UNIVERSITY OF KWAZULU-NATAL

SCHOOL OF ARTS

DEPARTMENT OF AFRICAN LANGUAGES

TOPIC: IsiZulu Cyber Language: An investigation of Bullying Language on social media

Submitted in partial fulfilment of the requirements of the degree of MASTER OF ARTS in the Department of Linguistics at the University of KwaZulu-Natal (Pietermaritzburg Campus)

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November 2022

Declarationb

Declaration regarding originality

I, Thabiso Ntuli (21700568), declare that:

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2. This dissertation has not been submitted for any degree or examination at any other university.
3. This dissertation does not contain other persons' data, pictures, graphs or other information unless specifically acknowledged as being sourced from other persons.
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Acknowledgements

Above everything, I want to thank my creator, my maker, and my saviour for what he has done for me not only in this paper but throughout my entire life, “Thank you, GOD”. “Shembe is the Way”. Where would I be without my Ancestors? who has never forsaken me throughout the life-threatening health issues I have faced, therefore I am saying, “*Mabhele, Godide kaNdlela kaSompisi, nani boJobe, Mondise; qhubekani nibe isibani nesihlangu*”.

My supervisor has been an undying inspiration and pushing force since I began my postgraduate studies. I want to refer to her as my mentor and academic parent because of the dedication she has shown since I wrote the first word of this paper. “Thank you, Doctor Shamila Naidoo”.

To my family, friends, and everyone who has played a role in my life and struggle, I appreciate all of you. This is what your contribution to my mere life has yielded.

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Abstract

Bullying studies emerged in the 1970s in the context of the school environment. To date, the phenomenon of bullying is still investigated in the context of schools, higher education, and the workplace in any environment where human interaction exists. The arrival of the internet and the increased use of technology has led to the emergence of a virtual form of bullying known as cyberbullying. Cyberbullying is described as the harm that is inflicted using technological devices and the internet. In the South African context cyberbullying is under-investigated. This study intended to fill that gap by focussing on linguistic aspects of cyberbullying. This study aimed to establish a corpus of the isiZulu cyberbullying language used in social media communications. This was done using University of KwaZulu-Natal students as participants. The participants are currently enrolled at the institution and have active social media accounts.

This empirical study used two web-based text analysis software tools: Voyant Tools and Laurence Anthony's Anthony Concordance. These tools were used to identify the words with higher frequency in the corpus. The investigation found that for IsiZulu, sexting is the most common bullying experience, and words with sexual connotations occur more frequently in the corpus. Furthermore, the study identified differences between implicit and explicit cyberbullying using a phrasal approach and examining key words in context (KWIC). Finally, this investigation yielded data on the participants' usage practices of social media platforms.

Chapter One: Introduction

1.0 Introduction

Language is the basic form of communication, and humans primarily use it to convey and pass on the message. With the wide availability and rise of internet usage by humans, communications do not necessarily need in-person contact. Still, by using social media and other technological devices, people can connect with anyone and everywhere, whatever their location. Before the invention of technological gadgets and social media, bullying was an in-person contact; however, with the widespread use of social media (traditional), bullying has transformed into cyberbullying (Olweus, 1993).

This chapter commences by stating the focus of the investigation, followed by the motivation of the study. Thirdly it states what has been investigated and is known about cyberbullying, followed by the effects of cyberbullying.

1.1. Research Focus

Globally, textual data mining, analysis and language detection studies have been conducted (Rambsy, 2022; Lin et al., 2016 amongst others). However, these studies have been limited to the African context. As a result, this study seeks to contribute to the inadequate literature on language detection in South African languages.

This study focused on an investigation of isiZulu cyberbullying language on the social media platforms such as Meta, Facebook and Twitter. South Africa ranks 28th in the world with 80 million active cell phones to 52.98 million people (a ratio of 1:5), equating to 1.5 phone sim cards per individual (Farhangpour et al., 2019). According to Alexander (n.d), isiZulu is spoken by 11.6 million people as their first language (22,7% of the South African population) and 15.7 million as a second language. Alexander further states that at the provincial level, the

language is spoken by 77,8% of the people in KwaZulu-Natal, 19,8% in Gauteng, and 24,1% in Mpumalanga, respectively.

The study's success in identifying the isiZulu cyberbullying language in social media communications established an isiZulu cyberbullying corpus that can be used in the bullying communications detecting and blocking social media extension programs for social media platforms. This can potentially have a large impact since language is highly spoken and ultimately used in social media communications.

1.2. Motivation for Research

Since contemporary bullying studies emerged in Scandinavia in the late 1970s, they discovered critical findings used to formulate solutions for combating this global pandemic, such as civil, criminal, and anti-bullying laws. However, there are no consistency in positive results. Rigby and Smith (2011) showed that in some countries, such measures have worked, while in others, they have had relatively low success. With the limited success of these interventions (often viewed as autocratic), this study sought to provide the initiative to exhaust the bottom-up approach (responsible producer) on social media.

With language analysis, language detector and ultimately content blocker as a relatively new field in linguistic studies, this study assumed that to detect foul/aggressive language on social media, the linguistic corpus of bullying language must first be developed to make it easier for programmers to develop the content blockers containing that established corpus. This study is the first ever to investigate and aim at developing the bullying corpus used in social media communications (in the isiZulu). More importantly, its subsequent study will develop a program that uses the same corpus to develop an aggressive language content blocker.

With the findings related to the negative effects of bullying and cyberbullying towards the victims and perpetrators, limited success and numerous efficient interventions to combat these phenomena have been proposed by stakeholders, including victims themselves,

perpetrators, the government, and legal practitioners, as well as social media managers. Furthermore, strategies such as awareness campaigns have not been efficiently implemented. They possess unquantifiable potential since it has grassroots initiation. In contrast, others, such as using legal means and law in addressing and combating cyberbullying, have had a limited/void input because they are autocratic. More paramount, the internet and social media are regarded as lawless communities with enormous freedom of speech (Zhong et al., 2020).

1.3. What Has Been Done?

Cyberbullying has been a recent global pandemic due to the rapid spread of the usage of Information and Communication Technologies (ICTs) and the internet. Cyberbullying is perpetuated by the transition from physical interaction to virtual interaction through the usage of social media. As a result, there is a lack of consensus on the nature of cyberbullying in relation to traditional bullying, even though these two share more similarities than differences.

Numerous investigations are conducted around different aspects of the multi-faceted phenomenon of cyberbullying, including the causes, prevalence, impact on victims and perpetrators, and, most notably, how this phenomenon could be combated.

The causes of cyberbullying are discussed in chapter two of this paper. Factors informing cyberbullying are investigated in the global, continental and local contexts. In all these studies, the common finding is that virtual interaction provides anonymity, lack of accountability and empathy from perpetrators (Baldry et al., 2015; Whittaker & Kowalski, 2015; Barlett, 2017; Farhangpour et al., 2019; Muthevhuli & Obadire, 2021).

Prevalence is also investigated in different regions and contexts; however, the critical conclusion that can be drawn from these investigations is that there is a variation in the findings, which is informed by numerous factors relating to measurement techniques, gender differences, regional variation and cultural backgrounds (Olweus, 2013; Peled, 2019 and Muthevhuli & Obadire, 2021). Thus, the paper expands on this aspect in chapter two.

1.3.1. Effects of Cyberbullying

The motive to conduct all these studies around cyberbullying is informed by the detrimental effects cyberbullying causes to victims and perpetrators, to understand the issue and ultimately diagnose/combat it vividly. Oyewusi and Orolade (2014) argued that cyberbullying affects the victims' physical, social, emotional and cognitive functioning and well-being. Mcnutt (2016) refers to three Canadian children who committed suicide after experiencing online bullying.

Other effects of cyberbullying include isolation, low self-esteem, suicidal thoughts (least, not most), and delinquent behaviour in students. It includes academic problems such as losing focus and dropping grades, dropping out, and absenteeism in school (Smit, 2015; Xu, 2021). In a cross-study conducted in 11 countries, 41% of teens said cyberbullying made them feel depressed or helpless (Gilbert, 2015). Twenty-six percent felt 'completely alone', and 18% experienced suicidal thoughts. One in five teens had not gone to school because of cyberbullying incidents, and a quarter had closed their social media accounts (Gilbert, 2015).

Bullying and cyberbullying have countless numerical detrimental effects on victims. More importantly, meta-analytic findings have suggested that being cyber-victimized is related to depression, low self-esteem, anxiety, loneliness, low life satisfaction, increased drug and alcohol use, conduct problems, lower prosocial behaviour, stress, and suicide ideation (Xu, 2021).

1.4. Gap in the Literature.

With these consequences, new empirically and extensively investigated interventions are required to address this worldwide pandemic of cyberbullying, being relatively on the due to increased online interaction due to COVID-19 (Matomela & Henney, 2022). The investigation of bullying language is on the rise. It is the focal point of cyberbullying studies, with the proposed bullying language detection and content blocking as various scholars recommend,

including Mouheb et al. (2018), Li (2020), Zhong et al. (2020), and Matomela and Henney (2022).

1.5. Aims and Objectives

The aims of this study were:

- To establish the isiZulu bullying corpus (words, phrases, expressions, images).
- To create awareness of language that is perceived as offensive.

The broader objectives of this study are:

- To identify the isiZulu words, phrases, and expressions used in cyberbullying communications on social media platforms, using Voyant Tools and Anthony Concordance.
- To identify punctuation peculiarities in isiZulu text.
- To quantify social media patterns usage by participants.

1.6. Structure of the dissertation

Chapter one: In this chapter, a clear trajectory of what this study wanted to investigate and how it was to be investigated is articulated. This includes the research gap before this study, the study's focus and motivation, what has been investigated, including impacts of cyberbullying, the aims and objectives of the study, and the research questions that the investigations aimed to provide answers to.

Chapter two: In this chapter, the existing literature relating to cyberbullying was presented. This included a review of the trends of traditional bullying, the types of cyberbullying, the consumption of social media and an investigation of trends in different scales of cyberbullying experiences. Lastly, the investigations on the aggressive language used in cyberbullying communications on social media platforms.

Chapter three: All chapters are essential, but this chapter occupies a prestigious position. It discusses the study's conceptual framework, which is corpus linguistics. This is achieved by discussing corpus linguistics as a field of study, followed by the conceptual framework as the informer of how the research was conducted, how it was analysed, which type of data was collected and how corpus linguistics was adopted and adapted to fit the purpose of the study. Finally, this chapter discussed the tools for analysis: Voyant Tools and Anthony's Concordance.

Chapter four: The methodology and the findings of this study are presented in this chapter. This section discusses the data collection, pre-processing and analysis, participant recruitment procedure and ethical considerations for this study. The findings are presented in this section, including demographic and language, respectively. All of these are informed by the conceptual framework discussed in chapter three.

Chapter five: This section discusses the study's findings, including demographic and language findings. The language findings are discussed and analysed, including the meaning, KWIC approach, and threatening language.

Chapter six: This chapter concludes this study. It reviews what was covered by each chapter, summarises the study's findings and limitations, and recommends the direction of future research.

1.7. Conclusion

With the linguistic approach developing awareness and campaigns along the lines of aggressive language can have the potential to address cyberbullying. Still, more importantly, in detecting bullying communications and bullying blocking programs, establishing a bullying corpus is a primary vital step towards it. The primary objective of the present study was to form the first-ever isiZulu (and among South African native languages) corpus of aggressive

language that should be blacklisted on social media communications. No netizen should be allowed to use or send communication text to other users with the blacklisted language.

Chapter Two presents the Literature Review of the empirically investigated and known bullying and cyberbullying, including the types, trends, language and legal responses.

Chapter Two: Literature Review

2.0 Introduction

Chapter Two commences with an explanation of the phenomenon of bullying, and the types of bullying, including cyberbullying. It reports on bullying in various social contexts and then focuses on cyberbullying, including trends in different scales and social media consumption. The linguistic approach in cyberbullying studies is discussed, mainly the findings on the language deemed as aggressive.

2.1. Defining Bullying

While the word ‘bully’ can be traced back to the 1530s (Harper, 2008), contemporary bullying studies' emergence can be traced to Olweus studies conducted in young adults of Scandinavia in the mid-1900s (Donegan, 2012). Bullying originally refers to the negative relationship between two people, the victim and perpetrator (Harper, 2008); however, with the emergence of technological devices and advances, scholars acknowledge virtual aggression, which is termed cyberbullying (Donegan, 2012)

Olweus (1993) and Ferero et al. (1999) consented there is direct and indirect bulling. Direct bullying is characterized by physical contact and face-to-face interaction, including kicking, hitting, and breaking/taking someone’s belongings (Nabuzoka, 2003). Tustin et al. (2014) complemented this by being forced to do things. Hence, indirect bullying refers to acts of slander, manipulation of friendships, denigration, impersonation, flaming, cyber-stalking, insults, name-calling, threats, amongst others (Burton & Mutongwizo, 2009; and Popovac & Leoschut, 2012). Furthermore, in the spectrum of forms of bullying, aggression can be physical, emotional, verbal, or psychological (Manesini et al., 2013); bullying can take a form of sexual, racial, resonating with the bullying definitions and forms (Tustin et al., 2014).

Rigby and Smith (2011) defined bullying as an aggressive behaviour characterized by an imbalance of power favouring the perpetrator(s) who repeatedly seek to hurt or intimidate a targeted individual. Definitions of bullying usually harmoniously relate to each other; for instance, Manesini et al. (2013) argued that it is an aggressive behaviour characterized by repetition with an intent to harm and show power over the target/victim, resonating with Olweus (2013), and Rigby and Smith (2011). Furthermore, Manesini et al. (2013) explained that bullying exists when one or several individuals persistently perceive themselves to be on the receiving end of negative actions from one or several persons.

Critical constituents of bullying are represented by the RIP acronym, which represents Repetition, Intent and Power, the essentials of bullying [www.sadag.org]. Repetition is the prevalence of repeated behaviour or actions over time. Intent (of the perpetrator) to express social or physical power over their victims, someone you know or a stranger. Bullying primarily aims to exert power over the victim(s) and/or by explicitly expressing your will over them through hurting them consciously and intentionally (Olweus, 2013). In the case of (cyber)bullying, the intent is interpreted as the consciously main goal the bully seeks to achieve by continuously perpetrating acts of violence (such as gaining fame or recognition for being hot-headed or beating skills). Table 2.1 below provides a comprehensive elaboration of types of bullying.

Table 2-1. Forms of bullying (Burton & Mutongwizo, 2011; Nokuzoba, 2003; Olweus, 2013; and Tustin et al., 2014)

Form of bullying	Description	Examples
Physical bullying	Refers to face-to-face (contact) interaction between perpetrator and victim.	Kicking, hitting, taking/ breaking their belongings, hurting
Cyber bullying	Refers to bullying through the internet or technological devices, including websites, social media, cell phones, computers, blogs, etc.	Making online threats, using injurious language, email, phone calls, harassment, stalking, etc.
Sexual bullying	Refers to bullying through the sexual orientation of the victim.	Making shameful remarks about the sexuality of victims (e.g. LTGBI)
Psychological bullying	Refers to bullying that is a psychological aspect or that will have an effect on the mental well-being of the victim.	Marking hurtful remarks about the victim's psychological well-being or undermining their capacity; further alludes to actions that will have psychological effects on the victim.

Power and dominance are identified as key players in the definition of bullying. Although there is an emphasis on the powerlessness and difficulties of the victim or target to defend him/herself under situations they experience, the literature affirms that in most cases, victims do not have the capacity and capability to retaliate (Hoel & Beale, 2006; and Olweus, 2013). For Olweus (2013), bullying is a proactive rather than reactive behaviour. It happens without the target provoking the perpetrator; findings of other bullying investigations also support this.

A bully seeks to show dominance over the victim and achieve a higher status in that given community (www.sadag.org; Donegan, 2012; Manesini et al., 2013). Further, if a perpetrator perceives how effective or fruitful their tactics are, they might construct a lifestyle out of them, according to Donegan (2012). For instance, if a student recognizes how effective the tactic of

getting another student to write their homework for them, they might use them for their entire school life. The study acknowledges Manesini et al. (2013) that bullying can be emotional, physical, cyber, and psychological.

The following critical conclusions emanate from the definitions: firstly, the intimidation of action should occur frequently and persistently (based on definitions proposed by www.sadag.org; Manesini et al., 2013; and Donegan, 2012). Secondly, a victim should be powerless or at least feel powerless (unable to defend themselves) under bullying circumstances. Thirdly, the bully's intention should be to cause harm to the victim or at least achieve a higher social status in that given community setting because the perpetrator is conscious and cognisant of the impacts of their actions.

2.2. Contexts for Bullying

Bullying has been investigated in various settings. Bullying at schools is reported by Nobuzoka (2003), Olweus (2013), and Farhangpour et al. (2019), amongst others. Bullying at universities is reported by Buaman and Baldasare (2015) and Nwosu et al. (2018). Bullying in the workplace has also been investigated by Liefooghe and Olafsson (1999), Hoel and Beale (2006), and Ramely and Ahmad (2017).

2.2.1. Bullying in School

School bullying is a phenomenon that exists globally. Several investigations have been conducted in single countries, and other studies compare bullying across countries. Bullying in the school context has been investigated by Crystal et al. (1994), Nobuzoka (2003), Osborn (2007), and Rigby and Smith (2011), to mention a few. Rigby & Smith (2011) affirms that Olweus introduced young/youth bullying in the 1980s in Scandinavia, hence Olweus is considered the father of school bullying and bullying in general. His research focussed on

Scandinavian countries. Thereafter, subsequent research has been conducted in several countries and worldwide in the school setting (Rigby, 2003; Arseneault et al., 2009).

For bullying at school, according to Dake et al. (2003), “a student is being bullied when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students”. School bullying typically includes hitting, kicking, breaking someone’s belongings, and demanding someone’s money (Nokuziba, 2003). The list includes telling lies about someone, purposely excluding someone from a group of friends and making fun of someone (Olweus, 1993).

Among other factors informing bullying, they include culture, tradition, and values influence the statistical differences in bullying. Comparing Japanese school bullying to American bullying, which is characterised by tragic events such as school shootings/school violence, it appears to be in line with online threats. Hence this needs a deep exploration, according to Rigby and Smith (2011). A comprehensive review of the empirical studies investigating the rate of bullying conducted in the timeframe of 21 years (1990-2009) in European and American contexts was conducted by Rigby and Smith (2011). All these studies found that increasing or decreasing bullying incidents is not a steady process. Still, it fluctuates due to changes, viz. social, political, or legal interventions aiming to combat bullying in schools or society.

In a comparative study by Nabuzoka (2003), 248 Zambian participants and 522 English participants, pupils’ bullying experiences and findings s hows a lower prevalence in Zambia(African continents at large) as compared to England. The study's general findings were that there are more bullying instances in England than in Zambia. For example, in primary schools in England, 30.8% have had someone try to kick them compared to 13.3% in Zambia; and 30.5% have had someone try to hit them compared to 7.8% in Zambia. However, there are more prevailing forms of bullying among Zambian pupils than in English (+20% of demanding

money over 13 years and 17 years, which is much more than twice England's highest of 8% for 13 years). Nabuzoka (2003) further found that boys were more targets and victims (in England, 31.7% had someone try to kick them, and 71% had someone try to hit them, while in Zambia, 5.6% had someone try to kick them and 12.7% had someone try to hit them) were constantly experiencing bullying compared to girls (in England 9.5% had someone try to kick them and 0.7% had someone try to hit them while in Zambia 2.9% had someone try to kick them and 6.7% had someone try to hit them). These patterns also showed that boys are more physically aggressive in bullying than girls.

In Wales, when comparing a study carried out by World Health Organization (WHO, 2006) and Welsh Assembly (2010). A general decrease in the bullying trends can be noted for age 11 (in 2 months) from 36% to 32%, and for age 15 from 24% to 15%, all was in a total of 7 448 pupils from 167 schools.

A study by Osborn (2007), cited by Rigby and Smith (2011), who investigated school bullying in England at the primary school level during the 2002/2003-2006/2007 academic season, shows a general decrease in the events of bullying. Of the total participants (253 000 pupils across 7 000 different schools) from 2008 (35% of participants) to 2009 (59% of participants) thought their schools were doing well in combating bullying. However, figures show that 8% were bullied at school and 11% outside the school in the study's last four weeks.

Constant extensive research conducted in Lithuania by Craig et al. (2009) (data from 1994 has 5 688 pupils, 1998 has 4 655 pupils and 2002 has 5 761 pupils) was cited by Rigby & Smith (2011. A general overall decrease in bullying patterns can be noted from 1994 and 2002, "despite these significant decreases in bullying occurrences but bullying in Lithuania remains higher" is an unanticipated conclusion by Craig et al. (2009); however, levels of chronic (persistently) victimisation have also decreased of boys with a significant 23% while for girls had 12% decrease (Craig et al., 2009).

More recent studies on school bullying can be pointed to Ahmed et al. (2021). Among vital findings were significant gender differences among victims. However, more boys were bullied compared to girls. Furthermore, based on parents' occupations, children of teachers were bullied more (65% for mothers and 72.7% for fathers) than other occupations. Other discoveries included more bullying instances in public schools (61.8%) than in private schools (35.7%). However, there is a strict anti-bullying implementation in private schools, education and awareness about bullying compared to public schools with limited resources for implementing such policies and programmes.

A study by Russell et al. (2010) shows that in the US, homosexual pupils are subjected to bullying experiences because of their sexual orientation. In California, a study of over 200 000 pupils shows that about 7.5% were bullied because they were from an LGTBQI society or someone assumed they were subscribing to that category.

A meta-analysis study conducted by Ttofi and Farrington (2011) showed that school-based programmes intending to combat traditional bullying yielded positive results. They were a good starting point with a 20%-23% decrease in perpetrators, while victimisation reports decreased by 17%-20%.

According to Maniglio (2016), cited in Muthevhuli and Obadire (2021), 80% of boys participate in risky behaviour to perpetrate bullying, while 18% of girls admit to being both victims and perpetrators of bullying. Another study by SACAP (2020) reported that more than half (57%) of school-aged pupils claimed they had been subjected to bullying

UNESCO (2018:4) found that at least one in three school pupils experienced peer-to-peer bullying. They further found that at least 36% of school-attending pupils have been physically fighting with another pupil. In the United Kingdom, 57% of female respondents reported being bullied compared to 41% of male participants, and 59% of transgender respondents have also experienced bullying (Juan et al, 2018). Further findings by Juan et al.

(2018) show that 12% admitted to leaving others out of games, 10% admitted to forcing others to do things, and more than two pupils admitted to being afraid of bullying at school.

Other findings are that about 50% of learners from urban areas have reported bullying experiences, and these schools are most likely to be private schools. More importantly, the bullying experiences increased with the grades Ahmed et al. (2021), strongly supporting the BGCM claims. The most prevalent bullying type included making fun of someone (55.1%) and pushing/shoving (52.2%), while the least prevalent was cursing (11.7%), for a study by Ahmed et al. (2021).

In the South African context, studies on bullying have been conducted, including Tustin et al. (2014), Smit (2015) and Kyobe et al. (2016). Still, there is paucity when compared to the international level. In one study conducted by Tustin et al. (2014) among 4 272 participants, about 34% reported that they had experienced bullying; when referring to types of bullying, 40.6% and 62.8% of learners who fell victim to bullies experienced physical and emotional bullying respectively, while only 15.2% of learners who were bullying claimed to be cyber-bullied victims, implying higher prevalence of traditional bullying as compared to cyber-bullying. Results further resonate with claims that females are more susceptible to bullying (non-physical) than their male counterparts (18.6% against 11.9% of cyber bullying, 67.4% of emotional bullying compared to 58.4% in males). However, the research found that males, by a significant amount, experience physical bullying compared to their female counterparts, 47.2% and 33.6%, respectively.

However, there is limited literature on bullying investigations during tighter COVID-19 restrictions and regulations. Still, with the limited physical contact between and among pupils, forecasting to the existing literature, the bullying instances should have decreased.

Among more recent studies, Ahmed et al. (2021) investigated school bullying in Bangladesh. The findings of this study are that 44.4% of the participant have experienced at

least one form of bullying; they further found that “make fun of me” is the most prevalent bullying experience amongst the participants (55.1%). As usual findings of this form of investigation, boys (45.8%) were more subjected to bullying than girls (43.7%) counterparts; however, there is no significant variation (Ahmed et al., 2021).

Some findings by Ahmed et al. (2021) need to be exhausted to the deepest point. For instance, they found that victims' parents have different occupations, whether mother or father. Children whose parents were teachers were all subjected to bullying; 65% where the mother was a teacher and 72.7% for the father, compared to other parents' occupations. Ahmed et al. (2021) further found that pupils in urban areas (50%) are more subjected to bullying compared to their rural counterparts (37.7%); pupils in public schools (61.8%) were bullied more than in private (35.7%). Some factors, including anti-bullying policies, awareness programs, education, and punishment, are not explored by Ahmed et al. (2021).

Vital conclusions can be drawn from these few studies about bullying. Firstly, looking at the timeframes at which the bullying phenomenon is investigated shows that the phenomenon is not a static, fixed, detrimental relationship. Still, it is informed by dynamics that include primarily the culture and socioeconomic context, which play a major role in determining the form of bullying. More importantly, this conclusion still needs studies to support it. Drawing from comparative (African and Western or European studies), the former bullying experiences tend to be taking things and money. In contrast, the latter bullying experiences tend to be beating/hitting (physically aggressive) form.

Another conclusion that can be drawn from findings are that women tend to be more vulnerable to non-physically aggressive bullying form (supported by findings Tustin et al., 2014); and this study further found that physical aggressive bullying experiences tend to decrease but there is emergence of new forms of bullying such as emotional and cyberbullying.

2.2.2. Bullying in the workplace

Although not the focus of the study by Ramely and Ahmad (2017), there are three workplace bullying types. These are work-related, physical, and personal. Work-related and personal bullying refers to the bully focussing on matters relating to work and private, respectively. Physical bullying denotes face-to-face contact ranging from unacceptable touching to brute force. Bullying is also described as downward, horizontal, upward, and cross-level co-bullying. For Ramely and Ahmed (2017), downward bullying occurs when the victim has a lower hierarchical status than the perpetrator; horizontal ensues when both victim and perpetrator have equal hierarchical standing; upward occurs when the victim has higher social status than the perpetrator; lastly, cross-level co-bullying occurs when peers and/or subordinates join superiors to bully the victim.

Numerous employees use the term 'bullying' to describe humiliating and demeaning organisational practices (Liefooghe & Olafsson, 1999). In the workplace, measures such as taking away responsibilities or devaluating one's work and efforts, social isolation and exclusion, and exposure to teasing, insulting remarks, and ridicule, are the most common negative acts (Leymann, 1990; Zapf et al., 1996; and Ramely & Ahmad, 2017).

Amongst limited studies conducted in the workplace, including Chatziioannidis et al. (2018); and Sharma et al. (2021), whose finding prove that bullying does not only occur amomg young adults, but also among older individuals bullying also prevails. Findings among 398 doctors and nurses found that self-identification and spectator-identification bullying instances are not similar Chatziioannidis et al. (2018). They found that 44.9% reported themselves as victims while witnessing was as much as twice 83.2% of workers were identified as victims by co-workers, which resonate with findings by Rosander and Blomeberg (2021), which can be influenced by individual assuming that they are till fulfilling their roles and responsibilities in the team, and unconsciously unnoting that they are bullied.

In a study using short-negative acts questionnaires investigating bullying among nurses, 178 participants found that only 40% have never experienced bullying, compared to 25.3% who experience bullying regularly on a daily or weekly basis. In contrast, 34.8% experienced bullying monthly, according to findings by Sharma et al. (2021).

