchat application both globally and in the South African context (Trifiro, 2018).

1.5 Research Goal

The purpose of this study is to quantitatively investigate the correlation between Snapchat use and the self-esteem of Generation Y (individuals born between 1980-1994), in Durban.

1.6 Research Question

What is the correlation between Snapchat use and the self-esteem of Generation Y in Durban?

1.7 Research Objective

To identify the correlation between Snapchat use and the self-esteem of Generation Y in Durban.

1.8 Research Hypotheses

It is hypothesized that there is a negative correlation between Snapchat use and self-esteem.

H0: $\rho = 0$

H1: $\rho < 0$

The level of significance is set at the 5% level.

2. Literature Review

2.1 Introduction

During the last decade, social media has developed into a proliferating and integral facet of everyday life for the majority of people, more specifically the younger generation (Trifiro, 2018). Many people actively use and engage with social media platforms daily and this has irrefutably revolutionised the way in which we communicate with one another (Stewart, 2016). However, despite the dissemination of social media as a modern communication essential, extensive gaps in the literature continue to prevail regarding the correlation between the use of image-based social media such as Snapchat, and the behaviours and self-esteem of individuals who regularly engage with these platforms (Trifiro, 2018).

This literature review will attempt to empirically analyse predominant and germane literature in order to provide a broad overview of social media and Snapchat, with an overarching focus on how Snapchat differs from other social media platforms. This review will additionally attempt to establish how social comparisons on these sites influence the behaviours, formation of self, and the self-esteem of individuals (Stewart, 2016). The importance of a positive self-esteem towards the healthy development and functioning of individuals in society will also be emphasised and explained (Stewart, 2016). This review will conclude with an attempt to infer the possible correlation that exists between Snapchat use and the self-esteem of Generation Y, based on the findings from the current literature.

2.2 Theoretical Foundation

The theoretical framework for this study was based on Social Comparison Theory, which was developed by Leon Festinger in 1954 (Festinger, 1954). Social Comparison Theory elucidates how individuals' compare themselves to others to evaluate their own opinions and abilities, in order to reduce uncertainty in these areas, and to learn how to define the self (Dion, 2015). The theory consists of two main hypotheses, the first hypothesis states that there exists an inherent drive within individuals to evaluate their opinions and capabilities in order to gain precise self- evaluations (Festinger, 1954). The second hypothesis states that to the degree that objective and non- social means are unavailable, people will self-evaluate by comparing themselves with the opinions and abilities of others (Festinger, 1954). Social Comparison Theory affirms that people achieve validity and cognitive clarity by comparing themselves in important domains against an objective standard provided by the people they are comparing themselves with (Festinger, 1954).

Social Comparison Theory proposes two main types of comparisons which may occur; upward comparisons and downward comparisons, depending on the individual's level of motivation (Festinger, 1954). Social comparison can result in self enhancement by means of downward comparisons, in which one compares oneself with others who are considered inferior in order to feel better about oneself (Festinger, 1954). It can also have a negative impact on an individual's self-report and self-esteem by means of upward comparisons, in which one compares oneself with others who are considered superior to oneself (Festinger, 1954).

These negative social comparisons are damaging to the perceptions of the self and one's self-esteem, which forms the focus of this study in testing the hypothesis that a negative correlation exists between Snapchat use and self-esteem (Festinger, 1954). This theory was relevant because the Snapchat application provides abundant opportunities for individuals to engage in social comparison, as it contains an extensive number of heavily edited images (Verduyn et al, 2015).

Additionally, the positively biased nature of social media is inherently designed to create situations of upward social comparison where individuals will ultimately feel negatively about themselves (Verduyn et al, 2015) The metatheoretical position of this theory will assist with ascertaining how individuals evaluate themselves against others on Snapchat and how this subsequently impacts on their self-esteem.

2.3 Social Media and Generation Y

Social Media refers to internet sites and applications that permit users to create, share content, and engage in social networking, in real-time (Ganda, 2014). It involves interactive computer or android mediated technologies that facilitate the creation and sharing of information (Ganda, 2014). Generation Y refers to the demographic cohort born between the 1980's and the 1990's and are typically perceived as being increasingly familiar with digital and electronic technology (Anderson, 2015). It is for this reason that Generation Y was selected as the target population for this study as we are investigating the correlation between Snapchat, which a form of digital technology, and self- esteem.

2.4 The Origins of Social Media

The origins of social media can be traced back to early 1995 with the introduction of a social networking platform called Classmates.com, which was designed to assist members to reconnect with former classmates, colleagues, and friends (Trifiro, 2018). It was an instantaneous success and enabled users to instantly connect with each other on a global platform (Trifiro, 2018). Following its success, in 1999 the first blogging sites were developed and immediately grew in popularity, giving rise to a social media sensation that is still widely popular today (Dion, 2015).

With the success of Classmates.com and the advent of blogging, a plethora of other social media platforms were developed and launched at the beginning of the 21st century, such as Friendster, LinkedIn, and Myspace (Dion, 2015). The development of Myspace in 2003 irrevocably transformed how people perceived social media because it presented various novel features for users such as the personalisation of profiles, public pages, and online photo sharing (Trifiro, 2018). Myspace became increasingly popular due to these additions and paved the way for other online photo sharing sites such as Photobucket and Flickr in the early 2000's (Shah, 2016).

However, social media truly became a revolutionary prevalent sphere of life for many people with the launch of Facebook in 2004, which swiftly established itself as one of the global leaders in the market (Shah, 2016). YouTube was launched in 2005 and also created a completely novel method for people to communicate and share information with one another globally, through the sharing of videos (Shah, 2016). Similarly, Instagram was launched in 2010 as a photo and video sharing social media platform and quickly became one of the fastest growing social media applications in the world (Anderson & Jiang, 2018).

Facebook and Instagram are two of the world's most popular and widely used social media applications and this may be why the vast majority of existing scholarly literature seems to focus predominantly on the impact that Facebook or Instagram may have on users (Anderson & Jiang, 2018). This study is relevant because it aims to address this identified gap in the literature by focusing on the Snapchat application, which remains largely under-researched both globally and in South Africa.

2.5 Social Media Statistics in the South African Context

According to the Global Digital Report for 2020, which outlines the degree of internet usage in countries across the world, South Africa had an overall internet penetration rate of 62% as of January 2020, with the number of internet users in South Africa increasing by 1.1 million between 2019 and 2020. This means that approximately 36 million people are actively online in our country (Global Digital Report, 2020).

Of significant note was the country's growing social media activity, with approximately 5 million more South Africans added to the number of active social media users in the country (Global Digital Report, 2020). The social media penetration rate in South Africa amounts to 37% of the country's population while the number of social media users in South Africa has increased by 3.5 million people between April 2019 and January 2020 (Global Digital Report, 2020).

This exponential increase which is likely to continue in the coming years demands further research on relatively newer social media platforms such as Snapchat. There have been very few studies conducted on Snapchat in the South African context and despite controversy surrounding issues such as privacy, fake news, and hacking, the world continues to embrace the internet and social media (Dion, 2016). Further to this, global digital growth shows no sign of slowing down with almost 1 million new people moving into the online space daily (Global Digital Report, 2020). This growth is undoubtedly fuelling the use of social media, which makes it imperative for us to investigate the relationship between the usage of newer platforms such as Snapchat, which is steadily growing in popularity, and our self-esteem, which ultimately determines our motivation and personal worth in society (Trifiro, 2018).

2.6 Self-Esteem and Social Media

The construct of self-esteem is extremely broad, dynamic, and multidimensional (Liu, Li Carcioppolo, & North, 2016). Rosenberg et al, (1995) define global self-esteem as an individual's overall sense of self-worth or personal value. It encompasses the individual's

positive or negative attitude toward the self as a totality and involves a subjective evaluation of their own worth (Rosenberg et al, 1995). Rosenberg theorised that self-esteem is built on an evaluation of the self in comparison with others (Rosenberg et al, 1995). Therefore, self-esteem is closely linked to social comparison and this theoretical framework forms the foundation that will guide the investigation of this research.

The literature defines self-esteem as one's overall positive evaluation of oneself which consists of two separate components namely; an individual's affective feeling towards themselves, and an individual's cognitive judgement of their own self-worth (Liu et al, 2016). The literature indicates that individuals who possess a higher level of self-esteem will generally hold a more positive opinion of themselves which lead to positive outcomes, and individuals who possess a lower level of self-esteem will feel more negative about their self-worth and personal value, thus leading to negative outcomes (Liu et al, 2016).

