The effectiveness of school anti-cyberbullying policies and their compliance with South African laws

A dissertation presented to the

Department of Information Systems

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By

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In partial fulfilment of the requirements for the Masters in Information Systems

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Dedication

To my dearest brother Liyabona Treasure Mazomba (1985 – 2023). Your murder has left us shattered. I dedicate this to you and your memory. You were such an inspiration to us.

I pray that we get justice. I promise to make sure that your children get to graduate one day too.

Forever in our hearts – Leyster who else.

Abstract

With technological advances and an increased reliance on technology for schooling and other daily activities such as communication, students need to navigate the downside of the digital age; namely, cyberbullying. Cyberbullying continues to be a concern for parents, teachers, and the government as the number of students with access to technology increases. The fourth Social Development Goal (SDG 4) of the United Nations is focused on quality education. Cyberbullying has been associated with truancy which leads to students dropping out, poor academic performance and health issues such as depression and even suicide. These effects are contrary to the goal and left unchecked will impede the UNs 2030 target date, therefore, it is imperative to reduce cyberbullying. In this digital age it is becoming increasingly complex to regulate cyberbullying and protect the vulnerable such as students. Due to this problem, schools have been mandated to ensure the constitutional rights of their students to safety and education are not disrupted by cyberbullying.

To comply, schools have developed policies, standards and frameworks that ensure these rights are met. Some schools developed and adopted a Code of Conduct, others specific anti-bullying and anti-cyberbullying policies, while some rely on a combination of policies including the Acceptable Use of Technology policies to meet their obligation of curbing cyberbullying. Current practices in developing these policies have however been deemed weak and the teachers developing them identified as ill-equipped. Little is known regarding the state of South African high schools' policies with no preceding research focusing on this in an African context.

The purpose of this study is to determine the effectiveness of school cyberbullying policies by measuring whether these policies are in line with national regulations. To achieve this, the researcher using systematic literature review, synthesised existing literature identifying various theoretical works including the socio-ecological system theory which are used to support the developed conceptual framework. The literature review showed that for anti-cyberbullying policies to be effective and compliant, multiple conditions ought to be met. These key components include the Policy Content, Policy Development, Communication to students and parents and lastly regular Policy Reviews.

If the above-mentioned conditions are not met by school policies, the policies adopted to address cyberbullying in schools are ineffective in reducing the extent of cyberbullying and therefore contravene the law. The hypotheses were tested using quantitative methods on data collected in Gauteng and the Western Cape. Two surveys were used to collect the results, the first to collect responses from school management on their perspectives on cyberbullying and cyberbullying policies in their schools, the other used to determine whether these policies contain the key components. In total 101 and 31 responses were collected respectively. Using Statistica, various tests were conducted including correlation analysis, frequencies and more.

The findings from this research vary and bridge the gap in existing research where little is known about the effectiveness of policies adopted by to mitigate the increasing problem of cyberbullying. While studies of this nature have been carried around the globe, to the best of the researcher's knowledge, the work presented in this dissertation has not been tested in South Africa before. By focussing on South African high schools, this research contributes to literature by providing insight into whether policies used in schools are effective and robust. The finding of this study highlight the dire need for schools to be supported in developing the policies to address cyberbullying.

Several interesting results were found during this study and will be discussed in chapter 4. Differing from other studies, this research does not support the notion of having stakeholders across the social ecology of students lives involved in the development of policies leads to effective policies; this could be due to the stakeholders not being qualified through training prior. This would need to be investigated by future research

Keywords: Cyberbullying, Anti-cyberbullying, School anti-cyberbullying policy, Students

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Chapter 1: Introduction

1.1 Background

Technological advances have brought incredible comfort to modern society. However, these new technologies have also brought novel challenges. Chief amongst these is cyberbullying. Although consensus on a common definition has not been reached, cyberbullying is characterised by its repetitive nature; the intention to cause harm and the use of technology to achieve anonymity (Smith, Kupferberg, Mora-Merchan, Samara, Bosley, & Osborn 2012; Tokunaga 2010). Cyberbullying is a global concern. Unsurprisingly, studies have established a correlation between increased access to mobile technology among high school students (generally students between the ages of 13 and 18) and high incidents of cyberbullying in the South African context. Notably, a study comprising of 149 high school students in Tshwane (Gauteng Province) revealed that although traditional bullying is still slightly more prevalent (45.1%), cyberbullying has increased (44.9%) (Du Preez & Prinsloo 2017). This increase is compared to studies between 2012 and 2014 where cyberbullying was noted (2012: 37%, 2013: 20.9%, 2014: 15.2%) (Burton & Leoschut, 2013; Popovac & Leoschut, 2012; Tustin, Zulu & Basson 2014). More recently, the concerns over rising cyberbullying incidents among South African high school students were expressed by Nyoni and Lidzhegu (2021).

Cyberbullying impedes the objectives of SDGs including SDG 4 (Quality Education). According to Escario et al. (2022), cyberbullying can be associated with truancy and which in turn affects student academic performance and, in some cases, linked to suicide. Due to the wide-ranging effects of cyberbullying, pressure and responsibility have been placed on schools to deal with the scourge of cyberbullying effectively. These effects often extend to the school environment, even when the incident occurred off-campus. Schools have thus been identified as the ideal location to address the growing problem (Nyoni et al., 2021). Schools must implement effective measures to combat the escalating cyberbullying incidents. The Department of Basic Education (DBE) has mandated schools to implement measures such as adopting or developing anti-cyberbullying policies to mitigate the aggression (Western Cape Government, 2014). These policies must comply with South African laws governing the use of electronic devices. In addition, the policies must be in line with the national Code of Conduct framework that specifically addresses cyberbullying and the security of students on and off school premises (Western Cape Government, 2014).

1.2 Problem Statement

Various studies worldwide, have highlighted the modest effects policies and programmes have on cyberbullying (Nyoni et al., 2021). For example, a study by Vorster (2012) revealed that anti-cyberbullying policies for schools are insufficient and lacking in addressing cyberbullying. This view is also reflected in the work of other scholars such as (Kritzinger, 2016; Carrington et al., 2017; Rigby

& Johnson, 2016; Vandebosch, 2014). Despite schools having policies set in place as intervention measures against cyberbullying, it is unclear why these policies are ineffective (Pennell et al., 2020).

There are numerous possibilities that could be responsible for the seemingly ineffective measures of curbing cyberbullying. One possibility is that these policies are not effective in reducing cyberbullying practices. This ineffectiveness could partly be due to the lack of laws regulating cyberbullying in SA (Hills, 2017). In SA, much of the content of these anti-cyberbullying policies have not been evaluated to determine their effectiveness (Nyoni et al., 2021). Furthermore, policies are dynamic documents that need to be reviewed regularly to maintain relevance. For example, the coronavirus pandemic saw unprepared companies significantly impacted by the disruptions from the outbreak. According to Koonin (2020), key to ensuring preparedness is regularly updating and reviewing policies and procedures. This generally applies to policies in different sectors and institutions, school policies are evidently not exempt.

To the researcher's knowledge, there has not been any reported audit or reviews of the South African high school policies on cyberbullying. Therefore, there is a need to investigate the current state of anti-cyberbullying policies, factors that lead to the ineffectiveness of these cyberbullying policies and policy development challenges faced by South African high schools (Nyoni et al., 2021; Kritzinger, 2016.

1.3 Research Questions

Based on the background provided and issues highlighted in the background, the research questions for the present study are:

Research Question 1 (RQ1): To what extent are policies adopted in South African high schools to regulate cyberbullying effective?

Research Question 2 (RQ2): To what extent Are policies adopted in South African high schools to regulate cyberbullying compliant with South African laws?

Research Question 3 (RQ3): To what extent are policies adopted in South African high schools to regulate cyberbullying reviewed on a regular basis to ensure adequacy?

The primary aim of this study is:

To conduct a review of the South African high school cyberbullying policies to determine the extent to which they are effective and compliant with the relevant laws, regulations, standards, and guidelines.

To achieve the aim, the following objectives have been formulated:

1.4 Research Objectives

In answering the above research questions, the researcher aims to achieve the following objectives for this study:

Research Objective 1 (RO1): To determine the efficacy of school policies adopted to regulate cyberbullying

Research Objective 2 (RO2): To determine the extent to which these policies are compliant with South African law

Research Objective 3 (RO3): To determine whether school policies adopted to regulate cyberbullying are regularly reviewed for adequacy

1.5 Research Contribution

The identified gaps in literature particularly regarding the limited research into whether school policies are effectively aiding in reducing cyberbullying. This study developed a conceptual model that can be used by future studies in examining factors influencing effective policy development. By assessing policies against the constructs identified in the conceptual model, the model can further be used in future policy review studies to determine the effectiveness of policies developed. Equally, school management can use the results of this study to enhance their cyberbullying policies and ensure that they effectively address the aggression. Further, the study highlights areas schools are grappling with in policy development. As such the DBE can utilise the results of this study, to focus their support to schools in the areas the researcher has identified as lacking.

1.6 Dissertation Layout

This study will be structured as follows:

Chapter 1 (Introduction): This chapter provided a background to the study, briefly highlighting the research problem as it relates to policies adopted by South African high schools to regulate cyberbullying problem. The research questions, objectives and the significance of the study were outlined.

Chapter 2 (Literature Review): A review of extant literature will be provided with an in-depth discussion of the core concepts presented using multiple theoretical frameworks as a lens into the topic. This chapter seeks to critically review and synthesise cyberbullying, school policies and procedures in mitigating cyberbullying, effectiveness of countermeasures to cyberbullying adopted in schools and development of policies. This chapter will highlight the gaps in the literature and provide a conceptual framework that can be used for determine the effectiveness of policies.

Chapter 3 (Research Design): The philosophical stance the researcher will adopt for this study including the ontological and epistemological views will be presented. Thereafter, the research approach and strategy will be provided. The data collection methods, the unit of analysis and the sample will be highlighted. Throughout the chapter extant literature will be used to defend the choice of selected methods for this study. Ethical considerations will be outlined to ensure that participants are protected from harm either by reputation or physically. The ability of participants to withdraw at any stage will be highlighted and other ethical considerations applicable to this study addressed.

Chapter 4 (Data Collection, Analysis and Discussion): An analysis using a quantitative analysis tool of the data collected will be provided. An analysis of the reliability and validity of the data provided will also be included. The use of Cronbach's alpha will be used as a measurement of the reliability. The research will test the developed hypothesis using varied tests such as the correlation analysis, frequencies, and averages. A detailed interpretation of the data collected, and the findings noted will be presented using tables and graphs, and the hypotheses made will be accepted or rejected based on the findings.

Chapter 5 (Conclusion and Recommendations): A summary of the findings including the contribution of the study will be provided. The chapter will highlight the limitations of the study and propose recommendations for future research.

The following chapter provides a review of extant literature.

Chapter 2: Literature Review

2.1. Background

Although technology plays an important role in academic and social lives, it can be used maliciously. The latter is often the case for adolescents. The study by Kritzinger (2016) posits that South African students are ill-equipped to use technology safely, leading to a high risk of cyberbullying or being cyberbullied. The uptick in technology usage among high school students has further exposed these adolescents to this threat (Broadband, 2018).

Jimenez (2010) suggests that to eradicate any social issues such as cyberbullying, policies must be developed, particularly to promote a safe environment that combats cyberbullying in schools (Dorio et al., 2019). Kritzinger (2016) surveys 169 schools across South Africa (SA) and finds that 50% of the surveyed schools had anti-cyberbullying policies in place. However, these policies were merely prohibiting the usage of cell phones on the school premises. Only a few schools, mostly developed (based on the Living Standard Measure score), call out cyberbullying and have provisions to deal with and curtail the behaviour (Kritzinger, 2016). Despite the advancement of anti-cyberbullying policies in recent years, cyberbullying is still growing (Nyoni et al., 2021). In the few schools in SA with anti-cyberbullying policies, little is known regarding the effectiveness of these policies, with researchers stressing the need to evaluate the policies for effectiveness (Nyoni et al., 2021; Kritzinger, 2016). For the purposes of this study, effectiveness is defined as the ability of anti-cyberbullying policies to mitigate the aggression, improvement handling of incidents reported and appropriate recourse applied where applicable.

2.1.1 Literature Review Methodology

In selecting literature to include in this study, the researchers applied the guidelines for conducting a review as proposed by Creswell (2012) and Kitchenham (2004). The guidelines propose (1) identifying the research questions, (2) identifying relevant studies, (3) evaluating and selecting literature and (4) organising and executing a literature review (Veldheer et al., 2020).

First, the researchers developed keywords and phrases to identify relevant literature based on the research questions.

Research Question 1 (RQ1): To what extent are the policies adopted in South African high schools to regulate cyberbullying effective?

Research Question 2 (RQ2): To what extent are policies adopted in South African high schools to regulate cyberbullying comply with South African laws?

Research Question 3 (RQ3): To what extent are the policies adopted in South African high schools to regulate cyberbullying reviewed regularly to ensure adequacy?

The keywords included 'Cyberbullying', 'Cyberbullying in High Schools', 'Cyberbullying Management', 'Anti-cyberbullying' and 'Policies'. Further, Boolean search phrases and filters were applied to limit the results, including operators 'AND' and 'OR' coupled with the keywords used.

Second, the search results were critically evaluated for appropriateness and relevancy to the study. This was achieved by reviewing the identified literature to determine whether the articles aided in answering the following research questions.

The selection criteria included an applicable date; literature from the last ten years was selected. A filter was applied based on the articles' publication date to ensure that recent work was reviewed. This was done to prove that the phenomenon investigated is persistent (Ngwenyama, 2019) (i.e., it fulfils Basic Claim One: 'The question that the researcher proposes to investigate is relevant and persisting in the field of study'). The researchers argue that in addition to explicitly stating the research questions and embedding the study in the body of work in the field, citing recently published literature further supports the need for the current study. Table 1 below summarises the inclusion criteria used. Although some literature before 2012 is included, these are mainly articles about traditional bullying to depict the evolution of bullying and how some bullying management issues identified with traditional bullying are still relevant to cyberbullying.