Another study on bullying experiences among nurses was conducted by Amini et al. (2022). They found that in the nursing profession, bullying is mostly directed towards those with lower experiences in the field and those with lesser qualifications, such as degrees and diplomas, compared to heads, matrons or master's degree holders. They further found that Iranian critical care units have a high incidence of nurse workplace bullying (75%).

Rosander and Blomberg conducted another recent study (2021) investigating workplace bullying experiences of immigrant workers in Sweden (work-related or personal bullying). This study found that Swedish-born workers experienced more work-related bullying (19%) than foreign-born workers (16%). However, significant differences were discovered in foreign-born workers, where personal-related bullying (34%) was highly prevalent compared to work-related bullying (22%) (Rosander & Blomberg, 2021). Foreign workers experienced more bullying instances on average. Furthermore, findings on the effects of workplace bullying resonate with Zapf et al. (1996), that workplace bullying not only affects an individual but also hinders the overall organisation's productivity.

2.2.3. Legal Response to Cyberbullying

Another aspect of cyberbullying that has been scrutinised is the response and attempts to combat cyberbullying. Numerous interventions, both bottom-up and top-down approaches, have been implanted; however, they yielded inconsistent results in same and different, and they proved ineffective at some points (Smit, 2015; Xu, 2021; Matomela & Henney, 2022 and Zhong et al., 2022).

The most implemented strategy is the law and policy intervention. However, this intervention has yielded inconsistently in different regions. This section focuses on law, policy and legal interventions to address bullying and cyberbullying. On a continental scale, Nwosu et al., (2018) review the efforts and initiatives of the Nigerian bureaucracy in combating cyber-bullying, acknowledges the work of Gbenga, Babatope and Bankiole (nd) stating that none of the draft bills were passed to laws (Computer Security and Critical Infrastructure Bill of 2005; Electronic Services Provision Bill of 2008; Interception and Monitoring Bill of 2009; Cyber Security Bill of 2011).

However, firm-only autocratic interventions resulted in inefficiency and ineffectiveness, and as a result, complementary to autocratic, grassroots initiatives are essential. For instance, Nwosu et al. (2018) points out a failure or ineffectiveness or at least the poor synergy (complementary effort and initiatives to address cyberbullying), whereby agencies have stand-alone efforts, and the government is failing to complement those efforts. Agencies National Information Technology Development Agency (NITDA), Nigerian Communications Commission (NCC), Economic and Financial Crimes Commission (EFCC) and National Cybercrime Working Group (NCWG) are among the interventions working tirelessly without complementary support from the bureau.

Locally, Badenhorst (2011) affirms that in South Africa, cyber-bullying is prevented by laws, among others, Criminal Law (Sexual Offenses and Related Matters) Amendment Act 2007, Films and Publications Act, 1996 (Act 65 of 1996), the Films and Publications Amendment Act, 2009 (Act 3 of 2009) and The Child Justice Act, 2008 (Act 75 of 2008). With special reference to cyberbullying and sexting, Badenhorst (2011) argues it is critical not to underestimate the detriments and dysfunctionality fragmentation of the law when enforcing and implementing that law. According to www.legalwize.co.za more recently (26 May 2021), the Cybercrimes Act 19 of 2020 (“Act”) was finalised (but has yet come into effect) and is

regarded as a major milestone that brings South Africa's cybersecurity laws in line with international standards

Drawing from Smit's (2015) comparative study of the legal responsibility of the US and South Africa, it is critical to have an all-inclusive approach (top-down and bottom-up) implemented and complement one another's inadequacies to produce a highly resilient initiative to combat cyberbullying. Electronic Communications and Transactions Act 25 of 2002 (the ECT Act) and Harassment Act 17 of 2011, among others, lay more emphasis on the failure of the South African Schools Act 84 of 1996 to address bullying and cyberbullying.

Smit (2015) compared the response of the legal system and framework in addressing cyberbullying in a school setup and showed that the US is leading with successful interventions, which other global countries can draw from. However, culture and context in global occurrence remain pertinent issues as far as local interventions are explored.

Drawing from the above discussion, it can be noted that the initiatives to address cyberbullying are a one-sided effort, mainly the bureau input, which are stand-alone initiatives that are not complemented by any grassroots initiatives. It could be noted that the most effective interventions should have active participation from all sides.

Thus, the present study argues that one of the prominent strategies to combat cyberbullying is first to understand the language used in cyberbullying communications. As a result, it seeks to establish the isiZulu cyberbullying corpus of social media, which is also fundamental in aggressive language detection in social media communications.

2.3 The Rise of Cyber-Bullying in Social Media

Social media access and usage are linked with the availability of technological devices and devices, as well as the internet, which allows people to "live" in the virtual world or online.

2.3.1 Usage of Information and Technological Communications

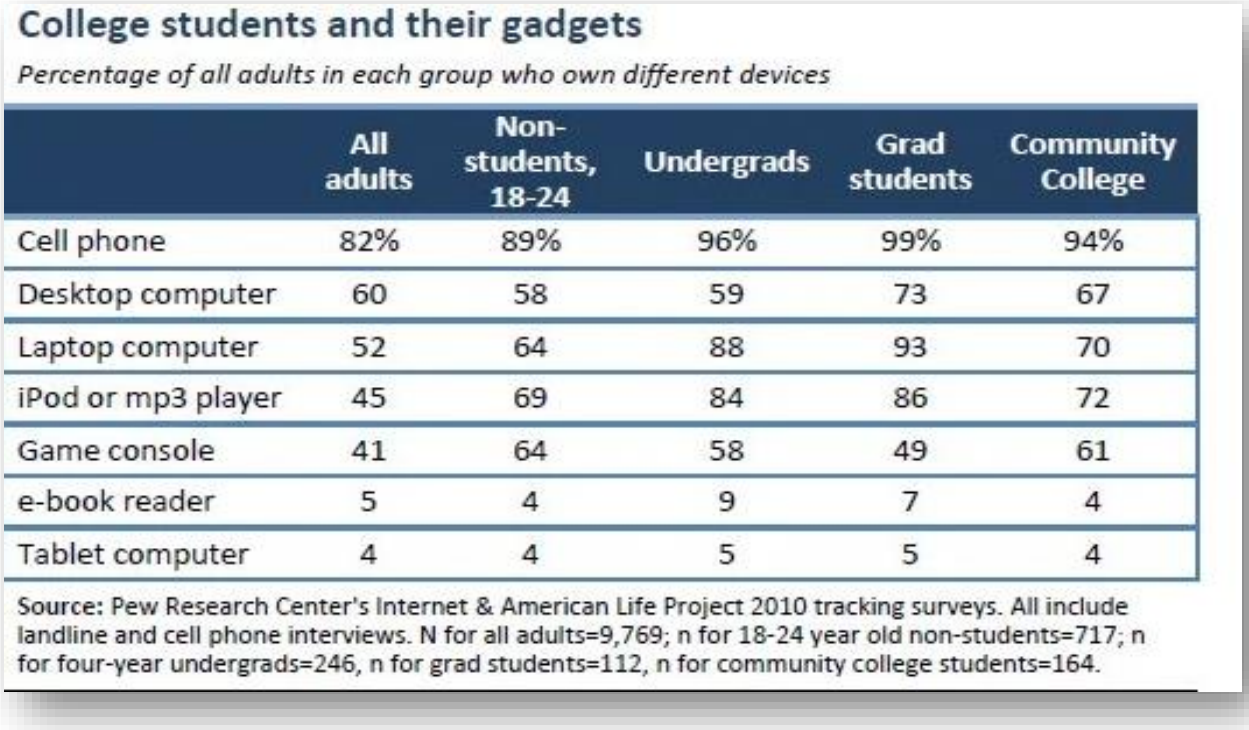
All definitions of cyberbullying emphasise that information and communications technologies and gadgets, as well as social media, play the core and fundamental role in the perpetuation of the phenomenon (Burton & Mutongwizo, 2009; Varjas et al., 2012; Peled, 2019; and Ndiege et al., 2020). The transition from traditional to virtual communication has seen the world experiencing increased consumption of technological gadgets despite the state and status of their economy.

Internationally, the usage of technological gadgets is enormous, and most findings are humble resonating; for instance, Digital Future (2017) found that 92% of the total American population spends an average of 23.6 hours per week on the internet, while 24% of 17-23 years old use internet daily, consistently and constantly. Lenhart (2015) reported that the United Kingdom study conducted in 2016 found that 55% of children aged 3-4 used a tablet, while for 5-7 year olds it was 67%, and 80% for 8-11 year olds of their total population.

In the US, 4 441 teenager participants revealed that 50.1% use cell phones and the internet for Facebook (Hinduja & Patchin, 2010e). In another study by the Pew Research Center, 75% of (age group) 12–17-year-old own cell phones, which increased from 45% in 2004 to one-in-three teens sending 3 000 text messages per month (Lenhart, 2010). Hence internationally, youth between the age group of 12-17 reported at least one incident of "cybervictimisation" (Hinduja & Patchin, 2010e).

Smith, Rainie and Zickuhr (2011) conducted a study in the United States investigating internet and social media usage among college students. They found that 98% and 99% of undergraduates and graduated students were internet users, respectively, while 94% of community college students were internet users. They further found that 86% of undergraduate students were internet users as compared to 82% of their graduated counterparts.

In terms of gadget ownership, Smith, Rainie and Zickuhr (2011) found that 99% of graduates, compared to 96% of undergraduates, however, they owned an equal amount of tablet computers. Results are shown in Figure 2.1 below.



College students and their gadgets

Percentage of all adults in each group who own different devices

	All adults	Non-students, 18-24	Undergrads	Grad students	Community College
Cell phone	82%	89%	96%	99%	94%
Desktop computer	60	58	59	73	67
Laptop computer	52	64	88	93	70
iPod or mp3 player	45	69	84	86	72
Game console	41	64	58	49	61
e-book reader	5	4	9	7	4
Tablet computer	4	4	5	5	4

Source: Pew Research Center's Internet & American Life Project 2010 tracking surveys. All include landline and cell phone interviews. N for all adults=9,769; n for 18-24 year old non-students=717; n for four-year undergrads=246, n for grad students=112, n for community college students=164.

Figure 2-1. Ownership of technological gadgets in the US among college students [https://www.pewresearch.org/internet/2011/07/19/college-students-and-technology]

Another study revealed that 65% of all Internet users and 87% of users under age 30 use social network sites (SNSs) such as Facebook (Zickuhr & Smith, 2012).

In the African context and South Africa, despite being an economically developing region, internet and technological communication consumption trends witnessed globally also prevail. Smith et al. (2011), cited in Nwosu et al. (2018), revealed that 100% of undergraduate students had internet access regularly, 86% had active social media sites, and 96% were cell phone owners. Burton & Mutongwizo (2009) found that About 92.9% of South African youth

own a cell phone, and 47.9% use a phone with internet. More recently, Data Report (2022) reported 41.19 million internet users in South Africa in January 2022.

The above statistics not only show a higher prevalence in the usage of information and technological devices among youth for communications with friends online but also shows that teenagers spend more time communicating online, and as a result cyberbullying can result in those online communications.

2.3.2. Defining Social Media.

There is no consensus on the definition of social media. Kaplan and Haenlein (2010) explain social media as 'a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content'. Lewis (2010), cited in Carr and Hayes (2015), explains the term as a 'label for digital technologies that allow people to connect, interact, produce and share content'. Carr and Hayes (2015) offer a comprehensive definition:

> Social media are Internet-based channels that allow users to interact opportunistically and selectively self-present, either in real-time or asynchronously, with both broad and narrow audiences who derive value from user-generated content and the perception of interaction with others.

Social media includes social network sites (SNSs) like Facebook, WhatsApp, Twitter, YouTube, Mxit; professional network sites like LinkedIn and IBM's Beehive; chatrooms and discussion fora, social/casual games, wiki "talk" pages like Tinder, and Instagram, Wanelo, Yik Yak, Tik Tok amongst others (Carr & Hayes, 2015). E-mail, SMS, Netflix, and Skype are not social media.

Figure 2-2. Social media icons [extracted from google]

The following section investigates the consumption rate of social media platform.

2.3.3. The Use of Social Media.

The 21st century has witnessed a rise in virtual interaction. This is reflected in Figure 2.3. below.

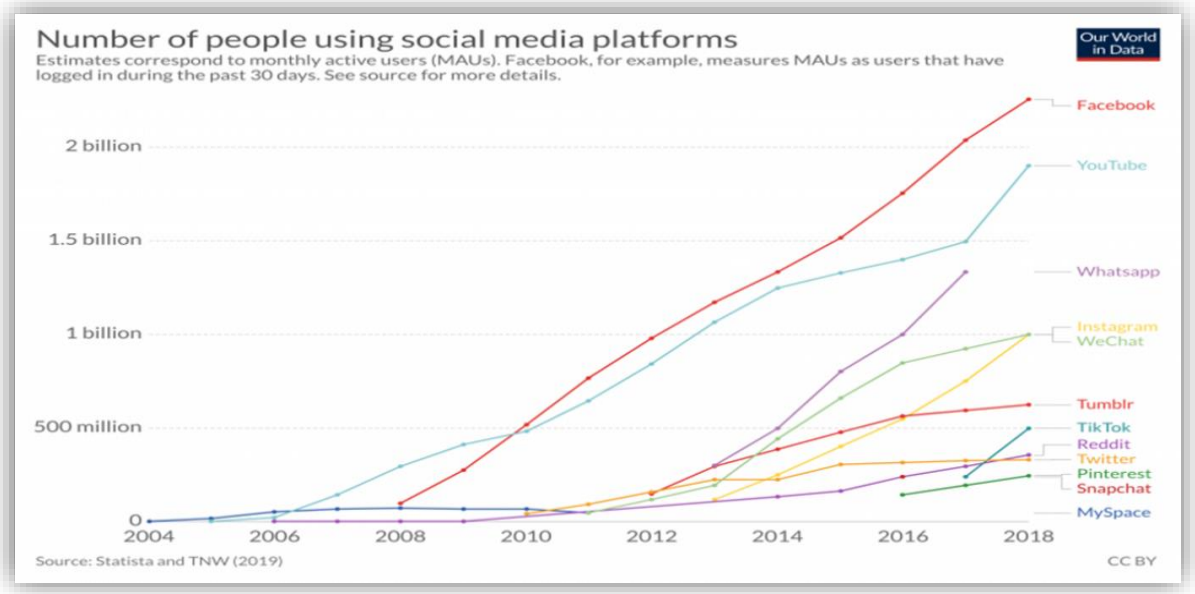


Figure 2-3. Statistical usage of social media

More recent statistics by [www.datareportal.com; 2022] show enormous social media usage. For example, Facebook far exceeds the reach of any other social media network, having 2.912 billion (1.929 billion daily users) active users across the globe compared to Instagram

has 1.478 billion, Twitter has 436.4 million and LinkedIn has 808.4 million. Furthermore, recently (February 2022), an update by [www.datareportal.com; 2022] shows that globally compared to 7.91 billion of total pupulation, about 4.95 billion are internet users and 4.62 billion are active social media users.

Among 1 520 participants in the US, findings show that 79% of internet users are users of Facebook (with 76% of users using it daily), 32% of internet users are Instagram users (51% of users are daily users), 24% of internet users are Twitter users (42% of users are daily users and 33% uses it less often), 29% of internet users are LinkedIn users (only 18% are daily users compared to 51% who uses it less often) according to Greenwood et al. (2016).

A study by Whittaker & Kowalski (2015) reported that (71,7%) most participants spent between 3 to 6 hours using the internet. As per Lenhart (2015), youth participants reported using social media to establish and maintain relationships. This study found that 92% of teenagers go online almost daily and 24% report they do ‘almost constantly’. Lenhart (2015) further found that at the age group of 13-17 years, about 71% reported having a profile on multiple social media platforms with Facebook (71%), then Instagram (52%) and Snapchat (41%) amongst the most famous.

In South Africa, international scale trends are parallel to local scale. About 68.2% of the total South African population (60.40 million) have internet access; 46.4% of the total population are social media users for different purposes [www.datareportal.com; 2022]. Statistically, 40.1% of the total population are Facebook users (no significant gender differences), and YouTube is the most used social media at 41.9%. Instagram is used by 10.3% of the total population, and LinkedIn is used by 15.7% of the total population (47.1% are females and 52.9% are males). Twitter is the least used social media in South Africa, with 4.7% of the total population (Data Report, 2022).

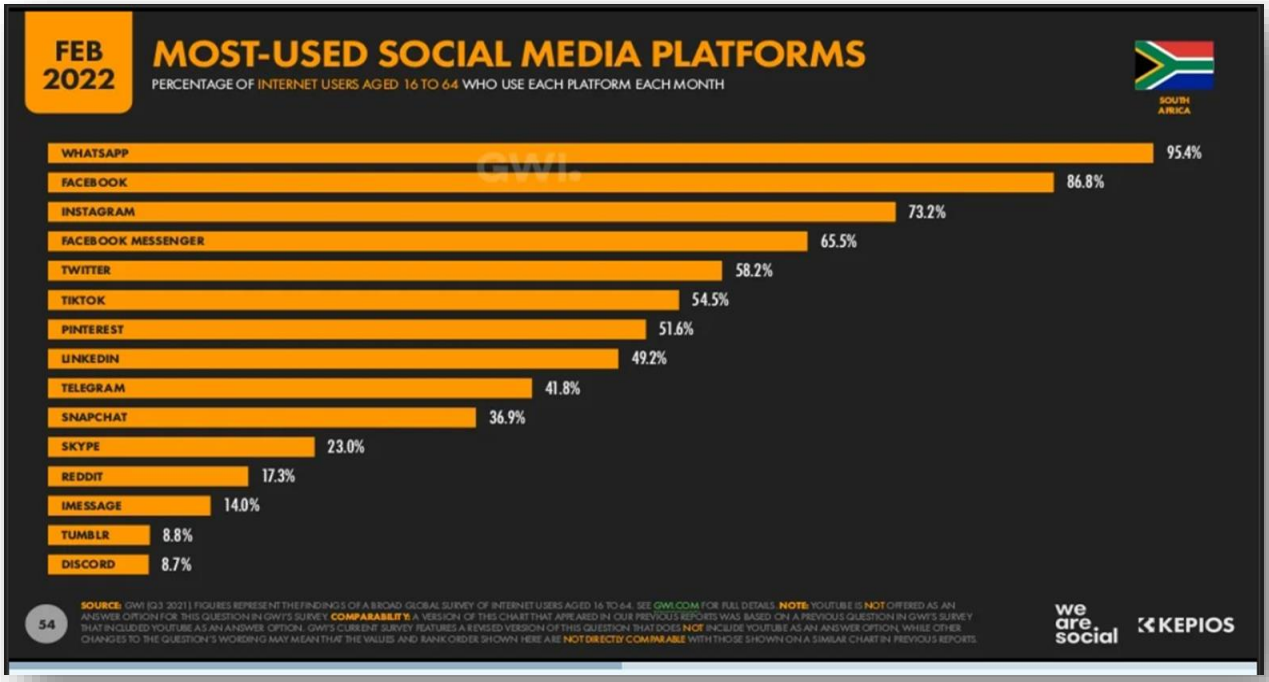


Figure 2-4. Usage of social media platforms in South Africa [google]

From the previous section reviewing the usage of technological devices, it can be concluded that youth have a higher consumption of them. The current section has further provided supporting evidence that the usage of technological devices is particularly linked to the usage of social media (social network sites). For instance, comparing the usage of social media in the US according to Greenwood et al. (2016) shows that most internet users are social media users, which is also reported in the local South African context according to Data report (2022), showing that South Africa most internet are social media users with WhatsApp being used by 95.4% of all internet users in South Africa.

Further drawing from Figure 2.4. it can be seen that social media is very popular among internet users. Hence there is a steady, sharp increase in usage. Furthermore, South Africans and Americans have reported using more than one social media platform, with WhatsApp and Facebook being the most used.

2.3.4. Social Media and Cyberbullying

2.3.4.1. Defining Cyberbullying

All definitions of cyberbullying argue that it occurs virtually and essentially with the usage of technological gadgets/communication devices and social media (Burton & Mutongwizo, 2009; Varjas et al., 2009; Popav & Leschott, 2012; Peled, 2019; Ndiege et al., 2020). With the transition from traditional communication societies, the world has experienced enormous consumption growth despite economic development.

Cyberbullying is the new form of bullying enabled by social media. It encompasses defamatory speech, constituting bullying, harassment or discrimination, and the disclosure of personal information that contains offensive, vulgar, or derogatory comments (Burton & Mutongwizo, 2009). In contrast, Varjas et al. (2009) and Ndiege et al. (2020) emphasise the electronics and communication tools used to inflict harm. The definition of cyberbullying is in line with the traditional definition of repetition and intention in bullying.

Various scholars have described cyberbullying in different ways. Chisholm (2014) refers to it as "one of the 21st-century diseases", Peled (2019) refers to it as "posting of electronic mean message" Leschot and Popovac (2012) state that it is referred to as "electronic bullying, internet harassment, cyber aggression" amongst others. This paper refers to cyberbullying as "an invisible fist" and "no safe-zone bullying", based on the above definitions. Cyberbullying can occur at different age levels, with any gender, and can relate to physical, cultural, racial, and even religious biases (Abaido, 2020).

As in bullying, despite a general increase in the investigations into cyberbullying, scholars remain not in consensus about some facets of this multi-faceted phenomenon. First and foremost, some regard cyberbullying as a form of its own, while others consider it a subcategory of (traditional) bullying. More paramount, what brings more confusion is the differences and common characteristics of the two forms of bullying. For Smith et al. (2019),

the inconsistency of findings and diverse methodologies to investigate cyberbullying (especially in cross-cultural contexts) suggests that it is a form of its own with its sub-branches as opposing to a subcategory of bullying but cites Kowalski et al. (2014) who calls for more investigations that will explicitly reveal differences and similarities.

Further confusion is outlined by Olweus & Limber (2018) when reviewing the fundamentals of cyberbullying. Numerous scholars implemented the RIP acronym proposed by [www.sadag.org; 2022], but elements such as repetition and power imbalance are not explicitly shown as in traditional bullying. As a result, Whittaker & Kowalski (2015), on the issue of repetitiveness, states that it does not necessarily have to be one victim receiving aggressive text through a technological device from a single perpetrator. Still, it can be one perpetrator sending the same text to multiple victims.

There is consensus among scholars about defining cyberbullying, the similarity in their definitions can be vividly pointed out; they all agree that it is in the form of speech/text that contains unpleasant perception to the victim, and they also agree that it is perpetrated virtually through the usage of technological devices.

2.3.5. Types of Cyberbullying

Cyber-bullying occurs in different forms, including flaming, slandering, impersonation, defamation, exclusion from online groups, cyber harassment-happy slapping (Tustin et al., 2014); hence, the list alludes to cyber-stalking, outing/exposing someone's secrets, denigration (Burton & Mutongwizo, 2009); further adds embarrassment, making threats (Ybarra & Mitchell, 2004). Cyberbullying shares common attributes with traditional bullying (Chukwere & Chukwere, 2017).

There is a comprehensive amalgamate list of forms of cyberbullying stating it includes the use of written or verbal forms of bullying; a visual form, which includes attacks made through the posting of compromising pictures; impersonation, which relates to the use of

identity theft, such as revealing someone's personal information using their accounts; and exclusion, which involves deliberately excluding someone from a social group (Ndiege et al., 2020).

Women are more susceptible to sexting than men (Patton et al., 2014; Donegan, 2012). This is statistically supported by the higher sexual victimisation of women in society at large.

Table 2-2. Types of cyberbullying

Type of bullying	Description	Example
Flaming	Online fights through electronic message exchange contain hostile and vulgar language.	When people argue in online public space (ultimately using angry and vulgar)
Defamation	Posting content that degrades, destroys the reputation and dignity of an individual	Posting and commenting with information that changes the perception of someone
Harassment	Repeated sending of messages, including threats of injury, containing intimidating, offensive, rude and insulting messages.	Commenting or sending messages that are offensive and unwanted talks.
Exclusion/ Ostracism	Deliberately excluding someone from the social space of online friends.	Preventing someone from joining the online groups, blocking their participation, etc.
Impersonation	Refers to Identity theft, maybe in the form of a hacking account or creating a fake account under the victim's identity with the aim of sending texts to destroy the victim's reputation and friendships, to endanger or trouble them.	Having confessions made through fake accounts or hacked accounts (findings by Mkhize et al. 2020)
Sexting	Being approached with unwanted sex talk and having explicit content posted or shared on online platforms.	Includes sending of nude photographs, and a sex tape video posted online.

Cyberstalking	Similar to traditional stalking, it involves sending threats and messages without the victim knowing who the sender; is or following them without them knowing.	Visiting someone's online profile and not reacting to the content posted.
Denigration/ Slandering	Sending or posting harsh rumours and gossips about a person to damage their reputation or friendships.	Sending digitally altered photographs of victim, spreading rumours about individual's sexual orientation, etc.
Happy Slapping	incidents where people walk up to someone and slap them while another captures the violence using a camera phone.	Capturing contact violence instances and sharing them online.

In a study conducted by Abiado (2020), where an individual can experience more than one form of bullying found that 63.5% of participants have received offensive comments, 40.5% have received hate speeches, 33% have seen their embarrassing photos posted online, 32.5% have experienced rumours being posted about them, while 25.5% have received pictorial shaming. Only 2% have received other forms of cyberbullying, including stalking others.

2.3.6. Investigations into Cyberbullying

Studies on cyber-bullying have been conducted at a worldwide scale (Patchin & Hinduja, 2010; Hinduja & Patchin, 2010b; Goodno, 2011; Donegan, 2012; Patton et al., 2014; Hinduj & J.W. Patchin. 2014); as well as in South Africa (Burton and Mutongwizo, 2009; Kyobe et al., 2016; Reyneke & Jacobs, 2018); and Mkhize et al., 2020). This section reports on the literature and findings of the existing studies.

2.3.6.1. Cyberbullying worldwide

Centre for Disease Control policy brief details a 50% increase (from 6% in 2000 to 9% in 2005) in US internet users reporting being victims of online violence. Among 1 726

adolescents also found that 46.8% had experienced some form of cyberbullying (Burton and Mutongwizo, 2009). Hinduja & Patchin (2010e) in the US found that mean or hurtful comments posted online (14.3%-8.8%), rumours online (13.3% -6.8%), threats through a cell phone text messages (8.4% -5.4%).

MacDonald and Roberts-Pittman (2010) conducted a study investigating cyberbullying among 439 college students in the United States. They found that 8.6% reported being the perpetrators of cyberbullying, while 21.9% reported being victims of cyberbullying directed towards them and 38% of participants reported knowing someone who has been cyberbullied. In relation to gender-based experiences, there were no significant differences as 37.4% of male students reported knowing someone who has been cyberbullied compared to 38% of female students, 21.9% of male students reported being victims of cyberbullying compared to 22% of female counterparts, lastly 11.4% of male students reported being cyberbullying perpetrators compared 7.6% of female counterparts.

A study conducted by the Gay, Lesbian and Straight Education Network (GLSEN, 2010b) reported that in the last decade, 84.6% of LTGBI students had been verbally abused, while 40.1% reported being physically harassed

Walker et al. (2011) conducted a study investigating the social media platforms that are frequently used to perpetrate cyberbullying acts. Of those, Facebook, scored a higher cyberbullying frequency (64%), cellphones (43%) and instant messaging (43%) were the most frequent technologies used. Participants further indicated that 50% of the cyberbullies were classmates, 57% were individuals outside of the university, and 43% did not know who was cyberbullying them.