The development of a healthy self-esteem is vital in society as it is generally associated with higher levels of happiness and life satisfaction, and heavily influences one's decisions and choices in life (Chen & Bello, 2017). People who possess a higher self-esteem persistently strive towards the fulfilment of personal goals and aspirations and are more resilient in overcoming adversity, as opposed to those with lower levels of self-esteem (Chen & Bello, 2017).

Closely related to self-esteem is the concept of self-presentation which occurs when people try to influence the image that others develop of them in order to impact their behaviours and attitudes (Goffman, 1959). Goffman (1959) further asserts that people constantly express their identities to others using verbal and non-verbal messages in order to display a positively skewed image of themselves to increase their social status. Social status refers to the extent to which people are viewed positively and are held in high esteem by others (Goffman, 1959).

The literature indicates that self- presentation occurs when users actively select the information that they wish to share online in order to reflect their best self and to highlight their positive qualities (Smith & Sanderson, 2015). This is precisely what occurs on Snapchat, when people utilise filters or effects to edit and enhance their snaps to portray positively skewed images of themselves. Self- presentation has also been cited as one of the central reasons that people engage in social media platforms (Smith & Sanderson, 2015).

Social media therefore provides the opportunity for people to portray the best possible versions of themselves online through the process of self-presentation (Gonzales & Hancock, 2011). This then raises the question of the impact these portrayals may have on the self-

esteem of users. The existing literature on social media and self-esteem focuses largely on the impact of image-based social media on body satisfaction in females (Rutledge, Gillmor, & Gillen, 2013). While this is valuable, there is a need for other aspects of self-esteem to be explored further, in order for us to understand the impact of social media on these facets. For the purpose of this study self-esteem will be measured in terms of self-confidence, and positive and negative feelings about the self.

2.7 Image- Based Social Media

The influx of image-based social media platforms in the last decade present a clear shift in how we communicate and share information in the modern world (Anderson & Jiang, 2018). Image-based content such as photos, illustrations, memes, and gifs, have significantly risen in popularity and the advent of image-based platforms such as Instagram, Pinterest, and Snapchat have led to more traditionally text-based platforms such as Facebook becoming increasingly filled with image sharing by users (Burke & Kraut, 2016).

The introduction of Instagram in 2011 presented a new chapter in the development of social media, as an amplified number of users started to use image-based social media platforms to connect with other members and to visually engage with them through online pictures (Trifiro, 2018). According to a 2018 study by the Pew Research Centre, the most popular social media platforms amongst younger users are Instagram and Snapchat, with 72% of respondents using both platforms (Anderson & Jiang, 2018). This data indisputably validates that the way in which people are using social media is changing, as more and more people gravitate towards image-based platforms (Anderson & Jiang, 2018).

The existing research has failed to address these changes by focusing solely on Facebook and Instagram, with little regard for other image-based applications such as Snapchat. Additionally, research has demonstrated that the behaviour of users tends to change based on the layout and persuasive design of different social media platforms ((Valkenburg et al, 2017). In a study conducted by Binns in 2016, participants reported different online behaviours between their Facebook and Twitter accounts, some participants reported feeling more confident on Twitter, while also indicating that their Facebook profiles reflected their true personality (Trifiro, 2018).

Therefore, the layout, design, and characteristics of different platforms may have a different impact on the behaviour of users, illustrating the importance of conducting research on how Snapchat may impact users (Trifiro, 2018). This study intends to contribute to the limited

existing body of knowledge on Snapchat, which is an image-based social media application, and its impact on the self-esteem of users.

2.8 Overview of Snapchat and How it Differs from other Social Media

Snapchat is a global mobile messaging application which was developed by Snapchat Incorporated in 2011, which can be used to share photos, videos, and text called “snaps” (Snapchat, 2017). The key feature is that content is only available for a limited period before they become inaccessible to the intended recipient (Snapchat, 2017). The user who shares the information can set a pre- determined time ranging between 1-10 seconds for the viewing, and the timer will count down the predefined seconds once the recipient opens the message (Schoja, 2016).

The essential function of the application is to capture a photo or video and to enhance it through filters, lenses, or other effects, and then share them with friends (Schoja, 2016). Snapchat is one of the fastest growing forms of social media with 229 million active users daily and an average of 4 billion snaps being shared per day (Snapchat, 2017). It is because of this novel growth and popularity that Snapchat was selected as the specific social media platform of interest for this study.

Snapchat differs from other social media platforms because photos instead of texts are what generally initiate the conversation (Soffer, 2016). Soffer (2016) argues that Snapchat is unique in its design because it combines two different cultures; that of the fixed nature of pictures or text which capture the moment and objectify it, and the temporal ephemeral culture of conversation. (Soffer, 2016). The literature indicates that the impermanent nature of information shared on Snapchat and their promise of deletion after a predetermined time is one of the key features that sets it apart from other social media applications (Soffer, 2016).

This can lead to more reckless behaviours by users, such as an increased willingness to engage in risky sexual behaviours online due to photos and messages disappearing after a while, or reckless driving due to the speed filter, which records the speed of the driver of a vehicle, while capturing his or her photo at the same time (Soffer, 2016). All of these behaviours can later impact on the user’s self-esteem through feelings of regret, guilt, or self-blame (Soffer, 2016).

Johnson and Knobloch-Westerwick (2016) affirm that image-based social media posts have considerably differing effects on users’ moods and feelings than text-based posts. While the literature remains limited, the general consensus is that Snapchat posts are usually more

positively biased than Facebook posts, as a result of the photo editing and enhancing features of the application that create an ethos of excellence and perfection amongst users (Soffer, 2016). Despite the sparse nature of existing literature on this application, it does provide a conceptual basis for understanding how image-based social media such as Snapchat have the potential to negatively impact the self-esteem of users by the culture of perfection that is exuded online.

2.9 Social Media Usage Patterns

Throughout the literature there appears to be a significant relationship between social media usage patterns and several ensuing outcomes (Ellison & Vitak, 2015; Tromholt, 2016; Verduyn, Ybarra, Résibois, Jonides, & Kross, 2017). Verduyn et al (2017) identify two main usage patterns of users in the online world; active user patterns and passive user patterns. Active social media user patterns involve users who actively engage and interact with other user's content such as commenting on a photo or responding to a story, whereas passive usage patterns occur when users browse or scroll through the content of other users without engaging or interacting with the content or user (Verduyn et al, 2017).

According to the literature, active user patterns can sometimes result in positive outcomes due to active engagement with peers and can also encourage feelings of support and general wellbeing, while passive user patterns are much more detrimental to users (Tromholt, 2016). The literature cites social envy, lower self-esteem, and feelings of insecurity as one of the most prevalent outcomes of passive user patterns, which usually occurs as a result of social comparison (Verduyn et al, 2017). While some research has sought to examine how usage patterns may have the potential to impact users, this study seeks to investigate the correlation that exists between Snapchat usage and its ability to produce a lasting impact on the mental health of users specifically through their levels of self-esteem.

2.10 Social Comparison

For the purpose of this study the definition of social comparison will be derived from social comparison theory which explicates the concept as an innate drive that individuals possess to evaluate themselves against others, either through upward or downward comparisons (Festinger, 1954). Social comparison arises when individuals compare themselves and their experiences to others (Festinger, 1954). Upward comparisons occur when people compare themselves to others who are perceived to be performing better than themselves, and downward comparisons occur when people compare themselves to others who are perceived to be performing worse than themselves (Festinger, 1954).

There are some studies which indicate that active social media use positively correlates with increased levels of subjective wellbeing and self-esteem (De Vries, Moller, Wieringa, Eigenraam & Hamelik, 2017). This is attributed to the construction of social capital and social connectedness which is often encouraged through active social media use (De Vries et al, 2017). Social capital refers to the effective functioning of social groups through positive and supportive interpersonal relationships, a shared sense of identity, and shared norms and values, which may serve to positively influence an individual's sense of well-being and self-esteem (De Vries et al, 2017). Social connectedness involves the experience of feeling close and connected to others through feeling loved, valued, and cared for, which may also enhance an individual's well-being and self-esteem (De Vries et al, 2017). However, in contrast to this there exists a plethora of literature that illustrates how passive social media use has noticeably negative effects on users.