Selection Criteria	Criteria Overview	Inclusion Rationale
Study content and methodology	Cyberbullying and anti-cyberbullying policies measures. The study context was high school settings or adolescents. Both qualitative and quantitative studies were included.	Prior research indicated issues with adequately responding to cyberbullying. Further, the researchers recognised the need to record outlier and contradictory cases and competing viewpoints; hence, a wider study context was used, and there were no restrictions on the methodology used in the studies.
In scope period	Studies from 2012 to 2022	To evidence the maturity of the phenomenon and the relevance of the research questions

Publication sources	Journal articles, conference papers, reputable electronic sources	These sources include in-depth, carefully analysed research and literature reviews.

Table 1 Selection Criteria

Third, the selected literature was synthesised, paying close attention to themes within each article. This aided the researchers in organising the literature into focus areas and subtopics. Conflicting discourse amongst scholars was also noted to ensure that the researchers highlighted where scholars disagreed. Lastly, in synthesising the literature, the researchers noted the gaps and executed the literature review below.

2.2 Theoretical Frameworks Underpinning this Study

Various theories are employed to explain and explore the cyberbullying and anti-cyberbullying phenomenon, and their factors and characteristics are explained in the different sections. These include the general strain theory (GST), the socio-ecological system theory (SEST) and the agency theory (AT). These theories are explained and operationalised in Sections 2.3, 2.4 and 2.5, respectively.

2.2.1 The Extent of Cyberbullying and the General Strain Theory

Developed by Robert Agnew in 1992, the GST posits that when people are placed under undue strain, they react to this by using unhealthy and sometimes criminal coping mechanisms (Moon & Morash, 2012). The GST explains how cyberbullying strains high school students, causing poor academic performance, self-esteem problems, criminal behaviour and, in extreme cases, suicide (Gillespies, Willis and Amar, 2018). The impact is often permanent and significant (Cilliers & Chinyamurindi, 2020). The extent of cyberbullying is not limited to the bullied individual but extends to the school climate, where students feel its effect collectively (Cilliers et al., 2020). Teachers are also affected directly by the disruption of school activities, whereby Gillespies et al., (2018) points out that schools are the leading environment where bullying occurs. School leadership and teachers are further indirectly affected by establishing authority over cyberbullying for matters on and off campus (Smit 2015).

2.2.2 Anti-cyberbullying Policy and the Socio-ecological System Theory

A practical, inclusive policy that sets clear procedures and guidelines enables schools to curb cyberbullying, which is fundamental to any plan to combat cyberbullying (Chalmers et al. 2016). Bronfenbrenner's SEST describes how people's surroundings interact with them over their lives. That is, a person's growth is greatly influenced by their dynamic interactions with their family, friends and the community where they reside. Over time, this impacts the social environment (Adu & Oudshoorn, 2020). Developed in 1977, the SEST theorises that factors across various systems influence child cyberbullying and anti-cyberbullying policies. With the child at the core, the SEST divides the levels of interaction into five distinct but nested systems/structures: the microsystem, mesosystem, exosystem,

mesosystem and chronosystem. Effective anti-cyberbullying policies as an intervention cannot be achieved unless interaction with family, school and community is established (Chalmers et al. 2016). As such, for this study, the SEST was used to understand anti-cyberbullying policies through the different socio-ecological systems that impact the students that such policies are intended to protect.

2.2.2.1 Anti-cyberbullying policy content

Anti-cyberbullying policies should enforce discipline in schools and provide a positive school environment (Mucherah et al., 2017). Using the macrosystem construct, the development and implementation of anti-cyberbullying policies, a measure taken by schools to curtail the cyberbullying problem, are most effective when certain attributes are considered (Pennell, Campbell, & Tangen, 2020). Ontario legislation requires school anti-bullying policies to include 1) an agreed definition of cyberbullying, 2) clear rules regarding the use of technology, 3) measures which will be followed in preventing and intervening if bullying occurs or is reported, and 4) a clear statement that cyberbullying is prohibited (Roberg, 2011). Researchers support this globally, including in SA (Smit 2015; Gillespie, Willis and Amar, 2018; Pennell et al., 2020). Siyam & Hussain (2021) further emphasise the importance of having a policy document that is clear and concise, attributing the contents to the effectiveness of the policy.

Additionally, studies mainly carried out in the west (United Kingdom or United States)), by Roberge (2011), Smith et al., (2008) and Swearer et al., (2009) show that for anti-bullying policies to be effective and compliant, the school boards should adhere to legislature enacted by provincial and national governments (macrosystem) (Stickl Haugen et al., 2019). However, teachers and students find that embedding legal jargon in anti-cyberbullying policies makes them difficult to comprehend and often results in underreporting incidents when they occur (Pennell et al., 2020), perhaps partly because the laws themselves do not explicitly address cyberbullying (see Table 2). Despite the lack of cyberbullying laws and a limited understanding of how the laws can be applied, schools must still have compliant policies (Barry, 2006; Kritzinger, 2016). This clearly shows the macrosystem's influence on school anti-cyberbullying policies and, consequently, on the students.

Law Identified	Overview	Content/Aspects to be considered in Anti-cyberbullying Policy Development

Bill of Rights	The constitution declares acts that involve maltreatment, abuse, violence and degradation in all forms, including cyberbullying, against children a violation of their basic rights. Refer to Section 28(1)d – every child has the right to be protected from maltreatment, abuse or degradation. At the same time, Section 28(2) requires that children's best interests be the core principle in any responses or policies. Section 10 details human dignity as one of the children's rights, which cyberbullying, by its nature, contravenes.	Schools are obligated to ensure students are protected from cyberbullying There is a need to ensure policy does not infringe on human rights such as the freedom of expression right of the perpetrator (as protected by Section 16[2] of the constitution) or the privacy right of the victim (as protected by Section 14[d] which regulates communication, including the use of technology). The responses applied to address cyberbullies need to protect the bully, i.e. be appropriate for their age. Thus, the reformation and rehabilitation of the bully rather than punishment should take precedence (refer to Sections 28[2] and 33). Further, Section 33 stipulates specific attributes to be communicated to the perpetrator when disciplinary decisions are made; therefore, schools should ensure that their policies include these in their provisions. Schools are further required to promote the right to education by firstly teaching students about cyberbullying and further ensuring cyberbullying is prohibited, as it impacts the education of the victim.
The African Union Convention on Cyber Security and Personal Data Protection (AUC-CS)	The South African Constitution recognises that SA is to obey international laws and conventions such as the AUC-CS. The AUC-CS identifies sexting as a form of child pornography and cybercrime; therefore, the distribution of such violates the legislation.	Article 8 requires the development of policy to address cyberbullying, which is cybercrime, which should detail the procedures for dealing with perpetrators (Article 25). Procedures to audit/inspect technological devices and safe-keep the evidence collected to allow for the evidence to be used in the disciplinary hearings of the perpetrator should be documented in the policy.

Protection from Harassment Act 17 of 2011	This act provides ways to redress cyberbullying for students who are victims of this aggression. Under this act, cyberbullying, including cyberstalking, is seen as harassment. This act further makes provisions that allow for the victim's identity to be protected when requested to ensure retaliation is not encountered.	School reporting channels should allow for anonymous reporting, which is provided for by Section 8.
Films and Publications Act 65 of 1996	This act provides legal consequences for sexting, the distribution of images or footage of child pornography to third parties or information regarding any sexual conduct with a child (see Section 27[1]). This act requires bystanders or individuals with knowledge of these acts to report these to authorities.	Policies should have a provision that stipulates that bystanders should report knowledge of cyberbullying. While the act prohibits the further distribution of cyberbullying (e.g. videos depicting violence or sexual assault), it is unclear whether school policies should regulate redistribution, how this will be monitored and what measures should be put in place.
Cybercrimes and Cybersecurity Bill	This act criminalises the creation, distribution and participation in discriminatory messages or those purporting violence.	While the act prohibits the further distribution of cyberbullying (e.g. videos depicting violence or sexual assault), it is unclear whether school policies should regulate redistribution, how this will be monitored and what measures should be put in place.
Electronic Communications and Transaction Act 25 of 2002	Cyberbullying can be seen as cybercrime because it involves the humiliation and degradation of individuals using electronic devices. This act regulates cyberbullying by criminalising the act. Therefore contravening this act can lead to penalties or imprisonment.	

South African Schools Act 84 of 1996	All forms of bullying are unacceptable in South African schools. Although there is no specific mention of cyberbullying, the act states that schools should be a safe environment for students by allowing them to remain abuse free. Further, the adoption of a code of conduct is mandatory, which should be completed in consultation.	Developing anti-cyberbullying policies is mandatory to establish a disciplined, safe school environment that allows for education. At a minimum, the school Code of Conduct must have a regulation for cyberbullying. The challenge will be regulating off-campus bullying incidents as a contract between students and the school. The search and seizure of student cell phones should be done in a manner that does not infringe on students' privacy. Thus the policies should be clear on what steps are to be taken when doing this (including possibly having parents present).
The Guidelines for Prevention and Management of Sexual Violence in Public Schools	This makes provisions to address violence in schools and ensure a safe learning environment by defining which actions constitute this form of harassment.	
Bill of Responsibilities for the Youth of SA	It explicitly prohibits cyberbullying and makes it the responsibility of every student, including bystanders, to report cyberbullying.	Policies should have a provision that stipulates that bystanders should report knowledge of cyberbullying.

Table 2: Current laws regulating cyberbullying in SA (source: Adapted from Hills, 2017 and De Wet, 2013)

Another complexity in ensuring compliance can be seen as a double-edged sword. On the one hand, schools need to ensure that their policies and procedures uphold student safety and human rights. On the other hand, they must ensure that these policies are not infringing on laws such as the freedom of expression and privacy rights of both the victims and the perpetrators.

Based on the above and in line with the SEST, this study recognises that the various stakeholders and factors could influence the effectiveness of anti-cyberbullying policies, and these are examined below.

2.2.2.2 Anti-cyberbullying policy development

Campbell (2017) differentiates between two ways in which policies can be developed. First, schools can adopt a social control model whereby staff and students are advised of the existence of the policy and no involvement from these parties is considered in the development stage. Alternatively, a social cohension approach can be adopted, where students and teachers input is solicited during the development of the policies. The latter favours the above discussed theory SEST. This study investigates social cohesion.

According to Pennell et al . (2020), the DBE, which can be seen as the school community, the parents' community (microsystem) and the experts (collectively referred to as the advice community), such as the police, lawyers and policy consultants, fall under the exosystem. Teachers regard the involvement of the DBE as important in ensuring the standardisation of anti-cyberbullying policies across schools (Kritzinger, 2016). This is because most schools do not have the capabilities (i.e. expertise and experience) to develop such policies independently. The DBE has disseminated standards and frameworks to prevent cyberbullying and intervene in schools. This clearly shows the influence the DBE (an exosystem) has on schools' development of anti-cyberbullying policies. However, merely stipulating requirements is insufficient, and more is required of the DBE in developing such policies to be effective.

Smit (2015) further suggests that developing a school anti-cyberbullying policy should explore consulting with policy development and cyberbullying experts. These policies must be broad enough to cover all cyberbullying possibilities (Caruso 2009). Consultation during development will ensure that the anti-cyberbullying policy adheres to relevant legislation clearly and understandably (Lerman, 2010). Consulting is permissible under Section 30(1) of the South African Schools Act. The Guidelines (Paragraph 1.5) require that in developing an anti-cyberbullying policy, consensus must be reached before the policy can be adopted.

Developing an anti-cyberbullying policy should also involve the broad school community, including parents, teachers and students (Chalmers et al., 2016). This can be achieved by making the draft policy available to these stakeholders for analysing (Sullivan, 2011). Kowalski et al., (2019) highlighted that students' commitment to the school environment and, thereby, to schools' rules has a direct influence on the level of cyberbullying. Therefore, it could be inferred that robust anti-cyberbullying policies may not reduce cyber aggression without students' engagement.

2.2.2.3 Policy communication

Proper communication of anti-cyberbullying policy is essential because only after parents and students are aware of such a policy can responsive procedures be taken (Smit, 2015). Furthermore, it is highlighted that legislation mandates that anti-bullying policies be reviewed and that the policies are to be communicated to the school community, which includes staff, students and parents (Batterbee,

2014). The policy should also be communicated to stakeholders when changes are made, as required by the DBE's guidelines.

Communicating this policy to parents will also increase their awareness of the seriousness and danger of cyberbullying. A knowledgeable parent will, in turn, teach their children about online threats, thus reducing the rate of children's exposure to cyberbullying (de Lange & von Solms (2012) in Kortjan et al., 2014; Nyoni et al., 2021).

2.3 Need to review the policy

Roberge (2011) stresses that monitoring and revising anti-cyberbullying policies is necessary to ensure they are relevant and effective in addressing bullying. This is because having such policies does not guarantee their effectiveness (Chalmers et al. 2016). Further, scholars have identified the review of policies as one of the features of the anti-cyberbullying programme that positively impacts the success of such programmes (Ansary, Elias, Greene, & Green, 2015). Smith (2015) recommends that strategies such as a regular review of anti-bullying policies can effectively address challenges in SA. Schools that do not review their anti-cyberbullying policies to ensure they are still relevant and reflect emerging facets of cyberbullying and technology ignore the risks posed by cyberbullying (Hinduja et al., 2011).

Siyam et al, (2021) note a lack of auditing and reviewing implemented anti-cyberbullying policies in schools; thus, the effectiveness and compliance of these policies still need to be discovered, despite a notable increase in interest in understanding whether policies are effective. Similarly, scholars have noted a lack of empirical evidence for evaluating anti-cyberbullying policies Hatzenbuehler, Schwab-Reese, Ranapurwala, Hertz, & Ramirez, 2015). Literature and best practice recommend conducting an annual policy audit to ensure relevance and sufficient coverage (Gillespies et al., 2018).

The Agency Theory (AT) is used to highlight further the significance of periodically evaluating policies and the requirement for independent reviews to ensure the review's objectivity. This theory is further used to explain how good school governance practices create a better relationship between schools and the stakeholders such as the DBE, the school governing body and parents. This, in turn, results in the well-being of students through reduced cyberbullying.