In a study conducted by Donegan (2012), verdicts are parallel with Vandebosch & Van Cleemput (2008). Examining the perception of cyberbullying among youngsters demonstrates that males are less emotional and have high confrontation to bullying (are reluctant to admit

their weaknesses, especially from an emotional standpoint, but they rather act durable); with Donegan's findings showing that "females in the study reported being frustrated (39.6%), angry (36%), and sad (25.2%) more often than males who reported lower percentages in each category (27.5%, 24.3%, 17.9% correspondingly)".

Studies have confirmed that cyberbullying is more prevalent among teenagers, as Chun et al. (2020) argue in the review journal of cyberbullying measurement. Others argue that social networking sites (social media platforms) are increasingly common venues for cyberbullying (Whittaker & Kowalski, 2015). These claims are reinforced by discoveries of the Communication Authority of Kenya (2018) asserts that the higher usage of the internet and telecommunications peaks in the age group 20-34 because this age is predominantly university students (supported by an increase in internet users from 21% in 2016 to 26% in 2017) (Ndiege et al., 2020).

Hence, a correlation was found with a study conducted in Italy among 2 326 participants, which found that more males were only victimised through direct traditional bullying. Still, more women were victims of cyberbullying and indirect bullying (Bhrighi et al. 2012).

The findings by Patton et al. (2014) also parallel those of Donegan (2012) and Hinduja & Patchin (2010b), showing that women were not only prone to sexting only, but they are also exposed to bullying in general. Among 2 212 male teens and 2 162 female teens: "victimisation within a person's lifetime (16.6% for males vs. 25.1% for females), admitted to a cyberbullying offence within a person's lifetime (17.5% for males vs. 21.3% for females), and had a hurtful comment posted about oneself online (10.5% for males vs. 18.2% for females)"; these findings also show that women are not victims but also perpetrators of cyber-bullying (Donegan, 2012: 3).

Another study revealed that about 25% of over 10 000 randomly selected 11–18-year-olds surveyed for seven years claimed to have been cyberbullied at some point, according to

Hinduja and Patchin (2014). Patchin & Hinduja (2016) found that cyberbullying victimisation or experiences have nearly doubled from 2007 to 34% (from 18%).

A 2016 report from Cyberbullying Research Centre indicates that 33.8% of middle and high school students reported being cyberbullying victims at some point (Abiado, 2020). Hence, studies such as recent Kowalski et al. (2014) suggest that cyberbullying experiences range from 10% to 40%. His study (Abiado, 2020) found that 91% of the participants agree with the existence of social media platforms. Abiado (2020) found that participants think Instagram have more cyberbullying instances (55%), while Facebook has 38%, followed by Twitter at 35.5%, and YouTube has 25% (one participant can be involved in more than one platform).

A study conducted by Olweus & Limber (2018) in the US shows a general growth in cyberbullying experiences even though the growth is not steady and exponential; see Figure 2.5 below.

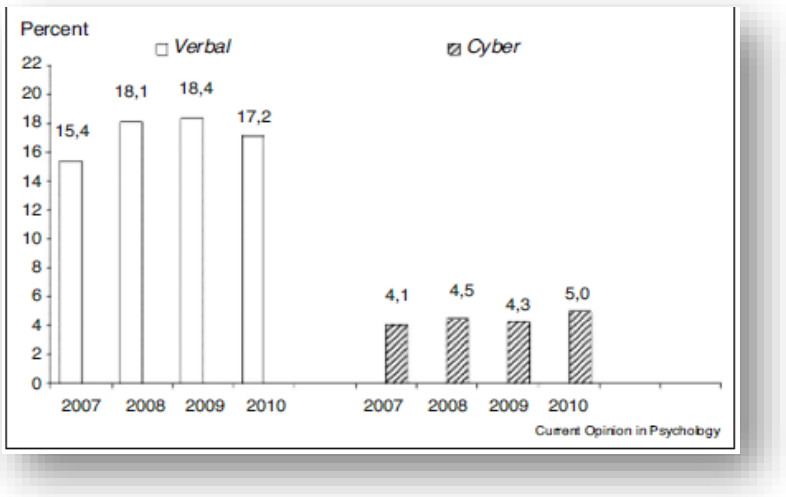


Figure 2-5. Differences in trends of bullying experiences (verbal vs cyber) from 2007-2010

More than 1 million people fall victim to cybercrimes daily (Isik & Ozdemir, 2019), including cyberbullying, as the internet is mostly used for social media, online gaming and communications. Also cited by Isik & Ozdemir (2019) are reports from European Net Children

Go Mobile in 2014 suggesting that 12% of 3 500 children in the age range 9-16 years were cyberbullied, while in 2011, European Kids Online reported that 6% of 25 142 children in same age group in Europe had been cyberbullied and 3% of participants report that have been perpetrators of cyberbullying. Moreover, Pozza et al. (2016) report that cyberbullying experiences among children aged 11-16 years increased from 7% in 2012 to 12% in 2014.

Peled (2019) reports that students have experienced cyberbullying, focusing on undergraduates found that 57% of students have reported being cyberbullied. While Poole (2017), cited by Peled (2019), reported 85.5% of cyberbullying prevalence in the United States, on the other hand, Webber and Ovedovitz (2018) conducted a similar investigation in a Catholic university, and 4.3% reported being cyber victimisation at the university level. Hence 7.5% reported participating in cyberbullying; another study by Varghese and Pistole (2017) reports 15.1% of undergraduate students were cyberbullied victims during college, and 8.0% were cyberbully offenders during college.

Gilkerson (2021) conducted investigations on cyberbullying experiences among teenagers in the United States and reported that about 38% of girls have experienced cyberbullying compared to 26% of male counterparts, 88% of social media users have witnessed cyberbullying, and 12% affirms that they have witnessed those bullying acts frequently. When teenagers witness cyberbullying, slightly more than half (55%) ignore cyberbullying, while 27% defend the victim, compared to 20% that try to stop the offender and 19% who join in bullying the victim. The latter (19%) aligns with the BGCM argument that an individual learns cyberbullying through watching and then develops a positive attitude towards it. Furthermore, Gilkerson (2021) found that 20% of aged 12-17 years argue that people are not kind on social networks, and it is mostly younger girls who reported that.

According to reports by Barlett et al. (2021), cyberbullying due to an increase in the time spent online and virtual as a result of limited face-to-face interaction, which ultimately leads to

increased cyberbullying experiences; while Shin and Choi's (2021) findings fully contradict these, as they reported a decrease in the cyberbullying experiences. Shin and Choi's (2021) findings are represented in Figure 2.6. below where there is a decrease in cyberbullying experiences prior to and during the COVID-19 era.

Year	2019	2020
n	4779	4958
Perpetration or victimization	26.9%	22.8%
Perpetration	18.0%	9.5%
Victimization	19.0%	19.7%
Both perpetration and victimization	10.1%	6.4%

Figure 2-6. Prevalence of cyberbullying and victimisation before and during the COVID-19 era.

An interesting evaluation study was conducted by Ng et al. (2022). They evaluated the success and effectiveness of both traditional and cyberbullying curbing interventions. Ng et al. (2022) state that there were fewer interventions to combat cyberbullying. However, cyberbullying combatting programs are more effective if they are technology-savvy, and educational programs intended to curb cyberbullying have a positive long-term effect.

It is crucial to note that economically developed regions have abundant availability and unlimited access to technological and communication technologies, drawing from studies conducted in the US and European countries; this has a proportional relationship to cyberbullying experiences. For cyberbullying, the higher prevalence at the international scale is associated with the higher availability of technological devices. It is more prevalent among young people who are more competent with technological devices and constantly and continuously exposed to the internet and social media. Furthermore, the mentioned studies in the European and Western context show that cyberbullying is a detrimental global culture and, despite the interventions proposed and recommended by bureaucracy and grassroots strategies

(laws, awareness campaigns limitation towards the use of electronic gadgets), have yielded no (or at least limited) success in combating cyberbullying. As a result, the need for a new approach to combat cyberbullying becomes the new focal point in cyberbullying studies.

This section providing literature and findings of investigations on the prevalence of cyberbullying at a global scale provides critical insights about the phenomenon. It can be concluded that cyberbullying is more prevalent among teenagers (Pozza et al., 2016; Webber and Ovedovitz, 2018; Isik & Ozdemir, 2019; and Gilkerson, 2021) and children as young as nine years old, these statistics are not in prevalent in the US but also in Europe. It can be further seen that there is an increase in the prevalence of cyberbullying experiences with age, and lastly, it can be witnessed that older studies reported a lesser prevalence of cyberbullying (Patton et al., 2014 for instance) in relation to recently conducted studies (Peled, 2019 and Gilkerson, 2021 for instance)

2.3.6.2. Cyberbullying in Africa

In the African continent, cyberbullying is under-researched. However, amid limited literature, some studies have been conducted by Nwosu et al. (2018), Balogun et al. (2018), and Ndiege et al. (2020). Similarly, in South Africa, literature on cyberbullying is limited. Studies have been conducted, including Burton and Mutongwizo (2009), Donegan (2012), Tustin et al. (2014), Rachoene & Oyedemi (2015), Farhangpour et al. (2019), Mkhize et al. (2020), Cilliers (2021), Radebe & Kyobe (2021) and Matomela & Henney (2022) amongst others.

In Nigeria, a study conducted by Nwosu et al. (2018) among undergraduate students demonstrates positive awareness of electronic/cyber-bullying through videos, posts, emails, phone calls, text messages, chat rooms, etc. In consideration of Hinduja & Patchin (2010b), Patton et al. (2014), and Motswi & Mashegoane (2017) showing that women are more vulnerable and prone to cyber-bullying, also Ndiege et al. (2018) parallel these findings, despite

having a lower number of female participants (40% lesser access to the internet due to tariffs and culture) they still are over-bullied compared to male counterparts. It might not be explicitly vivid what type of cyberbullying drives higher online victimisation of women. Still, some studies have proved that sexting is the most prevalent form of cyberbullying among female netizens.

This study by Nwosu et al. (2018) was conducted in the 2016/2017 academic year (with 148 participants-undergraduates) and shows that 48%-57% have experienced cyber-bullying, while 28.6%-40% have been perpetrators of online aggression

A study conducted by Balogun et al. (2018) among 244 Nigerian university students unravelled that the most common cyberbullying form was laughing at someone by a group of 54.8%, while offensive comments were 25.8%, and posting shameful pictures was less prevalent with 19.4%.

In a study by Ndiege et al. (2020) among 396 Kenyan university students found that 55.6% of the students surveyed indicated that someone had been mean to them electronically, 52.8% stated someone had made fun of them electronically, while 54.3% pointed out that someone had teased them electronically. The study further found that the prevalence of public humiliation (defamation) was 12.9% - 15.7%. One of the critical findings of this study is that there were no significant differences in cyber victimisation and perpetration (Ndiege et al., 2020); according to BGCM, cyberbullying is learnt through observation. However, there's limited literature on group bullying, especially cyberbullying; furthermore, there is a need for investigations on the cyberbullying victim that has turned to a perpetrator or vice versa.

Even though cyberbullying in Africa has been explored, there is paucity because it is still economically developing, so the usage of the internet and technological devices is limited due to affordability and culture, as these limiting and critical factors are revealed and acknowledged by Nwosu et al. (2018).

2.3.6.3. Cyberbullying in South Africa

South Africa is generally known to be a violent country, and Western Cape has the highest bullying incidents (44%), followed by North West (41%) and Gauteng (40%), according to Burton & Mutingwizo (2009). Further young males exposed to high levels of crime and violence are vulnerable to being involved in crime, while women young women are more prone to be victims of gender-based violence crimes (assault and rape), argues Kyobe et al. (2016).

Bullying in South Africa is no longer limited to physical abuse or assault but has alluded to online/cyberbullying (Odora & Matoti, 2015). The above statistics showing a higher prevalence of cyberbullying at an international and continental scale have made pivotal contemplations to inspect the issue at a local scale context (South Africa). Nonetheless, studies concerning cyberbullying in South Africa have been commonly piloted; other critical aspects of the phenomena remain unexplored.

Statistically, South Africa has a higher prevalence of cyberbullying through text messages, social media, or phone calls. About 92.9% of South African youth own a cell phone, and 47.9% use a phone with internet, findings by Burton & Mutingwizo (2009) (however, this study is outdated since it was conducted in 2009 and MXIT has a higher prevalence of usage and the social media platform today does not exist. They further argue that 31.4% use social media, including 64% of widely used MXIT).

Almost half (46.8%) of South African youth in 2008-2009 have experienced cyber aggression, including telephone, and about 42.6% have experienced cyber aggression while outside school compared to 31% who experienced the aggression while at school (Burton & Mutongwizo, 2009). This supports the argument that cyberbullying does not have a comfort zone. If an individual has access to the internet, they are probably a victim of cyber aggression (Smit, 2015; Motswi & Mashegoane, 2017)

Another study investigating bullying and cyber-bullying in Western Cape and Gauteng schools presented the latter had a slightly higher prevalence (34.4% compared to 32.7% of the former); 34% of total participants (4 272 pupils) have been victims of bullying (Tustin et al., 2014). This study found the matching results with that of international studies (among 2 186 Canadian school learners by Mishna et al. (2011) established that female learners are more likely than males to be victims of cyberbullying) and that women are more prone to cyber-bullying than men (18.6% compared to 11.9% of male counterparts). Emotional bullying was highly prevalent compared to cyber and physical.

An extensive study conducted across 11 countries posits South Africa with 24% of cyberbullying experiences. This study also found that over 60% (503 participants) of children surveyed in South Africa agreed cyberbullying is worse than bullying face-to-face, and a study conducted by Vodafone found that 84% of South African youth states that they know someone who has been cyber-victimised (Gilbert, 2015).

Social media violence is of recent emergence in the South African context (Rachoene & Oyedemi, 2015; Mkhize et al., 2020). These studies' language can be seen as critical in portraying violence, aggression and hatred. However, the focus point of these studies is not the language. One study was conducted investigating the social media bullying findings that resonate with the findings of already conducted studies (Rachoene & Oyedemi, 2015), especially the higher prevalence of sexual bullying directed towards women. In this study, violence can take different approaches, including attacks on physical appearance (recently known as body shaming), attacks on intelligence, sexting & outing, and insults (Rachoene & Oyedemi, 2015), this study further assets that the culture of nudity and sexting is more prevalent among youth as compared to adult social users.

Among cyberbullying studies conducted in South Africa, findings also prove that the sexually vulnerable community also experience abuse, threats, insults and being called names

(Mkhize et al., 2020). Therefore, this study examines the form of language used in cyberbullying across different communities while comparing it to Mkhize et al. (2020) findings which explored LGTBI cyber-victimisation; more paramount, it is critical to note that this study is not identical to Mkhize et al. (2020) because that study was investigating the violence against LTGBI community however language was a critical tool in portraying the hate and violence against, while the current study investigates the language that is viewed as aggressive in bullying social media communications, in relation to the general population.

In Western Cape, a study with 3 621 participants found that they all possessed or used mobile phones (Kyobe et al., 2016). Social media usage had a higher prevalence, while MMS usage had the least usage. Further, found that women were more victimised compared to their male counterparts. The study found that all victims identified the location and gender of the perpetrator.

Another study conducted by Farhangpour et al. (2019) found that among 80 participants 68% were victims of sexual harassment, 66% experienced lies being posted about them, 65% received aggressive text messages, 61% received harmful remarks because of their background, 60% received pictures of their parts of the body, 60% were called names, 59% teased and 55% were deliberately ignored by their peers (an individual might experience multiple forms). Further, this study found that overall victims, only 53.2% of males, were victims compared to 70% female counterparts.

The LGTBI community is four times active on social media. Hence most of their bullying remains unreported Mkhize et al. (2020). They further quote StatCounter (2019) stating Facebook is the extensively used social media in South Africa (used by 43,27% of the total population); and states that it is the heterosexual individuals who create threats and use aggressive language to LTGBI community through the custom of fake accounts and hacking of their (LTGBI) real accounts. The study by Mkhize et al. (2020) on hate speeches against

LTGBI strongly supports BGCM claims that cyber-bullying is learned through observation, where heterosexual people call on each other to attack the LTGBI community; another study also vouches for BGCM with the increase in the number of victim and age, suggesting that as youth experiences through observation at younger age develops a positive attitude and become perpetrators (Tustin et al., 2014). Hence, BGCM appears to be a holistic approach in studying psychological factors that perpetrate cyber-bullying.

South Africa is generally a violent country, and all forms of violence prevail; Haffajee et al. (2020) conducted a study investigating cyberbullying experiences among intimate partners. The findings are shown in Table 2.3. below are the top five acts reported. One participant might experience more than one form of cyberbullying.

Table 2-3. Cyberbullying prevalence amongst intimate partners (Haffajee et al., 2020)

Acts of cyberbullying	Number (%)
Received a mean or hurtful message	253 (53.2%)
Received intrusive call or text message to monitor or check me	209 (47.4%)
Blocked me on an instant messaging program such as WhatsApp, and Mxit.	156 (35.4%)
Bullied through text message	130 (29.5%)
Blocked me on a web site such as Myspace, Facebook, Twitter or Instagram.	126 (28.6%)

The dimension of the present study is yet another facet of multi-dimensional cyberbullying, the linguistic approach study vested in investigating language (isiZulu to be specific) used in cyber-bullying communications perceived as injurious and aggressive in social media. This study is critical in multi-cultural/lingual country as South Africa for other languages as well that are native to South Africa for future research purposes as it is culturalised and contextualised locally.

2.4 Investigations into Bullying Language in Social Media platforms

Language analysis in cyberbullying studies is an emerging field of study. Studies have been conducted by Whittaker and Kowalski (2015), Haidar and Chamoun (2017); Mouheb et al. (2018); Li (2020); Xu (2021); Zhong et al. (2022); Matomela and Henney (2022) amongst others. These studies are from the perspective of Psychology, Sociology and Computer Science. Their primary objective is the detection of bullying language with the aim of aiding in the development of software that can detect and block the bullying language on social media. In contrast, the present study's focus is the analysis of the isiZulu bullying language resulting in establishing the bullying corpus.

Even though some studies do not focus on investigating bullying language on social media (Whittaker & Kowalski, 2015; Mkhize et al., 2020), language is used to portray the hatred directed towards victims. For Whittaker and Kowalski (2015), language is used to insult, threaten, swear, blame, etcetera. For instance, one perpetrator commented, “The truth hurts, doesn’t it, douche bag?”, and the other “Stupid gap-toothed home-wrecking hoe. Y’all will get what’s coming to you one day.” This shows that language plays a critical role in portraying aggressivity.

Most of these studies are conducted from an Eastern perspective, as they focus on the Chinese language(s) and communications, for example, Li (2020); Xu (2021; and Zhong et al. (2022). These studies have outlined the importance of language policy in social media identity, whether implicit or explicit, because of the limited success of the interventions to combat cyberbullying. An implicit language policy would be the bottom-up approach, such as a linguistic approach where deemed aggressive words/phrases /expressions are blacklisted. No user can send a text containing those words, while an explicit would be stating that no netizen/user is allowed to use particular words. However, this approach appears to be

interfering with the freedom of speech for social media users who lacks education about being responsible social media users.

One study analysed the abusive and aggressive language used against a fraudster woman in China who fundraised money claiming to be of surgery to a sick daughter who ended up dying (no treatment, food or care, according to perpetrators) (Xu, 2021). His findings show that the most common aggression is insulting towards the victim. The most frequent words used to refer to the woman are “Horrible”, “Beast”, “B*tch”, “inhumane”, “dog”. Moreover, in empathy with the deceased, phrases such as “poor girl” can be seen.

Another study investigating bullying language on the Chinese social media platform “Sina Wiebo” was conducted by Li (2020), and the findings are shown in Figure 2.7. Frequently most appearing words are abusive words, 29.02% of the corpus, and sexual words are 21.70%; more importantly, these findings show that most sexual words are directed to women, as general findings of most cyberbullying studies.

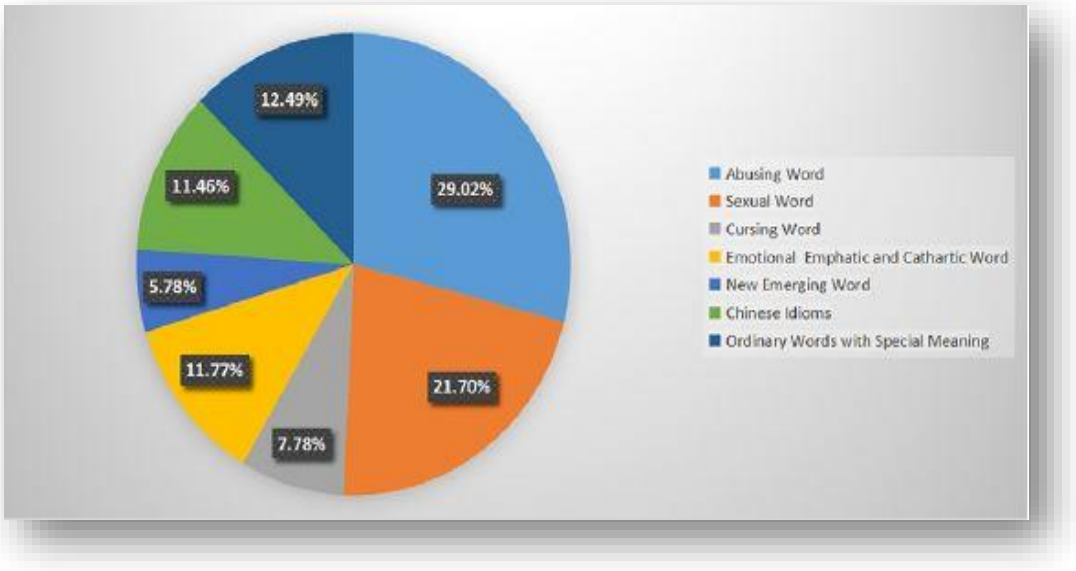


Figure 2-7. Word category of the corpus (Li, 2020).

Further findings were that among aggressive words used, there is a scale of intensity, such as strongly aggressive and mildly aggressive (grey zone). It is recommended that some

words be flagged and manually approved or rejected to be sent to the other user by the administrator (Li, 2020). The words that are used include “fucking bitch”, “slut”, “coquettish”, and “die/death”. Resonating with findings by Donegan (2012), Hinduja & Patchin (2010b), and Patton et al. (2014) that females are more susceptible to cyberbullying, findings reveal that most sexual words are used against females (Li, 2020). In line with the current study, the above 50% of the corpus would be constituted of abusing (29.02%) and sexual words (21.70%); however, the interest of Li (2020) is the frequency, and it can be one/few words that appear frequently repeated in the corpus, and contrastingly for the current study, if a word is used repeatedly, it will imply that it is more prevalent in aggressive communications and should be blocked for netizens to use it.

A systematic review of aggressive language detection was conducted by Khairy et al. (2021). They found that numerous studies vested in language detection of the Arabic language. Furthermore, their review found that Natural Language Processing (NLP) plays a pivotal role in detecting language. The detection yielded positive results, with Recurrent Neutral Processing reported having the best accuracy of 98.7% used by Ahmed, Tarek & Tarek (2020), while the lowest accuracy was scored by Naïve Bayes used by Abozinadah, Mbaziira & Jones (2015) with 90% accuracy to detect offensive Arabic language.

The most outstanding study in offensive Arabic language detection was conducted by Gamal et al. (2019), who found 99.90% accuracy in the dataset. Another interesting study on detecting abusive language detection in Twitter was conducted by Abozinadah & Jones (2017). This study scored a predictive accuracy of 96.5%, which is critical in offensive language, considering that it did not only focus on the standard language but was inclusive of different dialects and slang of the Arab language. It also used misspelt words to circumvent content filtering to detect abusive accounts with Arabic tweets.

Zhong et al. (2022) conducted another study also investigating the aggressive language used in social media communication (Twitter). The study focuses on five cases (Education, entertainment, society, finance and sports) with at least about 43 111 words. They found that about 55% were classified as cyberbullying, and more interesting bullying was further categorised as implicit (10.75%) and explicit (45.46%) as compared to non-bullying (43.79%). Implicit cyberbullying can be seen in forms of talk such as figurative language, mocking, use of negative words, interrogative sentences, and scepticism (Zhong et al., 2022), further alludes to satire, metaphors, analogies, homophones, abbreviations and transliteration, amongst others (Li, 2020). As a result, these studies emphasised the inclusion of context in language analysis. One of the integral parts in terms of understanding language in real-time (language in content and context) is the integration of cultural context is critical as semantic analysis, as he shows how ‘dog’ is deemed as evil in Chinese culture as compared to English culture (Xu, 2021).

A similar study from South Africa focused on detecting isiXhosa bullying language on social media platforms (Matomela & Henney, 2022). Although this study is also concerned about the development of bullying detection and content blocking, it found that the analysed corpus contained about 66.4% of offensive content. This study can form a firm trajectory in detecting bullying content contained in South African languages. However, there are explicit limitations when the study is contextualised to the South African perspective. First, the isiXhosa data was translated into English, and this analysis was done in English rather than isiXhosa. In short, this study is about the detection of English, not isiXhosa; secondly, those translations were done using google translate, which is another factor that contributes to decreased precision and accuracy.

Another comparative study conducted from a South African perspective was done by Mkhize et al. (2020). This study investigates the violence against the LTGBI community on social media platforms, more importantly, this study is not focusing on the use or analysis the

language, but language plays a primary vital role in portraying the hate and aggression against the LTGBI community. Among words and expressions that are used are *'izitabane/izinkonkoni'*- an isiZulu word used to refer to homosexual people, '*iqiniso lithi, uJESU washaywa wabethelwa eshayelwa eyobuNQINGILI*' – claiming that the crucifixion of Jesus was due to being gay, this expression emphasises that gays should also be beaten to death.

Another study was conducted by Dadvar et al. (2021) comparing the language used by males' and females' vocabulary in cyberbullying communications. Amongst the findings of this study is that women tend to use implicit and indirect profanities and express more indirect negative and excluding attitudes in their sentences. In contrast, males use more direct and aggressive language. Another profound finding is that gender-specific trained algorithms have higher accuracy, especially for female vocabulary.

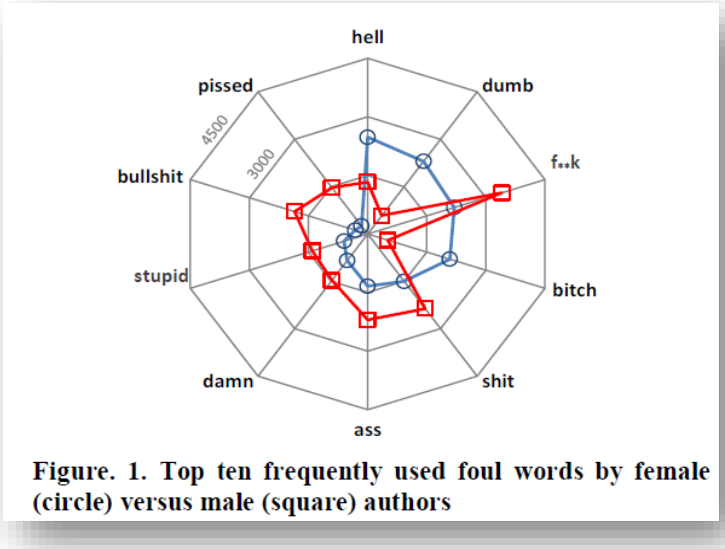


Figure. 1. Top ten frequently used foul words by female (circle) versus male (square) authors

Figure 2-8. Differences in the vocabulary used by males and females in cyberbullying. (Dadvar et al. (2021).