A study conducted by De Vries et al (2017) focused on the investigation of the emotional consequences of social comparison on social media platforms amongst strangers. The study focused on Instagram and how the content created by users was able to impact and influence other users (De Vries et al, 2017). According to the findings of the study, positive content that was posted by users negatively correlated with the emotions of viewers (De Vries et al, 2017). Individuals who tend to compare themselves to others reported lower positive affect when exposed to more positive posts online (De Vries et al, 2017). This exemplifies the negative impact of social comparison on social media platforms which are further enhanced through image-based applications such as Snapchat. This therefore warrants further research on the Snapchat application, specifically in relation to self-esteem.

An additional recurrent theme outlined in the literature is that of social envy, as a result of social comparison by social media users (Anderson, 2015). Social envy is characterised by unpleasant and painful feelings ranging from hostility, resentment, and inferiority caused by comparisons with people who possess that which we desire (Anderson, 2015). Individuals generally exhibit increased levels of social envy when comparing themselves to other users who they perceive as being superior to oneself, which illustrates an example of an upward social comparison (Anderson, 2015).

In a study conducted by Krasnova et al (2013) it was found that one in three Facebook users reported being envious of the happiness, social interactions, and travel and leisure experiences that their friends posted about on social media. While social envy is not the

phenomenon of interest in this research, it does elucidate a potential consequence of social comparison that may lead to lower levels of self-esteem amongst users.

2.11 Conclusion

The literature evidently suggests a strong relationship between social media use and self-esteem however, researchers generally disagree on whether this relationship is of a positive or negative nature and different applications have been evidenced to have different effects on users. A study conducted by Kramer and Winter (2008) was unable to establish a relationship between how users represent themselves online and their resultant levels of self-esteem, while a study by Knobloch- Westerwick (2015) clearly evidenced a negative correlation between image-based social media and the self-esteem of users. These discrepancies clearly explicate the necessity for further study in this field.

Further to this, the existing literature focuses almost exclusively on Facebook and Instagram, highlighting the lack of research on the Snapchat application. This research hypothesises that a negative correlation exists between the variables, due to the popularity of Snapchat expanding the number of people we compare ourselves with, compared to previous generations, and the general findings from the literature.

3. Research Design and Methodology

3.1 Introduction

This research study investigated the correlation that exists between Snapchat use and the self-esteem of Generation Y, in Durban. This chapter focused on the research methodology that was utilised for this study and provided reasons for the relevance thereof. This chapter also discussed the research framework and design, and all other ensuing sections that are incorporated within the framework.

3.2 Research Paradigm

The term paradigm describes a worldview which encompasses a collection of convictions and beliefs, and decrees for researchers that which should be studied, how the research should be conducted, and how the results of the research should be deciphered (Bryman & Bell, 2015). Determining the paradigm that the research will ascribe to is of central importance because it assists with the formulation of questions that are deemed worthy of investigation and outlines the processes that are required in order for the answers to these questions to be acceptable (Bryman & Bell, 2015). This research adopted the paradigm of positivism which employs the deductive approach of the natural

sciences to study natural and social phenomena, and asserts that only objective, observable and verifiable facts must be considered when attempting to understand and explain such phenomena (Du Plooy-Cilliers, Davies, & Bezuidenhout, 2014).

Epistemology essentially encompasses what is regarded as valid knowledge (Kumar, 2019). Positivism affirms that valid knowledge can only be derived from objective, empirical evidence, therefore only knowledge which is established by the senses can be considered genuine in nature (Kumar, 2019). Ontology refers to the view of reality, which in positivism is viewed as external, objective, stable, and is governed by laws (Kumar, 2019). This external reality can be observed, measured and has order and regularity (Kumar, 2019). Axiologically, positivism values logical, objective and value-free research that has not been compromised by personal bias (Kumar, 2019).

The metatheoretical position of positivism maintains that the central purpose of scientific inquiry is to develop generalisations about the causal relationship between variables, so that complex phenomena can be explained using universally applicable theories (Du Plooy-Cilliers et al, 2014). The methodological position of positivism favours the recording of facts in terms of quantities that can be processed using statistical techniques, and postulates that science must be based on empirical data (Kumar, 2019).

Du Plooy-Cilliers et al (2014), cite conceivable weaknesses of the positivist paradigm such as its insistence on methodological absoluteness, the failure to consider the effect of the social, psychological, or cultural context on behaviour, and the disregard for the unobservable internal motivations of an individual's behaviour. However, this approach was still suitable for this research because it focused on factual knowledge gained through scientific observation and empirical measurement and was therefore aligned to the aim of this research, which was to investigate the correlation between two variables.

This paradigm was aligned to this study because it involved the process of setting a hypothesis, empirical assessment to test this hypothesis, a deep analysis to measure the results, and the coding of results which was used to make predictions about the observed phenomenon (Ganda, 2014). Furthermore, this research viewed the variables of Snapchat use and self-esteem as observable elements that interact in a visible and determined manner which is best measured objectively, through the positivist paradigm (Ganda, 2014).

3.3 Research Design

According to Kumar (2019), quantitative research is essentially used to quantify attitudes, behaviours, opinions, and other constructs by generating numerical data or data that can be altered into usable statistics, in order to generalize results from a large population. Quantitative methodology views reality as being objective and asserts that phenomena should be explained in terms of generalisations (Bryman & Bell, 2015). This research applied a quantitative method, as the aim of the study was to objectively investigate the correlation between two variables (Maree, 2016). The construct of self-esteem was empirically measured and quantified. This methodology was also relevant because it was aligned with the epistemological and ontological views of the positivist paradigm. Both positivism and quantitative research view reality as external and objective, and value observable, empirical, and verifiable evidence over subjective interpretation (Kumar, 2019).

A cross-sectional study is a type of observational study which analyses data from a population at a specific point in time (Bryman & Bell, 2015). Therefore, a cross-sectional study was used for this research as the data was only collected at a defined point in time and not continuously over a longer period (Maree, 2016). It was also a quick and inexpensive method that allowed for the observation of behaviour (Maree, 2016).

This study employed the deductive reasoning approach. The four stages of the deductive method were aligned to the goals and paradigm of this research namely; start with an existing theory, formulate a hypothesis based on the theory, collect data to test the hypothesis, and analyse the results to confirm if the data supports or rejects the hypothesis (Maree, 2016). In this study we tested the hypothesis that a negative correlation exists between Snapchat and the self-esteem of users, which was formulated using social comparison theory.

According to Du Plooy Cilliers et al (2014), non- experimental designs are used predominantly in descriptive studies where all the units of the research are measured on all the variables at a specific time. A non-experimental design was used for this research as the manipulation of variables was not necessary and the research was not conducted in a controlled environment. (Maree, 2016). This study employed an empirical, correlational research method which was used to correlate two variables using empirical evidence and mathematical analysis methods (Kumar, 2019). The key aim of correlational research is to establish whether a relationship or association exists between two or more aspects of a situation, which was aligned to the aim of this study (Kumar, 2019).

3.4 Population

A population is described as the total group of people or objects from whom information will be obtained (Wiid & Diggines, 2013). The nature of the population to be researched in this study will comprise of people who use the Snapchat application. The target population can be described as the total group of people from which the sample will be drawn (Wiid & Diggines, 2013). The target population will comprise of men and women between the ages of 24-39 who use Snapchat in Durban. This age group was selected because it is representative of Generation Y, which is the demographic cohort generally marked by elevated usage of the internet, mobile devices, and social media (Ganda, 2014). The accessible population will comprise of the target population as mentioned above, who reside in Queensburgh, which is a suburb in Durban.

3.5 Sampling

A sample can be defined as a predetermined subgroup of the population that is regarded as being representative of the population (Du Plooy-Cilliers, Davies, & Bezuidenhout, 2014). In research, it is nearly impossible to access every single element of the population, and therefore only a selected subgroup of the population is used to gather information (Du Plooy Cilliers et al, 2014). The unit of analysis refers to who or what the research is analysing (Du Plooy Cilliers et al, 2014). For the purpose of this study the unit of analysis was individual people. The number of respondents selected was due to the minimum requirement of this project as stipulated by the Independent Institute of Education, which was no less than 20 respondents, as well as limited time and financial constraints. The final sample size of this study consisted of 22 respondents aged 24-39, 3 of whom were male and 19 of whom were female.