2.3.1 Agency Theory (AT)

Originating in the management and economics, the AT, postulates that due to the segregation of ownership and management, owners often lose control and management does not work in the best interest of the owner (Panda & Leepsa, 2017). According to the AT, a working relationship between a principal (such as the DBE) and an agent (such as teachers) is characterised by opportunistic or self-interested behaviour. Jensen and Meckling (1976) suggest that this relationship creates an 'agency problem' where schoolteachers may report that they have implemented and adopted anti-cyberbullying policies that comply with DBE requirements. However, the extent to which the policies are fit-for-

purpose may be overestimated. Hence, to reduce this agency problem, scholars suggest a need to review the policies to determine their adequacy and revise policy content to meet its objective of reducing cyberbullying in schools (Franco-Santos et al., 2017).

Ertesvåg (2014), Hatzenbuehler et al., (2015) and Gillespies et al., (2018) suggest that the evaluation of anti-cyberbullying policies should be conducted with an investigational approach. This is evidence-based, which is a characteristic of an audit. Adopting this approach would improve on studies such as Ttofi and Farrington (2011), which is a review and not evidence-based. Similarly, other studies include interviewing teachers and students to assess the efficacy of policies and content analysis of cyberbullying policies. While these are beneficial, they are prone to bias (the agency problem) and neglect consideration of how the policies were developed. Rigby (2014) postulates that teachers and school management report more success in implementing anti-cyberbullying strategies than the students; this is attributed to the lack of teacher awareness (Mucherah et al., 2017). In 2020, an evaluation of the maturity of South African cybersafety programmes was conducted and revealed the need for a post-anti-cyberbullying evaluation, where the results are used to update the policy (Kritzinger, 2020).

The need for an evidence-based approach is also highlighted by the requirement of policymakers and stakeholders outside the school for quality information on the anti-cyberbullying policy to make effective decisions and improve their judgement of the policy's usefulness. This is supported by the lending credibility theory (LCT), which explains that audits enhance the confidence of stakeholders in audited policies (Ittonen, 2010). This study adopts an audit approach to the review of the anti-bullying policies in schools.

2.4 Identified gaps in literature

From the above literature, gaps in theory, methodology and focus were identified. Particularly, studies performed evaluating the effectiveness of anti-cyberbullying policies have mostly adopted qualitative approach (content analysis) and interviews on the perceived views of its efficacy. Moreover, majority of these studies were conducted in developed countries with no study in caried out in South Africa (Stickl Haugen et al., 2019). The above literature review has further highlighted that while schools may have policies adopted to address cyberbullying, little is known regarding the effectiveness of the policies developed in reducing cyberbullying (Nyoni et al., 2021; Kritzinger, 2020). This despite various scholars echoing the need to assess the efficacy of school policies used to address cyberbullying in South African high schools.

2.5 Conceptual Model

Using the literature review as a foundation, the following conceptual model is suggested to further empirically examine the effectiveness of anti-cyberbullying policies adopted in schools. The proposed

conceptual model presented in Fig. 1 depicts that (1) policy content, (2) policy development, (3) policy communication and (4) policy compliance and review influence the effectiveness of anti-cyberbullying policies. In turn, the effectiveness of anti-cyberbullying policies positively influences the extent of cyberbullying in schools and schools' compliance with laws, regulations, standards, and guidelines.

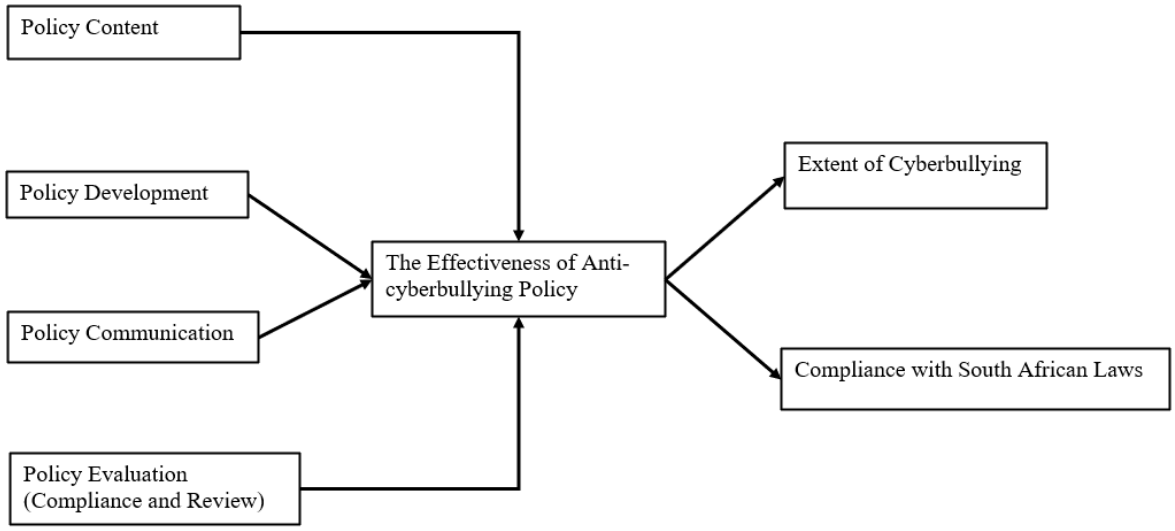

Figure 1 Study Conceptual Framework

Table 3 below summarises the identified constructs and briefly describes the items relevant to each, as depicted in Fig. 1.

Theory	Characteristic	Construct	Construct Definition	References
SEST	Addressing cyberbullying is a complex and the complexity further exacerbated by the various influences on schools by its broader environment. This then requires policy content to reflect the attributes that are in harmony with requirements set out across the different levels.	Policy Content	In this paper, 'policy content' refers to the components of school bullying policies. These components guide the effectiveness of the policy by ensuring that all important aspects are covered.	Gillespie, Willis & Amar, 2018; Kritzinger, 2016; Mucherah, Finch, White and Thomas, 2017; Pennell, Campbell, & Tangen, 2020; Roberge (2011); Siyam & Hussain (2021),Smit 2015; Smith, Osborn and Samara (2008); Swearer, Limber and Alley (2009)

SEST	Addressing cyberbullying is a complex and the complexity further exacerbated by the various influences on schools by its broader environment. This then requires policy development to be done in a consultative manner, with stakeholders across the different levels.	Policy Development	In this paper, 'policy development' is defined as a guidance that has been given in establishing the document and the involvement of school board associations, the government and experts in the field to ensure that the documents are effective in addressing cyberbullying.	Caruso, 2009; Chalmers et al., 2016; Kowalski, Limber and McCord 2018; Kritzinger, 2016; Lerman, 2010; Pennell et al., 2020; Smit, 2015; Sullivan, 2011
SEST	Addressing cyberbullying is a complex and the complexity further exacerbated by the various influences on schools by its broader environment. This then requires policy content to be in line with laws	Legislation and guidelines	This refers to how cyberbullying law requirements have been incorporated into the anti-cyberbullying policy.	Kruger, 2013; Bridie, 2013; Stuart-Cassel et al., 2011; Lerman, 2010; Batterbee, 2014; Smith et al., 2012
SEST	Addressing cyberbullying is a complex and the complexity further exacerbated by the various influences on schools by its broader environment. This then requires policy to be communicated across the different levels even when changes are made.	Communication	In this paper, 'communication' refers to making the anti-cyberbullying policy known to parents and children.	Caruso, 2009; Chalmers et al., 2016; Kowalski, Limber and McCord (2018); Kritzinger, 2016; Pennell et al., 2020; Sullivan, 2011
AT, LCT	Need for policy review to mitigate the agency problem between schools and the ensure proper governance over cyberbullying is maintained by schools	Compliance and Review	'Compliance' in this paper refers to conforming to legal requirements outlined in an attempt to eradicate cyberbullying in schools.	Batterbee, 2014; de Lange & von Solms (2012) in Kortjan et al., 2014; Nyoni et al., 2021; Smit, 2015

Table 3: Theories and constructs of conceptual model

2.6 Hypotheses Development

The development of the proposed hypotheses has been guided by the literature review carried out above and further the proposed conceptual framework for this study. The claims these propositions make will be tested and depending on the results will either be confirmed or rejected.

Hypotheses	Supporting Literature
H1: Policy content influences the effectiveness of anti-cyberbullying policies	Studies have shown the importance of anti-cyberbullying policies being clear, concise and comprehensive to assist in effectively mitigating cyberbullying. Siyam et al, (2021), Giliespie et al (2018), Mucherah (2017) and Smit (2015) have all emphasised having cyberbullying definition, acceptable usage and conduct, procedures (such as reporting and handling of evidence) and consequences of contravening policy included defined policy deters cyberbullying.
H2: How anti-cyberbullying policies are developed influences the effectiveness of the policies	Findings from studies highlighted the inability of teachers to develop comprehensive anti-cyberbullying policies due to lack of capabilities and support from DBE (Kritzinger, 2016). To be effective and compliant, anti-cyberbullying policies need to be developed in a consultative approach were different stakeholders including parents, student, policy experts and DBE are engaged (Caruso 2009; Lerman, 2010; Sullivan, 2011; Smit, 2015; Chalmers et al., 2016 & Kowalski et al., 2018).
H3: The more effective the school communicates its anti-cyberbullying policy the more compliant will the policy be with South African laws which can be used to regulate cyber bullying	Integral to the success of anti-cyberbullying is the knowledge of the policies existence. Studies have shown that awareness of policies deters unwanted behaviour, is required by legislations, frameworks and standards, increases stakeholder buyin (Beane, 2009; Batterbee, 2014 & Smit, 2015). Particularly parents who in turn would emphasise the educate their children on dangers of cyberbullying (de Lange & von Solms (2012) in Kortjan et al., 2014.
H4: Regular review of anti-cyberbullying policies ensures policies are robust and impacts the effectiveness of policies	Studies have shown that the development is lacking and evaluation of policies for effectiveness often lacks empirical evidence and are assertions by school management who may have biases (Roberge (2011; Smith, et al., 2008; Smith et al., 2012; Chalmers et al. 2016). The need for objective review of policy has been raised to inspire confidence and ensure policies are objectively assessed (Hatzenbuehler et al., 2015; Smit, 2015; Gillespies et al., 2018; Siyam et al, 2021). Kritzinger (2016) and Kritzinger (2020) has highlighted the need for

	the evaluation of adopted anti-cyberbullying policies in SA schools. To date, little research has been conducted auditing policies especially in SA.
H5: There is a strong correlation between the effectiveness of an anti-cyber bullying policy and the extent of cyberbullying	Hatzenbuehler et al., 2015 found that the presence of anti-cyberbullying policies reduced the number of bullying incident in states where legislation and policies are in place as opposed to those with none. Effective anti-cyberbullying policies equates to an increase of safety of students.
H6: The effectiveness of anti-cyber bullying policies results in compliance to legislation, safety standards, frameworks and directives	In the absence of exhaustive legal remedies, several South African laws, the DBE framework, directives and standards are used to provide legal response to cyberbullying. Reyneke & Jacobs, (2018) argue that schools provide a mechanism to ensure the safety of students as stipulated in the legal frameworks.

Table 4: Hypotheses Formulated For this Study

2.7 Application of the proposed conceptual framework

First, the framework identifies the relevant attributes to be included in the policy to ensure its comprehensiveness. This breakdown is especially useful for teachers finding it difficult to develop these policies.

Second, this framework highlights that teachers or schools cannot on their own develop comprehensive policies, and further be used to leverage the DBE for contribution and support in developing these. As set out by the SEST, the successful integration of the microsystem, macrosystem, exosystem and mesosystem enable collaboration between schools developing policies and stakeholders with varying interest in reducing cyberbullying. This allows for the effective management of cyberbullying through comprehensive policies. The framework further aids in identifying stakeholders to include in policy development and ensures that policies developed by schools are not contravening South African law and applicable international law. The factors to be considered in this matter are presented in Table 2.

Last, the framework identifies the importance of regularly reviewing the policies to ensure continued relevance and extensiveness with changes communicated. Thus, reducing the agency problem that agency theorists posit. The framework is not limited to cyberbullying but can also be used to enhance traditional bullying policies.

The researchers will validate the framework by testing the developed hypotheses. The hypotheses will be tested through two questionnaires, one evaluating the policies (content, developers, communication

and review) and the other determining management's view of the effectiveness of their policies and understanding of incidents that have occurred in their schools.

2.8 Summary

Although traditional bullying is still slightly more prevalent, the rise of cyberbullying incidents among vulnerable high school students is concerning. The rise in accessibility to mobile technology, especially among students, exacerbates the issue. Schools have been identified as the ideal location to address the phenomenon, with various laws, guidelines and principles placing responsibility squarely on schools. This article provided a view into the existing literature, identifying anti-cyberbullying policies' attributes and theories supporting these. This was used to ground the proposed framework in theoretical work. The applicable laws and factors that should be included in anti-cyberbullying policies were identified and presented. The article further identified that teachers are struggling with developing ant-cyberbullying policies and need assistance. Thus, anti-cyberbullying policies should be developed in a consultative manner, with stakeholders across the school environment participating. These stakeholders include teachers, students, parents, experts and the DBE. When the development of policy is left to schools, inadequate policies result.

Chapter 3: Research Design and Methodology

The research methodology is an important aspect of research. The methodology outlines the philosophical assumptions and methods used to collect the data and how these methods are compatible to answer the research problem (Kilani & Kobziev, 2016; Myers, 2009; Thomas, 2010). This is done systematically and provides rationale for choices of procedures chosen and their appropriateness for the study. Accordingly, the following elements of research design are detailed below: research philosophy (*section 3.1*), research approach to theory (*section 3.2.1*), research methods (*section 3.2.2*) and research strategy (*section 3.2.3*).

3.1 Research Philosophy

Research philosophy focuses on knowledge development, specifically the beliefs and assumptions made by the researcher in developing new knowledge (Saunders, Lewis, & Thornhill, 2019). Saunders et al., (2019) further note that the researcher's beliefs and assumptions regarding a) reality – (ontological assumptions) and b) knowledge (epistemological assumptions) shape and influence the research undertaken; Influencing the research methods chosen and how the finding are interpreted. Accordingly, it is imperative to choose wisely to ensure credibility and validity of the research and its findings. The three dimensions of researcher's beliefs and assumptions, namely: ontology, epistemology, and methodology (TerreBlanche & Durrheim 1999) are discussed.