Li (2019) conducted another offensive language detection study on social media. He found that scale ranking of the words by offensiveness is useful for identifying the impact on the victim. In this study, he found that abusive language is the most used expression in

cyberbullying communications. The findings of the most used language are in Table 2.4. below summarising the findings of the study. These communications include abusive words, adjectives, curses, modals, and analogies.

Table 2-4. Words/expressions that are frequently used, as reported by Li (2019)

Word/expression	Frequency of use
Disgusting	3 184
B*tch/Slut	2 991
Shameless	2 938
Ignominious	2 212
Scumbag	1 909
Rubbish	1 609
Eat shit and die	1 137
B*tch	1 114
Dog	1 035
C*nt	882

A close comparison to the present study was conducted by Raisi & Huang (2022), who suggest that participant-based vocabulary is the most rigorous and accurate trajectory for detecting cyberbullying. Their investigation found that insults and curse words are the most frequently used words. The findings on the corpus used are shown in Figure 2.9. below.

Table 1. Identified bullying bigrams detected by participant-vocabulary consistency from Twitter and Ask.fm data sets.

Data Set	Selected High-Scoring Words
Twitter	sh*tstain arisew, c*nt lying, w*gger, commi f*ggot, sp*nkbucket lowlife, f*cking nutter, blackowned whitetrash, monster hatchling, f*ggot dumb*ss, *ssface mcb*ober, ignorant *sshat
Ask.fm	total d*ck, blaky, ilysm n*gger, fat sl*t, pathetic waste, loose p*ssy, c*cky b*stard, wifi b*tch, que*n c*nt, stupid hoee, sleep p*ssy, worthless sh*t, ilysm n*gger

Figure 2-9. Results of participant-based vocabulary corpus (Raisi & Huang, 2022).

A few similarities between these studies have been reviewed above (Li, 2019; Li, 2020; Davdar et al., 2021; Xu, 2021 & Zhong et al., 2022). First, it can be seen that abusive words such as explicit insults such as 'b*tch/sl*t/ho*' have higher usage frequency; secondly, some words are culture and context-based, such as the usage of the word 'dog' implication is based on the cultural background; thirdly, swearing and cursing expressions and words have higher usage frequency.

There are firm and significant benefits of the language approach in cyberbullying investigations. With respect to establishing a bullying language corpus and developing an automatic bullying content detector, Van Roysen et al. (2017) state that they can promote self-reflection in online communication minimising real-time cyberbullying instances. They can also be implicit awareness raising to netizens that are cyberbullied.

The linguistic approach in addressing cyberbullying possesses great potential and success chances; however, critical malfunction in the systems developed could be seen. The first limitation is that the programs can only detect standard language and explicit bullying. In this sense, implicit bullying, pointed out by Li (2020) and Zhong et al. (2022), cannot be detected. Secondly, if the language is not standardised, the programs will not be able to detect bullying.

As a result, the programs will need human-like interpretations to automatically clean and standardise the language without human interference, or non-standard language and abbreviations should be the grey zone which needs human approval or rejection.

2.5 Conclusion

The discussion in the above section (chapter two) provides firm evidence that cyberbullying is a global trend perpetuated by increased usage of ICTs and social media, especially among young adults. In chapter one, this study also showed and discussed some initiatives introduced to combat (or at least mitigate the severance of) cyberbullying. In this section, language detection analysis on social media communication is gaining momentum as in South Africa, Mkhize et al. (2020) state that language is pivotal in showing the hatred directed towards the LTGBI community. Furthermore, other studies show that words/language is pivotal in showing aggressiveness in virtual communication. Through the provided information in this chapter, few conclusions can be reached. This chapter is evident that cyberbullying is a global pandemic with different forms in relation to gender, age and type of social media platform used. It can also be seen from investigations conducted by Li (2019), Li (2020), Mkhize et al. (2020), Zhong et al. (2022), and Matomela and Henney (2022) that in virtual communications language plays a very vital role in perpetrating cyberbullying and portraying aggressivity. The subsequent chapter provides and justifies the adoption of corpus linguistics as the conceptual framework of the present study and how it is adopted and adjusted to fit specifically the aims of this study.

Chapter Three: Conceptual Framework

3.0 Introduction

The previous chapter discussed the literature on cyberbullying and cyberbullying language investigations. This chapter discusses the conceptual framework, which will inform the data collection and analysis. This study adopts corpus linguistics as the conceptual framework. This chapter commences with an outline of the study. A discussion of corpus linguistics, including history and corpus, and the conceptual framework accompanied by tools of analysis used in the present study.

3.1 Outline of Study

Language is a way for people to express their innermost feelings and thoughts to others; the words they use reveal their everyday sentiments and considerations and hint at their perceptions of the world (Tausczik & Pennebaker, 2010). The present study focuses on cyber language. Specifically, it examines the language used in communications perceived as examples of cyberbullying. The language examined is isiZulu. The platforms from which the examples are derived are Meta, Facebook and Twitter. This quantitative study uses Voyant Tools and Anthony's Concordance to analyse data. The current paper seeks to collect a corpus of aggressive communications used in online messaging platforms.

3.2. Development of Corpus Linguistics

This study utilises a conceptual framework (as opposed to a theoretical framework). A conceptual framework is a two-part 'argument' for a study (Ravitch & Rigan, 2017) quoted in Crawford (2020). The argument, firstly, explains the need for the study. Secondly, it illustrates the 'alignment among research questions, data collection, and data analyses and research rigour'. The conceptual framework will inform and describe the research procedure from

questions to findings. The main research question of this study is the creation of a corpus of the isiZulu bullying language.

A methodological framework, Corpus Linguistics, accompanies the conceptual framework. ‘Corpus linguistics involves dealing with machine-readable texts that are perceived to be the appropriate basis to investigate certain research questions’ according to McEnery & Hardie (2012). cited by Collins (2019). Reppen (2015) offers a similar description, ‘corpus linguistics includes extensive use of computer for analysis, using both automated and interactive techniques, allowing the user to integrate the computational algorithms and minor manual corrections’. In summary, corpus linguistics is the study of the language of the text (written or spoken), mainly conducted by computers and software programs and analysed using automated and/or interactive techniques (Collins, 2019).

In the light of the objective to formulate the isiZulu cyberbullying corpus, this study canvassed students to share the social media communications they deem aggressive (either post, comments, or direct text messages). Voyant Tools and Anthony’s Concordance, as some of the tools for corpus linguistics, were used to analyse the corpus.

Corpus linguistics studies are concerned with ‘repetition and patterns of co-selection’ (Collins, 2019). For this study, Voyant Tools were used to determine the repetitive words and phrases. Voyant Tools has various tools (shown in italics) to realise this. For example, Cirrus was used to identify high-frequency words in bullying communications. The Mandala was used to identify the terms that recurred across multiple communications. Phrases identified the high-frequency repeated sequences of words. Corpus Collocates or Key Word in Context tool determined the co-occurrences for the keywords.

Collins (2019) explains that corpus linguistics considers three aspects:

- What is the literal meaning of the node?
- What are other figurative implications of KWIC?

- What does the context of the node suggest with the use of words in the textual data?

In this study, this aspect was explored (secondary objective).

3.3 Historical Background of Corpus Linguistics

Corpus Linguistics is said to have its roots in the Middle Ages, where researchers used real-world examples of language to study the semantic meaning of certain words, relating their meaning to the surrounding context (words nearby). This is known as concordance in the modern terminology of corpus linguistics. Collins (2019) states that Corpus Linguistics was founded on the principles of frequency-based approaches to language, observing recurrent patterns of authentic language data.

McEnery and Hardie (2013, 728) point out that although the empirical method of studying language was not new, the advancement of computer technology has transformed the study of corpora. According to McEnery and Hardie, Busa's pioneering research in the early 1950s paved the way for the widespread utilisation of computers. Busa produced concordances of Thomas Aquinas' poetry using the antiquated technology of punched-card computers

From the late 1950s onward, significant corpus linguistic study was carried out. Notable examples include major publications like Francis and Kucera's Brown Corpus, published in 1964, and the Survey of English Usage research unit's Brown Corpus, launched in 1959. However, until about 1990, corpus linguistic studies were mostly directed by several specialised research centres.

From the 1990s onwards, developments in corpus linguistics have been characterised by digital developments. The pioneering researcher in this period was James Pennebaker, who introduced Linguistic Inquiry and Word Count (LIWC). More recently, free software like Anthony’s Concordance (Anthony Concordance) and Voyant Tools (VT) have become available to corpus linguists.

All these tools have advanced algorithms to analyse and represent data visually in a short timeframe. These algorithms can count the number of words in the corpora/corpus and identify the implicit and explicit linguistic features such as collocation, links, and phrases that occur most/least frequently in the corpora. The data visualisation techniques include word clouds and bubbles.

3.4. What is a Corpus

A corpus is a group of authentic, machine-readable texts sampled to be typical of a given language or linguistic variety. These texts may also include spoken data transcripts (McEnery, Xiao & Tono 2006). On the other hand, Collins (2019) defines corpus as the representative collection of language data that has been compiled to allow researchers to conclude real-world language use. In this paper, I refer to the corpus as the collection of words, expressions and phrases that are investigated and analysed in a manner that the researcher reaches particular conclusions about how language is used in real-world communication, such as aggressive isiZulu usage in cyberbullying communication in the social media platforms

Corpora can be used in stylistics, clinical linguistics, and forensic linguistics. Because it helps define standards for usage and frequency by which one's texts may be evaluated. Corpora help provide information about how language works, which users may unwittingly overlook. This is beneficial for teaching languages. Additionally, it is advised to use it yourself to observe variance and distinction between languages (Collins, 2019).

3.5. Types of Corpora

There are different types of corpora used for different research projects. There are general and specialised corpora (McEnery and Wilson, 1996b; Collins, 2019). This study uses specialised corpora, described by Hunston (2002) as:

> *A collection of texts of a specific genre, such as newspaper editorials, geography, textbooks, scholarly articles on a particular subject, lectures, informal chats, student essays, etc. It attempts to reflect a specific genre of text. It is employed to look into a specific language type. […] Although there is no restriction on the level of specialization required, the settings have been set to restrict the kind of texts that can be used. A corpus might be constrained to a specific period of time, such as a century, to a social context, like talks taking place in a bookstore, or to a specific subject, like newspaper articles discussing the European Union. (p. 14)*

The corpora used in this study are extracted from digital and online communications (social media). It is described as specialised because it is interested only in isiZulu, which is used in cyberbullying communications. This study adopts the grassroots data collection method. The corpus is provided by participants, who extract the data from their social media accounts. Then, the researcher computes and analyses the data.

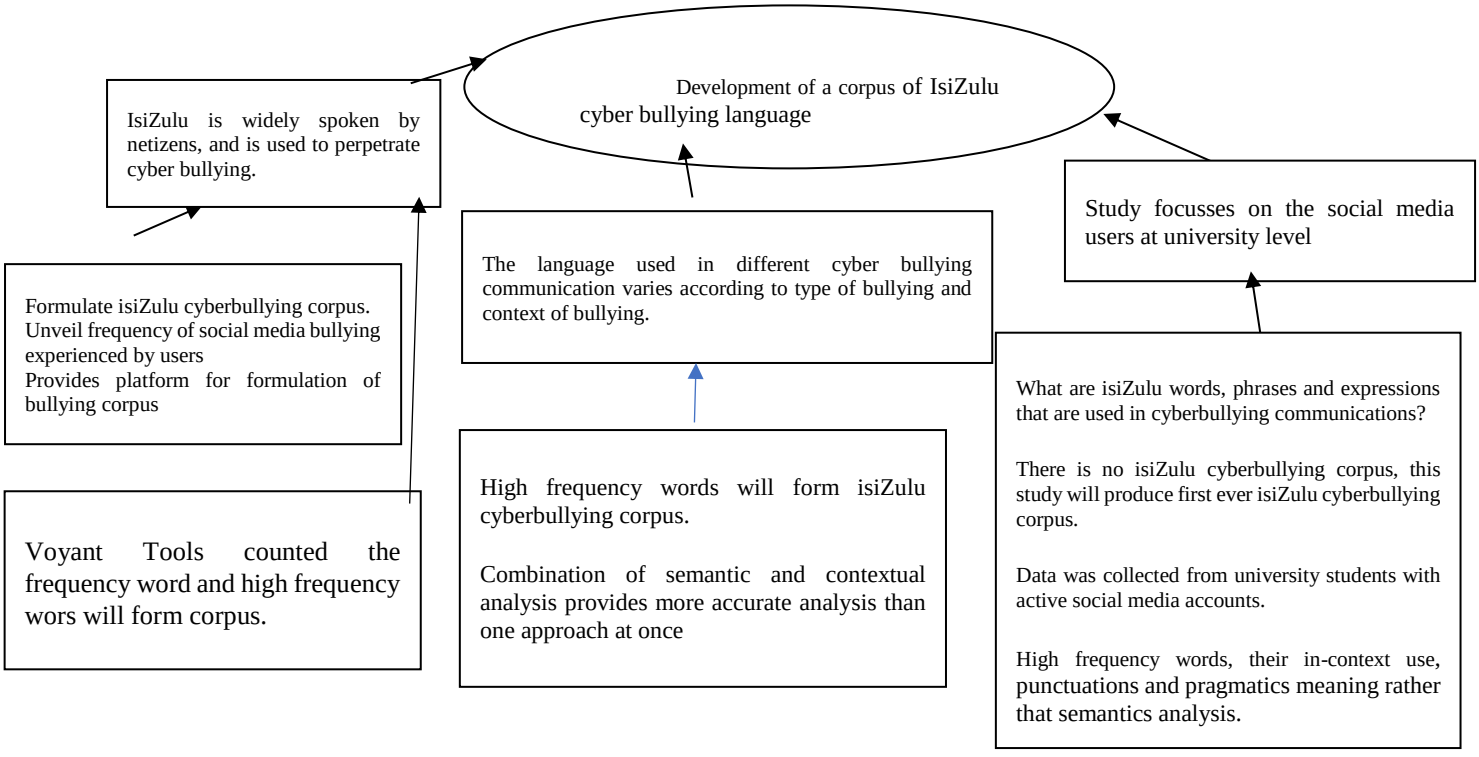
3.6. Conceptual Framework

Crawford (2020) articulates that the confusion between the conceptual and theoretical framework should be resolved, which is an urgent issue. Various scholars have proposed definitions of the conceptual framework. The commonality amongst these definitions is that there must be a relationship between the phenomenon to be studied and the existing literature. They further articulate that a conceptual framework is like a jigsaw puzzle whereby all components of the study fit together and form a fully functioning system to both reader and researcher why that study is important and rigorous in a manner that it was the only was to be done to obtain higher accuracy (Ravitch & Riggan, 2017; Marshall & Rossman, 2016; and Miles et al. 2014).

Crawford (2020) and Merriam and Tisdell (2016) states that conceptual framework provides the trajectory not only to the reader but the researcher too, about how that study contributes to the body of knowledge. In this spectrum, a conceptual framework is not only the foundation of analysing the findings of the study, but it links the existing literature on the investigated phenomena by identifying the gap in the literature. It also informs the researcher about what type of research to conduct, how to represent and analyse the findings, and how that does not only fit the present study but also in that field of study.

In concluding the conceptual framework, Crawford (2020) states that the sources of developing a rigorous conceptual framework must be informed by mainly three sources, experience, literature and theoretical framework; drawing from these allows the research to identify loops, gaps, weaknesses and strengths of existing frameworks and address those in the proposed conceptual framework. For the present study, the conceptual framework is corpus linguistics and is presented in Table 3.1.

Table 3-1. Diagrammatic representation of the Conceptual Framework.



3.7. Tools for Analysing Corpora

3.7.1. Voyant Tools.

Two text analysis programs, Voyant Tools and AntCon, were used to analyse this study. Two such programs are used to verify and validate the results. Sinclair and Rockwell (2021) describe Voyant Tools as an 'open-source online-based free platform that uses computational algorithms to extract the linguistic and statistical information from texts of different sizes, types and languages'. This program allows the user to upload text documents. Voyant Tools uses qualitative data (textual) to produce quantitative data (frequency) through visualisation tools, including graphs, and tables, intending to explicitly extract explicit and implicit linguistic features of the corpus (Sinclair & Rockwell, 2021).

Voyant Tools is a word-counting software, but it does not only count words. It also can identify frequently occurring phrases and expressions. Moreover, it can compare multiple documents and focus on one document. Voyant Tools contains 29 data analytic tools. These tools are for textual and linguistic data analysis. They include the cirrus tool, context tool, correlation tool, reader tool, trends tool, and links tool, to mention mostly used that are, among others, useful in data visualisation [www.voyanttools.org].

For the present study, using Voyant Tools will result in identifying words, phrases and expressions used in cyberbullying communication. Those identified will form a part corpus of cyberbullying communications in isiZulu. The application of this tool is identifying the words, phrases and expressions that cyberbullies use (can be referred to as isiZulu cyberbullying corpus).

In data analysis, Voyant Tools has been used for different purposes, including marketing, fiction, and social media communications analysis (Hetenyi et al., 2019; Rambsy, 2016; and Gregory et al., 2021, respectively). This wide variety of use of Voyant Tools proves

that this tool is a cross-disciplinary valuable tool, arguing that it has been used for same purpose in those different disciplines hence different approaches (Miller, 2018).

3.7.1.1. Cirrus Tool

The user can adjust the number of words displayed; frequently occurring words are the largest visualisation. Cirrus tool is a word-cloud of the most frequently occurring words in textual data or corpus (words with high frequency are large in font sizes). The tool is interactive, allowing the user to click on it and interact with one word, ultimately allowing the user to interact with one word and ask an objective question about it, as argued by Collins (2019) that corpus linguistics has semi-automated algorithms that are automatic and allows the user to interact with data analysis rather than asking questions that subjective.

Figure 3-1. Cirrus tool of Voyant Tools. (Voyant Tools)

3.7.1.2. Reader Tool

The reader tool allows the user to read and access the original corpus or textual data under the scope. In this spectrum, the user can click on any word of their interest, and the context tool of that word of interest, the reader tool, is shown in Figure 3.2 below. Context tool, which shows frequently used words in context (within the surrounding text), this tool allows the user to investigate, scrutinise and understand the usage of the word concerning not only surrounding text but unpacking the underlying and intended meaning of it to investigate the context of the word, the reader tool allows the user to click on it and automatically the context tool shows the context of that word. The correlation tool allows the user to explore the extent to which terms vary in synchronisation (rise or fall usage frequency of mostly used words in the corpus analysed) [www.voyanttools.org]. This tool has similarities with collocates which essentially shows words that occur in proximity across the entire corpus. There is no explicit relationship between the reader and the correlation tool.

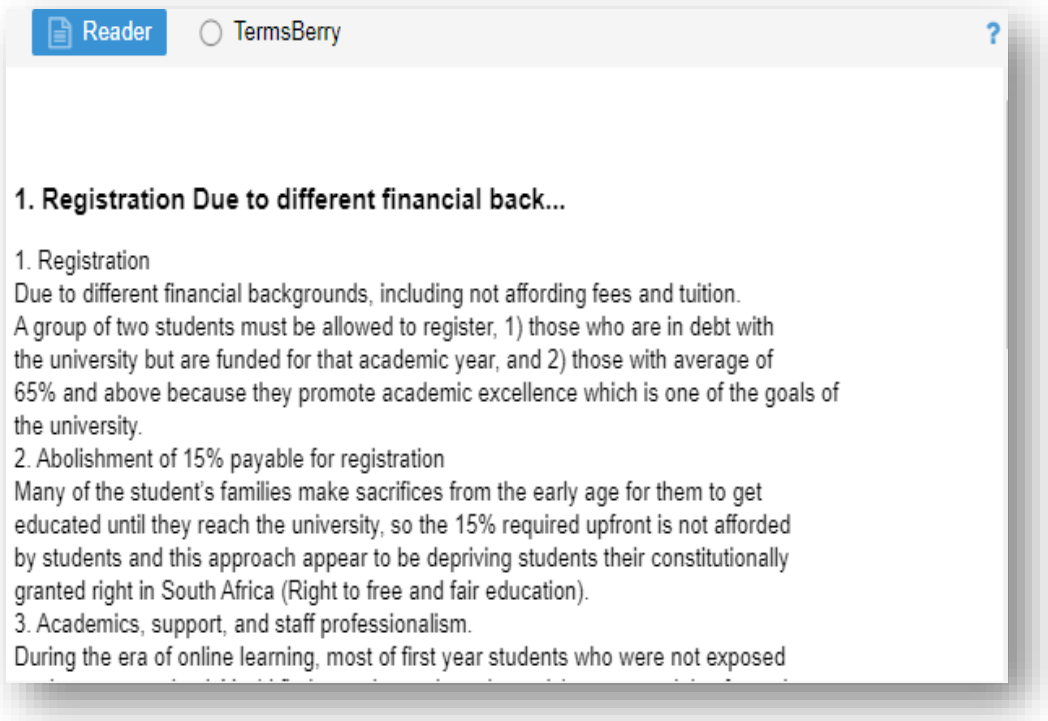
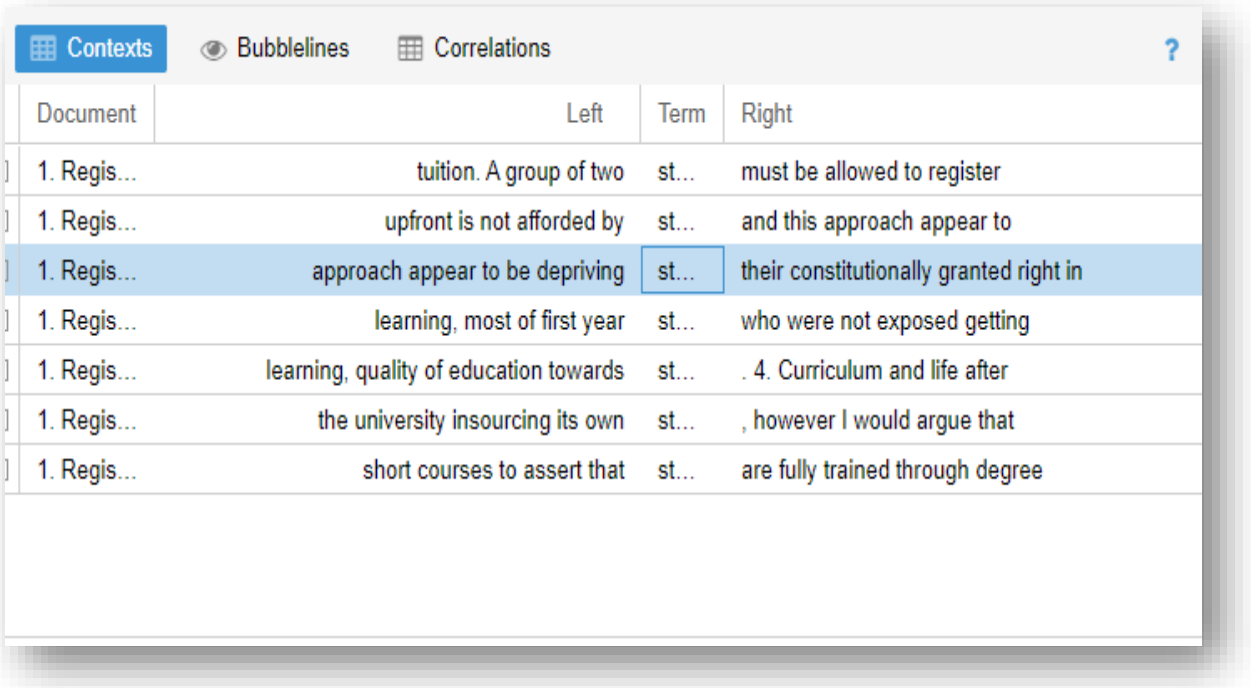


Figure 3-2. Reader tool of Voyant Tools (Extracted from Voyant Tools)

3.7.1.3. Context Tool

As for the importance of other tools, the context tool is another tool that identifies the word of interest about its surrounding text. Although the word's literal meaning can change when it is used in certain contexts, the meaning might alter because of the meaning surrounding words and the situation under which it is used. Figure 3.3. shows the context tool of Voyant Tools.



Document	Left	Term	Right
1. Regis...	tuition. A group of two	st...	must be allowed to register
1. Regis...	upfront is not afforded by	st...	and this approach appear to
1. Regis...	approach appear to be depriving	st...	their constitutionally granted right in
1. Regis...	learning, most of first year	st...	who were not exposed getting
1. Regis...	learning, quality of education towards	st...	. 4. Curriculum and life after
1. Regis...	the university insourcing its own	st...	, however I would argue that
1. Regis...	short courses to assert that	st...	are fully trained through degree

Figure 3-3. Context tool of Voyant Tools (Extracted from google)

3.7.1.4. Collocates and Collocations

Some words in corpora tend to be found in the same place in certain corpora, depending on the corpus's type and aim. Two tools are predominantly used to examine the relations of two words in the corpus. The collocation tool examines the relational location of two words in the corpus/textual data. The collocation identifies the words that occur close to each other; the collocation (close proximity) tool is shown in Figure 3.4. Collocates is another tool that identifies the two words with a relational location. By using collocates, the user identifies the words that are only located adjacent to each other having a higher frequency usage. Collocates

can be interpreted as phrase tools because some words are better understood when read as a phrase or expression than as an individual (stand-alone). Figure 3.5. shows the collocates tool.

Contexts | Bubblelines | Correlations

Term 1	←	→	Term 2	Correlation...	Significanc...
competence			courses	1	0
education			learning	1	0
education			staff	0.7637626	0.010130721
learning			staff	0.7637626	0.010130721
profession...			staff	0.7637626	0.010130721
academic			year	0.6666667	0.035265204
competence			implemented	0.6666667	0.035265204
courses			implemented	0.6666667	0.035265204
education			right	0.6666667	0.035265204
learning			right	0.6666667	0.035265204

Figure 3-4. Correlation tool of Voyant Tools (Google)

Document Terms | Collocates

Term	Collocate	Count (context)
students	learning	2
students	approach	2
students	appear	2
student	module	2
student	exclusion	2
right	south	2
right	right	2
learning	students	2
implemented	zero	2
implemented	undergraduates	2
implemented	implemented	2

Figure 3-5. Collocates tool of Voyant Tools (Google)

3.7.2. Anthony (Lawrence) Concordance

Anthony's Concordance (known as AntConc) is a freeware concordance, textual data analysis program capable of analysing one and multiple files containing text. It has algorithms that quickly process a large amount of textual/narrative/qualitative data to determine the number of words, phrases and expressions. Tang (2011) states that Anthony's Concordance has various data analysis tools, including Key-Word-In-Context (KIWC), collocate, word cloud and keyword.

Anthony's Concordance is essentially a tool that mainly analyses phrases and expressions using a cluster or more than one word. The tool also allows the user to incorporate the user input, as the user can use options such as 'sort'/ 'case' to be objective and explicit in their analysis.

3.7.2.1. Collocates or Cluster

Collocates or cluster is a group of words that occurs adjacent to each other. They are neighbours in simple language. Collocates render a more vivid image sense when it is read as a phrase or expression rather than individual words. Anthony's Concordance can identify the words with a higher frequency of occurring together as a phrase/cluster/expression. Figure 3.6. showing cluster tool of Antony's Concordance.