There are two main categories of sampling methods namely, probability sampling methods and non-probability sampling methods. Non-probability sampling refers to a technique where the samples are collected in a process where not all the individuals in the population have an equal chance of being selected. (Kumar, 2019). For the purpose of this study, the non-probability sampling method of snowball sampling was used, which makes use of referrals to increase the sample size (Kumar, 2019).

Using this method, the researcher approached various acquaintances for suggestions of potential sample candidates who also fit the population parameters of the study in order to obtain relevant and significant data, conducive to the research questions and objectives. This technique was aligned to the study as it was a convenient, quick, and simple method, and the results were required in a relatively short period of time (Maree, 2016). Disadvantages of this method include that representativeness is not guaranteed and therefore the findings may be less generalizable, and the risk of sampling bias, where the initial respondents may only nominate other people who are well known to them (Maree,

2016). This may result in a sample of people who share the same traits and characteristics, and therefore the sample may only be representative of a small subgroup of the entire population (Maree, 2016).

However, this method was still suitable for this study because it allowed for the researcher to find the respondents in a short timeframe as they came from reliable sources either through referrals or recommendations (Maree, 2016). A further advantage of this method was that it was cost effective because the referrals were obtained from a primary data source (Maree, 2016).

3.6 Data Collection Method

Prior to the commencement of data collection, ethical clearance was required from the Independent Institute of Education who permitted this study to be conducted. Gatekeepers permission was not necessary as there were no intermediaries between the researcher and the potential respondents, and the researcher had no intention of revealing the identities of the respondents. Research instruments are tools that facilitate the collection of data for analytical purposes, in order to achieve a pre-determined objective in a research study (Wiid & Diggins, 2013). Questionnaires were an appropriate research tool for this study as they could be statistically analysed in quantitative research.

The Rosenberg Self-Esteem Scale was used to measure self-esteem and was amended to include a short additional section to establish the intensity of Snapchat use as well as basic biographical details such as age and gender. Race and ethnicity were not considered in this study as they were not relevant to the research question or the research objective. The Rosenberg Self-Esteem Scale is a widely used self-report instrument for evaluating individual self-esteem (Tinakon & Nahathai, 2012). It is a short, Likert type questionnaire consisting of ten items answered on a 4-point scale with responses ranging from strongly agree, agree, disagree, and strongly disagree (Tinakon & Nahathai, 2012). Of the ten items, five are positively worded, and the other five are negatively worded (Tinakon & Nahathai, 2012).

The Rosenberg Self-esteem scale is one of the most widely used measures of self-esteem in social science research and has been successfully tested for high reliability and validity in many settings (Tinakon & Nahathai, 2012). The scale has an internal consistency ranging from 0.77 to 0.88 and a test-retest reliability ranging from 0.82 to 0.85, both of which are satisfactory (Rosenberg, 1965). The criterion validity of the measure is equal to 0.55, which is also acceptable (Rosenberg, 1965).

Questionnaires were the most suitable method of gathering information for this study because it was inexpensive, eliminated interviewer bias, and allowed for the anonymity of respondents (Maree & Pietersen, 2016). Pre-testing is an important component of the research process and is frequently

used to test the efficacy of the data collection method the researcher intends to use (Du Plooy Cilliers et al, 2014). Therefore, once ethical clearance was granted, the researcher conducted a pre-test to ensure that the questionnaire was easy to understand with no item ambiguity, prior to their final distribution to the respondents.

Despite the research tool being an existing measure, it was still pre-tested because the researcher included a short additional section to the measure. The pre-test was actioned by finding five people from the target population to individually complete the questionnaire in the researcher's presence, while thinking out loud, to determine which questions were problematic or difficult to understand (Maree, 2016). No issues were detected with the questions during the pre-test and therefore none of the items were revised or removed by the researcher. This served to increase the validity and reliability of the study. The pre-test did not form part of the actual data collection and therefore did not contribute to the findings.

Once the researcher was satisfied that the research instrument was not problematic, the researcher began identifying people who fit the target population and notified them of the research study in order to determine if they would like to participate. The researcher approached various acquaintances for referral to potential sample candidates. The researcher then requested the respondents' participation via email and sent them an explanatory information sheet (Appendix B) and the anonymous self-report questionnaire (Appendix C). An advantage of this method was that the respondents could choose to complete the questionnaire at a time that was convenient to them (Du Plooy Cilliers et al, 2014). The respondents were made aware that informed consent would be implied by the completion of the questionnaire and were provided with all the necessary information in the explanatory information sheet, to enable them to make an informed decision regarding their participation in the study.

Disadvantages of using the questionnaire method include low response rates and the absence of someone to assist in the case of the respondent encountering problems or uncertainties while completing the questionnaire (Du Plooy Cilliers et al, 2014). This research attempted to minimise these disadvantages by including instructions with the questionnaire which outlined how to answer the questions in simple, clear, and concise language, and aimed to eliminate any potential confusion that may have arisen. A second follow-up email was also sent as a reminder to the respondents to complete the questionnaire, in an effort to increase the response rate.

The purpose of the explanatory information sheet was to provide the respondents with a brief description of what the research study would entail, to clarify their role should they choose to participate, to confirm that there were no risks involved, and to inform them that their participation

would be completely voluntary. Participants were also informed that even after agreeing to participate, they would still be permitted to withdraw at any stage of the study, should they feel uncomfortable. The respondents were also assured that should they choose to participate, their anonymity and confidentiality of the information provided would always be of the utmost importance and strictly maintained at all times.

The respondents were given one week to complete and return the questionnaire to the researcher. After the one-week interval, a second follow-up reminder email was sent only to those respondents who had not yet completed the questionnaire. These respondents were given an additional week to complete and return the questionnaire to the researcher. This was the final deadline and was clearly and tactfully delineated in the email. The questionnaire allowed for many respondents to participate, therefore yielding adequate information for the study. Using the questionnaire, the researcher was able to obtain data from 22 respondents within the limited timeframe. The study followed the epistemological view that data must be empirically interpreted, which was made possible using questionnaires, as the study adopted a quantitative framework.

Once the questionnaires had been completed and returned to the researcher, the sum of the respondents scores were then computed. The Rosenberg Self-Esteem scale, which was used as part of the questionnaire, has scores which range from 0-30 (Rosenberg, 1965). Scores above 26 suggest high self-esteem, scores between 15 and 25 are within the normal range, and scores below 15 suggest low self-esteem (Rosenberg, 1965). All the data that was obtained was captured onto a spreadsheet and safely stored in Microsoft Excel, on a device that only the researcher had access to.

3.7 Data Analysis Method

The process of quantitative data analysis involves the transformation of raw numbers into meaningful data through the application of rational and critical thinking and is usually associated with finding evidence to support or reject a hypothesis (Maree & Pietersen, 2016). The data analysis process involved the collection and organisation of data to reach a conclusion of the study (Maree & Pietersen, 2016). Quantitative data analysis methods were aligned to this study because it allowed for the data to be empirically analysed and for the hypothesis to be tested (Maree & Pietersen, 2016). This study adopted a deductive data-analysis approach with a non-experimental design framework.

Hypothesis testing is a data analysis method of statistical inference which allows the researcher to draw conclusions about the population based on a representative sample (Maree & Pietersen, 2016). This study used a statistical hypothesis test to examine if a negative correlation exists between the two variables. As both variables were interval/ratio, the Pearson correlation coefficient was the most

appropriate correlational test because it is designed to measure the strength of the linear relationship between two quantitative variables (Du Plooy Cilliers et al, 2014). The Pearson correlation coefficient is regarded as the best statistical technique of measuring the association between variables because it is based on the method of covariance and provides information on the extent of association as well as the direction of the linear relationship between two variables (Du Plooy Cilliers et al, 2014).

This method was relevant because it provided evidence concerning the plausibility of the hypothesis (Maree & Pietersen, 2016). A limitation of using this method was that it can only uncover a relationship between two variables and cannot provide conclusive evidence for why the relationship exists (Kumar, 2019). Therefore, even if there is a very strong association between two variables, we cannot assume that one causes the other (Kumar, 2019). However, this method of data analysis was still valid for this research as the objective of the study was to determine if a negative correlation exists between Snapchat use and self-esteem, and not to examine if Snapchat use causes low self-esteem.