3.1.1 Ontology

Ontology is a study concerned with what reality is (Scotland, 2012; Saunders et al., 2019). Two opposing assumptions exists: objectivism and subjectivism. Objectivism assumes the empirical world exists independent of human awareness and influence on the social reality (Saunders et al., 2019). Social reality according to objectivism is universal and less prone to change. Conversely, subjectivism assumes the empirical world under investigation is dependent and only exists through human actions to create or recreate (Orlikowski& Baroudi 1991). This study adopted objectivism. This was chosen because the aim of this study is to determine the effectiveness of anti-cyberbullying policies which exist in schools, these policies can be reviewed without social actor influences and interpretations. Further, in addressing the agency problem the teachers' view regarding the development of school policies can be researched without the need to understand the views or any interruptions of the respondents (*see Section 2.3.1*). Therefore, reality of anti-cyberbullying policies in schools can be determined independent of the influence, perceptions and interest of the teachers.

3.1.2 Epistemology

Epistemological beliefs relate to the researcher's view of what constitutes knowledge and whether the knowledge of a phenomenon is constructed in an acceptable manner (Orlikowski et al 1991). Three major stances in social science research exist, these as positivism, interpretivism and critical realism

(O'Gorman & MacIntosh, 2014; Saunders et al., 2019). Positivism is based on the belief that knowledge can be observed and measured objectively. This aligns with the ontological belief of objectivism selected as the researcher sought to explore the empirical world where measurable facts exist. A positivistic stance places reliance on statistical tools to quantify data carried out using quantitative methods. Whereas, interpretive research is based on the belief that the social study is best studied through the interpretation of participants, where qualitative data is collected and the study is subjective. Reason being, some scholars believe that human experiences provide an enhanced understanding and provide context which is knowledge development (Saunders et al., 2019; Ghauri, Grønhaug, & Strange, 2020). Finally, critical realism is concerned with human emancipation and empowerment to improve the world. Although people are faced with political, cultural, and social factors that may restrict improvement, critical realists believe that people should pursue to change their social and economic situations (Bhattacherjee, 2012).

In the understanding of social reality interpretivism, the premise that to gain insight to the meaning and purpose of human actions a subjective stance is to be taken. The assumption is that interactions will take place between the researchers and social actors in researching the phenomenon. In essence, interpretivism is based on the researcher's interpretation of a social issue as understood from social actors' experiences regarding the phenomenon (Bhattacherjee, 2012; Klein and Myers, 1999; Thomas, 2010).

Positivism challenges interpretivism in that it emphasises the importance of the researcher not placing themselves in the social actors' setting (Orlikowski et al., 1991). Positivistic research assumes knowledge is readily available and can be objectively measured using properties independent of the researcher. This is done to ensure that the researcher does not influence the social reality and is also not influenced by it (Saunders et al., 2019). Furthermore, positivistic research is investigated using structured instruments and is carried out to test the theory in attempt to increase the generalisability and predictability of a phenomenon. A study, except for descriptive studies, assuming a positivistic stance is identified by having formal propositions, variables that can be quantified, testing of hypotheses and inferences being made from a specified population (Orlikowski et al., 1991; Saunders et al., 2019).

This study was based on a positivistic philosophy where data was collected quantitatively because cyberbullying has been researched. That being said, extensive theoretical works on the subject already exist which could be collected for this study. Furthermore, the researcher chose the objectivist position, this is linked to the characteristics of an audit, whereby the research is independent. The aim of this study was to determine the effectiveness of school policies by examining the existence and prevalence of key policy items amongst these policies. These key items can be measured using statistical analysis including determining frequencies and measuring the relationship between measured values such as effectiveness of cyberbullying policies and cyberbullying incidents.

3.2 Research Methodology

Research methodology is defined as the strategy of enquiry employed in the research to ensure that valid and reliable research is conducted and obtained (Myers, 2009). Included in the research methodology are the various techniques, methods, and approaches.

3.2.1 Research Approach to Theory

The clarity of the theory in the research raises an important aspect within the research design, that is, the research approach. Approach to Information Systems research can be inductive or deductive, where in inductive studies, the theory is inferred by the research from the data observed. Ghauri et al., (2020) depict the inductive process as such: Observation → Analysis → Findings → Theory Building. It is common for inductive research to adopt qualitative methods (Ghauri et al., 2020). With deduction, the researcher tests hypotheses as inferred from existing theory often in the form of academic literature (Saunders et al., 2019).

Deduction as an approach subjects the theory developed to rigorous testing. This involves developing testable propositions about the relationship between two or more concepts must have been deduced from theory which will either be rejected or confirmed (Ghauri et al., 2020; Saunders et al., 2019). Furthermore, another characteristic of a deductive approach stipulates that rigorous testing of theory in the deductive approach calls for researcher independence of the observed subject. The concepts also need to be operationalised to be measured quantitatively (Ghauri et al., 2020). Finally, findings in a deductive approach need to be generalisable, for this purpose data needs to be collected from sufficient sample size (Saunders et al., 2019).

Theory on the effectiveness of school anti-cyberbullying policies and the factors that influence these policies have been reviewed and explained (*see section 2.2 and 2.3 above*). Further based on the extant theory, a conceptual framework was developed to guide this study. Evidently, this study adopted a deductive approach to theory. The choice was appropriate due to the conclusions drawn from the systematic review of literature which was validated in later sections of this study.

3.2.2 Research Methods

Research can be classified as being qualitative, quantitative or a combination of both depending on the objective of the study (Saunders, Lewis, & Thornhill, 2009). Quantitative research allows for the testing of hypotheses using statistical tools, the data collected is numerical and often with larger sample sizes than qualitative. While qualitative method allows researcher to explore an idea. Both primary and secondary data will be used for the purpose of this study, to answer the research questions and find support for the proposed hypotheses as the research strategy (Bhattacherjee, 2012). Therefore, this study was quantitative. This was chosen on the merit policies are developed and are readily available to the public.

3.2.3 Research Strategy

In the research philosophy above it was mentioned that research can be classified as being positivistic, realist or interpretivistic depending on the objective of the study. Some examples of positivistic research include experiments i.e. field or laboratory, field surveys and secondary data analysis while interpretivism designs examples are case studies, ethnography and action research (Battacherjee, 2012). Saunders et al., (2019) note that the factors such as time constraint, availability of resources and the philosophical assumptions influence the strategy chosen. Further, surveys allow research to reach a larger sample and are ideal in exploratory studies. This study used a survey as the research strategy. This was chosen on the merit policies are developed and are readily available to the public, furthermore, taking into consideration time, money, and effort constraints this strategy is economical. Morever, this approach supported the quantitative data collection which allowed for the causal relationship between the constructs identified to be examined (Cresswell, 2014; Kothari, 2004). The use of surveys in this study was ideal as the extent to which school policies are effective is still largely unknown and research in this area is in its infancy. Surveys allowed relationship between variables to be identified. A weakness in this strategy can be seen as the sampling factors, the steps intended to be taken in dealing with these biases will be discussed in other sections.

3.2.4 Research Purpose

Most often in research the purpose of conducting a study is threefold, either: explanatory, descriptive and exploratory or a combination of two i.e., descriptive and explanatory (Saunders, et al., 2011). An exploratory study seeks to find new insight into a phenomenon, the descriptive research seeks to portray/describe a situation accurately and an exploratory study seeks to explain relationships between variables of a social situation.

For this study, the purpose undertaken was exploratory. This type of study is valuable in gaining insight, assessing, and finding out what is happening in a new phenomenon. In addition, it is useful in clarifying understanding of a phenomenon (Saunders, et al., 2011). This study sought to gain insight on the state of anti-cyberbullying policies that schools have in place, whether these are compliant with the laws and are effective in addressing the aggression.

3.2.5 Population and sample

Selection of a sample that is a true representation of the population is of extreme importance as studying the entire population is not feasible. Sampling is a technique that refers to the statistical process of selecting a sample (subset) of the population of interest such that observations and inferences about the population can be made. Selecting a sample representative of the population is key for the generalizability of the observed (Bhattachejee. 2012).

3.2.5.1 Population

Considering the full set of cases from which a sample will be drawn from is known as the population (Saunders, et al., 2011). The target population is the concerned with a specific pool of cases. For this study, the population was South African high schools while the target population was those schools with anti-cyberbullying policies or equivalent. Schools that are not in an urban area were to be eliminated from the policy audit. This is because anti-cyberbullying policies are still in their infancy in urban schools and these policies do not exist in rural schools (Mwapwele, Marais, Dlamini, & Van Biljon, 2019). Based on the Education Management Information Systems (EMIS) data from the Department of Basic Education the Western Cape (WC) has 555 high schools while Gauteng (GP) has 1187 high schools in urban areas (Department of Basic Education (2022)). Therefore, the population is 1742.

3.2.5.2 Sample frame and size

Sampling can be done using two broad techniques know as probability and non-probability sampling. Selection of a technique will be dependent on different things. For this study, non-probability sampling is adopted. This is because of the inability to specify a sampling frame which is defined as an accessible section of the target population from where the sample can be drawn (Battacherjee, 2011). Additionally, random sampling as an example of a probability sampling technique will result in cases where the selected cases have no information to help answer the research questions and meet the objectives.

Unlike in probability sampling, non-probability sampling does not have rules on the sample size. The issue of generalisability of the sample to the population is in this case to theory instead. The sample size depends on what insight is to be gained. Emphasis is placed on the validity, analysis and insight from the data collected. Many scholars suggest collecting data until no new insight is gained from new respondents commonly referred to as data saturation.

Policies were collected and analysed from 31 high schools across Gauteng and Western Cape. Despite Hair et al. (2017) asserting that using small sample sizes makes it "risky to interpret" the results, the researcher decided to continue with the sample schools were policies were collected from. The reason for this is three-fold; First, the number of high schools where policies were collected from is consistent with similar studies by Purdy and Smith (2016) in Northern Ireland (50 high schools) and Smith et al. (2012) in England (48 high schools). Second, although 31 school were selected, a total of 53 policy documents were reviewed across the schools. This was done as some schools had one distinct policy addressing cyberbullying, while most of the schools used a couple of policies. Third, this sample is complemented by the second data collected, measuring the school management perspective on their schools' cyberbullying policies, practices and their understanding of what ought to be included in these policies. Data was collected from 101 respondents.

3.2.5.3 Sampling technique

Rai and Thapa, (2015) describe purposive sampling as the technique where researcher utilises their judgement in select cases to study. The objective is gaining insights from specific areas of interest related to the study. Purposive sampling (Saunders, et al., 2011) was chosen as the sampling technique for this study. This involved selecting specifically those schools with anti-cyber bullying policies or equivalent policies. This technique was selected because of the characteristics which allow for providing new insights.

3.3 Timeframe

The timeline of any research can either be cross-sectional or longitudinal. A longitudinal study collects data over a long period of time usually years, whereas in a cross-sectional study data is collected in a particular period usually no more than a year. This study was cross-sectional as the research sought to gather insight of the compliance of school anti-cyberbullying policies with legislation and determine their effectiveness at this point in time (i.e. the current extent). Further, due to the time constraints of completing the INF5004W and INF5005W courses, a cross-sectional study was deemed suitable.

3.4 Data Collection

To cater for non-response bias, the three-phase administration process to data collection as developed by Creswell (2009) was be employed. This process includes (1) sending of initial notice of intent requesting participation; (2) actual message with either the link to the online questionnaire or hard copy; and (3) courtesy email, post or phone call to remind the participants to complete the questionnaire. Waiting a period of at least 7 days was be given between the phases.

3.4.1 Cyberbullying policies

For data collection purposes, school anti-cyber bullying policies and any other policies the schools use to govern cyber bullying will be examined. To gather these documents, a covering (vide Addendum C) letter requesting permission for the school to participant in the study was be emailed, faxed or hand delivered to schools. The schools' website was searched for anti-cyberbullying policies or equivalent. Where the policy was not electronically accessible the school was to be contacted to gain access to the document.

The data collection yielded qualitative data (policies are in text form), however, research assigned scores of 1 (when the criteria is met by the policy) or 0 (when the criteria is not met by the policy. To get to the total, each section of the survey was summed, and the sub-totals aggregated to get to the overall anti-cyberbullying policy score which ranged from 0 to 46.

3.4.2 Cyberbullying school management perspective

A survey was used to identify and analyse high school management views and perspectives regarding cyberbullying policies and procedures in their schools. A questionnaire was used to capture these views (*see Section 3.5.2*). The researcher made the questionnaire available online using Google Forms. The

participants were contacted via email to inform them of the link to the online survey. However, this yielded limited responses. Further, hard copy questionnaires were hand delivered to the schools for participants to complete. Second, the researcher solicited the assistance of a third party to facilitate the data collection in Gauteng for compensation. The individual identified works within the Department of Education and has the contact details of the various schools and their principals. The researcher was aware of the ethical considerations and risks associated with using a third party and implemented mitigating factors to eliminate them. These are discussed in detail under the ethics and confidentiality section (see 3.7 below). This however yielded no responses. Further supporting the risks of not forcing participation was managed appropriately. Last, the researcher leveraged social media to distribute the link to the survey including posts on Facebook group (South African Teachers) and WhatsApp. The same considerations were taken into account as with the distribution by email. Social media was utilise to reach more respondents within the researcher network (Whatsapp) and those not in the researchers network Facebook group).

3.5 Research Instrument

Two questionnaires will be used to collect the data. An overview of these is provided below:

3.5.1 Anti-cyberbullying policy

Due to the exploratory nature of this study, the literature on anti-cyberbullying policies was used as a basis to develop the questions that were used for the study. The questionnaire (*see Addendum A*) used to gather data from the school anti-cyberbullying policies was based on the questionnaire developed by Smith, Kupferberg, Mora-Merchan, Samara, Bosley and Osborn (2012). This questionnaire was selected as it closely aligns to the purpose of this study. However, minor changes were made to the questionnaire to ensure that it reflects the aim of the study and further ensure that it suits the South African high school context.