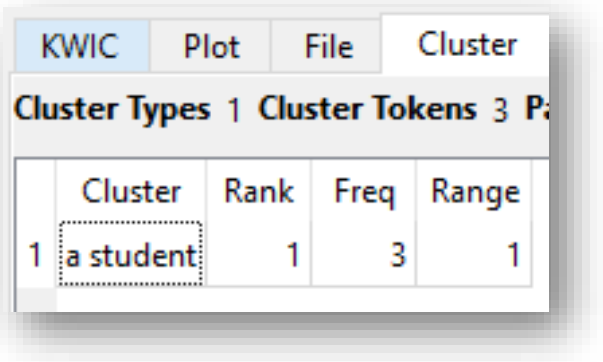


Figure 3-6. Cluster (phrase) extracted from Anthony's Concordance.

3.7.2.2 Key-Word-In-Context

Key-Word-In-Context (KIWC) approach in analysing textual data is one of the foundations for grasping the expression's intended meaning (Collins, 2019). Anthony Concordance allows the user to search their word of interest about neighbouring words (context in which it is used). It does not only use the word as a node in KIWC analysis but also allows the user to search the phrase/expression as a node, as opposed to Voyant Tools, that only allows one word as a node. The KIWC allows the user to identify the implicit and explicit bullying, hence differentiating between the literal and figurative meaning (implications). Figure 3.7. showing KIWC of the word 'student' in Anthony's Concordance, while Figure 3.8. shows the phrase 'a student' in KWIC. KWIC of Anthony's Concordance is similar to the Context tool of Voyant Tools.

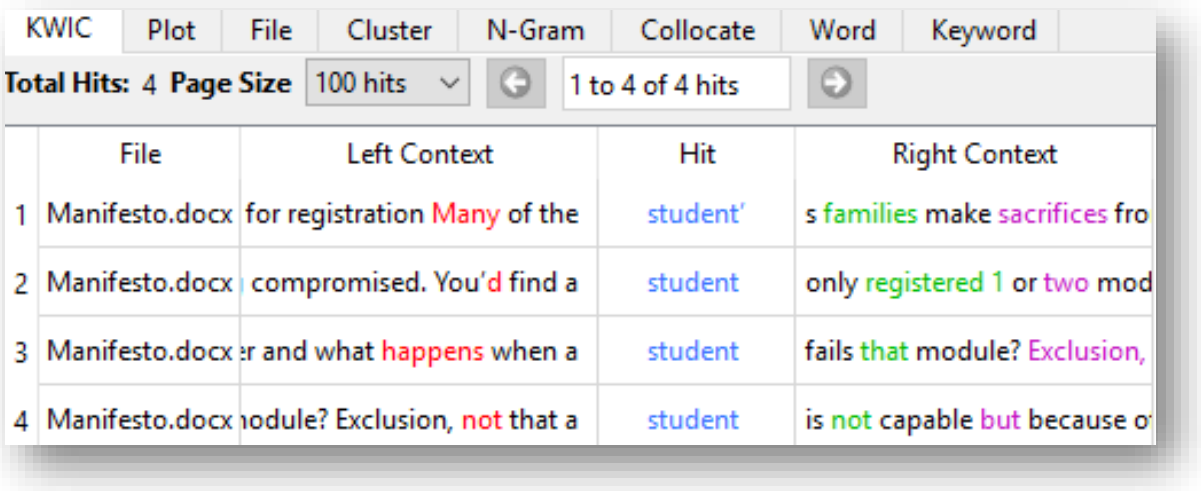


Figure 3-7. Word 'student' in KWIC of Anthony's Concordance

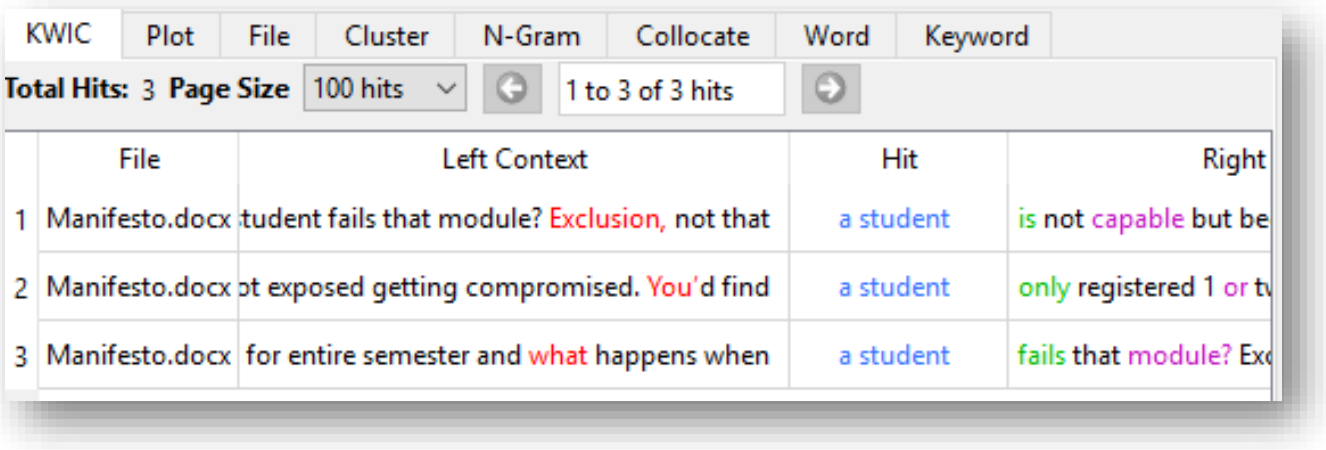


Figure 3-8. The phrase 'a student' in the KIWC tool of Anthony Concordance

3.8. Conclusion

This chapter has provided a review of corpus linguistics and conceptual framework and justified the adoption of corpus linguistics as the conceptual framework due to its nature and capacity to accurately and rigorously analyse textual and linguistic data to reach an accurate conclusion. The next chapter discusses the methodology of the study, which amongst others, includes the data collection procedure and results.

Chapter Four: Methodology

4.0. Introduction

The primary aim of this study is to establish of IsiZulu cyberbullying corpus obtained from social media communications. This chapter commences by describing the data collection procedure, followed by a description of the data pre-processing and analysis and the presentation of the findings demographically and in language, respectively.

4.1. Data Collection Procedure

The data collection of this study is two-fold. The first fold is the collection of participants' demographic details, providing critical data to the insight into social media usage at the university level in the South African context and ultimately updating the social media usage among young adults at South African universities. These demographic questions' responses were collected using google forms. This instrument consists of 8 items, shown in Appendix 1. The electronic questionnaire was distributed to the university's online learning platform.

The second fold of data collection was the collection of communication texts that participants perceived as aggressive. These communications were in the form of screenshots; and ultimately contained isiZulu aggressive language used on social media communications, leading to the establishment of a isiZulu cyberbullying corpus. These communications were collected via emails, dropbox and google drive, depending on the participant's preference. These are included in Appendix 2. Only 5.1% of the participants in this survey reported experiencing regular cyberbullying. Social media sites have become an important source of text-mining. Several ethical issues are associated with using such secondary data (Ford, Shepherd, Jones and Hassan, 2021). This study subscribes to the position that consent is not required to collect data in the online public domain, especially if text mining occurs from open-

access sites where no login details are required. It is impractical to obtain informed consent. Furthermore, website terms and conditions inform users that posts may be re-used. The important ethical consideration of ‘do no harm’ applies in this study. The data mining is anonymous and its purpose is linguistic analysis.

4.2. Ethical Considerations

Ethical clearance was obtained from the university Research Committee, Protocol Preference Number: HSSREC/00004573/2022.

4.3. Participants

The research participants are students from the University of KwaZulu-Natal. The inclusion criterion was that participants must understand isiZulu and preferably mother-tongue speakers of isiZulu. The sample size is 102 participants.

4.4. Recruitment

All participants were recruited based on their ability to understand isiZulu. This was ensured by recruiting students/participants registered for isiZulu mother-tongue language modules; another inclusion criterion for participants has an active (at least one) social media account. This is encouraged by the higher usage of technological devices since the university has adopted an online teaching and learning strategy.

4.5. Data pre-processing and Analysis

Social media communications do not always contain the standard language. They contain Short Message Service (SMS) language, and it was critical for the researcher to clean and standardise the communication texts. Another pre-processing data form of standardising textual data, such as tokenization (words that are teared as phrases or as single words from a phrase).

In the analysis, lemmatization (using word stems from identifying the word/s that are intended to imply the common meaning) in isiZulu as a clustered language where morphemes can change the implication of the word and lemmatization was done to group all words that tend to produce similar meanings. For example, a word stem *'-dakw-'* can appear in the form of *'udakiwe', 'uyadakwa', 'uyangdakelwa'* and in the analysis, algorithms can pick-up this word as different words. At the same time, it is essentially one word with one meaning but written in different forms.

In any study, it is pivotal to question the validity and reliability of the results study, which informs conclusions of it. In this study, the researcher deemed it necessary to ensure that none of the was compromised. As a result, the study uses two software programs to analyse and process data. This allows the researcher to verify if the analysis is accurate by comparing the results of these two programs.

Another reason for using two software tools is that Voyant Tools can only use one word in KIWC analysis. At the same time, Anthony's Concordance can have phrases or/and expressions as an area of interest compared to one word.

The third reason for the use of two tools is the way they function. Voyant Tools allows minimum interaction between the user and algorithms. No search bottom allows the user to analyse and conclude what Voyant Tools identified as necessary. On the other hand, Anthony Concordance allows the user to interact with the data during analysis maximumly because the tool is 'search' based. They allow the user to answer and interact with the data with maximum objectivity.

In terms of data analysis, the present study uses Voyant Tools to calculate the words with a higher frequency on corpora of isiZulu aggressive social media communications. Words, word stems, phrases and expressions with higher repetitiveness on our corpus will form part of the isiZulu cyberbullying corpus in social media, which is the primary aim of the present study.

Voyant Tools contains tools including cirrus, links, context, and correlation that is critical in textual data visualisation, allowing the user to answer questions of interest on that corpus accurately. Visualisation of textual data allows the graphical and quantitative representation of qualitative data and alludes to explicit and implicit extraction of linguistic features of the corpus under investigation.

4.6. Results

4.6.1 Demographic Results

This section represents the findings of the study. Results of the first-fold (demographic questions) data collection inform the usage of social media dynamics and the prevalence of cyberbullying. The second-fold (communication texts) is presented in this section, informing the isiZulu cyberbullying corpus on social media platforms.

There were 102 respondents to this survey. The age distribution and gender among participants are shown in Figures 4.1 and 4.2 below.

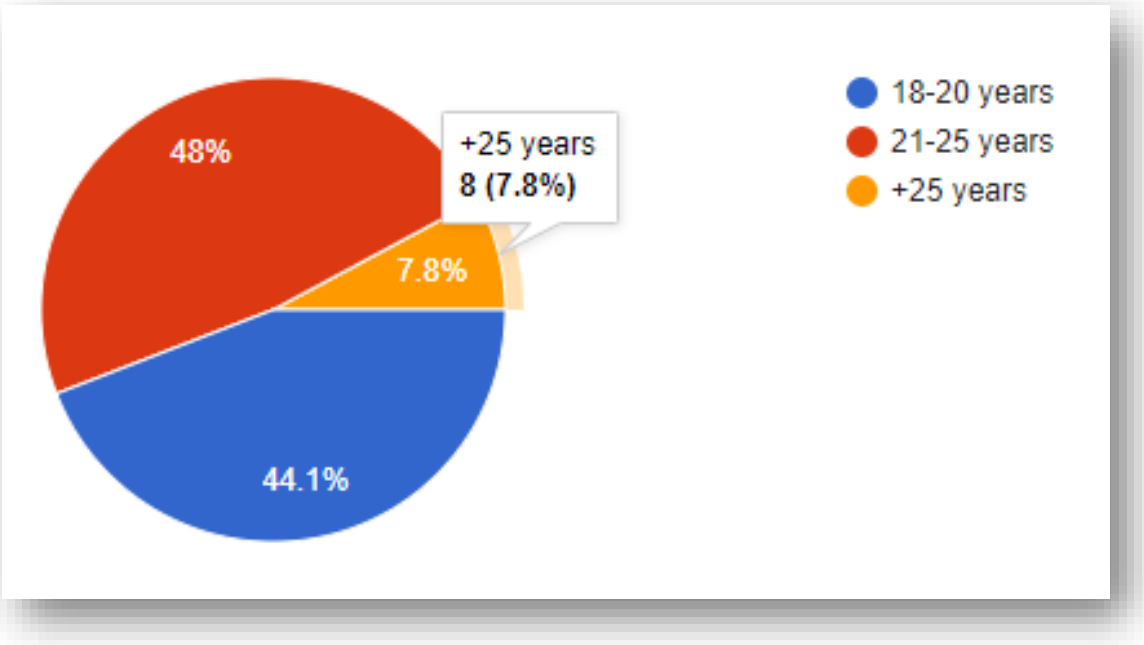


Figure 4-1. Age of Participants

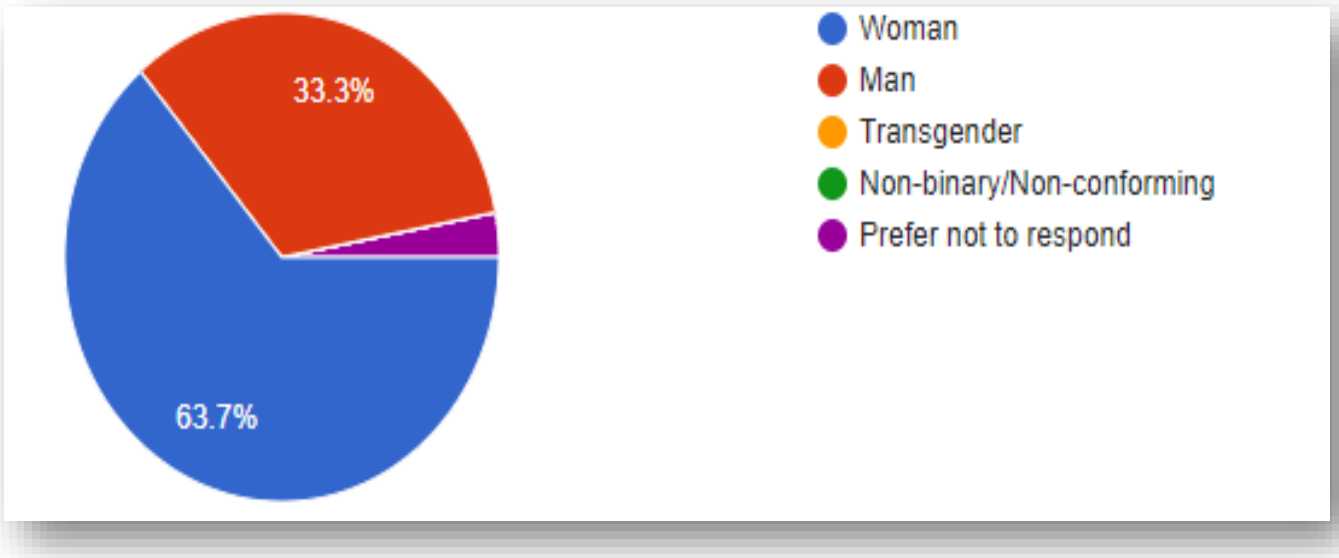


Figure 4-2. Gender of Participants

Figure 4.3 below indicates that most participants (51%) spend more than six hours daily on social media sites.

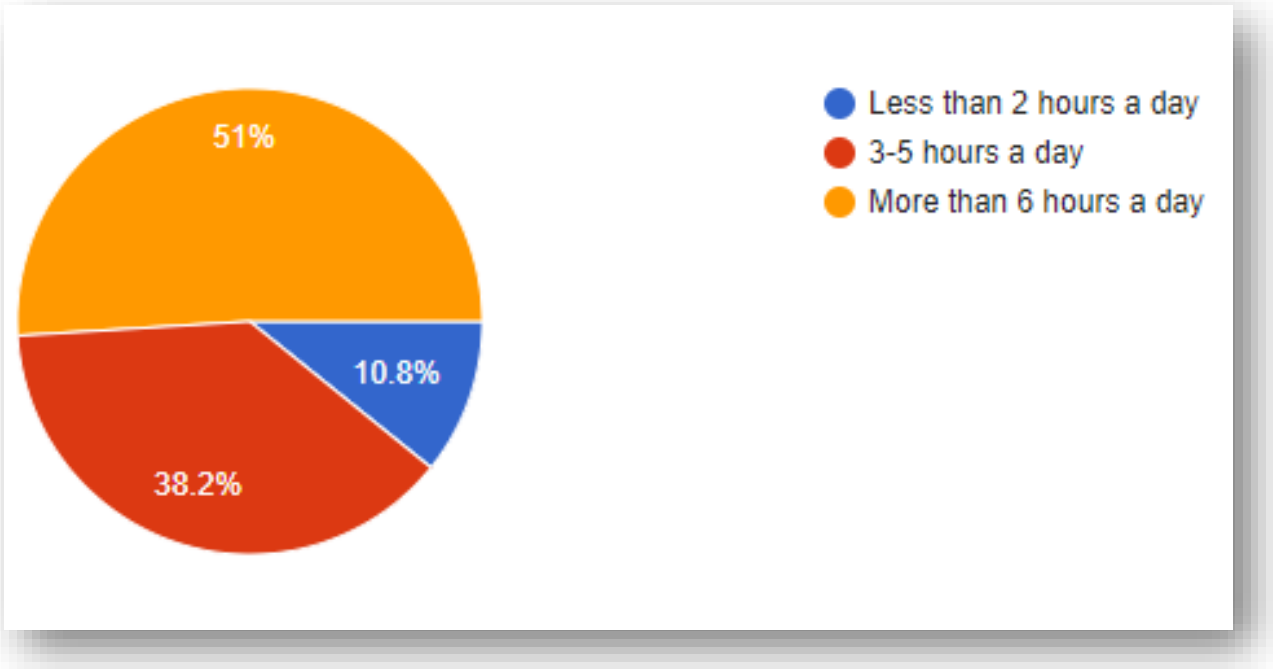


Figure 4-3. Time spent on social media by participants

Regarding the most used social media platforms, it is critical to note that participants used multiple social media accounts. Reddit reported 0% of users, while Facebook (69.6%) and WhatsApp (83.3%) were reported as platforms with higher usage frequency. Figure 4.4. below shows the consumption of social media platforms.

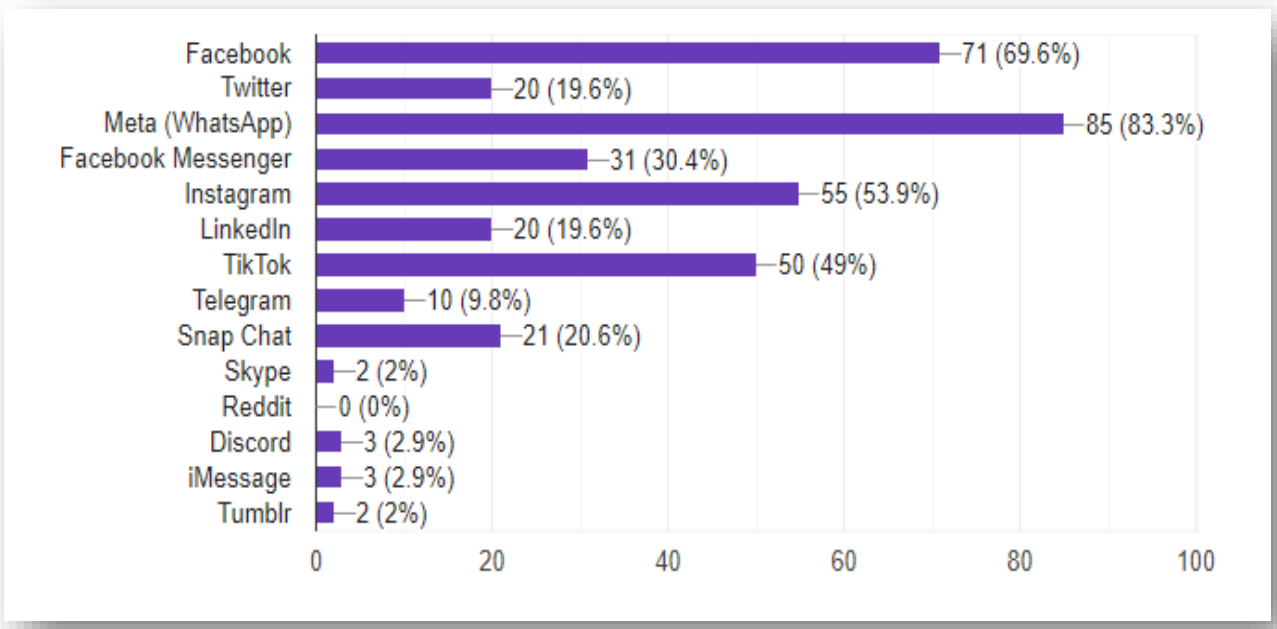


Figure 4-4. Consumption of social media platforms by participants.

About 49% of participants reported never receiving bullying communications on social media. 51% reported having experienced cyberbullying. As shown in Figure 4.5 below, most participants reported communications containing sexual content (45%), while outing/doxing was reported as the least experienced (7.6%). One participant reported experiencing multiple forms of cyberbullying.

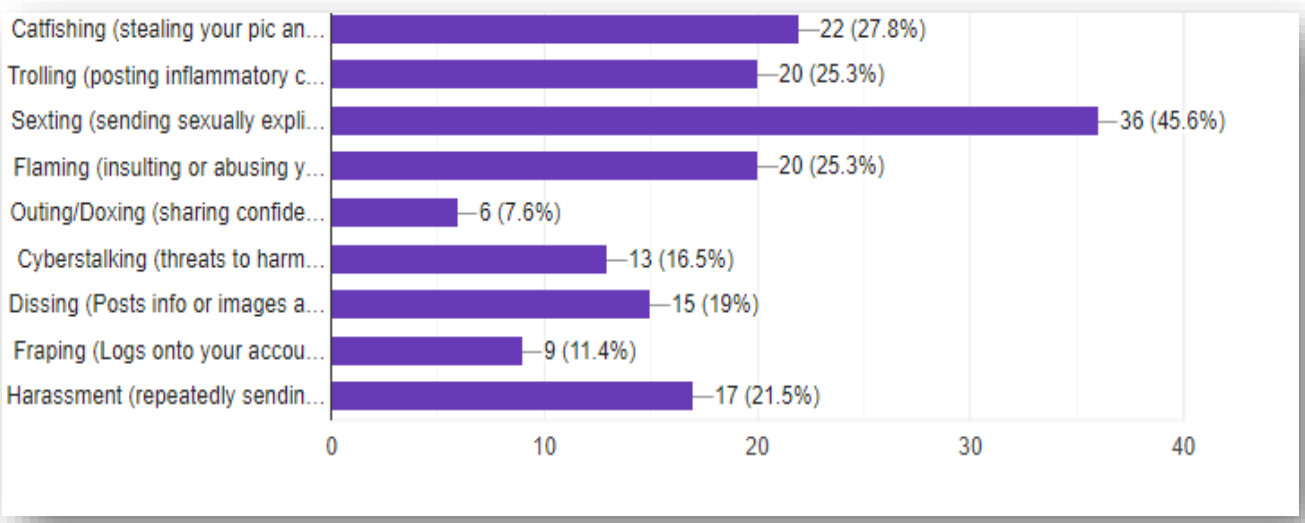


Figure 4-5. Prevalence of types of cyberbullying experienced by participants.

About 5.1% of the participants reported experiencing cyberbullying regularly. 47.4% experienced cyberbullying once. Figure 4.6. shows the frequency of cyberbullying experiences by participants.

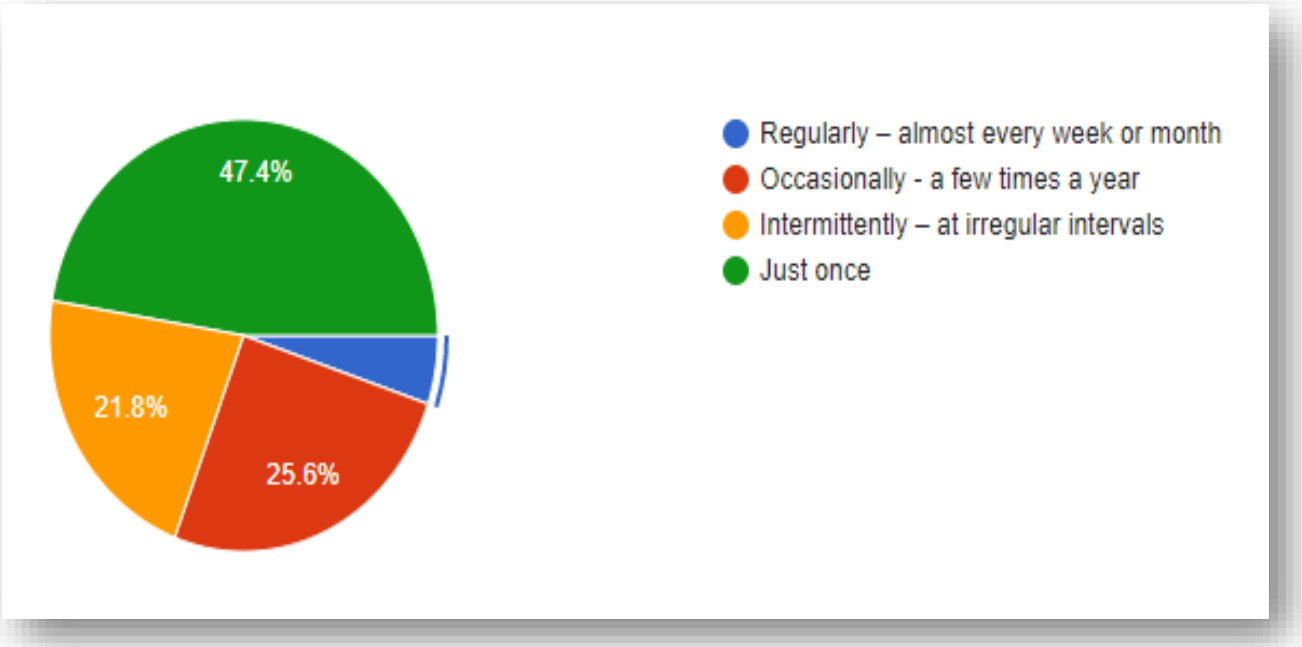


Figure 4-6. The interval of cyberbullying by participants.

4.6.2. Language Analysis

IsiZulu communications shared by participants were uploaded to tools for analysis by Voyant Tools and Anthony Concordance. Communications data were mainly screenshots sent by participants, as shown in appendix two from Twitter and Facebook. However, some participants opted to type in the space provided in the survey questionnaire.

4.6.2.1. Voyant Tools Results

The aggressive communications data in isiZulu submitted by participants totalled 395 words. Figure 4.7 below shows the word cloud of the corpus, where words with higher frequency are shown in larger font, and the summary of the corpus.