Descriptive statistics involves the summation and organisation of the collection of data for easy interpretation and understanding (Maree & Pietersen, 2016). The researcher used Microsoft Excel to provide descriptive statistics around the sample characteristics in the study, in order to simply describe the data (Maree & Pietersen, 2016). A scatter plot was generated on Microsoft Excel to illustrate a visual representation of the correlation (Maree & Pietersen, 2016). The Pearson's R value was calculated to determine if there was a correlation between the two variables, the direction of the relationship, and the strength of association (Maree & Pietersen, 2016). The researcher also utilised Microsoft Excel to generate bar graphs, scatter plots, and tables to analyse, interpret, and explain the data collected from the research instrument.

4. Findings and Interpretation of Findings

4.1 Introduction

This section presents the results that were obtained from the data collection and analysis process. A statistical hypothesis test was conducted to answer the research question of what the correlation is between Snapchat use and the self-esteem of Generation Y, in Durban, and to test the plausibility of the hypothesis which assumed that a negative correlation exists between the two variables. 22 respondents completed the questionnaire and the data was then stored in Microsoft Excel, from which graphs, tables, and descriptive statistics were generated. The findings were then further discussed in relation to the research question, research objectives, and hypotheses.

4.2 Presentation of Findings

4.2.1 Gender.

Figure 1. Gender of Respondents

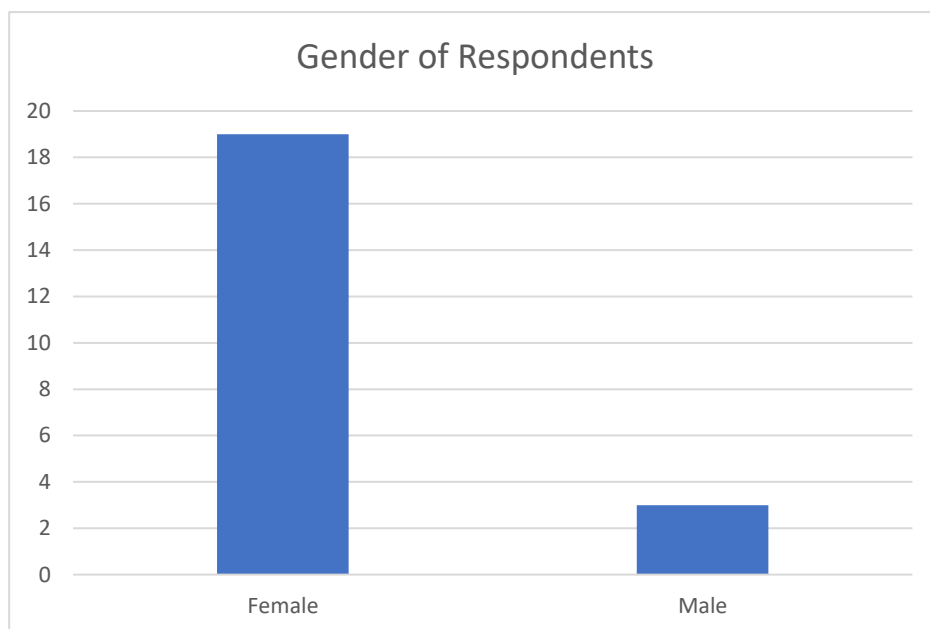


Figure 1 illustrates the gender of the respondents in the study. Of the respondents, 19 were female (86%), and three were male (14%). It is clear from the above graph that the gender ratio was skewed as the sample consisted predominantly of females.

4.2.2 Age.

Figure 2: Age Ranges of Respondents

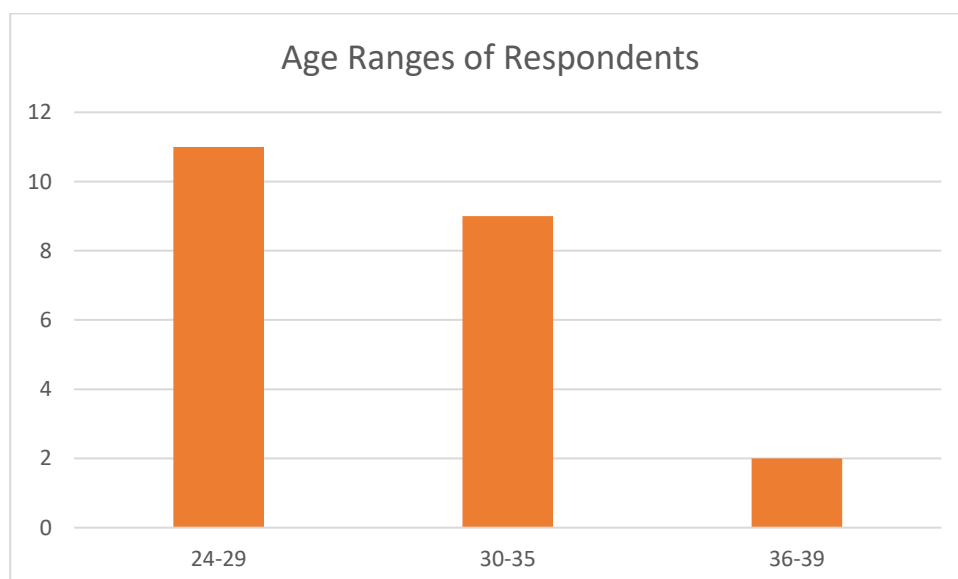


Figure 2 indicates the age ranges of the respondents in the study. Only respondents between the ages of 24-39 years were used for the sample as they are the demographic cohort referred to as Generation Y, which was investigated by this study. 11 respondents (50%) fell in the 24-29-year age group, nine respondents (41%) fell in the 30-35-year age group, and only two respondents (9%) fell in the 36-39-year age group. The average (mean) age was 27 years.

4.2.3 Estimated Number of Hours Spent on Snapchat.

Table 1: Estimated Number of Hours Spent on Snapchat, Per Week

Estimated Hours Spent on Snapchat Per Week	
Mean	7.05
Mode	7
Standard Deviation	2.48

From Table 1, it can be confirmed that on average, the respondents estimated that they spent 7.05 hours per week on Snapchat. The most frequently reported number of hours (mode) spent on Snapchat was 7 hours per week, and the standard deviation was 2.48 hours. This implies that the majority of the sample spent between 4.52 hours and 9.48 hours per week on Snapchat.

4.2.4 Self-Esteem Levels of the Respondents.

Figure 3. Self-Esteem Level of the Respondents

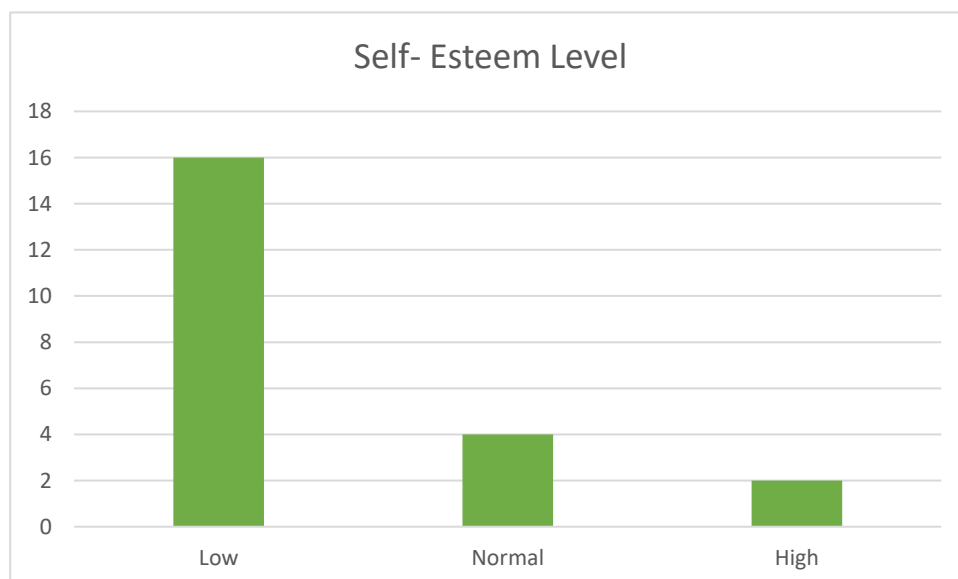
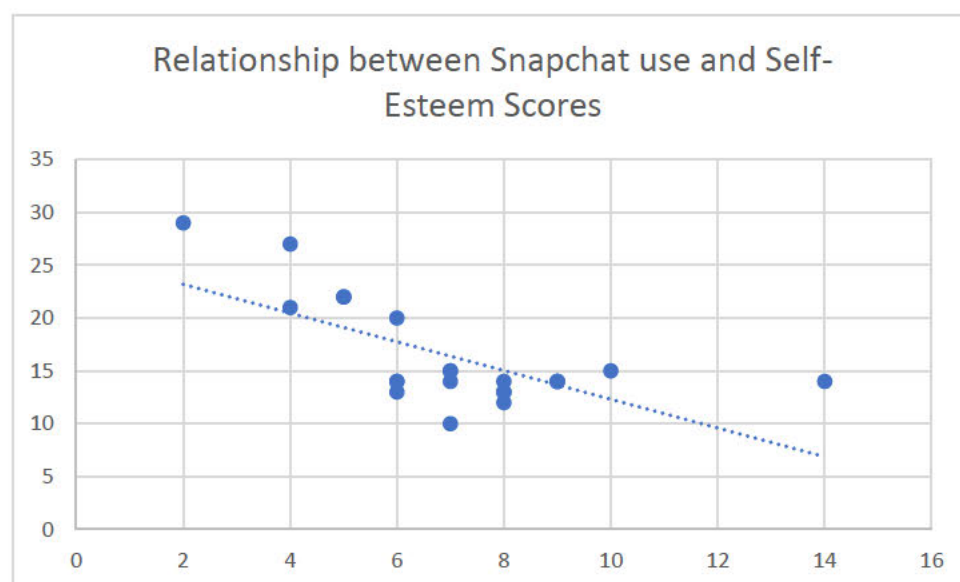