The questionnaire included only closed-ended questions. These were measured using a dichotomous scale of "Yes" which were translated as a 1 or "No" which is a 0. There were 40 categories divided into five sections: (A) has 12 subcategories which are concerned with definition of bullying, (B) has 3 subcategories concerned with the stipulation of rules regarding the use of technology, (C) has 13 categories which are concerned with reporting and responding to bullying; (D) has six subcategories which are concerned with reviewing and evaluation the policy; and (E) six categories on strategies for preventing bullying.

3.5.2 Cyberbullying school management perspective

The questionnaire (*see Addendum B*) used for this part of the data collection was developed by Hinjuba and Patchin (2007). The researched deemed this questionnaire most closely linked and relevant to the objective of the study. A five-point Likert scale was to be used to capture this data with 1 representing low value and 5 a high value.

Six of the questions in the questionnaire measured the perceptions of participants. Short questions were asked pertaining to the demographics of the respondents including gender, years in a management position, and the location of the school (rural or urban area). Other questions requested information regarding the school's cyberbullying policy and procedures, perceptions regarding the effectiveness of the cyberbullying policy. The definition of cyberbullying was included in the questionnaire.

The table below summarises the two questionnaires used for this study and how these relate to conceptual framework developed.

Construct	**Instrument Section:** **Anti-cyberbullying policy**	**Instrument Section:** **Cyberbullying school management perspective**
Policy Content	**Section C:** Cyberbullying Policy	**Section A:** Definition of Cyberbullying Behaviour **Section B:** Stipulating clear rules regarding use of technology **Section E:** Strategies for preventing cyberbullying
Policy Development	**Section D:** Cyberbullying Policy Development	
Legislation and guidelines		**Section C:** Reporting and responding to cyberbullying incident
Communication	**Section E:** Cyberbullying Policy Communication	
Compliance and Review	**Section C:** Cyberbullying Policy	**Section D:** Process for Review evaluating the policy
The effectiveness of anti-cyberbullying policy	**Section A,C,D,E:** Refer above for section titles	
Extent of cyberbullying	**Section B:** Extent of Cyberbullying	

Table 5: Construct to Instrument Mapping

3.6 Data Analysis

Due to the data collected by means of surveys, questionnaires and experimental data being prone to discrepancies and anomalies that could distort the finding. The collected data was captured and screened to identify and remove anomalies such that the data is in a format that allows for relevant tests to be conducted (Cavana et al., 2001; Tran, Havard, & Jorm, 2017). This was captured using a spreadsheet software (MS Office Excel). The data was cleaned and thereafter exported to statistical analysis software (Statistica) for in-depth analysis and to test the propositions for the research. The following statistical tests were conducted:

3.6.1 Descriptive Statistics:

The research computed the mean and standard deviation to determine the dispersion of data. This analysis will provide the researcher with insight into the normalcy of the data which will in turn help determine the applicable tests to be performed based on the data distribution.

Graphical Representation: where applicable MS Office will be used to produce pie charts and bar graphs to display the summaries of the data.

3.6.2 Instrument and Construct Validity

It is important to measure the reliability and validity of the instrument and measure observed to ensure stability and consistency (Hair, Risher, Sarstedt, & Ringle, 2019). Therefore, an instrument needs to be reliable for data collection. To determine the reliability of the research instrument used, the researcher assessed the construct validity by determining the internal consistency of the items measured for each construct. The following tests were performed in Statistica:

Factor Analysis: an exploratory factor analysis was used analyse the instrument items. This allows checking of construct validity and to determine whether the items would group in distinctive factors. A factor loading on 0.5 is deemed sufficiently high (Henseler, Hubona, & Ray, 2016) as a result, the researcher used this. Therefore, the research will not use factor loading less than 0.5.

Reliability Test: Cronbach's Alpha was used to test the internal consistency and reliability. Generally, a Cronbach alpha closer to 1 is preferred, however, an alpha of 0.70 is acceptable (Nunnally & Bernstein, 1994). However, studies have shown that for exploratory studies a Cronbach Alpha of up to 0.60 can be accepted (Hair, Risher, Sarstedt, & Ringle, 2019).

3.6.3 Hypotheses Testing

T-tests and Correlation Analysis: independent sample t-test and correlation analysis tests were performed to help analyse the hypotheses. Based on the results the hypotheses formulated were either rejected or accepted. A significance level of $p < 0.05$ will be used for this study.

3.7 Ethics and Confidentiality

The researcher was aware that there are ethical considerations to be considered which include the appropriateness of the researcher's behaviour regarding the rights of those who participated. In conducting research, there are vast ethical considerations that need to be considered before, during and after data collection (Strydom, 2005). Creswell (2009) states that throughout the research process ethical practices should be followed by the researcher such as respecting and honouring the respondents and the site. Furthermore, the researcher should report all research finding fully and truthfully (Creswell, 2009).

First, an application to the University of Cape Town's (the researcher's home institution) Ethics Committee for ethical clearance was sought before the data was collected. Second, an application for permission to conduct research in Western Cape and Gauteng high schools was sought from the Western Cape and Gauteng Education Department respectively (*see Addendum F and G*). Further, for the Gauteng schools, the researcher had to request permission from the various school districts (*see Addendum H*). Third, various principals were to be approached to request permission to access their school's anti-cyberbullying policy. The schools were informed fully of the aim of the study and the procedures to be followed. No pressure was to be exerted on any participating schools to allow access. The following was communicated to participating schools and respondents:

Voluntary participation and harmlessness: withdrawal from the study at any point, with no unfavourable consequences.

Anonymity and Confidentiality: the identity of the schools would be withheld to protect their interest and well-being.

Analysis and reporting: all findings collected would be communicated regardless of the impact the findings have on the study (i.e., negative, and positive findings).

Due to using a third party within the Gauteng Department of Education, to facilitate the data collection, the researcher was aware of the risk of intimidation that this could cause to the management to participate. Thus it could be perceived that their participation is mandatory rather than voluntary. To mitigate this the following steps were taken by the researcher:

Training: The data collector was trained on data collection, with emphasis placed on school and principal participation being voluntary and no participant should be forced to participate. This was performed via phone call and further documented via email.

Content templates: The data collector was provided with the email template to use communicate with the participants, whereby the research objective, research ethics, request and the voluntary participation

with the option to withdraw at any point with no negative outcome placed on them as outlined in the cover letter (*see Addendum J*).

All necessary steps to prevent participating schools from harm were be taken. Furthermore, the results of the research will be made available to the schools and Western Cape and Gauteng Education Departments. Lastly, the study would be conducted in line with the university's code of ethics.

3.8 Research Design Summary

Table 2 below summaries the research design chosen for this study:

Construct	**Instrument Section:** **Anti-cyberbullying policy**
Research Philosophy	**Ontology:** Objectivism **Epistemology:** Positivism
Research Method	Quantitative Research
Research Purpose	Exploratory
Research Approach	Deductive
Research Strategy	Survey Approach
Research Timeframe	Cross-Sectional
Sampling Technique	Purposive Sampling
Data Collection Instrument	Structured Questionnaire
Data Analysis	Quantitative Methods

Table 6: Research Design Summary

The following chapter presents the data collected and provides an analysis into the findings. Finally, a discussion into the findings will be provided.

Chapter 4: Data Collection, Analysis and Discussion

4.1 Introduction

This study uses quantitative analysis to the explore the research question using Statistica, a statistical tool, to analyse the data. The findings are presented, interpreted, discussed and conclusions drawn.

4.2 Data Cleaning and Preparation

Data collected through surveys and questionnaires as well as experimental data is prone to discrepancies and noise, this hinders data analysis as a lack of quality data distorts the results. The pre-processing of data is crucial in limiting and correcting data errors. The data collected was screened in Microsoft Excel to identify outliers and anomalies such as missing, partially completed, and invalid responses.

4.2.1 Teacher/Principal View on Cyberbullying

Based on the screening, 31 responses were 85.42% complete, and a further two responses had 8.33% missing records (92.67% completed). Missing data is an issue because it affects the validity of the findings (Tran, Havard, & Jorm, 2017). Despite the missing data, Hair et al. (2014), suggest that a completion rate of 75% (i.e. 25% missing records) is acceptable as it would not misconstrue and distort the result. The data further contained no anomalies nor outliers. Consequently, all 101 responses collected will be included in the analysis. Cases of responses requiring standardisation were identified in the data screening, these were standardised as follows:

Variable	Responses Standardised	Procedures carried out
What year did your school adopt these guidelines?	57 out of 101	The researcher standardised the response where respondents indicated: - Blanks (N: 1) and '-' (N: 33) responses were regarded as missing values and left as such - Not Sure/Unsure/I don't know (N:12) to Unknown/Unsure - None/Nill/Not Adopted/Not in place/No guidelines/Non existing (N: 19) to None – No anti-cyberbullying or cyberbullying guidelines in place
What type of cyberbullying instruction have the STUDENTS received to date or will receive?	33 out of 101	The researcher standardised the response where respondents indicated: - '-' (N: 15) responses were regarded as missing values and left as such - None/Nill/Not yet (N: 18) to None
What type of cyberbullying instruction have the STAFF received to date?	48 out 101	The researcher standardised the response where respondents indicated: - '-' (N: 17) responses were regarded as missing values and left as such - None/Nill/Not yet (N: 26) to None - Not Sure/Unsure/I don't know (N:5) to Unknown/Unsure
What role do you perceive the principal serves in	25 out of 101	The researcher standardised the response where respondents indicated: - '-' (N: 18) responses were regarded as missing values and left as such

PREVENTING cyberbullying?		- Not Sure/Unsure/I don't know (N:7) to Unknown/Unsure -
What role do you perceive the principal serves in RESPONDING to cyberbullying?	40 out of 101	The researcher standardised the response where respondents indicated: - '-' (N: 25) responses were regarded as missing values and left as such - Not Sure/Unsure/I don't know (N:7) to Unknown/Unsure - None/Nill/Not yet (N: 8) to None -
Which form of cyber bullying policy does your school have (Other please specify)	43 out of 101	The researcher standardised the response where respondents indicated: - Blanks (N: 4) and '-' (N: 8) responses were regarded as missing values and left as such - Not Sure/Unsure/I don't know (N:12) to Unknown/Unsure - None/Nill/Not Adopted/Not in place/No guidelines/Non existing (N: 19) to None – No anti-cyberbullying or cyberbullying guidelines in place
The anti-cyberbullying policy is communicated via and made available on (Other please specify)	27 out of the 101	The researcher standardised the response where respondents indicated: - All the above/Multiple ways (N: 6) to Multiple Methods. - Blanks (N: 4) and '-' (N: 6) responses were regarded as missing values and left as such - School Code of Conduct/Code of Conduct (N: 3) to Code of Conduct - None/Nill/Not Communicated (N: 8) to None
How often is the anti-cyberbullying policy communicated (Other please specify)	13 out of the 101	The researcher standardised the response where respondents indicated: - Not Sure/Unsure/I don't know (N:3) to Unknown/Unsure. - Blanks (N: 2) and '-' (N: 8) responses were regarded as missing values and left as such - Never/Nill/None/NA/Not ever/ It was never communicated (N: 9) to Never

Table 7: Data preparation and cleaning

Based on the data cleansing, preparation and pre-processing performed above, the researcher was comfortable that the data was of quality to eliminate any questioning of the research findings.

The questionnaire captured the demographic data of the respondents as part of the several items measured. The below section provides a summary of the respondent demographics.

4.3 Descriptive Demographics and Frequency Tables

Of the total 101 surveys completed, majority of the respondents were female with only 32% (N=32) of the respondents being male. Further, over 71% (N=72) respondents indicated that they were working in their current school for over 4 years, therefore indicating good understanding of the school and exposure to the governance in place. Majority of the schools surveyed are in the suburb with only 19.802% (N=20) located in townships and 6.931%(N=7) indicating rural schools.

Demographic Description of Sample (N=101)			
		N	**%**
Gender	Female	69	68.317
	Male	32	31.683

Years working in school	1-3 years	29	28.713
	4-6 years	17	16.832
	7-9 years	13	12.871
	10 years or more	42	41.584
School Location	Rural	7	6.931
	Suburb	74	73.267
	Township	20	19.802
School Sector	Public	87	86.139
	Independent	14	13.861
Number of students	Between 100 and 500	20	19.802
	Above 500	81	80.198

Table 8: Survey Demographics Summary

4.3.1 Anti-cyberbullying policy/guidelines adoption

Respondents were requested to indicate when, if applicable their schools adopted policies geared at addressing cyberbullying. 33.663% of the respondents did not complete the question, as such, the following discussion relates to the completed responses (66.337%). A third of the respondents indicated that they were either unsure (20.792%, N= 21) of any policy that provided coverage for cyberbullying or none (11.881%, N= 12) of the policies in their school covered cyberbullying in its mandate. Interestingly, one respondent noted that at their school, guidance and governance around the prohibition of cyberbullying was introduced in 2014 'when e-learning was implemented'. However, the respondent highlighted that they were not certain whether their guidance/policy has been updated. This despite the uptick in e-learning usage across the country especially due to the COVID-19 and remote learning. A further, 26.732% (N= 27) of the respondents indicated that their school adopted or made inclusion of anti-cyberbullying statements in their policies framework in the last 5 years (between 2018 and 2022).

Category	Frequency table: What year did your school adopt these guidelines?			
	Count	Cumulative	Percent	Cumulative
2020	9	9	8.911	8.911
2021	8	17	7.921	16.832
2022	3	20	2.97	19.802
No anti-cyberbullying or cyberbullying guidelines in place	21	41	20.792	40.594
Unknown/Unsure	12	53	11.881	52.475
2015	1	54	0.99	53.465
2018	4	58	3.96	57.426
Probably when e-learning was implemented in 2014 but not sure if it has been updated	1	59	0.99	58.416
2016	1	60	0.99	59.406
2017	2	62	1.98	61.386
2014	1	63	0.99	62.376
Since its inception	1	64	0.99	63.366
2019	3	67	2.97	66.337
Missing	34	101	33.663	100

Table 9: Inclusion of Cyberbullying Policies in Sampled Schools

4.3.2 Anti-cyberbullying policy used

A few questions required respondents to indicate which form of policy is adopted in their school to address cyberbullying. The results in Table 10 indicated that majority (57.426%, N= 58) of the schools utilise the school's code of conduct to address cyberbullying, while 14.851% (N= 15) utilise a combination of policies. A mere 2.970% (N= 3) of the respondents indicated that their schools had specific anti-cyberbullying policies in place.