Figure 4-7. The cirrus tool (word cloud) and the summary of the corpus (Voyant Tools)

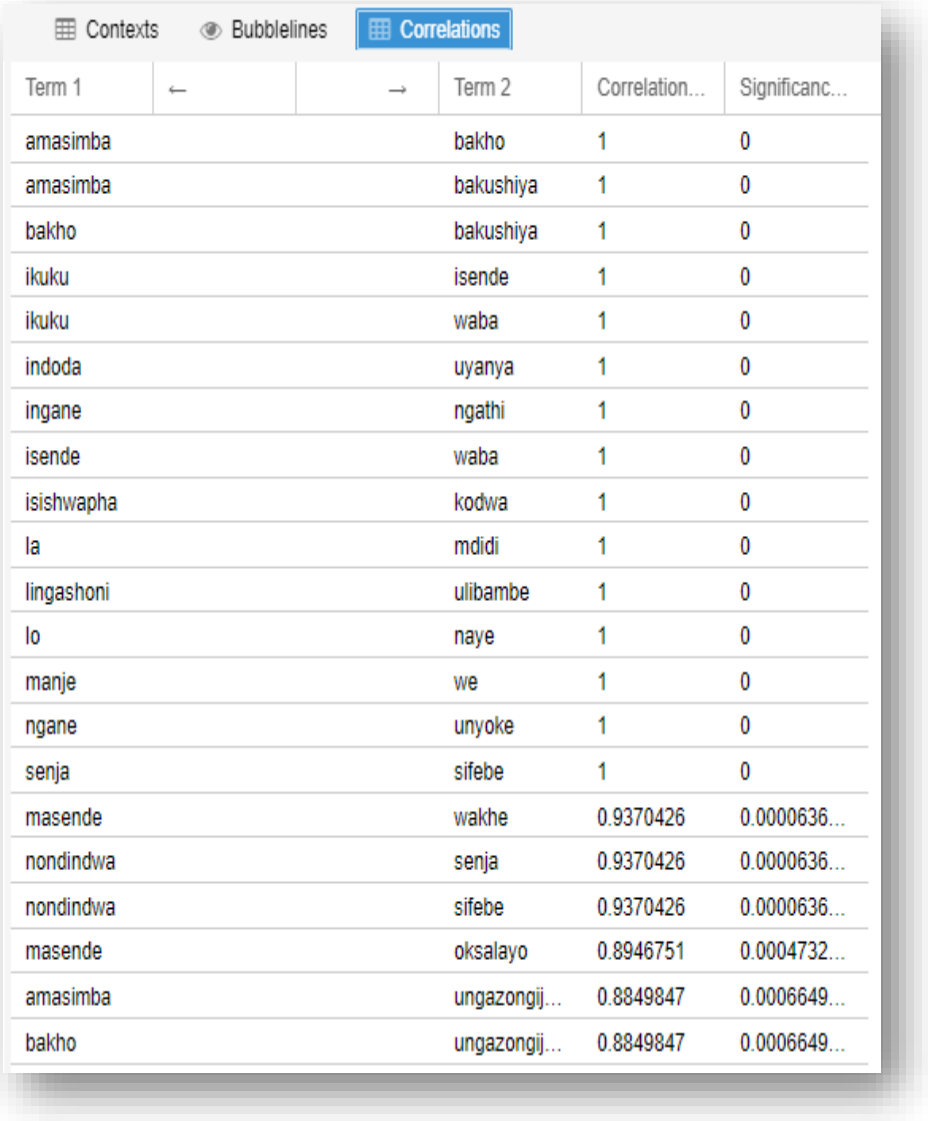
The most frequently used words were *ms*nu, nawe, wena, fus*gi,*and *oksalayo* broadly translated as 'p*ssy', 'you too', 'you', 'footsack/f*ck off', and 'bottom line is' respectively.

Scrutinising the semantic meaning of the words renders different meanings in the analysis. Table 4.1 shows the words that were used in the insults, swearing, rude, sexual and threatening words, among others.

Table 4-1. Words used in insults, swearing, rude, sexual and threatening communications.

Swearing	Insults	Rude	Sexual	Threatening
Oksalayo	Fus*gi	Isishwapha	Inq*za	Lingashoni
Amasimba	Senja	Welele	Nond*ndwa	Uzolimala/Qaphela
Ungazongijwayela	Uyanya	Owayikhiphayo	Ms*nu	Zingaboshiwe
Isif*be	Sesiyanuka	Wishlama	Ig*lo	Wozani
Nawe	Kuthengwa	Uyaxhapha	Mas*nde	Qhubeka

Some words were also found to correlate. Figure 4.8 below shows the words with the most correlation in the dataset. Words with higher correlation in the corpus include *bakho - amasimba, isende - ikuku, ulibambe – lingashoni*, word *sif*be* was correlated with *senja, nond*ndwa* and *senja*, was among words with higher correlation in the communication texts.



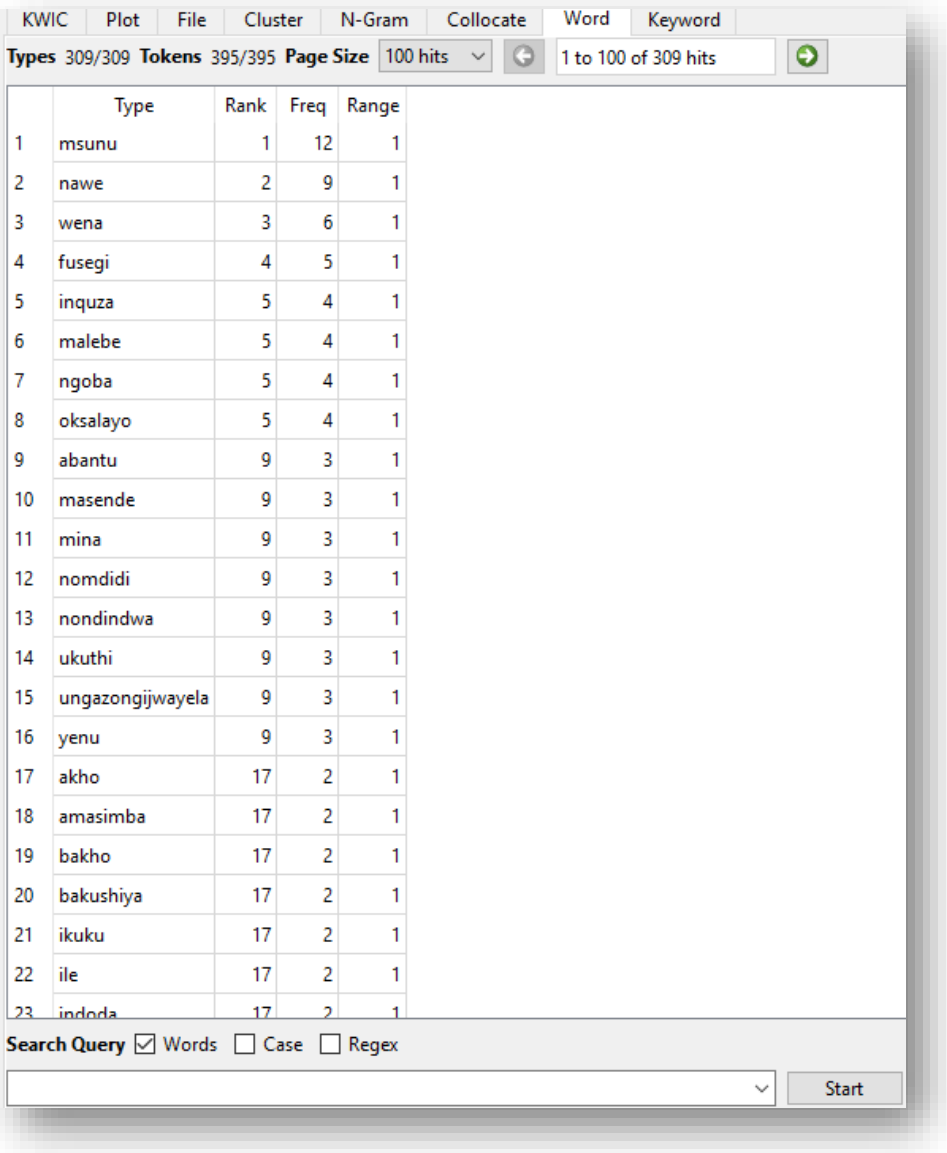
Contexts | Bubblelines | Correlations

Term 1	←	→	Term 2	Correlation...	Significanc...
amasimba			bakho	1	0
amasimba			bakushiya	1	0
bakho			bakushiya	1	0
ikuku			isende	1	0
ikuku			waba	1	0
indoda			uyanya	1	0
ingane			ngathi	1	0
isende			waba	1	0
isishwapha			kodwa	1	0
la			mdidi	1	0
lingashoni			ulibambe	1	0
lo			naye	1	0
manje			we	1	0
ngane			unyoke	1	0
senja			sifebe	1	0
masende			wakhe	0.9370426	0.0000636...
nondindwa			senja	0.9370426	0.0000636...
nondindwa			sifebe	0.9370426	0.0000636...
masende			oksalayo	0.8946751	0.0004732...
amasimba			ungazongij...	0.8849847	0.0006649...
bakho			ungazongij...	0.8849847	0.0006649...

Figure 4-8. Correlation tool of the corpus (Voyant Tools).

4.6.2.2. AntCon Results

IsiZulu communication texts were uploaded to Anthony's Concordance, containing 395 words. This section represents the results of the software. Figure 4.9. below shows the frequency of the words shown in a table format. Results are similar to those of Voyant Tools.



	Type	Rank	Freq	Range
1	msunu	1	12	1
2	nawe	2	9	1
3	wena	3	6	1
4	fusegi	4	5	1
5	inquza	5	4	1
6	malebe	5	4	1
7	ngoba	5	4	1
8	oksalayo	5	4	1
9	abantu	9	3	1
10	masende	9	3	1
11	mina	9	3	1
12	nomdidi	9	3	1
13	nondindwa	9	3	1
14	ukuthi	9	3	1
15	ungazongijwayela	9	3	1
16	yenu	9	3	1
17	akho	17	2	1
18	amasimba	17	2	1
19	bakho	17	2	1
20	bakushiya	17	2	1
21	ikuku	17	2	1
22	ile	17	2	1
23	indoda	17	2	1

Figure 4-9. Word cloud (frequency) extracted from Anthony Concordance.

With the capacity of Anthony's Concordance to not only identify words of higher frequency but also phrases and expressions. Figure 4.10. shows the phrase/expression with higher frequency in context.

Zintantaba azidibani, kodwa abantu bayadabana.	Ulibambe lingashoni	MXXXMMM Fusegi Uhlezi uzikhipha uze
imba mfana, ngizokubamba ngikubonise abantu.	Ulibambe lingashoni	ngoba lizoshoma nawe msunu kanyoko.

Figure 4-10. Phrase 'ulibambe lingashoni' in context

Figure 4.11. below shows the word *'nawe'* in context as a word with high frequency, while Figure 4.12. shows the word *'ms*nu'* in context, and figure 4.13. shows the word *'fus*gi'* in context. These words are words of higher frequency (top three words).

Left Context	Hit	Right Context
Jlibambe lingashoni ngoba lizoshoma nawe	msunu	kanyoko. uyazi ukuth awuyilutho ngaphandl
san fusegi OKUSALAYO ULala ukhiyile Nawe	msunu	Unganya Sphamandla nangu Popeye noSpir
ıonke Fusegi masende akho Uzokhala Nawe	msunu	Uzokaka Nawe fusegi, Malebe akho Woza la
nde yabuya wena anginandaba nawe, ngithi	msunu	wakhe Nawe malebe Oksalayo uyakhiya mal
khohlwe lo omhloniphayo ingabe naye uthi	msunu	wakhe? Wishlama wena Uyanya Masende ka
"Uzobona kuthi uncono ngani?" Uyaxhapha	msunu	wakho Zintantaba azidibani, kodwa abantu b
akho Wozani la ngiqale ngamuphi Zolimala	Msunu	wakhu Oksalayo l gora zine pipi elincane Dak
a uzosho lokho Nawe Mdidi. Ngiyaxolisa for	msunu	wami ngikhulumela mina ngedwa lana bafo
a ukhipha izisu asifanani lsinqunywakhanda	Msunu	we nkabi Sesiyanuka manje, nesigqokwana l
Niyanya bafana Oksalayo Malebe engulube	Msunu	westukha sakho Wozani la ngiqale ngamuph
ıoSpinach besidakelwa Sende lakho lyenzani	msunu	yenu yonke Indoda ayikhulume ibale amaga
che Nawe malebe Oksalayo uyakhiya malula	Msunu	yo makhelwane yenu nonke Fusegi masend

Figure 4-11. KWIC of 'ms*nu'.

Left Context	Hit	Right Context
msunu Uzokaka Nawe fusegi, Malebe akho Woza la uzosho lokho	Nawe	Mdidi. Ngiyaxolisa for msunu wami ngikhulumela mina ngedwa lana
vane yenu nonke Fusegi masende akho Uzokhala Nawe msunu Uzokaka	Nawe	fusegi, Malebe akho Woza la uzosho lokho Nawe Mdidi.
Le kaka siphinde yabuya wena anginandaba nawe, ngithi msunu wakhe	Nawe	malebe Oksalayo uyakhiya malula Msunu yo makhelwane yenu nonke
ılumela mina ngedwa lana bafo Oksalayo angikusabi futh ngzokubhaxa	Nawe	mgodoyi Qaphela Welele Welele uzolimala ikaka Sisekakeni Inkinga ukhul
ula Msunu yo makhelwane yenu nonke Fusegi masende akho Uzokhala	Nawe	msunu Uzokaka Nawe fusegi, Malebe akho Woza la uzosho
:okubamba ngikubonise abantu. Ulibambe lingashoni ngoba lizoshoma	nawe	msunu kanyoko. uyazi ukuth awuyilutho ngaphandle kwami, nabazali bak
ebe zakho zakwa Facebook Nawe san fusegi OKUSALAYO ULala ukhiyile	Nawe	msunu Unganya Sphamandla nangu Popeye noSpinach besidakelwa Send
akhu no'boby wakho Le kaka siphinde yabuya wena anginandaba	nawe,	ngithi msunu wakhe Nawe malebe Oksalayo uyakhiya malula Msunu
ıenga inquza e 48 uyanya akumele adliwe lzifebe zakho zakwa Facebook	Nawe	san fusegi OKUSALAYO ULala ukhiyile Nawe msunu Unganya Sphamandla

Figure 4-12. KWIC of 'nawe'

Left Context	Hit	Right Context
gifuna ukukumithisa Besinemfu abaNzulu Yey	fusegi	Isende baziphilela ngalo Ikuku uyisakazela aba
e akho Uzokhala Nawe msunu Uzokaka Nawe	fusegi,	Malebe akho Woza la uzosho lokho Nawe Mdi
ya malula Msunu yo makhelwane yenu nonke	Fusegi	masende akho Uzokhala Nawe msunu Uzokak
ɔphakathi silima negolo elinyiphile. Nawe san	fusegi	OKUSALAYO ULala ukhiyile Nawe msunu Ung
ayadabana. Ulibambe lingashoni MXXXMMM	Fusegi	Uhlezi uzikhipha uzenza umuntu onemali, mir

Figure 4-13. KWIC of 'fus*gi'

4.7. Conclusion

Chapter Four has explained the methodology used in this empirical study. The survey data has informed on demographic information; the second part of the investigation has been acquiring data on bullying language used in social media communications. The latter was then processed using digital tools, namely Voyant Tools and Anthony's Concordance. In terms of demographic information, the main findings were:

- Meta, formerly known as WhatsApp, is the most used social media platform
- Reddit is the least used social media platform.
- Sexting is the most frequently experienced cyberbullying type.
- Most participants experienced cyberbullying once in their lifetime

Concerning cyberbullying language, a corpus of 395 words was obtained. The researcher acknowledges that this corpus is small. However, this project is the first step towards developing a corpus for IsiZulu. Zufferey (2020, 140-141) explains that there is 'no ideal size for a corpus' and explains that 'the characteristics of the corpus may be more or less appropriate for answering a research question'. Therefore, the corpus of 395 words was analysed. Further support for such a small corpus comes from Zufferey (op cit.), who states that 'a corpus representing a specific genre can be relatively small'.

The main observations were made:

- Words with higher usage frequency were: *Ms*nu, nawe, fus*gi*.
- There was higher usage of synonyms, and cultural competence is required to analyse the language rigorously.
- Only one phrase *'ulibambe lingashoni'* was repeated, which is threatening language.

A detailed discussion follows in Chapter Five.

Chapter Five: Results and Discussion

5.0. Introduction

The discussion of the findings consists of two parts. The first focuses on the analysis of demographic information. This is followed by a discussion of the results obtained using the text analysis tools, Voyant Tools and Anthony's Concordance.

5.1. Demographic Information

Globally and regionally, internet and social media consumption is well documented and understood. Among 102 participants, 65 were women, 34 were men, and only three preferred not to reveal their gender. The age distribution of participants is shown in figure 4.1. Most participants were young adults; about 92.2% of participants were in the age group of 18-25 years old. These findings are parallel to the reports by Ndiege et al. (2018).

Facebook, Instagram and Twitter are popular platforms internationally. In South Africa, the popular platforms Facebook, YouTube, Instagram and Twitter are the most used (Datareportal, 2021). In this study, the results from the survey indicate that the popular platforms are WhatsApp, Facebook and Instagram. Facebook is therefore identified as a popular platform globally and locally, followed by Instagram, while locally WhatsApp is popular and most used as the findings of this study.

Virtual interaction and online relationships have an enormous impact on the time spent online. This study found that more than half of the participants (51%) spend more than six hours in 24 hours regularly; these findings align internationally with Digital Future (2017) which reported that 92% of the total American population spends an average of 23.6 hours per week on the internet, while 24% of 17-23 years old use internet daily, consistently and constantly.

In terms of cyberbullying prevalence and prevailing cyberbullying types, more than half of the participants (51%) reported experiencing cyberbullying. While figure 4.5. shows the types of cyberbullying experienced by participants, they reported sexting (45%) as the most prevalent type, while outing/doxing was reported by only 7.6% of participants. Among the people who reported experiencing cyberbullying, 47.4% reported experiencing it just once, refer to 4.6 above.

5.2. Language Discussion

All the types of cyberbullying in table 2.2 that involve language to be perpetrated were done in isiZulu. It is critical to note that there were also slang and dialect; hence the data pre-processing and analysis were critical in this study. Due to flexibility in communications collections, some participants opted for typing the communications in the section, while others opted to send screenshots from Facebook and Twitter communications. These communications are attached in appendix two.

5.2.1. Language Dynamics and gender Differences

Figure 5.1 shows the word frequency. It can be concluded that words that produce a 'picture-image' of women have a higher frequency than their male counterparts. For instance, words like *'ms*nu'* and *'inq*za'*, which are also used interchangeably, have a higher frequency than 'masende' where all three words refer to private parts of humans. The first two refer to females, and the latter refer to males. In this spectrum, this does not necessarily imply women are more victimised in cyberbullying, but individuals (males) can be insulted using females as their mothers and sisters. For instance, Figure 5.1 below shows a case where the word '*unyoko/nonyoko'* was used frequently in insult referent to the mother of the victim.

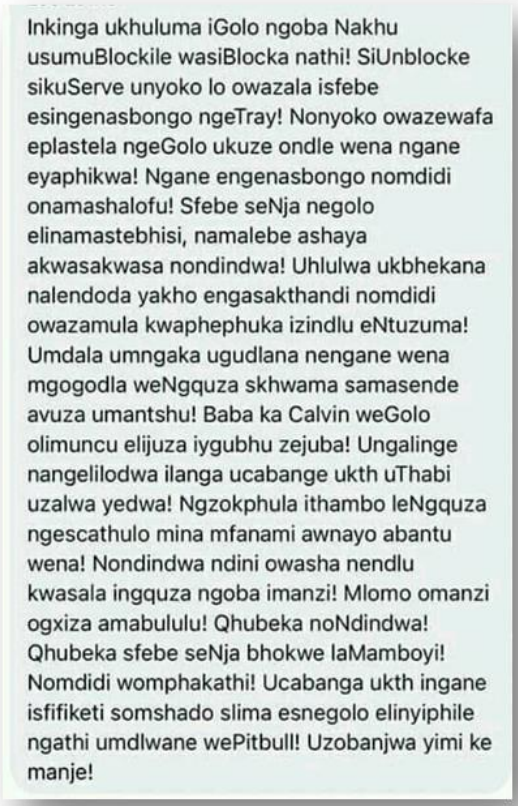


Figure 5-1. Word 'unyoko' in insult.

The other critical finding that cannot be overlooked is that the words symbolising females' private parts are frequently used compared to those of male counterparts and have generic insults. This does not necessarily mean that females are more victimised, but males might be victimised. For instance, when scrutinising Figure 5.2. below we can conclude that *'inkabi'* does not refer to one person but refers to any Zulu person.

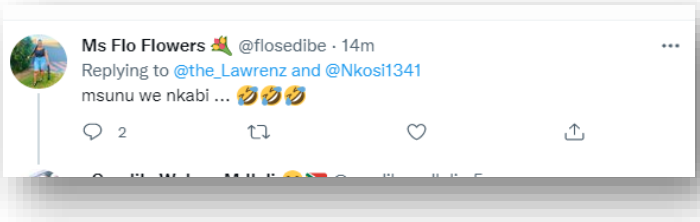


Figure 5-2. Word 'inkabi' in the context of cyberbullying communication.

Contrastingly, on the other hand, below is the typical prevalent type of language used towards males in Figure 5.3. and Figure 5.4. below

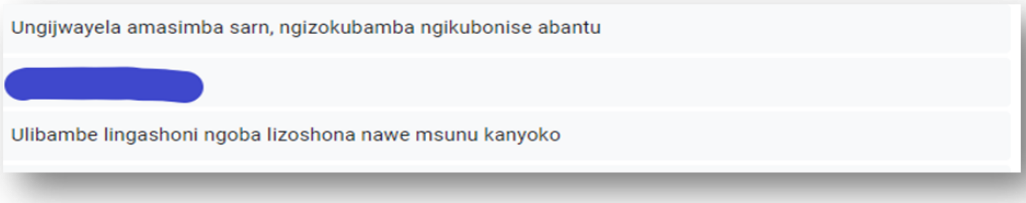


Figure 5-3. Different ways of threatening isiZulu in cyberbullying communications.

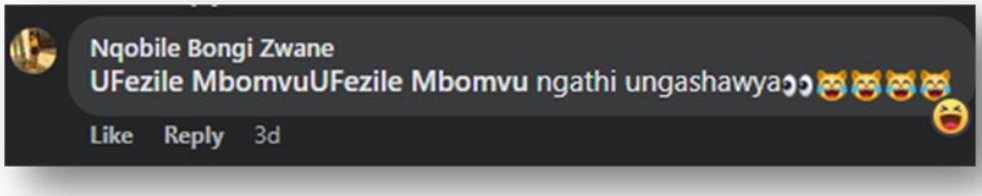


Figure 5-4. Threatening language directed towards the perpetrator.

In Figure 5.5. the phrase stating that *'ngathi ungashaywa'* implies that someone wishes the perpetrator to be beaten for offending the victims, however implicitly the comments states that they know that the victims will not make a move towards the perpetrator and joins the perpetrator by mocking the victims. This act on the comment supports Barlett Gentile's Cyberbullying Model theory stating that cyberbullying is learned through observation and the perpetrator (commenter) has developed a positive attitude towards cyberbullying (threatens) the other bully.

Furthermore, Mkhize et al. (2020), who investigated the cyberbullying directed towards the LTGBI community on social media, found that the language is used to threaten and kill the community. Some comments were also reported on the findings of this study made by the LTGBI community. Even though the language is not the focus of the study, it occupies a pivotal role in portraying the hatred and violence directed towards the LTGBI. Figure below 5.5. shows the insults directed towards the LTGBI community male community, while Figure 5.6. is

directed to women in the LTGBI community, where the perpetrator claims that part of the community subscribes to LTGBI because they have a lack of sexual appetite or drive. In the present study's demographic findings, no participants reported subscribing to this community.

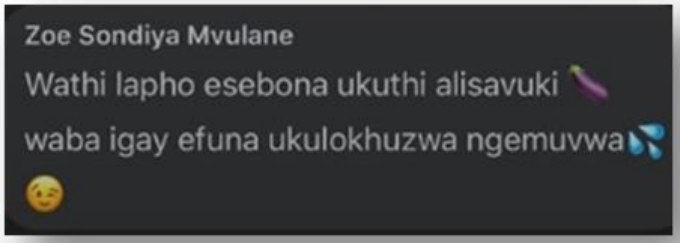


Figure 5-5. Insult directed towards the gay community of LTGBI community.

Figure 5-6. Insult directed towards the lesbians of the LTGBI community.

As has been reported before, trolling and flaming are the third most prevalent cyberbullying experiences, reported to be at 25.3% apiece. Figure 5.7. Below is a typical flaming and/or trolling example, where insults are directed towards, containing almost every word collected in the available corpus for this study.

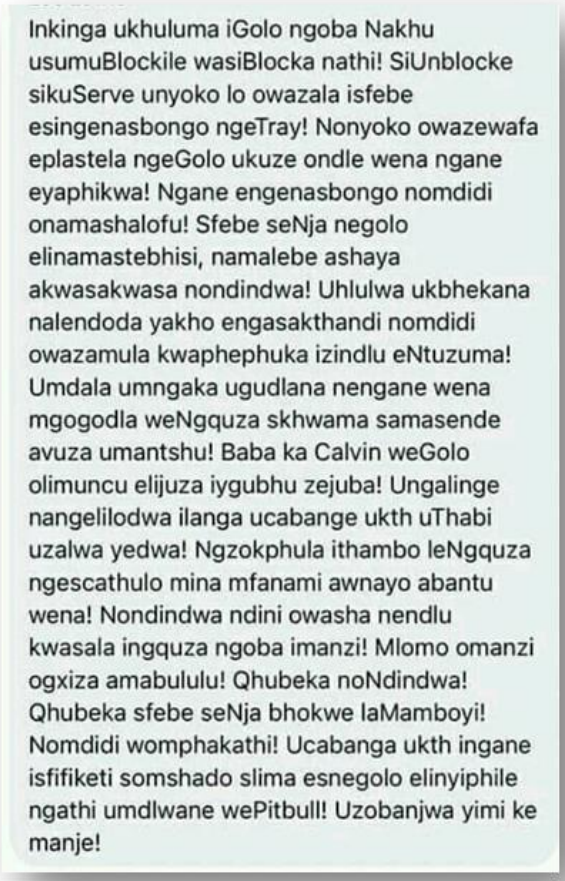


Figure 5-7. Typical insults in isiZulu on cyberbullying communications.

5.2.2. Synonyms Analysis

IsiZulu, as in English, is spoken in different geographical locations, and the dynamics at which the language is spoken are referred to as a dialect applying to different social groups, including age and gender differences, also figures of speech. The findings of this study reflect that the language used in cyberbullying communications is not static and fixed by dynamic. Table 5.1. below shows the synonyms that have higher usage frequency in isiZulu.

Table 5-1. Synonyms

High Frequency Word	Synonyms
(I)g*olo	(u)ms*nu, In(g)q*za, nomdidi
Isif*be	Nond*ndwa
Amasimba	Wishlama, uyanya

From the data in the table above, few conclusions can be drawn. For rigour and accurate identification of (isiZulu) bullying language in communications, an individual must not only be exposed to language but must also exposed to culture because one word might be used to refer to another (figures of speech - *isingathekiso*). For instance, saying something that does not make sense or irrelevant a word *'uyanya'* is used that in literal translation refers to going to the toilet; the other instance word '*umdidi/nomdidi'* which is the anus in figure 5.6 is used to refer private part of a woman.

5.2.3. Implicit Bullying Through Phrases and Expressions, and Threatening Language in Communications

The texts collected are not compromised by words only, but they are also compromised of phrases and expressions. The phrases and clauses render a complete sematic meaning when they are read as a group of words rather than individual stand-alone words. Most frequently used phrases are used as threats. The frequently used expression is '*izintaba azihlangani, kodwa abantu bayahlangana*'. The implication is similar to *'ulibambe lingashoni'*, which implies you will get hurt or I will hurt you. Figure 5.8. shows the phrase *'ulibambe lingashoni'* in context. This phrase is a threatening phrase.