Figure 4 reflects the self-esteem levels of the respondents in the study. The responses were obtained using the Rosenberg Self-Esteem Scale. The average (mean) self-esteem score was 16.32 which falls just within the normal to low range. However, the most frequently occurring self-esteem score (mode) was 14, which indicates low self-esteem for 73% of the respondents. 18% of the respondents reported a normal level of self-esteem, while only 0.09% reported a high level of self-esteem.

4.2.5 Hypothesis Testing.

The research hypothesised that a negative correlation exists between Snapchat use and self-esteem. The scatter plot calculated on the data obtained from the questionnaire is illustrated below:

Figure 4. Scatter Plot depicting the relationship between Snapchat use and self-esteem scores



The scatter plot depicts a strong negative linear relationship between Snapchat use and self-esteem. The calculated R-value for the data is -0.68. The calculated R-value corresponds to the p-value of .000498 which is significant at both the 1% ($p < .01$.) and 5% ($p < .05$.) levels.

4.3 Interpretation of Findings

As exemplified throughout much of the existing literature, the use of social media has the potential to yield many negative effects on users (Trifiro, 2018). However, the majority of this research has focused on text-based social media platforms such as Facebook or Twitter (Dion, 2015). In the present day, many young people are moving away from text-based platforms towards image-based applications such as Instagram and Snapchat which are exponentially growing in popularity (Trifiro, 2018). The present study sought to investigate the correlation that exists between Snapchat use and the self-

esteem of Generation Y, in Durban. From the results of this study, it was found that there is a strong negative relationship between Snapchat use and the self-esteem of users.

The results indicated that the P-value was .000498 which means that the Pearson's R Correlation Coefficient is statistically significant at both the 5% and 1% levels. Therefore, we can reject the null hypothesis and accept the proposed hypothesis of this study which was that increased Snapchat use is associated with a decline in the self-esteem levels of the user. The research question of what the correlation between Snapchat use and the self-esteem of Generation Y in Durban is, has been answered and the hypothesis that a negative correlation exists between the two variables is supported by the data.

It was interesting to note that of the 22 respondents in the study, 16 were scored as having low self-esteem. This may be attributed to the fact that the sample was dominated by females. According to Statista (2020), 70% of Snapchat users are female, and only 30% are male, which was supported by the sample data that was collected. According to Brizendine (2008), a neuropsychologist at the University of California, females may be more prone to experiencing lower levels of self-esteem because of the anterior cingulate cortex in the brain, which is larger and more influential in females than in males. The hormonal surges in the female brain which include a rise in the levels of oestrogen and progesterone may also make women more sensitive to emotional nuances such as perceived rejection or disapproval (Brizendene, 2008).

This information is compatible with the views of Social Comparison Theory and may offer a potential reason for increased upward social comparisons online and lower self-esteem levels of females, consistent with the findings of this study. Therefore, the results obtained in this study may be reflective of the above statistics which state that women are the predominant gender demographic that utilise Snapchat and subsequently could be more susceptible to experiencing the negative effects that may be associated with its usage. The results obtained may also be more reflective of the female population of Generation Y, rather than the Generation Y population in its totality, due to the sample consisting mainly of females.

The literature also explicates that the ways in which people use social media and their intensity of usage can ultimately determine the extent of the effects (Trifiro, 2018). Experts have recommended 30 minutes or less per day as the maximum time that people should spend on social media (Ellison & Vitak). According to a study published in the Journal of Social and Clinical Psychology, limiting social media use to 30 minutes a day can lead to better health outcomes for the user (Ellison & Vitak, 2015). In the present study, the average number of hours spent per week on Snapchat was calculated as 7.05 hours. This was consistent with the findings of other studies which reported that respondents spent

an average of 45-60 minutes per day, on Snapchat, which may be equivalent to approximately 7 hours per week (Trifiro, 2018). This is further supported by the literature which confirms that social media has proliferated modern society and forms part of our daily lives (Ellison & Vitak, 2015).

This may also account for the lower levels of self-esteem because it means that the respondents were using the application on a fairly regular basis of 7 hours per week, which could be equivalent to 1 hour per day, as per the data that was collected. The respondents that were scored as possessing normal to high self-esteem levels, reported using Snapchat for an average of only 4 hours per week. In addition to this, the respondents who were scored as having a high self-esteem only reported using Snapchat for an average of 3 hours per week. The data suggests that user intensity level regulates the ensuing levels of self-esteem and this further supports the hypothesis that self-esteem seems to decline with increased use of the Snapchat application.

Further to this, much of the existing literature remains inconsistent regarding the impact of social media on self-esteem (Ellison & Vitak, 2015). While there are a plethora of studies that demonstrate that social media usage is correlated with negative user outcomes, other studies have not found a negative relationship between the two variables (Verduyn et al, 2017). The findings from the present study may provide an explanation for this occurrence. Most of the research conducted has focused solely on how active or passive usage patterns may impact user outcomes (Trifiro, 2018). However, the findings of this study suggest that the intensity of use may serve as a mediating variable between usage and outcomes. Intensity of use as defined by this study, refers to the number of hours that people spend on social media platforms. Most of the other studies have defined user intensity as the degree to which users are actively or passively engaged with social media content (Trifiro, 2018). Therefore, the literature may have been inconsistent because the respondents across the samples varied in their intensity of use or the number of hours spent online.

This research study provided important and much needed insight into the relationship between Snapchat use and self-esteem within a South African context. To date, the research within this context and on the Snapchat application globally has been scant. The findings of this study support that Snapchat use may be associated with a decline in the self-esteem of users. It is therefore important for people to monitor their activity on Snapchat and the impact that it has on them, so that their risk of upward social comparisons may be reduced, and they can limit their time spent on such applications accordingly. It is also important to create an awareness of the potential harmful impact that can arise from increased Snapchat use, particularly when user intensity increases.

4.4 Validity and Reliability

The concepts of validity and reliability are central to quantitative research because they relate to the measurability of the results of a study (Du Plooy Cilliers et al, 2014). Internal validity refers to if the research method and design will support the researcher in answering the research question (Du Plooy Cilliers et al, 2014). For the purpose of this study, the researcher believed that the best way to measure the construct of self-esteem was objectively and empirically, through quantitative research within the positivist paradigm, which served to enhance the internal validity of this study.