	Frequency table: C34Policy (Spreadsheet2_(Recovered))			
Category	Count	Cumulative	Percent	Cumulative
Combination of policies	15	15	14.85149	14.8515
Specific anti-cyberbullying policy	3	18	2.97030	17.8218
Code of Conduct	58	76	57.42574	75.2475
Anti-bullying policy	9	85	8.91089	84.1584
Other (please specify below)	16	101	15.84158	100.0000

Table 10: Type of Policy Adopted

4.3.3 Frequency of Policy Review

Figure 2 below depicts that majority (N= 52) of the respondents were not sure how often their school policy addressing cyberbullying was reviewed, while 27.722% (N= 28) indicated that their policies have never been reviewed. Only 19 respondents confirmed that their policy was reviewed once in the prior year.

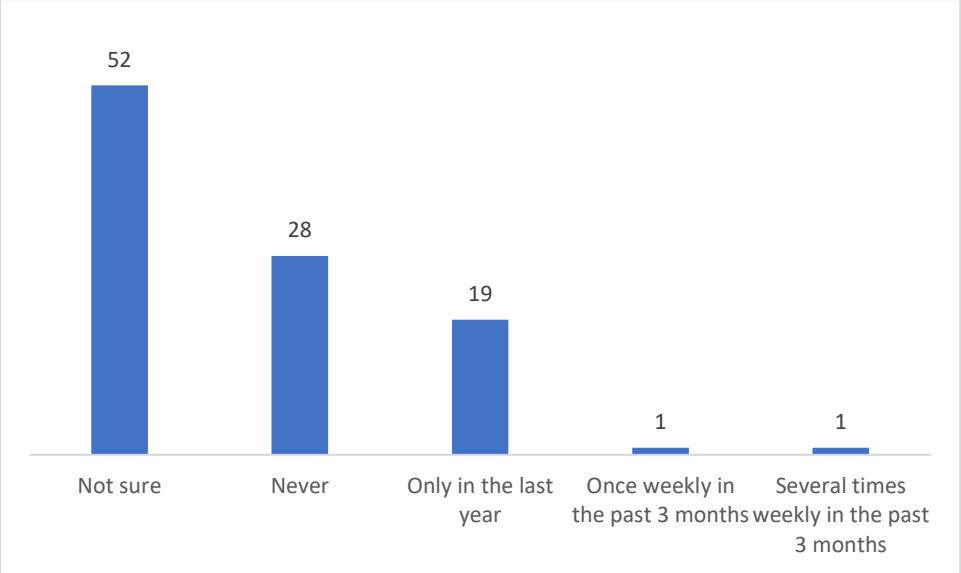

Figure 2: Policy Review Frequency

4.4 Reliability and Validity Analysis

After performing descriptive data analysis, it is important to measure the reliability and validity of the instrument and measures observed to ensure stability and consistency (Hair, Risher, Sarstedt, & Ringle, 2019). Therefore, an instrument needs to be reliable and valid for data collection. To determine the reliability of the research instruments used, the researcher assessed the construct validity by determining the internal consistency of the items measured for each construct.

4.4.1 Reliability Assessment using Cronbach Alpha

The researcher selected testing the instruments internal consistency by using Cronbach's Alpha to determine the reliability of the surveys. This technique is widely used among Information Systems researchers as opposed to techniques such as split halves (Boudreau et al., 2001; Straub & Gefen, 2004). Cronbach's Alpha is suitable for this study as it allowed the researcher ability to determine whether the respondents understood the questions asked by evaluating how closely or loosely related the items are. Generally, an Alpha closer to 1 is preferred, however, an alpha of 0.70 is acceptable (Nunnally & Bernstein, 1994). Table 11 below provides a summary of the Cronbach Alpha computed using Statistica. Based on the results, all the constructs measured using Instrument B had a Cronbach Alpha above 0.70 depicting good reliability. Table 11 further shows the Cronbach Alpha computed for Instrument A where of the 3 constructs measured using the survey only one had an alpha less than 0.7. While studies have shown that for exploratory studies a Cronbach Alpha of up to 0.60 can be accepted (Hair, Risher, Sarstedt, & Ringle, 2019), the alpha for Compliance and Review was 0.46 which is well below the threshold of 0.70.

The researcher decided to continue with the construct because exploratory studies with fewer than 100 sample sizes have been able to continue with the analysis of the data with scores lower than the acceptable level for non-normal data (Kuo, Ho and Hu, 2002; Sheng and Sheng, 2012). Hinton et al. (2014), while an alpha score of between 0.5 and 7 is below the recommended benchmark for complete reliability, alphas in this range show moderate reliability as such can be used. Lastly, the study performed by Smith et al (2008) where the survey was adapted also continued with an alpha of 0.17 however, a test of all the items in the survey was conducted and found to have an alpha (0.76) denoting good reliability of the instrument overall. The total anti-cyberbullying policy content score for the current study was 0.90 (*see Addendum I*). Therefore, based on the above the instruments used were deemed to be reliable either individually or in aggregate.

Construct	**Items Measured**	**Instrument B - Section**	**Cronbach's Alpha**	**Instrument A - Section**	**Items Measured**	**Cronbach's Alpha**
Policy Content	15	C	0.94	A,B ,E	21	0.87
Policy Development	6	D	0.90			
Legislation and guidelines				C	13	0.82
Communication	3	E	0.94			
Compliance and Review	15	C	0.94	D	6	0.46
The effectiveness of anti-cyberbullying policy	7	A,C,D,E	0.96			

Extent of Cyberbullying	7	B	0.88

Table 11: Construct Validity

While the internal consistency is appropriate to determine the reliability of the instrument, it is not sufficient to determine the validity of the constructs. Therefore, the researcher used factor analysis to determine validity.

4.4.2 Validity Assessment using Factor Analysis

Factor analysis was used to determine construct validity which simply put, determines how and which variables measure a concept (construct) it is intended to. A factor loading between 0.5 and 0.7 is deemed sufficiently high (Henseler, Hubona, & Ray, 2016) as a result, the researcher used a loading of 0.6. Using the statistical software (Statistica), the factor loading was executed. Table 12 below, depicts the factor loadings for the constructs due to the convergency of the variables under the factors indicating confidence of the construct validity. Using the Eigenvalue, the researcher noted that 68% of the variance in the data is explained by the 4 factors loaded.

Variable	**Factor Loadings (Varimax normalized) (Cyberbullying Policy (Responses) Variables Update) Extraction: Principal components (Marked loadings are >.600000)**			
	Policy Development and Communication (Factor 1)	**Cyberbullying Extent (Factor 2)**	**Policy Content (Factor 3)**	**School District Policy Awareness (Factor 4)**
I know what cyberbullying is and in what forms it can occur (B6)				
I know how many students at my school have been victims of cyberbullying, either (B7)		0.813		
I know how many students have cyberbullied others, either while on campus or during school hours, that resulted in a reported school incident (B8)		0.810		
I am aware that students at my school have been victims of cyberbullying while off campus (B9)		0.844		
I am aware that students at my school have cyberbullied others while off campus (B10)		0.785		
I believe cyberbullying is a significant problem at my school (B11)		0.796		
Cyberbullying incidents have increased in the past two years (B12)		0.752		
My school has a clear cyberbullying policy (C13)	0.672			
My school has a clear set of cyberbullying guidelines specific to our campus to further address cyberbullying concerns (C14)	0.640			
My school district has a clear policy regarding cell phones and other portable electronic devices (C16)				0.740
My students know the school district policy regarding the use of technology (C17)				0.742
My staff members know the school district policy regarding the use of technology (C18)				0.750
It is clear to students that the inappropriate use of technology will not be tolerated by the school administration (C19)				
My staff and I take suspected incidents of cyberbullying seriously at our school (C20)			0.755	
My staff and I take actual incidents of cyberbullying seriously at our school (C21)			0.758	

My staff and I have developed a formal procedure specific to our campus for investigating incidents of cyberbullying (C22)	0.636			
My students are aware of a continuum of disciplinary consequences for cyberbullying incidents (C23)			0.628	
When students are cyberbullied they know who to tell in order to get help (C24)			0.627	
My school has an anonymous reporting system to allow students to report incidents of cyberbullying without fear of reprisal (C25)	0.669			
I know when I (or designated staff members in charge of discipline) can intervene in cyberbullying incidents that originate off-campus (C26)	0.658			
I am familiar with how the school district's civil liability for failure to prevent cyberbullying incidents or improper response to cyberbullying incidents (C28)	0.649			
Parents are involved in the development of anti-cyberbullying policies (D34)	0.857			
Students are involved in the development of anti-cyberbullying policies (D35)	0.869			
Cybersecurity experts are involved in the development of anti-cyberbullying policies (D36)	0.806			
DBE is involved in the development of anti-cyberbullying policies (D37)				
Teachers are involved in the development of anti-cyberbullying policies (D38)	0.648			
I am aware of the guidelines provided by the DBE to develop anti-cyberbullying policies (D39)	0.695			
The anti-cyberbullying policy is communicated to students (E40)	0.700			
The anti-cyberbullying policy is communicated to parents (E41)	0.759			
When the anti-cyberbullying policy is updated, the changes are communicated to the school community (E43)	0.830			
Expl.Var	9.230	4.206	4.428	3.291
Prp.Totl	0.298	0.136	0.143	0.106

Table 12 – Factor Loading for Instrument B

All constructs that loaded under Factor 2 were measuring the extent of cyberbullying in the schools, as such the Factor 2 was renamed to Cyberbullying Extent. The highest factor loading was *"I am aware that students at my school have been victims of cyberbullying while off campus"* with a factor loading of 0.844. Items measuring the policy content coverage evenly loaded under Factor 1, 3 and 4. Factor 3 was renamed to Policy Content while Factor 1 was renamed to Policy Development and Communication as all the items measuring these constructs loaded under Factor 1. The highest factor loading was *"Students are involved in the development of anti-cyberbullying policies"* with a loading of 0.869. Factor 4 was renamed to 'School District Policy Awareness' because the 3 items that loaded on this factor relate to this. The highest loading for this factor was item "*My staff members know the school district policy regarding the use of technology"* with a loading of 0.750.

Based on the above reliability and validity assessments performed, the researcher was therefore able to proceed with the hypothesis testing.

4.5 Hypothesis testing

H1 – Policy content influences the effectiveness of anti-cyberbullying policies

To determine the association of policy content and effectiveness of anti-cyberbullying policies, a correlation test was performed on the variables. The results shown in Table 13 below, indicate that policy content has positive and significant influence on the effectiveness of anti-cyberbullying policies.

The highest correlation in P <0.005 (r=0.822) is between "*My school has a clear cyberbullying policy"* and "*My school has a clear set of cyberbullying guidelines specific to our campus to further address cyberbullying concerns"*. This shows that for schools to have a clear cyberbullying policy it is dependent on the inclusion of guidelines that prohibit certain actions that could lead to cyberbullying. This is consistent with the finding of Chalmers et al (2016) where participants identified having clear and consistent guidelines leads to having an effective cyberbullying policy. Further, various studies have demonstrated the significance of anti-cyberbullying regulations being comprehensive, transparent, and helpful in effectively reducing cyberbullying (Siyam et al., 2021, Giliespie et al., 2018, Mucherah, 2017 and, Smit, 2015). However, Campbell (2017) argues that it is rather 'simplistic' to think that policies, even those with the requisite components/coverage as defined by experts have an impact on the effectiveness of the policies. While that may be true, studies including the current have shown some correlations between the policy content and the effectiveness of policies. Therefore, hypothesis 1 (H1) of this study is accordingly accepted and the Null hypothesis (H0) rejected.

Spearman Rank Order Correlations (Spreadsheet2_(Recovered))
MD pairwise deleted
Marked correlations are significant at p <.05000

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
B6Extent																						
B7Extent	0.278																					
B8Extent	0.210	0.781																				
B9Extent	0.352	0.565	0.589																			
B10Extent	0.379	0.474	0.506	0.792																		
B11Extent	0.237	0.510	0.523	0.538	0.549																	
B12Extent	0.330	0.435	0.427	0.520	0.509	0.601																
C13Policy	0.163	0.187	0.228	0.252	0.204	-0.055	0.099															
C14Policy	0.187	0.112	0.167	0.237	0.241	-0.042	0.076	0.822														
C16Policy	0.198	-0.008	0.072	0.148	0.139	-0.167	0.017	0.485	0.495													
C17Policy	0.100	-0.032	0.055	0.087	0.033	-0.173	-0.013	0.485	0.511	0.783												
C18Policy	0.106	-0.074	0.019	0.103	0.023	-0.150	-0.023	0.451	0.514	0.696	0.826											
C19Policy	0.328	0.112	0.120	0.258	0.229	-0.021	0.092	0.491	0.517	0.599	0.620	0.630										
C20Policy	0.278	-0.027	-0.007	0.214	0.235	-0.042	0.073	0.347	0.382	0.518	0.499	0.507	0.638									
C21Policy	0.383	0.066	0.076	0.252	0.258	-0.022	0.054	0.417	0.456	0.485	0.445	0.461	0.670	0.838								
C22Policy	0.235	0.067	0.032	0.183	0.233	-0.030	0.006	0.645	0.688	0.435	0.435	0.416	0.510	0.519	0.588							
C23Policy	0.209	0.098	0.113	0.290	0.278	-0.029	-0.009	0.597	0.610	0.579	0.580	0.501	0.610	0.647	0.678	0.737						
C24Policy	0.253	0.107	0.176	0.301	0.336	0.039	0.070	0.548	0.619	0.474	0.471	0.422	0.579	0.485	0.641	0.660	0.761					
C25Policy	0.179	0.020	0.050	0.134	0.224	0.053	0.053	0.529	0.609	0.455	0.513	0.433	0.417	0.420	0.443	0.650	0.668	0.697				
C26Policy	0.164	0.097	0.223	0.274	0.324	0.083	0.054	0.561	0.590	0.458	0.479	0.437	0.426	0.462	0.477	0.660	0.720	0.721	0.732			
C27Policy	0.102	-0.024	-0.027	0.071	0.083	0.032	-0.019	0.368	0.349	0.296	0.370	0.342	0.350	0.285	0.334	0.476	0.545	0.444	0.535	0.573		
C28Policy	0.081	0.019	0.048	0.041	0.048	-0.066	-0.049	0.466	0.539	0.426	0.481	0.427	0.325	0.310	0.294	0.471	0.548	0.452	0.657	0.573	0.611	

Table 13: Correlation test – Policy content influence on policy extent

H2 – How anti-cyberbullying policies are developed influences the effectiveness of the policies

When determining the correlation between policy development and the effectiveness of anti-cyberbullying policies, the results of the analysis indicate that policy development has no significant influence on the effectiveness of school anti-cyberbullying policies. Therefore, the Null hypothesis is accepted. Table 14 below depict that the 'Policy Content' constructs have an insignificant correlation to 'Policy Development' constructs. This contradicts the studies that show that a multiparty policy development (involving students, parent, cybersecurity experts and teachers) aids in ensuring that policy developed is comprehensive and provide sufficient coverage to address cyberbullying in schools.