Zintantaba azidibani, kodwa abantu bayadabana.	Ulibambe lingashoni	MXXXMMM Fusegi Uhlezi uzikhipha uze
imba mfana, ngizokubamba ngikubonise abantu.	Ulibambe lingashoni	ngoba lizoshoma nawe msunu kanyoko.

Figure 5-8. Phrase 'ulibambe lingashoni' in context.

The phrase *'ulibambe lingashoni'* refers to stopping the sun from setting, which cannot be done. In context, the phrase follows *'abantu bayahlangana'* implying that 'we will meet and you will get what's coming for you from me'. In the second context, it is followed by *'lizoshona nawe'* in isiZulu. When someone passes away/dies we say *'ushonile'*. *I*n this context, the victim is promised to be dead before the sun sets

Some words contain implicit rather than explicit bullying. In other scenarios, bullying is a result of vengeance. As outlined earlier, it is critical to understand the words out and in the context of usage; for instance, the word *'nawe'* is explicitly not bullying but in these contexts shown in figure 5.8. shows the usage of *'nawe'* in flaming cyberbullying form, and victims are responding to the comments of perpetrators. *'Nawe'* refers to you too, and this is not aggressive as a stand-alone; however, words in its proximity change it to an aggressive word.

Left Context	Hit	R
ende akho Uzokhala Nawe msunu Uzokaka	Nawe	fusegi, Malebe akho Woza la uz
na anginandaba nawe, ngithi msunu wakhe	Nawe	malebe Oksalayo uyakhiya mal
fusegi, Malebe akho Woza la uzosho lokho	Nawe	Mdidi. Ngiyaxolisa for msunu w
afo Oksalayo angikusabi futh ngzokubhaxa	Nawe	mgodoyi Qaphela Welele Welel
venu nonke Fusegi masende akho Uzokhala	Nawe	msunu Uzokaka Nawe fusegi, M
ntu. Ulibambe lingashoni ngoba lizoshoma	nawe	msunu kanyoko. uyazi ukuth av
Nawe san fusegi OKUSALAYO ULala ukhiyile	Nawe	msunu Unganya Sphamandla r
.e kaka siphinde yabuya wena anginandaba	nawe,	ngithi msunu wakhe Nawe mal
ndidi wophakathi silima negolo elinyiphile.	Nawe	san fusegi OKUSALAYO ULala u

Figure 5-9. The unoffensive word 'nawe' as a stand-alone becomes offensive when read in context using KIWC tool in Anthony Concordance (Extracted in Anthony Concordance).

It is shown that KIWC analysis is a pivotal approach to understand and identifying bullying communications on social media for this study. Above the content meaning, the contextual influence of proximity words should not be underestimated, as shown in figure 5.7. and figure 5.8.

5.3. Conclusion

The findings in this study, which focuses specifically on IsiZulu cyberbullying language, resonate with studies conducted in other languages. For example, women experience more cyberbullying as opposed to men; sexting was the most frequent experience of cyberbullying.

- Regarding the language used, the most prevalent IsiZulu words were *Fus*gi, nawe,* and *ms*nu*. *Fus*gi* is closely related to foot sack and can translate to fuck off; *nawe* is you too, *ms*nu* refers to a woman's genitals.
- The phrase *nawe* (you too, and you) is noteworthy. *We*-is a pronoun. In this sense, you are like me, so I am saying it back to you, whatever you say.
- The KIWC analysis identifies this phrase as a source of implicit bullying.

The following chapter is the conclusion of the paper.

Chapter Six: Conclusion

6.0 Introduction

This study sought to establish a corpus of isiZulu bullying words. This concluding chapter provides an overview of the study, a summary of the key findings, an identification of the study's limitations, and finally, directions for future research.

6.1 Overview

Voyant Tools and Anthony's Concordance was used to identify isiZulu (words, phrases, and expressions) used in cyberbullying communications on social media platforms. This objective was achieved by identifying the words with higher frequency, and this translate to similar words used to perpetrate cyberbullying in isiZulu.

To identify punctuation peculiarities in isiZulu text. This objective was not investigated, and the communications data did not allow the researcher to achieve this objective accurately.

To quantify social media patterns usage by participants. This objective was responded to by asking participants demographic questions about themselves, social media usage, and cyberbullying experiences.

Chapter one: In this chapter, a clear trajectory of what this study wanted to investigate was articulated as how it intended to investigate.

Chapter two: In this chapter, the existing literature relating to cyberbullying was presented, and the investigations on the aggressive language used in cyberbullying communications on social media platforms were discussed.

Chapter three: This chapter discussed the conceptual framework of the study which is corpus linguistics, and how corpus linguistics was adopted and adapted to fit the purpose of the current study. This chapter further discussed the tools for analysis which are Voyant Tools and Anthony Concordance.

Chapter four: The methodology and the findings of this study are presented in this chapter. This section discussed the data collection procedure, the participant recruitment procedure and ethical considerations for this study, data pre-processing and analysis.

Chapter five: This section discusses the findings of the study. Both demographic and language findings were discussed, respectively. The language findings were discussed and analysed, including the meaning, KWIC approach, and threatening language.

6.2 Summary of Findings

The findings of this study were parallel with most of the already existing studies. For example, in this spectrum of demographics, most studies and findings state that Facebook is the most used social media platform; however, in South Africa, according to www.datareportal.com (2022), WhatsApp is the most used social media platform, similar to findings of the present study. Moreover, sexting is the most prevalent form of cyberbullying, and most participants reported experiencing cyberbullying just once in their lifetime.

In the spectrum of language and corpus, the study found that most words used in communications are sexual and refer to women compared to their male counterparts. Words with higher repetition frequency include *'ms*nu, nawe, fus*gi* and *inq*za'*; from this, it can be seen that two words are women based while the other two are neutral. Another important finding is that KIWC is critical to identifying explicit and implicit bullying,

6.3 Limitations

The first limitation relates to the response rate. The COVID-19 regulations inhibited face-to-face contact. If I had the opportunity to address potential participants face-to-face, I might have had a higher response rate. The survey was restricted to participants registered for IsiZulu mother-tongue modules at the University of KwaZulu-Natal. Had the survey been open to all students, there would have been a higher response rate.

The second limitation relates to location. Data was collected from University of KwaZulu-Natal students. If this study was conducted in different areas, among different groups of people, it is possible that different language styles would be observed.

The language used in communications was not always standard and was standardised in data pre-processing, analysis and cleaning.

6.4 Directions for Future Research

A similar study should be replicated on a larger scale to harvest more data. The researcher would also suggest that a similar study is conducted for all South African indigenous languages. Chapter two showed a steady rapid increase in social media consumption at a global and local scale, hence the cyberbullying experiences; as a result, the recent trend in social media studies is the development of cyberbullying detection software. This is also pivotal in African languages; therefore, I suggest that similar studies are conducted at a larger scale for all African languages.

6.5 Conclusion

As the current trend in cyberbullying investigations, they have focused on developing software to detect cyberbullying by analysing and identifying the aggressive language used in social media communication. This study recommended that for this development to be profound, there must be first investigation and establishment of aggressive language on social media communications using corpus linguistics algorithms. This study focused on isiZulu answering the question, ‘what are the most frequent words, phrases and expressions that are used in cyberbullying communications in isiZulu?’ and the answer to this question enabled the study to achieve its primary target, which is to establish the isiZulu cyberbullying corpus used in social media communication. IsiZulu corpus did not exist, and this is the first step towards its digitization and cyberbullying detection in the future.

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Appendix One: Questionnaire

1. Age category

    18-20 years

    21-25 years

    +25 years

2. Gender Identity

    Woman

    Man

    Transgender

    Non-binary/Non-conforming

    Prefer not to respond

3. Which social media app do you use (have an active account)? You may select more than one option

    Facebook

    Twitter

    Meta (WhatsApp)

    Facebook Messenger

    Instagram

    LinkedIn

    TikTok

    Telegram

    Snap Chat

Skype

Reddit

Discord

iMessage

Tumblr

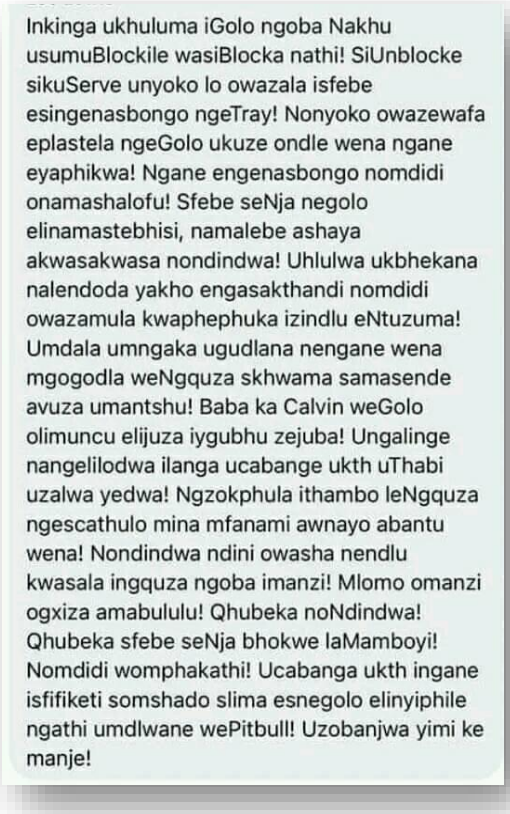
4. How long do you spend on your social media app(s)?
   Less than 2 hours a day
   3-5 hours a day
   More than 6 hours a day
5. Have you received any messages/images via social media that you perceive as threatening, offensive, bullying?
   Yes
   No
6. If yes, was it directed to you?
   Yes
   No
7. Listed below are the most frequent forms of online abuse. I have also provided a short explanation of the term. Select the form(s) that you might have encountered. I would appreciate your sharing an example of that type of abuse. You may email/Drop Box the communication.
   Catfishing (stealing your pic and creating another social media profile)
   Trolling (posting inflammatory comments to provoke you)
   Sexting (sending sexually explicit messages, pics and/or videos)
   Flaming (insulting or abusing you in order to provoke a response)
   Outing/Doxing (sharing confidential info about you to embarrass you)
   Cyberstalking (threats to harm or intimidate you)
   Dissing (Posts info or images about you that are embarrassing)
   Fraping (Logs onto your account, impersonates you and posts inappropriate content)
   Harassment (repeatedly sending abusive or threatening messages, videos or pics)
8. How often was the bullying/abuse that you experienced?
   Regularly – almost every week or month

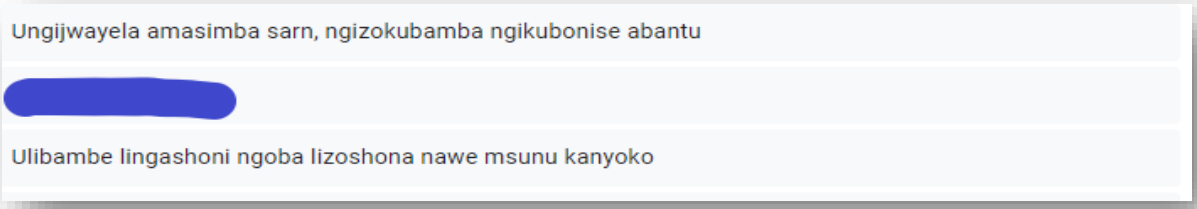
Occasionally - a few times a year

intermittently- at irregular intervals

Just once

Appendix Two: Communications


Inkinga ukhuluma iGolo ngoba Nakhu usumuBlockile wasiBlocka nathi! SiUnblocke sikuServe unyoko lo owazala isfebe esingenasbongo ngeTray! Nonyoko owazewafa eplastela ngeGolo ukuze ondle wena ngane eyaphikwa! Ngane engenasbongo nomdidi onamashalofu! Sfebe seNja negolo elinamastebhisi, namalebe ashaya akwasakwasa nondindwa! Uhlulwa ukbhekana nalendoda yakho engasakthandi nomdidi owazamula kwaphephuka izindlu eNtuzuma! Umdala umngaka ugudlana nengane wena mgogodla weNgquza skhwama samasende avuza umantshu! Baba ka Calvin weGolo olimuncu elijuza iygubhu zejuba! Ungalinge nangelilodwa ilanga ucabange ukth uThabi uzalwa yedwa! Ngzokphula ithambo leNgquza ngescathulo mina mfanami awnayo abantu wena! Nondindwa ndini owasha nendlu kwasala ingquza ngoba imanzi! Mlomo omanzi ogxiza amabululu! Qhubeka noNdindwa! Qhubeka sfebe seNja bhokwe laMamboyi! Nomdidi womphakathi! Ucabanga ukth ingane isfifiketi somshado slima esnegolo elinyiphile ngathi umdlwane wePitbull! Uzobanjwa yimi ke manje!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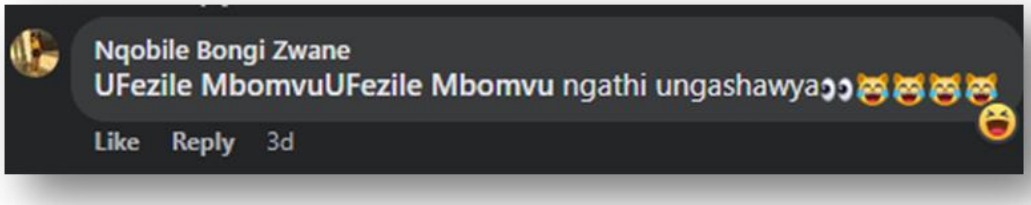
Ulibambe lingashoni ngoba lizoshona nawe msunu kanyoko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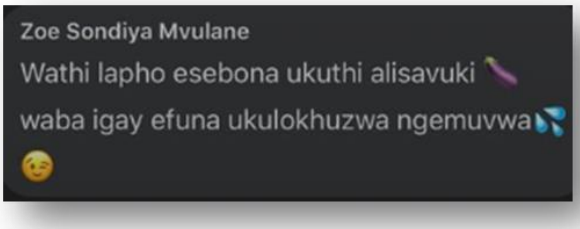
Like Reply 3d


Zoe Sondiya Mvulane
Wathi lapho esebona ukuthi alisavuki 🔪
waba igay efuna ukulokhuzwa ngemuvwa💦
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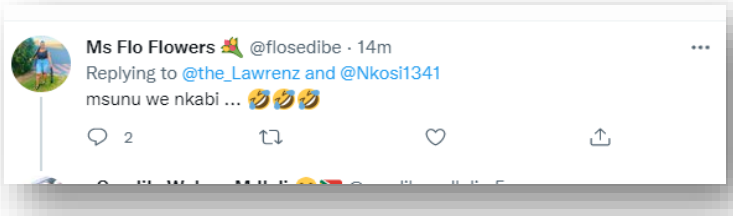
Ms Flo Flowers 💐 @flosedibe · 14m
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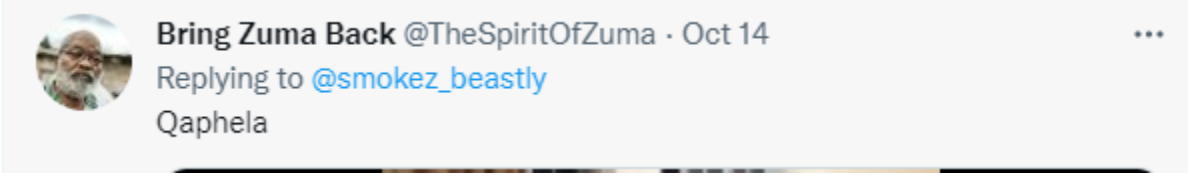
2


Bring Zuma Back @TheSpiritOfZuma · Oct 14
Replying to @smokez_beastly
Qaphela

Son of B.I.N.L.A.D.E.N @Lufefe_Smith · Oct 14
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Followed by some Tweeters you've liked

Dyan' Skywalker @dyan_skywalker · Oct 14
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Nawe mgodoyi

UMzulu Phaqa Ochemile 😁😁 @snmnyandu · Oct 14
Replying to @smokez_beastly
Oksalayo angikusabi futh ngzokubhaxa

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Smokez BEASTLY ● @smokez_beastly · Oct 14
Replying to @snmnyandu
Woza

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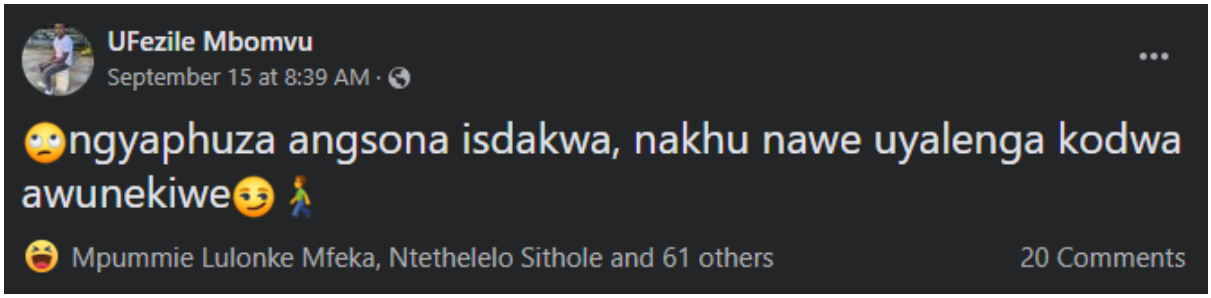
TEMBEⓇ @khulani_14 · Oct 14
Replying to @smokez_beastly
Le kaka siphinde yabuya

Chaos 😁 @Khazamula_Sir · Oct 14
Replying to @smokez_beastly
Ngiyaxolisa for msonu wami ngikhulumela mina ngedwa lana bafo 😂😂


Dr Ota Benga's advocate @JazzyLakudura · Oct 14
Replying to @smokez_beastly
Wena angina ndaba nawe, tell your amigo ngithi msunwakhe🗣️🗣️🗣️, he can Bring it to the ring, kuvelee kunyiwe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20 Comments


Cha mft koda nawe uyaz ngiyakthanda
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Wena nje uyangihalela awungthandi
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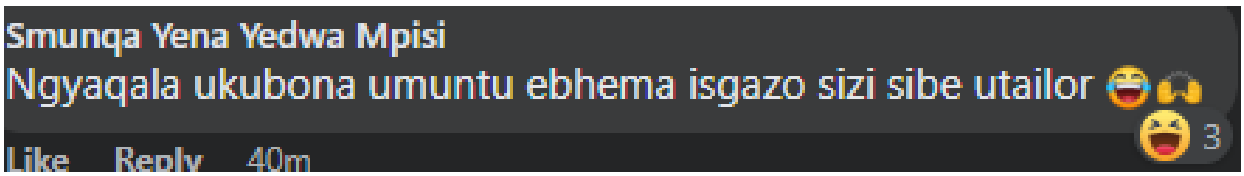
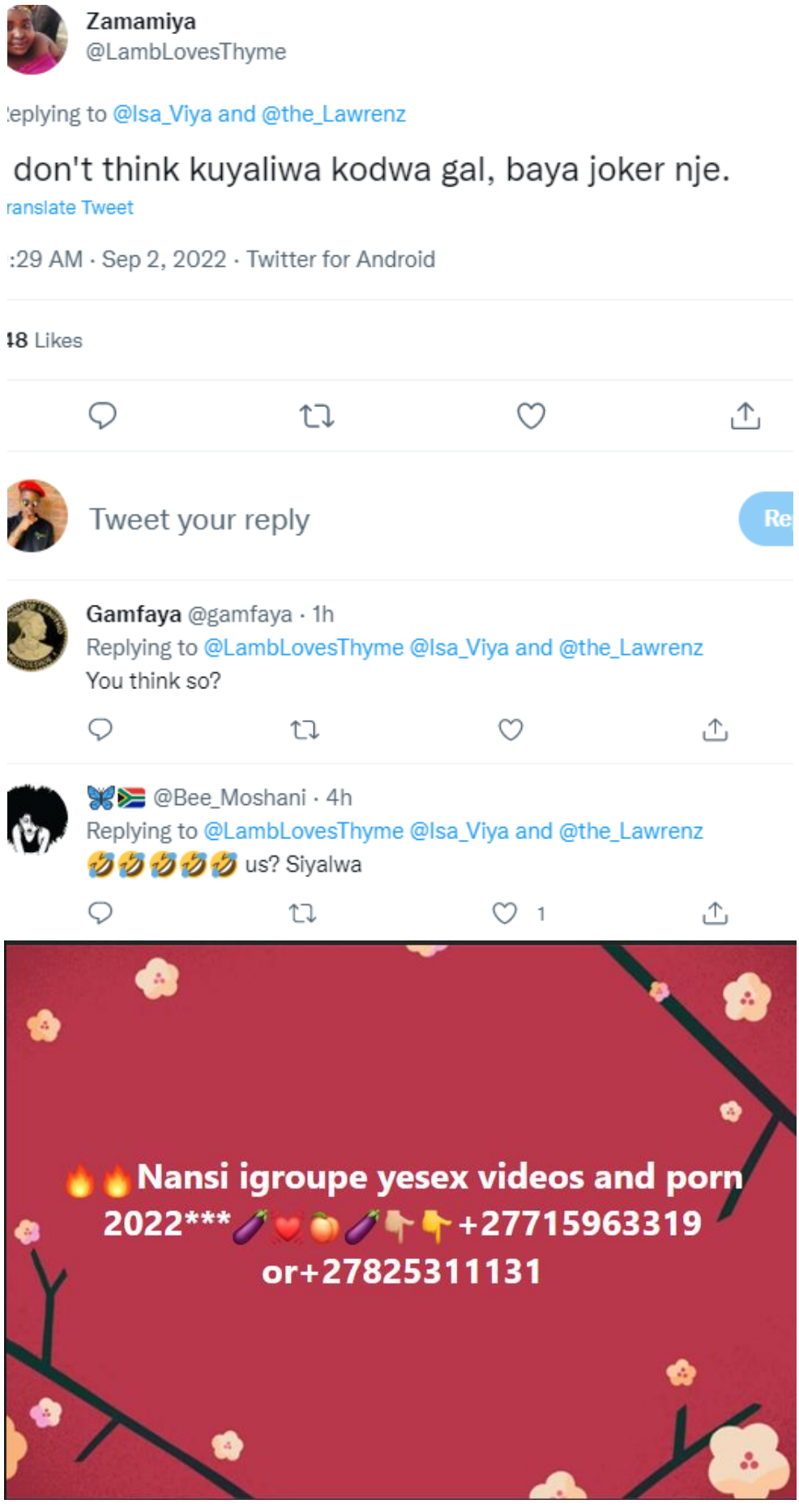
22:27
Ok fine we can give it a try
22:28
Sthandwasam manje ungvala ninike ?
22:30
Hau zisuka nje angithi uyabonake
22:31
1 Unread Message
Ungangizwa kabi snqandamathe sam maysiqomene ngathi ingasheshe izwane amandla 🍆🍑💦
22:32


Mawuthi "This is not working out" usho ini kahle kahle because last I checked wena wathi you will always love me, usephelelephi always?
Mhlampe nihlale nikwenza kunilungela usufike ekugcineni ke manje bhuti wabantu, akukho lapho ngiya khona wena usazongithanda nje. Ngiyakubona ucabanga ukuthi ngiyilezifebe zakho zakwa Facebook osineka nazo.
18 20

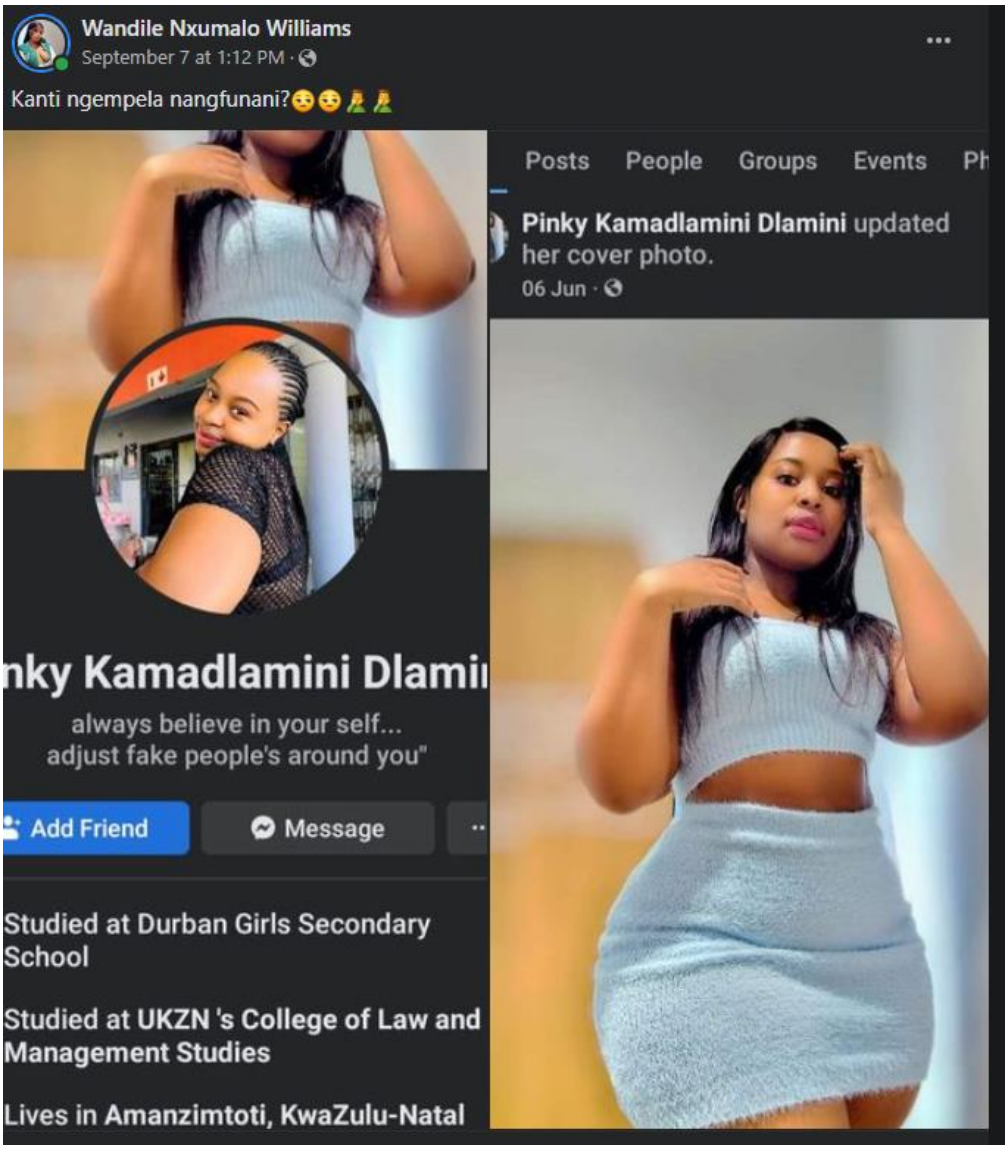

Smunqa Yena Yedwa Mpisi
Ngyaqala ukubona umuntu ebhema isgazo sizi sibe utailor
3
Like Reply 40m

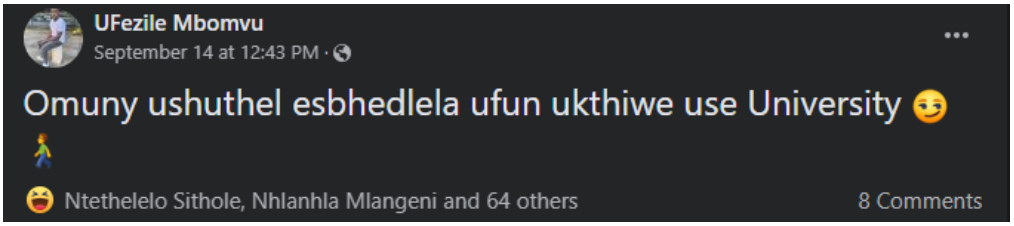

Zamamiya
@LambLovesThyme
eplying to @Isa_Viya and @the_Lawrenz
don't think kuyaliwa kodwa gal, baya joker nje.
ranslate Tweet
:29 AM · Sep 2, 2022 · Twitter for Android
18 Likes
Tweet your reply
Re
Gamfaya @gamfaya · 1h
Replying to @LambLovesThyme @Isa_Viya and @the_Lawrenz
You think so?
@Bee_Moshani · 4h
Replying to @LambLovesThyme @Isa_Viya and @the_Lawrenz
us? Siyalwa
1
🔥🔥Nansi igroupe yesex videos and porn
2022***🍆❤️🍑🍆👇👇+27715963319
or+27825311131


I feel like bonke abaposta izinqa sebangi unfriend😢 angsaboni nokusasishwaphana nje ngibuze iprice

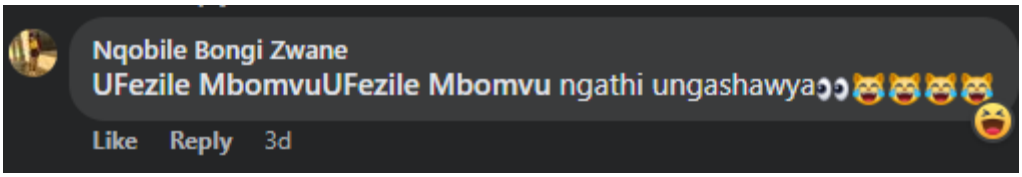

Nalaba besnemfu abazbekile phansi😔😏
"FUBALALA PHOFT"


Kusengeyethu kdw leGroup maXhosa noma sekbusa lamanzulu


Wandile Nxumalo Williams
September 7 at 1:12 PM
Kanti ngempela nangfunani?
Posts
People
Groups
Events
Pinky Kamadlamini Dlamini updated her cover photo.
06 Jun
nky Kamadlamini Dlamii
always believe in your self...
adjust fake people's around you"
Add Friend
Message
Studied at Durban Girls Secondary School
Studied at UKZN 's College of Law and Management Studies
Lives in Amanzimtoti, KwaZulu-Natal


UFezile Mbomvu
September 14 at 12:43 PM
Omuny ushuthel esbhedlela ufun ukthiwe use University
Ntethelelo Sithole, Nhlanhla Mlangeni and 64 others
8 Comments


Norh Sipho
44m
Ngena Ku inbox ngikubonis kuku yam
See Translation
8
3 Comments 1 Share
Like
Comment
Share
Top comments
Write a public comment...
Sbongakonke Nkosi
Ayii ngek uyayidla kodwa Magnum sis wamii
Like Reply Share See Translation 42m
2
1 Reply
Sfiso Doyi
Aiikhon plus idata lika R30
Like Reply Share See Translation 20m
Nhlanzeko Dope-queen Jobe
11h
Ubani owaxoshwa oKhozini wasangana ngekhanda ngzoke NGiZWE
Luthando Ntuli, Mlungisi Qwabe and 142 others
13 Comments 2 Shares


Nqobile Bongi Zwane
UFezile MbomvuUFezile Mbomvu ngathi ungashawya
Like Reply 3d

Ungijwayela amasimba sarn, ngizokubamba ngikubonise abantu

I will do it very soon

Ulibambe lingashoni ngoba lizoshona nawe msunu kanyoko

Stole my pics and created another account both on facebook and instagram also others will send me their private parts and sex videos

uyazi ukuth awuyilutho ngaphandle kwami, nabazali bakho bafa bakushiya ngoba bengakuthandi, uwuyinto yalutho nasempilweni angeke waphumelela uyophelela emhlabathini ungayolutho njengabazali bakho abafa bakushiya.