External validity focuses on whether the findings of the research can be generalised from the sample population to the larger population (Du Plooy Cilliers et al, 2014). This research acknowledged that the diversity of samples generated using the snowball sampling method was questionable and therefore the findings might not be generalisable. However, the knowledge gained from this research is still valuable as a contextualised investigation of the correlation between the two variables was tested and this provided needed insight into the relationship that exists between the variables. To further ensure the validity of this study, a standardized questionnaire was used (the Rosenberg Self-Esteem scale) as it is widely considered to be reliable and valid in measuring the construct of self-esteem, which further adds to the internal validity of this study (Tinakon & Nahathai, 2012).

Reliability relates to the credibility of the research study and the consistency of measurement (Kumar, 2019). If the same result can be consistently achieved using the same methods under stable conditions then the research is deemed reliable (Kumar, 2019). Careful consideration was given to reliability during the data collection phase to ensure that the results were precise, stable, and reproducible. The identical standardised questionnaire was emailed to all respondents to complete and no deviation from the original questionnaire was permitted in terms of re-phrasing of questions for different respondents.

Objectivity encompasses the elimination of bias from the research study in order to obtain results that are accurate and reliable (Kumar, 2019). This was achieved by the researcher striving to allow the evidence and not personal bias to answer the scientific queries at every step of this study, from the initial conception stage to the evaluation of the results.

5. Conclusion

5.1 Introduction

In closing, the research question, research problem, and research objectives are addressed. Recommendations for future practice and the heuristic value of the study are advised. The ethical implications and perceived limitations are also discussed.

5.2 Research Question, Hypotheses, Problem, and Objectives Addressed

The research question of this study pertained to what the correlation between Snapchat use and the self-esteem of Generation Y in Durban is. The answer to this question as per the research findings, was that there is a strong negative correlation between Snapchat use and the self-esteem of Generation Y. The researcher rejected the null hypothesis and accepted the proposed hypothesis which was that a negative correlation exists between the two variables. The research objective was met by determining the nature of the correlation, which was negative. This implied that increased Snapchat use was associated with a decline in the self-esteem levels of the user. 16 of the 22 respondents in the study were scored as possessing low self-esteem.

The research problem was that despite the exponential growth and usage of social media across the world, research on the Snapchat application remained scarce both globally, and in South Africa. This study attempted to solve this problem by addressing the identified gap in the literature and providing much needed insight into the relationship between Snapchat use and self-esteem, within the South African context.

5.3 Recommendations for Future Practice and Heuristic Value

The findings from this study indicate the need for further research on the Snapchat application, both globally and in South Africa. Future studies should utilize a larger sample size to allow for the findings to be more generalizable. Future research may also benefit from using longitudinal designs with more representative and diverse samples inclusive of an equal number of both males and females. Conducting a longitudinal experimental study could better address the directionality between variables which may provide more robust findings than a pure correlational study. The intensity of usage as a mediating variable between Snapchat usage and the self-esteem of users is also an interesting avenue for further research which may yield pertinent information relating to why self-esteem declines in some users and not others.

Another area for potential research could be the gender differences in user outcomes. The literature illustrates that females engage more actively with Snapchat than males (Statista, 2020). It may be beneficial for future research to further analyse why females appear to be more intense users than males and how this subsequently impacts their self-esteem differently than male users. This study was rooted in Social Comparison Theory however it might be interesting to incorporate some findings of Uses and Gratifications Theory to better understand what attracts and draws users towards their social media of choice.

This study demonstrated heuristic value because it addressed a gap in the literature regarding the relationship between Snapchat use and the self-esteem of users. Snapchat remains largely under-researched and this study generated additional knowledge about this application and created an enhanced understanding of its impact on the self-esteem of users through the objective and accurate methods of scientific enquiry. This study additionally contributed to the existing body of knowledge from a South African context in terms of the negative social comparisons that people construct online and how it impacts on their self-esteem. Due to the hypothesis being supported by this research, further strategies for awareness and circumvention could be explored. The information obtained could be utilised to protect users against the potential harmful impact by raising awareness of the impact and encouraging users to monitor their levels of usage accordingly.

5.4 Ethical Considerations

Ethics in the context of research refers to the standards of behaviour that govern the conduct of the researcher in relation to the rights of the respondents in a study (Saunders, Lewis, & Thornhill, 2016). Research ethics are an integral component of research because they promote the aims of the research study and support the values required for collaborative work such as mutual respect and fairness (Saunders et al, 2016).

In order to uphold ethical research practices in this study, an information sheet was issued to all respondents informing them of the requirements and purposes for conducting the study, so that they fully understood the scope and nature of the study. The respondents were therefore not deceived or misled in any way regarding the aims or purpose of the research. The respondents were also given an opportunity to ask questions about the research before agreeing to participate and could withdraw from the study at any time. The respondents were always treated with respect and dignity and were not subjected to any form of prejudice.

The researcher ensured that there were no deviations from the standards and procedures

stipulated in the information sheet. As this was a quantitative study, a separate sheet was not required to obtain informed consent. Consent was implied when the respondents completed the questionnaire that was emailed to them.

The researcher applied for ethical clearance before proceeding with the data collection and data analysis of this research study. The data collection and analysis methods were conducted as accurately and honestly as possible. The focus remained on prioritising the physical and mental health of the respondents during the data collection stage (Ganda, 2014). The findings of the study were reported with the utmost honesty. The researcher refrained from falsifying information, bias, distorting results, mis-using information, and using inappropriate research methods that were harmful or unsuited to the respondents by strictly adhering to the ethics section of the IIE Post-Graduate Research Policy.

The ethical principle of beneficence was upheld by the respondents not being exposed to embarrassing questions in the questionnaire to ensure that they felt comfortable and safe, and that no harm came to them or to any other person, from the information that was obtained (Ganda, 2014). Confidentiality and anonymity were respected and maintained by ensuring that the respondents' identity could not be linked to their personal responses in the questionnaire (Ganda, 2014).

The information obtained from the questionnaire was not misused in any way by the researcher, so that no respondent was exploited in the study (Ganda, 2014). The data collected was stored safely and appropriately in a location with limited access, where only the researcher had access to the raw data. The personal details of the respondents were not recorded at any stage, in order to maintain privacy (Maree, 2016). No incentives were offered to respondents in order to encourage participation in the research, and to avoid any potential distortion to the results (Du Plooy Cilliers et al, 2014).

5.5 Limitations

Limitations are constraints or limits that exist in the research study that are outside of the researcher's control, and that hinder the implementation of the research study and the explication of results (Du Plooy Cilliers et al, 2014). The following limitations were identified in the present study:

The sample size was relatively small due to time and financial constraints, which made the

findings less generalizable (Du Plooy Cilliers et al, 2014). This could be addressed by utilizing a larger and more diverse sample size for future studies.

The sampling method may have been subject to sampling bias which could have produced results that were varied and inaccurate (Du Plooy Cilliers et al, 2014). Further to this, snowball sampling does not make use of random selection which makes it dangerous to infer conclusions about the population using this method (Du Plooy Cilliers et al, 2014). This can be addressed by adopting a probability sampling method for future studies, such as simple random sampling.

This study adopted a quantitative method, however using a mixed methods approach could produce more comprehensive data and analysis and should be considered for future studies.

While correlational research can suggest a relationship between two variables, it does not permit inferences about the cause and affect between the variables, therefore despite the hypothesis of a negative correlation existing between Snapchat use and self-esteem being supported by the data, this does not imply causation (Du Plooy Cilliers et al, 2014). This can be addressed by utilizing an experimental research design for further research.

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Annexure A: Final Research Report Summary Document Template

TITLE: A quantitative investigation into the correlation between Snapchat use and the self- esteem of Generation Y, in Durban.