According to with Marzano (2021) this can be attributed to lack of the well-trained participants involved. Consequently, leading to ill-designed policies or programs which do not the objectives intended. Parents that are less tech-savvy tend to be more restricted (Livingstone et al., 2017). A restrictive approach increases the likelihood that children would strive to avoid drawing attention to their Internet use, and it is also less favourable to child-initiated assistance. Kritzinger (2016) further supports this by highlighting the inability of teachers to develop comprehensive anti-cyberbullying policies due to lack of capabilities and support from DBE. This shows the importance of having appropriate training and support for those involved in the policy development for these to be effective.

Although the primary hypothesis is rejected, further studies should explore whether training of participants in areas of policy development, technology used by students and cyberbullying prior to being involved in policy development could have a significant correlation to the effectiveness of cyberbullying.

Spearman Rank Order Correlations (Spreadsheet2_(Recovered))
MD pairwise deleted
Marked correlations are significant at p <.05000

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
B6Extent													
B7Extent	0.278												
B8Extent	0.210	0.781											
B9Extent	0.352	0.565	0.589										
B10Extent	0.379	0.474	0.506	0.792									
B11Extent	0.237	0.510	0.523	0.538	0.549								
B12Extent	0.330	0.435	0.427	0.520	0.509	0.601							
D34PolicyDev	-0.020	0.028	0.026	-0.007	-0.041	-0.120	-0.077						
D35PolicyDev	-0.029	0.134	0.118	0.056	0.053	-0.105	-0.071	0.880					
D36PolicyDev	-0.014	0.105	0.118	0.125	0.096	-0.092	-0.053	0.730	0.732				
D37PolicyDev	-0.014	-0.065	0.060	-0.051	-0.035	-0.148	-0.041	0.545	0.554	0.550			
D38PolicyDev	0.153	0.040	0.046	0.112	0.165	-0.009	0.070	0.580	0.583	0.530	0.559		
D39PolicyDev	0.177	0.240	0.239	0.174	0.163	0.016	-0.027	0.508	0.608	0.464	0.499	0.570	

Table 14: Correlation test – Policy Development influence on Policy Extent

H3 – The more effective the school communicates its anti-cyberbullying policy the more compliant will the policy be with South African laws, standards and guidelines which can be used to regulate cyber bullying

For H3, the researcher predicted that effectively communicating the school policy will result in compliance with relevant laws, standards and guidelines. Using Spearman's correlation revealed a strong and positive relationship between the variable used to measure this. The results reflected in Table 15 show this strong and positive correlation between Policy communication and policy content. Therefore, H3 is supported and the null hypothesis rejected. Before policies can be enforced on students, they ought to be communicated to students who need to acknowledge having read, understood and agree to adhere to the requirements (Siyam & Hussain, 2021). Since majority of high school students are minors, their parents also have to sign these policies. Multiple studies have found that policy knowledge, as needed by legislation, regulations, and standards, to inhibit unwanted behaviour and enhance stakeholder buy-in (Beane, 2009; Batterbee, 2014 & Smit, 2015).

Spearman Rank Order Correlations (Spreadsheet2_(Recovered))
MD pairwise deleted
Marked correlations are significant at p <.05000

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	1
C13Policy																		
C14Policy	0.822																	
C16Policy	0.485	0.495																
C17Policy	0.485	0.511	0.783															
C18Policy	0.451	0.514	0.696	0.826														
C19Policy	0.491	0.517	0.599	0.620	0.630													
C20Policy	0.347	0.382	0.518	0.499	0.507	0.638												
C21Policy	0.417	0.456	0.485	0.445	0.461	0.670	0.838											
C22Policy	0.645	0.688	0.435	0.435	0.416	0.510	0.519	0.588										
C23Policy	0.597	0.610	0.579	0.580	0.501	0.610	0.647	0.678	0.737									
C24Policy	0.548	0.619	0.474	0.471	0.422	0.579	0.485	0.641	0.660	0.761								
C25Policy	0.529	0.609	0.455	0.513	0.433	0.417	0.420	0.443	0.650	0.668	0.697							
C26Policy	0.561	0.590	0.458	0.479	0.437	0.426	0.462	0.477	0.660	0.720	0.721	0.732						
C27Policy	0.368	0.349	0.296	0.370	0.342	0.350	0.285	0.334	0.476	0.545	0.444	0.535	0.573					
C28Policy	0.466	0.539	0.426	0.481	0.427	0.325	0.310	0.294	0.471	0.548	0.452	0.657	0.573	0.611				
E40PolicyCommunication	0.747	0.697	0.502	0.489	0.450	0.505	0.477	0.556	0.701	0.660	0.688	0.534	0.635	0.319	0.448			
E41PolicyCommunication	0.706	0.661	0.457	0.514	0.454	0.450	0.409	0.520	0.660	0.666	0.706	0.649	0.656	0.401	0.468	0.885		
E43PolicyCommunication	0.755	0.719	0.532	0.552	0.477	0.484	0.336	0.416	0.668	0.609	0.630	0.658	0.642	0.380	0.521	0.824	0.813	

Table 15: Correlation test – Policy communication and compliance with relevant regulatory requirements, standards and guidelines etc

4.5.1 Policy Content Analysis and Discussion

The policy content was analysed and the policies reviewed scored as low as 1 and as high as 34 (out of 40). Table 16 below shows the scores for each criterion where schools were allocated points for the presence of the criteria in the policy. The research adopted the scaling of high (two-thirds ~ n = >= 21 schools), medium (between a third and two-thirds ~n >= 10 < 21) and low (less than a third n < 10) as

presented in the studies carried out in Europe (Smith et al., 2008; Smith et al., 2012; Purdy & Smith, 2016).

Section A discusses the definition of bullying behaviour of the policies reviewed (N=31), a moderate (N=13 or 42%) number of school policies reviewed included a clear definition of cyberbullying. Schools further scored moderate to low scores for the inclusion of the different forms in which cyberbullying including verbal bullying (42%), relational cyberbullying (29%), material cyberbullying (16%), homophobic cyberbullying (32%), racial cyberbullying (29%), sexual cyberbullying (26%), disabilities (26%) and faith-based cyberbullying (16%). The definition of cyberbullying in policies was also measured against who can be cyberbullied i.e bully-victim which could relate to only students or student-teacher and vice versa. For this, schools had low scores for making a clear distinction that cyberbullying is not restricted to student-student bullying with only four (13%) of the schools having this included in their definition. Cyberbullying definitions were also rated for the inclusion of the forms in which cyberbullying can take place i.e. use of technology such as email, text, social media. The data analysed indicated that moderate (42%) number of schools specified forms in which cyberbullying can take place. Lastly only 32% of the schools acknowledged that cyberbullying can includes various forms of aggressive behaviour.

For **Section B**, which measured whether schools' policies stipulate clear rules on the acceptable usage of technology. Schools had moderate scores for mentioning acceptable use of technology or referring to supplementing policy for this coverage scoring an aggregate of 58%. The researcher further reviewed whether policies include a clear statement that cyberbullying is not allowed with aggregate score of 45%. Noticeably, majority (86%) of the schools did not include a clause that 'technology usage on school campuses is prohibited'.

Of the 13 variables measured in **Section C** - the school policies on reporting and responding to cyberbullying incidents, nine variables were rated a low with scores ranging from 3% to 29% where the school policies clearly mention the responsibilities of other school staff (26%), parents (29%), students bystanders (26%); mention follow-up actions to determine whether sanctions applied were effective (3%), discusses actions to be taken if cyberbullying persists (23%); suggests how to support the victim (3%). Policies were further rated low for variables such as suggesting how to help the cyberbullies to change their behaviour (6%); discusses if, when and how parents will be informed (26%) and who is responsible for coordinating the reporting system (19%). Moderate scores were observed where the school policies reviewed included mention of what victims of cyberbullying should do (55%); how teaching staff should respond to reports of cyberbullying (35%); mention that sanctions applied will depend on severity of the incident (45%) and stipulate that cyberbullying reports will be recorded (39%).

For **Section D**, only one high score was observed where 98% of the policies used to regulate cyberbullying reviewed published and implemented. Moderate scores for responses covering how incident records or survey data will be used to determine whether the policy is working or not (10%); periodic review and updating of policies including specifying frequency of review (10%); evidence that policy in use have be reviewed in the prior year (29%). The review of policy also included inspecting the policy for appropriate approval by either the principal or authorised authority such as governing body. Of the school policies reviewed only 26% of these had evidence of being signed by principals or appropriate school body. Lastly, only 10% of the schools recorded what changes were made and date of the changes after each review.

Section E measured strategies for preventing cyberbullying, for this section only one high response level/score (71%) was noted for encouraging cooperative behaviour, rewarding good behaviour, improving school climate, or creating a safe environment. Low response levels were noted for discussing general issues of peer support (3%); discussing advice for parents about cyberbullying (10%); mentioning the preventative role of playground activities or lunchtime supervision (6%); discussing issues of inclusiveness (6%) and mentioning the issue of cyberbullying on the way to school or happening outside school (26%).

Cyberbullying Policy Audit Survey	Proportion of Schools (N=31)	
	No	Yes
A. Definition of cyberbullying behaviour (12 items)		
1. Has a definition of cyberbullying?	18 (58%)	13 (42%)
2. Does the definition make it clear that cyberbullying is different from other kinds of aggressive behaviour?	21 (68%)	10 (32%)
3. Mention direct verbal bullying (threats, insults, nasty teasing)?	18 (58%)	13 (42%)
4. Mention relational cyberbullying (rumours, social exclusion)?	22 (71%)	9 (29%)
5. Mention material cyberbullying (damage to belongings, extortion of money)?	26 (84%)	5 (16%)
6. Mention cyberbullying (email, text messages)?	18 (58%)	13 (42%)
7. Mention homophobic cyberbullying?	21 (68%)	10 (32%)
8. Mention racial cyberbullying (or harassment)?	22 (71%)	9 (29%)
9. Mention sexual cyberbullying (or harassment)?	23 (74%)	8 (26%)
10. As well as student–student cyberbullying, discuss the issue of adult/teacher–student cyberbullying or vice versa?	27 (87%)	4 (13%)
11. Mention cyberbullying due to disabilities?	23 (74%)	8 (26%)
12. Mention cyber bullying because of faith or religious beliefs?	26 (84%)	5 (16%)

B. Stipulating clear rules regarding the use of technology (3 items)		
1. Does the policy mention acceptable use of technology or refer to supplementing policy for this coverage?	13 (42%)	18 (58%)
2. Is the policy silent regarding prohibitation of technology usage on campus	5 (16%)	26 (84%)
3. Does the policy include a clear statemen that cyberbullying is not allowed?	17 (55%)	14 (45%)
C. Reporting and responding to cyberbullying incidents (13 items)		
1. State what victims of cyberbullying should do (e.g. tell a teacher; should clearly apply to victims/pupils who experience cyberbullying)?	14 (45%)	17 (55%)
2. Say how teaching staff should respond to a report of cyberbullying (should specifically mention cyberbullying, and be more specific than just "deal promptly")?	20 (65%)	11 (35%)
3. Clearly mention the responsibilities of other school staff (teaching assistants, lunchtime supervisors, etc.) if they know of cyberbullying? (this should be more specific than simply referring to "all staff")	23 (74%)	8 (26%)
4. Clearly mention the responsibilities of parents if they know of cyberbullying (this can include knowing if their child has a behaviour problem if cyberbullying is included elsewhere)?	22 (71%)	9 (29%)
5. Clearly mention the responsibilities of student bystanders if they know of cyberbullying?	23 (74%)	8 (26%)
6. State, whether sanctions applied for cyberbullying, will depend on type or severity of incident? (It should be clear that the sanctions apply to bullying behaviour.)	17 (55%)	14 (45%)
7. Mention follow-up to see whether the sanctions were effective?	30 (97%)	1 (3%)
8. Discuss what action will be taken if the cyberbullying persists?	24 (77%)	7 (23%)
9. Suggest how to support the victim? (More than just 'we will support victims'.)	30 (97%)	1 (3%)
10. Suggest how to help the student(s) doing the cyberbullying to change their behaviour (apart from sanctions)? (More than just 'we will support …')	29 (94%)	2 (6%)
11. Discuss if, when or how parents will be informed? ('Parents will be informed' is sufficient if it clearly refers to cyberbullying.)	23 (74%)	8 (26%)
12. Say reports of cyberbullying will be recorded?	19 (61%)	12 (39%)
13. Say who is responsible for coordinating the recording system?	25 (81%)	6 (19%)
D. Process for Review evaluating the policy (6 items)		

1. Show how records or survey data will be used to know whether the policy is working or not?	28 (90%)	3 (10%)
2. Mention periodic review and updating of the policy, including specifying frequency of review?	28 (90%)	3 (10%)
3. Does the policy have evidence of reviewed in the last year	22 (71%)	9 (29%)
4. Is the policy published and implemented (i.e. not in draft)?	3 (10%)	28 (90%)
5. Has the policy been signed by the appropriate personnel (i.e. principal or authorised authority)?	23 (74%)	8 (26%)
6. Are changes documented and dated after each review?	28 (90%)	3 (10%)
E. Strategies for preventing cyberbullying (6 items)		
1. Mention any of encouraging co-operative behaviour, rewarding good behaviour, improving school climate, or creating a safe environment?	9 (29%)	22 (71%)
2. Discuss general issues of peer support (beyond B5)?	30 (97%)	1 (3%)
3. Discuss advice for parents about cyberbullying (beyond B4)?	28 (90%)	3 (10%)
4. Mention the preventative role of playground activities or lunchtime supervisors?	29 (94%)	2 (6%)
5. Discuss issues of inclusiveness (e.g., non-English speakers; pupils with learning difficulties)?	29 (94%)	2 (6%)
6. Mention the issue of cyberbullying on the way to school or happening outside school	23 (74%)	8 (26%)

Table 16: Policy Content Analysis

H4 – Regular review of anti-cyberbullying policies ensures policies are robust and impacts the effectiveness of policies

Based on the analysis of Section D (Process for Review evaluating the policy) which indicated low levels of school policies are reviewed for continued appropriateness and Sections A (Definition of cyberbullying behaviour), Section B (Stipulating clear rules regarding the use of technology), Section C (Reporting and responding to cyberbullying incident) and Section E (Strategies for preventing cyberbullying) which also indicated that low to moderate level of school policies include the required specification. The weakness in the coverage of the policy content (Sections A-C and E), is contrasted against the lack of review, specification of the frequency in which policies would be reviewed to determine the effectiveness of the policy adopted. Many of the schools (90%) had not reviewed the policies in the previous year. Therefore, based on the proportion of school policies with low-moderate ratings and low reviews levels, the researcher concluded that a regular review of policies would increase the scores of the policies as to moderate-high on the continuum. As such, the hypothesis (H4) is

accepted and the alternative hypothesis rejected. Redmond et al. (2019) identify anti-cyberbullying policy development and review as a key element in the school management of the online aggression faced by students. While Campbell (2017) posits that 'a policy needs to be a living document'.