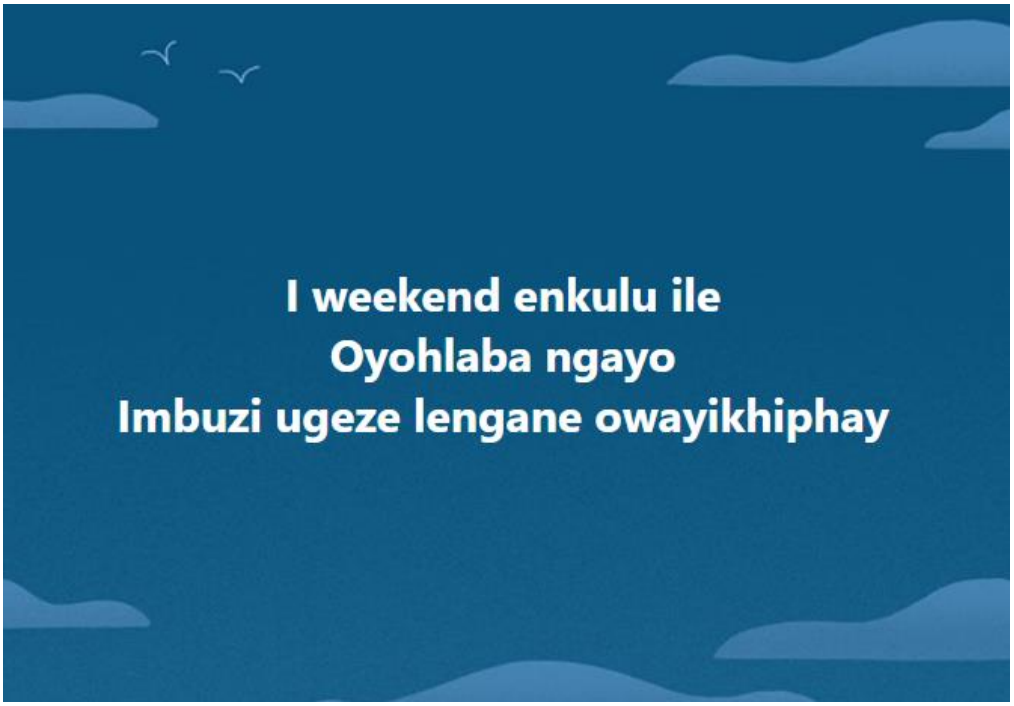
Will do so

i havent had an incidences of bullying

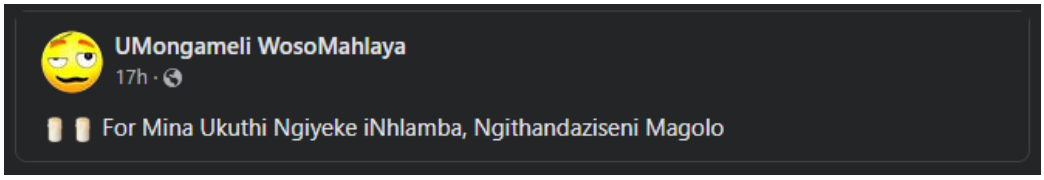
Ungijwayela amasimba sarn, ngizokubamba ngikubonise abantu

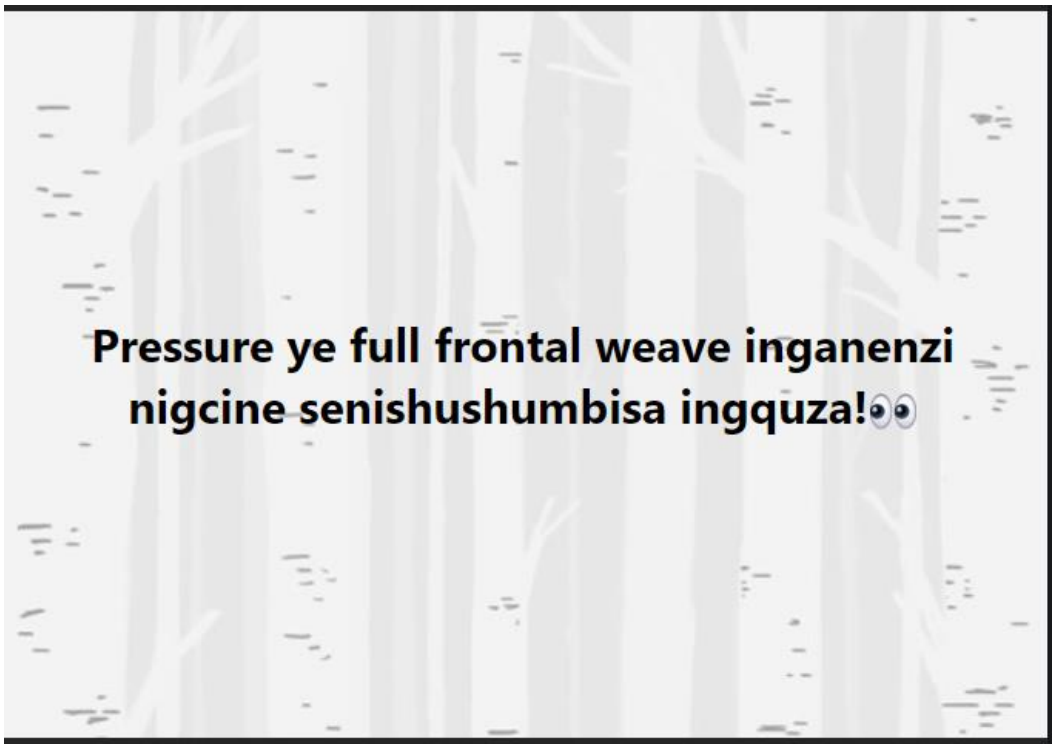
[redacted]

Ulibambe lingashoni ngoba lizoshona nawe msunu kanyoko




Mongezi Ketsi Ngcobo
6m ·
Aww Ngeke ikuku endala Wee
See Translation
Neo Carol Tisane
July 21 ·
Dear young men
There is nothing wrong with dating older women.
1
Like
Comment
Share

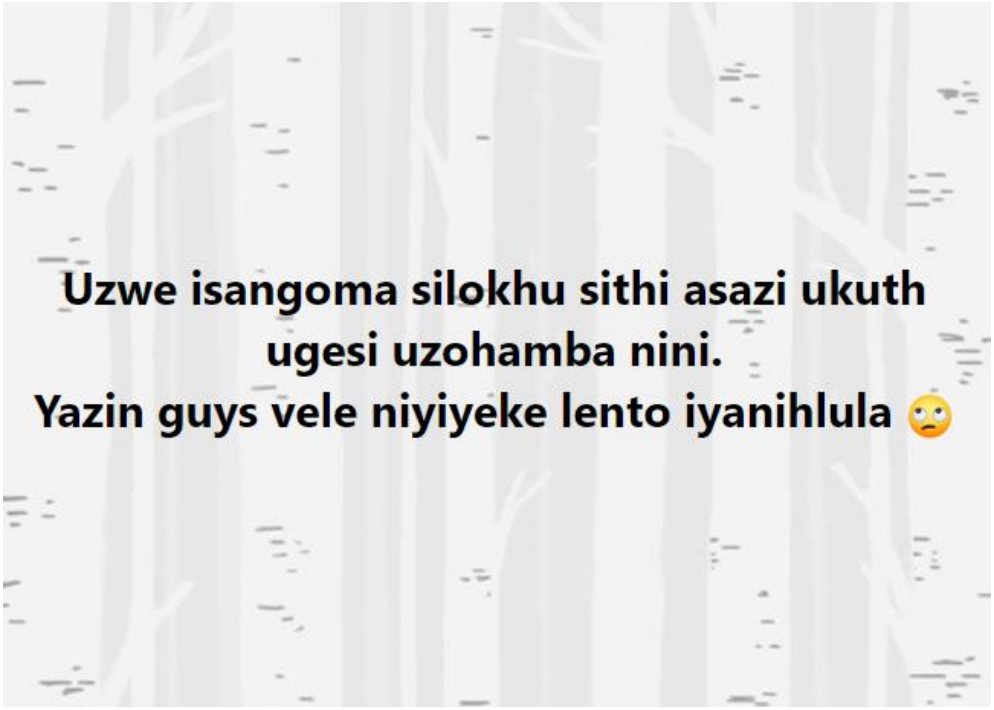

UMongameli WosoMahlaya
17h ·
For Mina Ukuthi Ngiyeke iNhlamba, Ngithandaziseni Magolo

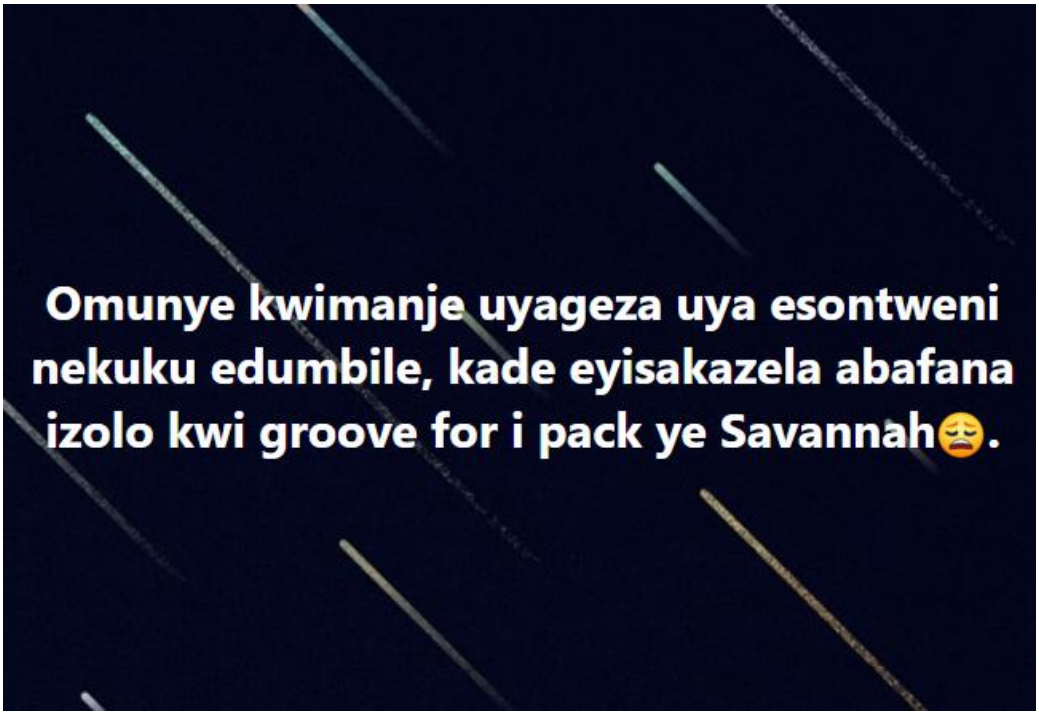

Pressure ye full frontal weave inganenzi nigcine senishushumbisa ingquza!

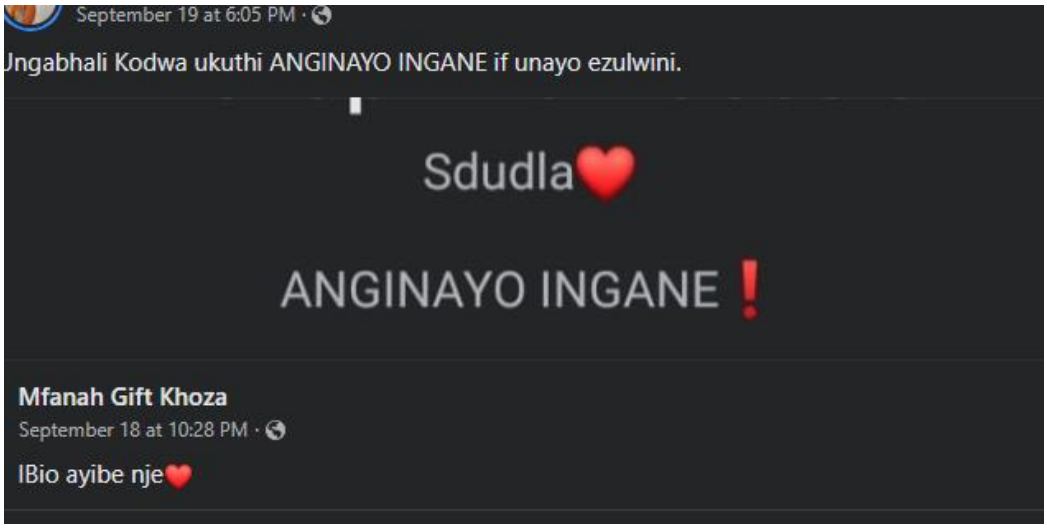

Ayanda Ngcobo
23h ·
At town:Haibo ayanda wawa walimala kanti kwiBlackCup? 😳
Me:Yey fusegi. 😭😭😭😂😂😂

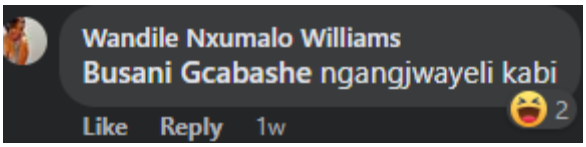

Fisokuhle Kubheka
Nimbhebhelani uNdlunkulu I heard her song ethi "Noma bengbhebha sometimes"😤😭
6 w Like Reply
554

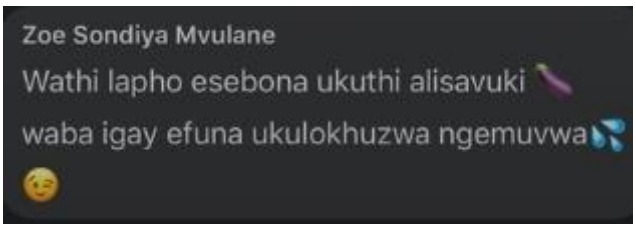

Wandile Nxumalo Williams
Isende nje baziphilela ngalo, and angiba judge because who am i to judge?
Like
Reply
1w
Edited


Uzwe isangoma silokhu sithi asazi ukuth
ugesi uzohamba nini.
Yazin guys vele niyiyeke lento iyanihlula 🙄


Omunye kwimanje uyageza uya esontweni nekuku edumbile, kade eyisakazela abafana izolo kwi groove for i pack ye Savannah😩.

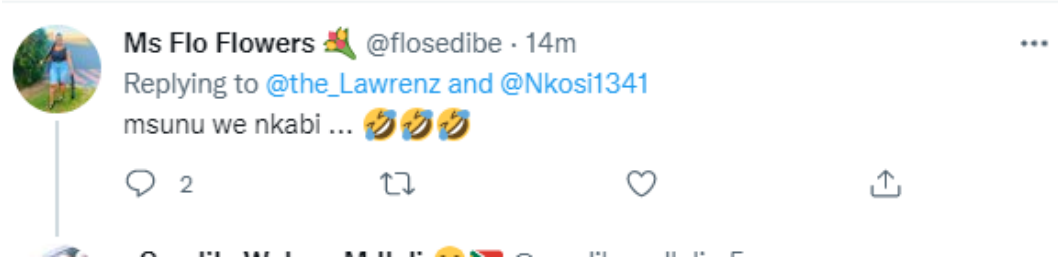

September 19 at 6:05 PM ·
Ungabhali Kodwa ukuthi ANGINAYO INGANE if unayo ezulwini.
Sdudla❤️
ANGINAYO INGANE ❗
Mfanah Gift Khoza
September 18 at 10:28 PM ·
IBio ayibe nje❤️


Wandile Nxumalo Williams
Busani Gcabashe ngangjwayeli kabi
Like Reply 1w
2


Zoe Sondiya Mvulane
Wathi lapho esebona ukuthi alisavuki 🍆
waba igay efuna ukulokhuzwa ngemuvwa💦
😉

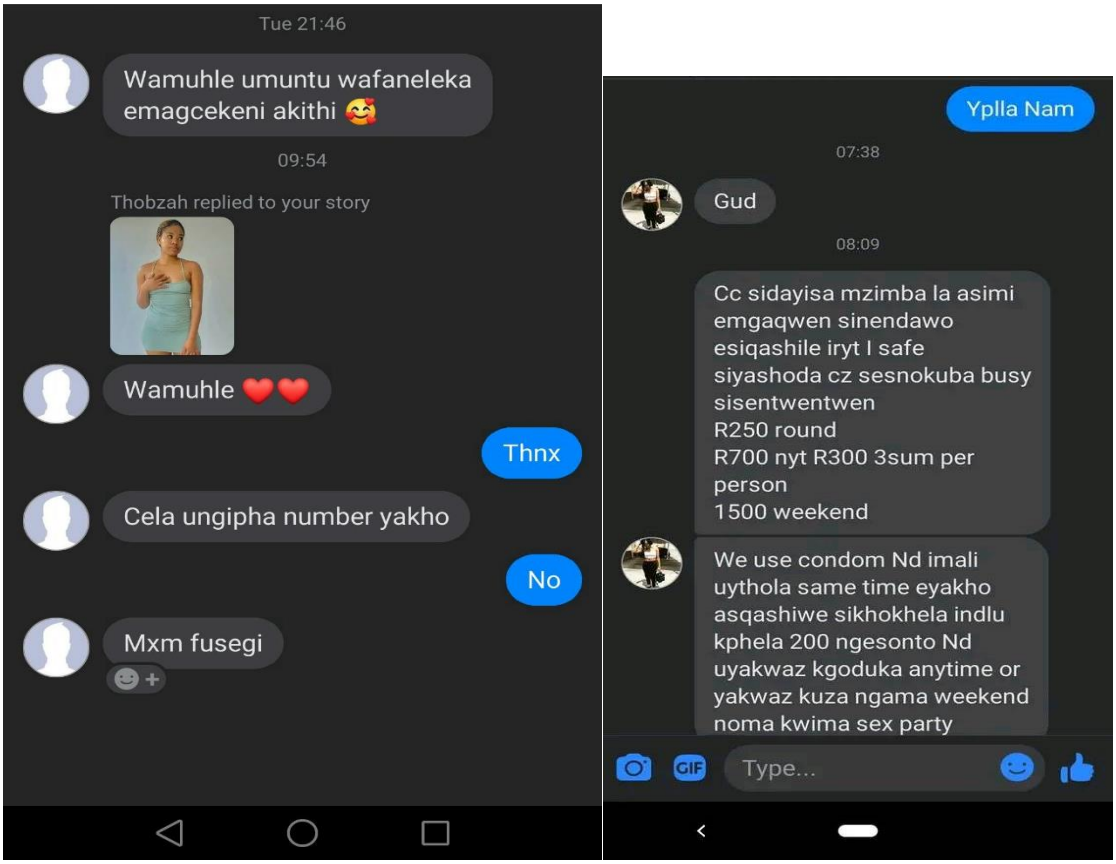

"Wathi lapho esebona
ukuthi akasanalutho 🍑
waba i Lesbian"
😂 akusimina I stole this
😂😂


💚BELLA❤️ @Isa_Viya · 7h
Replying to @the_Lawrenz
Niyasijwayela shem, nokuhlulwa kuhlala emakini


Ms Flo Flowers 💐 @flosedibe · 14m
Replying to @the_Lawrenz and @Nkosi1341
msunu we nkabi ... 🤣🤣🤣
2


You • Status
(0:03)
Wena uhlezi uzikhiphile nje, uhlezi uzikhipha uzenza umuntu onemali
18:45
Mina ngyazikhipha...wena ukhipha izisu. Asifanani
18:46
Message


MaJay Khumalo
+2 · August 21 at 7:14 PM
For sho sesyanuka
AFRICAN NATIONAL CONGRESS
YOUTH LEAGUE
You, Zamani Memela, Senzokuhle M'thresh Magaga KaNsele and 410 others
22 Comments
Haha
Comment
Send
Top comments
Write a comment...
Nompilo Ntobeko Ndwandwe
Nilande noMvuselelo nalesgqokwana sakhe esisakepisi
20
Like Reply 1w
Nonto Shezi
mhmm ziyakhala kee manje
Like Reply 1w
Buyi KaNanaz Langa
webakwethu eskoleni kanti kunjan nje ..hau


Tue 21:46
Wamuhle umuntu wafaneleka emagcekeni akithi 🥰
09:54
Thobzah replied to your story
Wamuhle ❤️❤️
Thnx
Cela ungipha number yakho
No
Mxm fusegi
Yplla Nam
07:38
Gud
08:09
Cc sidayisa mzimba la asimi emgaqwen sinendawo esiqashile iryt I safe siyashoda cz sesnokuba busy sisentwentwen
R250 round
R700 nyt R300 3sum per person
1500 weekend
We use condom Nd imali uythola same time eyakho asqashiwe sikhokhela indlu kphela 200 ngesonto Nd uyakwaz kgoduka anytime or yakwaz kuza ngama weekend noma kwima sex party
GIF
Type...


13:33
LTE
Comment
Replies to Thandokuhle's comment on your post
View Post
Thandokuhle Gumede
Isinqunywa khanda😙😙😙
1 h
Love
Reply
2

mbost @mzilanka_tha · Oct 14

Replying to @smokez_beastly

Nawe msoon

1 1

Smokez BEASTLY ● @smokez_beastly · Oct 14

Replying to @mzilanka_tha

Uzokhala

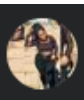
1

. @Hypaph2011 · Oct 14

Replying to @smokez_beastly and @Ras_Pompe

Tsek wena mulala uyakhiya Koda emnyango.

1



Mpumeh Msomi

5h ·

Izinja pmb

Uncle-Fajuju Matumba 🇿🇦 @fajuju_Matumba · Oct 14

Replying to @smokez_beastly

Msunu yo makhelwane yenu nonke

Azania Excellency✊🏾✊🏾💯 @TigervonDuke1 · Oct 14

Replying to @smokez_beastly

Yekela insangu

Samo @Samo02532986 · Oct 14

Replying to @smokez_beastly

Nawe san futsek

Mazakazaka😎 @BabaSamuelRade1 · Oct 14

Replying to @smokez_beastly and @MichaelBucwa

Angizwa..wozani la

1 1

Smokez BEASTLY ● @smokez_beastly · Oct 14

Replying to @BabaSamuelRade1 and @MichaelBucwa

Uzokaka

1

Pavali @MondliBrianZuma · Oct 14
Replying to @smokez_beastly
Usufuna ukufa udwetshwe u Rasta

The Punisher 💀 @thabang8899 · Oct 14
Replying to @smokez_beastly
Masendakhu no'boby wakho

Munkie Bulo @Bulomunkie · Oct 14
Replying to @smokez_beastly
Nisicuphile

1 1

Smokez BEASTLY ● @smokez_beastly · Oct 14
Replying to @Bulomunkie
Dakiwe😂

Mr Nation @Raditshaba · Oct 14
Replying to @smokez_beastly
Oksalayo uyakhiya maulala

Dumisani Zondo @DumisaniZondo8 · Oct 14
Replying to @smokez_beastly
Wozani la ngiqale ngamuphi

1

Smokez BEASTLY ● @smokez_beastly · Oct 14
Replying to @DumisaniZondo8
Zolimala

1

Show replies


Rambuḍa Rambuḍa @RambuaRambua1 · Oct 14
Replying to @smokez_beastly
Uyanya kwedini.
YT : The 012 Fun Party (TFP) @BIG_SMOKE829 · Oct 15
Replying to @smokez_beastly and @MichaelBucwa
Masende ka nogwaja mdidi , golo lwakho
Uncle-Fajuju Matumba @fajuju_Matumba · Oct 14
Replying to @smokez_beastly
Msunu yo makhelwane yenu nonke