Research Purpose/ Objective	Primary Research Question	Research Rationale	Seminal Authors/ Sources	Literature Review – Conceptual Framework	Paradigm	Approach	Data Collection Method(s)	Ethics	Key Findings	Recommen- dations
To investigate the correlation between Snapchat usage and the self-esteem of Generation Y, in Durban	What is the correlation between Snapchat use and the self-esteem of generation Y?	Due to the rapid evolution of the digital world, there is a need for us to understand how image based social media affects the construction of our self-esteem, relationships, and our sense of self. Limited studies on snapchat.	Morris Rosenberg Leon Festinger	Theme 1: The origins of social media	Paradigm Positivism Epistemology Knowledge can be discovered through the scientific method. Only objective observable facts revealed through empirical testing are valid. Focus on precise observation and verifiable measurement Ontology Reality is external, objective, can be observed, measured and is governed by laws. Axiology Research must be value free, objective and buttressed by facts.	Quantitative	Questionnaire	Ensuring confidentiality and anonymity of respondents Ensuring no harm comes to respondents by participating in the study	There is a strong negative correlation between Snapchat use and self-esteem. Intensity of use may serve as a mediating factor between the two variables.	There is a need for further research utilizing larger sample sizes and longitudinal designs to produce more robust findings that are more generalizable. Future studies could focus on intensity of usage as a mediating factor as well as the gender differences in user outcomes. This study was rooted in Social Comparison Theory but future studies incorporating Uses and Gratifications Theory could also be useful in understanding what draws users to specific types of social media.
				Population						
				Population Parameters Men & women between the ages of 24-39 (Gen Y) who frequently use Snapchat.						
Research Problem	Secondary Questions/ Hypotheses/ Objectives	Key Concepts	Key Theories	Theme 2: Social media in the SA Context Theme 3: Image-based social media Theme 4: Overview of Snapchat and how it differs from other social media Theme 5: Social media usage patterns Theme 6: Social comparison		Sampling	Data Analysis Method(s)	Limitations	Key Contribution	
Studies have indicated that using social media can cause people to construct negative social comparisons with people they follow online, Limited studies on Snapchat.	H0: $\rho = 0$ H1: $\rho < 0$	Self-esteem Snapchat Social Media Social Comparison	Social Comparison Theory	Theme 7: Self-esteem and social media		Non-probability sampling Sampling method Snowball sampling Size 22 respondents	Unit of Analysis People Data Analysis Method(s) Correlation analysis and descriptive statistics	Small sample size-less generalizable. Sampling method-not random, sampling bias, dangerous to infer conclusions. Lack of prior research studies	It addresses an identified gap in the literature and contributes to the existing body of knowledge from a South African context. Generated additional knowledge of Snapchat and the potential negative impact associated with use.	More diverse samples which include an equal number of both males and females.

Appendix B: Explanatory Information Sheet

Explanatory Information Sheet

To whom it may concern,

My name is **Shivkriti Maharaj** and I am a student at **the IIE's Varsity College Westville**. I am currently conducting research under the supervision of Leigh De Wet and the purpose of this research is to investigate the correlation between Snapchat use and the self-esteem of Generation Y (individuals born between 1980-1994), in Durban.

I hope that this research will address a gap in the literature regarding the relationship between Snapchat use and the self-esteem of users. Snapchat remains largely under-researched and this study hopes to generate additional knowledge about this application, as well as to create an enhanced understanding of its impact on the self-esteem of users through the objective and accurate methods of scientific enquiry. This study additionally aims to contribute findings from a South African context in terms of the negative social comparisons that people construct online and how it impacts on their self-esteem. If the hypothesis is supported by this research, then further strategies for awareness and circumvention can be explored.

I would like to invite you to participate in my study. In order to explain to you what your participation in my study will involve, I have formulated questions that I will try to fully answer so that you can make an informed decision about whether or not to participate. If you have any additional questions that you feel are not addressed or explained in this information sheet, please do not hesitate to ask me for more information. Once you have read and understood all the information contained in this sheet and are willing to participate, please complete and sign the consent form below.

What will I be doing if I participate in your study?

I would like to invite you to participate in this research because you have been identified as being a Snapchat user and within the required age group (24-39 years of age). If you decide to participate in this research, I would like you to complete a short questionnaire which will be sent to you via email, comprising basic biographical information and general statements regarding your feelings about yourself.

You can decide whether or not to participate in this research. If you decide to participate, you can choose to withdraw at any time or to decide not to answer particular interview questions.

Are there any risks/ or discomforts involved in participating in this study?

Whether or not you decide to participate in this research, there will be no negative impact on you. There are no direct risks or benefits to you if you participate in this study. You might, however, indirectly find that it is helpful to talk about your (insert what you are examining). If you find at any stage that you are not comfortable with the line of questioning, you may withdraw or refrain from participating.

Do I have to participate in the study?

- Your inclusion in this study is completely voluntary;
- If you do not wish to participate in this study, you have every right not to do so;
- Even if you agree to participate in this study, you may withdraw at any time without having to provide an explanation for your decision.

Will my identity be protected?

I promise to protect your identity. I will not use your name in any research summaries to come out of this research and I will also make sure that any other details are disguised so that nobody will be able to identify you. Nobody else, including anybody at the IIE's Varsity College Westville, will have access to your questionnaire responses. I would like to use quotes when I discuss the findings of the research, but I will not use any recognizable information in these quotes that can be linked to you.

What will happen to the information that participants provide?

Once all the questionnaires have been completed, I will write summaries to be included in my research report, which is a requirement to complete my Bachelor of Arts Honours Degree in Psychology. You may ask me to send you a summary of the research if you are interested in the final outcome of the study.

What happens if I have more questions about the study?

Please feel free to contact me or my supervisor should you have any questions or concerns about this research, or if there is anything you need to know before you decide whether or not to participate.

You should not agree to participate unless you are completely comfortable with the procedures followed.

My contact details are as follows:

Shivkriti Maharaj

[REDACTED]

[REDACTED]

The contact details of my supervisor are as follows:

Leigh De Wet

[REDACTED]

[REDACTED]

Appendix C: Research Questionnaire

Section A:

Please read through the following questions and indicate your answer in the box below each question. You may tick the relevant box where necessary.

1. What is your gender?

Male	Female
------	--------

2. What is your age?

3. Provide an estimation of how many hours per week you use the Snapchat application?

Section B:

Rosenberg Self-Esteem Scale

Below is a list of statements regarding your general feelings about yourself.

Please read each statement and circle the letter indicating how much you agree or disagree with the statement.

	Strongly agree	Agree	Disagree	Strongly disagree
1. I feel that I am a person of worth. I am as good as anybody else	A	B	C	D
2. I feel that there are a lot of good things about me	A	B	C	D
3. I feel that I fail a lot	A	B	C	D
4. I can do things as well as most other people	A	B	C	D
5. I do not have much to be proud of	A	B	C	D
6. I wish I had more respect for myself	A	B	C	D
7. I feel useless at times	A	B	C	D
8. Sometimes I think I am no good at all	A	B	C	D

9. I like myself	A	B	C	D
10. I am happy with myself	A	B	C	D

Appendix D: Ethics Clearance Letter



27 July 2020

Student name: Shivkriti Maharaj
Student number: 20101655
Campus: Varsity College, Westville



Re: Approval of Psychology Honours Proposal and Ethics Clearance

HONOURS ETHICAL CLEARANCE LETTER



Your research proposal and the ethical implications of your proposed research topic were reviewed by your supervisor and the campus research panel, a subcommittee of The Independent Institute of Education's Research and Postgraduate Studies Committee.



Your research proposal posed no significant ethical concerns and your supporting documents and instruments are in order to proceed. We hereby provide you with permission to proceed with your research.



In the event of you deciding to change your research methodology in any way, kindly consult your supervisor to ensure all ethical considerations are adhered to and pose no risk to any participant or party involved. A revised ethical clearance letter will be issued.

We wish you all the best with your research!

GENERAL CONDITIONS TO BE FULFILLED IN RELATION TO RESEARCH

Permission is granted to proceed with the above study subject to the conditions listed below being met and may be withdrawn should any of these conditions be flouted.

Please note: The panel has not considered the merits, accuracy or ethical soundness of the research. The only merits examined are the use of The IIE as a sample.

Permission is granted subject to the following conditions:

1. The researcher(s) will need to obtain informed consent in writing from all of the participants in his/ her sample if the study is not anonymous.

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Inanda Greens
 54 Wierda Rd West
 Wierda Valley 2196
 P.O. Box 2369
 Randburg 2125



Directors: RJ Douglas (UK), JDR Oesch*, MD Aitken*, FJ Coughlan* (*Non-executive)

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2. The researcher(s) may only use the data collected for research purposes and in no other way.
3. Photographs of human subjects may only be taken if relevant to the research, informed consent was obtained, and even with informed consent, the photographs may not be published on any online platforms.
4. The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.
5. No names or identifying information of participants may be used within the research and the research must be voluntary.
6. Please make it clear that the information will not be used punitively in any way and participants may in no way be counselled/advised based on this.



Supervisor
Leigh De Wet



Campus Postgraduate Coordinator
Dr Samantha Thomas

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