H5 – There is a strong correlation between the effectiveness of an anti-cyber bullying policy and the extent of cyberbullying

Table 17 below presents a correlation analysis of items constituting 'The Extent of Cyberbullying' in schools against 'The Effectiveness of Anti-cyberbullying Policies' adopted by schools. A significance level of $p<0.005$ was used. The results depict a largely positive and significant relationship between the variables measuring the effectiveness of anti-cyberbullying policies and the extent of cyberbullying. Therefore, the researcher concluded that hypothesis 5 holds true and the null hypothesis is rejected.

Spearman Rank Order Correlations (Spreadsheet2_(Recovered))
MD pairwise deleted
Marked correlations are significant at p <.05000

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1 B6Extent																															
2 B7Extent	0.278																														
3 B8Extent	0.210	0.781																													
4 B9Extent	0.352	0.565	0.589																												
5 B10Extent	0.379	0.474	0.506	0.792																											
6 B11Extent	0.237	0.510	0.523	0.538	0.549																										
7 B12Extent	0.330	0.435	0.427	0.520	0.509	0.601																									
8 C13Policy	0.163	0.187	0.228	0.252	0.204	-0.055	0.099																								
9 C14Policy	0.187	0.112	0.167	0.237	0.241	-0.042	0.076	0.822																							
10 C16Policy	0.198	-0.008	0.072	0.148	0.139	-0.167	0.017	0.485	0.495																						
11 C17Policy	0.100	-0.032	0.055	0.087	0.033	-0.173	-0.013	0.485	0.511	0.783																					
12 C18Policy	0.106	-0.074	0.019	0.103	0.023	-0.150	-0.023	0.451	0.514	0.696	0.826																				
13 C19Policy	0.328	0.112	0.120	0.258	0.229	-0.021	0.092	0.491	0.517	0.599	0.620	0.630																			
14 C20Policy	0.278	-0.027	-0.007	0.214	0.235	-0.042	0.073	0.347	0.382	0.518	0.499	0.507	0.638																		
15 C21Policy	0.383	0.066	0.076	0.252	0.258	-0.022	0.054	0.417	0.456	0.485	0.445	0.461	0.670	0.838																	
16 C22Policy	0.235	0.067	0.032	0.183	0.233	-0.030	0.006	0.645	0.688	0.435	0.435	0.416	0.510	0.519	0.588																
17 C23Policy	0.209	0.098	0.113	0.290	0.278	-0.029	-0.009	0.597	0.610	0.579	0.580	0.501	0.610	0.647	0.678	0.737															
18 C24Policy	0.253	0.107	0.176	0.301	0.336	0.039	0.070	0.548	0.619	0.474	0.471	0.422	0.579	0.485	0.641	0.660	0.761														
19 C25Policy	0.179	0.020	0.050	0.134	0.224	0.053	0.053	0.529	0.609	0.455	0.513	0.433	0.417	0.420	0.443	0.650	0.668	0.697													
20 C26Policy	0.164	0.097	0.223	0.274	0.324	0.083	0.054	0.561	0.590	0.458	0.479	0.437	0.426	0.462	0.477	0.660	0.720	0.721	0.732												
21 C27Policy	0.102	-0.024	-0.027	0.071	0.083	0.032	-0.019	0.368	0.349	0.296	0.370	0.342	0.350	0.285	0.334	0.476	0.545	0.444	0.535	0.573											
22 C28Policy	0.081	0.019	0.048	0.041	0.048	-0.066	-0.049	0.466	0.539	0.426	0.481	0.427	0.325	0.310	0.294	0.471	0.548	0.452	0.657	0.573	0.611										
23 D34PolicyDev	-0.020	0.028	0.026	-0.007	-0.041	-0.120	-0.077	0.515	0.472	0.379	0.375	0.346	0.269	0.162	0.261	0.474	0.483	0.422	0.551	0.507	0.430	0.539									
24 D35PolicyDev	-0.029	0.134	0.118	0.056	0.053	-0.105	-0.071	0.540	0.484	0.391	0.409	0.323	0.324	0.184	0.252	0.542	0.503	0.422	0.518	0.545	0.431	0.551	0.880								
25 D36PolicyDev	-0.014	0.105	0.118	0.125	0.096	-0.092	-0.053	0.595	0.561	0.394	0.455	0.395	0.268	0.221	0.253	0.560	0.491	0.438	0.581	0.518	0.334	0.434	0.730	0.732							
26 D37PolicyDev	-0.014	-0.065	0.060	-0.051	-0.035	-0.148	-0.041	0.429	0.390	0.545	0.447	0.382	0.262	0.207	0.226	0.341	0.434	0.341	0.366	0.446	0.258	0.399	0.545	0.554	0.550						
27 D38PolicyDev	0.153	0.040	0.046	0.112	0.165	-0.009	0.070	0.581	0.557	0.470	0.469	0.474	0.542	0.463	0.493	0.593	0.577	0.577	0.542	0.561	0.404	0.391	0.580	0.583	0.530	0.559					
28 D39PolicyDev	0.177	0.240	0.239	0.174	0.163	0.016	-0.027	0.603	0.566	0.405	0.411	0.392	0.296	0.149	0.291	0.476	0.480	0.461	0.378	0.433	0.336	0.454	0.508	0.608	0.464	0.499	0.570				
29 E40PolicyCommunication	0.243	0.090	0.212	0.314	0.354	0.011	0.144	0.747	0.697	0.502	0.489	0.450	0.505	0.477	0.556	0.701	0.660	0.688	0.534	0.635	0.319	0.448	0.557	0.567	0.596	0.448	0.694	0.585			
30 E41PolicyCommunication	0.174	0.002	0.144	0.258	0.298	-0.041	0.062	0.706	0.661	0.457	0.514	0.454	0.450	0.409	0.520	0.660	0.666	0.706	0.649	0.656	0.401	0.468	0.598	0.589	0.676	0.435	0.668	0.567	0.885		
31 E43PolicyCommunication	0.163	0.124	0.165	0.218	0.222	-0.094	0.046	0.755	0.719	0.532	0.552	0.477	0.484	0.336	0.416	0.668	0.609	0.630	0.658	0.642	0.380	0.521	0.723	0.714	0.738	0.513	0.745	0.606	0.824	0.813	1.000

Table 17: Correlation between policy content, development and communication with the policy effectiveness

H6 – The effectiveness of anti-cyberbullying policies results in compliance to legislation, safety standards, frameworks and directives

Table 2 (*Chapter 2*) provided a summary of the applicable laws, standards and frameworks schools need to be cognisant of when formulating their policies. For example, ensuring the sanctions and actions taken are age appropriate and in line with the offence; seeking to ensure rehabilitation instead of punishment. Further, policies are to ensure that cyberbullying reporters are given the opportunity to report anonymously and that incidents reported are recorded. The researcher further summarised the factors to be considered by schools in developing anti-cyberbullying policies. Compliance with applicable laws, regulations, standards, and guidelines will be examined against these factors and the scores the analysed school policies achieved for the related factor/law.

First, based on the Bill of Rights, policies used to regulate cyberbullying are prohibited from infringing on the human rights including freedom of speech. Having a definition of cyberbullying that clearly sets out what is regarded as cyberbullying and the various forms in which the bullying can take place eliminates confusion. Majority of the items measuring definition, school policies were rated low (refer to Section A analysis above). The Bill of Rights further has a provision that requires punishment to be commensurate to the offence with a focus on the rehabilitation of the bully. Item six of Section C is focussed on the sanctions applied for cyberbullying, assessing whether sanctions are based on the severity of the offence. The data collected depicts that only 45% of the school policies outline the sanctions based on offence. Further, policies were further assessed on whether the sanctions applied to the bullies are effective, of the policies analysed only 3% of the school policies had a provision for this. Therefore, this indicates that rehabilitation is not factored into the sanctions applied but rather policies are formulated to ensure that bullies are solely punished for their actions.

Second, the AUC-CS, requires that evidence collected on bullying offences including results obtained from technological devices ought to be recorded and kept safe. While the Protection from Harassment Act 17 of 2011 provides to protection of cyberbullying reporters including having anonymous channels by which incidents can be reported. Only 39% of the policies reviewed included a provision of recording bullying incidents and even less (19%) specified who is responsible to coordinating the recording system. Further, the data shows that only 35% of the policies stipulate how staff should respond to cyberbullying reports. Campbell (2017) states that the reporting of cyberbullying incidents to school management is largely driven by the way teachers respond to these incidents. Only when students are confident in the role of teachers, their knowledge of cyberbullying and their ability to interpret the school policies and procedures consistently and objectively, will students report.

Third, the Films and Publication Act 65 of 1996 and the Bill of Responsibilities for the Youth of South Africa require policies to require bystanders to report bullying activities observed. Of the reviewed policies only 9% of the policies stipulated the responsibility of bystanders to report bullying.

The analysis above depicts that ineffective policies contravene South African laws. Therefore, the low to moderate scores of the policies is an indication that the policies are not effective and further, based on the analysis of the scores against the applicable laws it is evident that the laws have not been applied as such H6 is accepted and the alternate hypothesis is rejected.

4.6 Summary

Despite the heightened awareness and recognition by many of the impacts of cyberbullying, little progress has been made in ensuring that students are well protected, and cyberbullying is effectively addressed. The findings discussed in this chapter highlight the continued challenges faced by schools who while identified as key players in curbing the aggression have not been successful in developing anti-cyberbullying policies that meet even the foundational issues of cyberbullying. These foundational aspects that are largely lacking in the reviewed policies extend beyond the inclusion of different forms in which cyberbullying can take place, but also having a clear definition on what cyberbullying is, the responsibility of different stakeholders (parents, teachers, bystanders etc.). This is further supported by the results of H6 which reveal that school policies are not fully compliant with relevant legislations. For example, policies are silent on measures to be taken when incidents are reported, particularly, recording of reported incidents and requirements around bystanders reporting incidents observed.

Further, disparities have been identified between the school management understanding of the importance of reviewing policies and procedures to ensure relevance and performance of the reviews by schools. Very few schools have reviewed their policies either since inception or on a regular basis. Moreover, none of the policies stipulate when (i.e. the frequency) policies ought to be reviewed.

While the researcher postulated that having anti-cyberbullying policies developed in a consultative manner including various stakeholders leads to effective policies and cyberbullying incidents reducing, the findings of this study do not support this. This can be as a result of ill-developed policies due to having stakeholders ill-equipped unable devise comprehensive policies.

Chapter 5: Conclusions and Recommendations

5.1 Conclusion

This study sought to determine the effectiveness of policies adopted in South African High schools in response to the growing concerns regarding cyberbullying. Through this study the researcher found gaps in the policy content dimension (*see Section 2.2.2.1*) of policies used by schools to address cyberbullying, with schools having moderate scores. A failure in the design adequacy of policies threatens the implementation and operating effectiveness of anti-cyberbullying policies thus resulting in ineffective management of the aggression. This chapter will highlight the contributions of this study (section 5.2), provide recommendation to enhance the design of effective anti-cyberbullying policies (5.3), highlight future areas that can be examined (section 5.4) and lastly detail the limitations of this study (section 5.5).

5.2 Contributions of the study

First, this is the first study of this nature in a developing country and in particular South Africa. Researchers have called for such an examination of school policies and this study is in response to the gap identified. Second, the conceptual framework developed by this study can be used by future studies to examine policy effectiveness for other areas beyond cyberbullying and school policies context. The conceptual framework breaks down the key components of policy, allowing researchers to evaluate these constructs and measure effectiveness through a number of incidents reported and regulatory requirements. The developed conceptual framework can be further leveraged to examine the factors that contribute or influence effective policy development.

Last, this study has highlighted that schools do not have a proper handle on school policies to address cyberbullying. We saw that school policies are not reviewed on a regular basis thus being at risk of being out of date both in content i.e. procedures referring to changed processes and in coverage i.e. not adequate in addressing new forms of bullying including cyberbullying. Another key observation of this study is that while school teachers acknowledge the need and importance of having multi-party policy development, this is not often the case in practice. Therefore, the results of this study highlighted the need for increased guidance, training and support to school management and stakeholders involved in policy development. The DBE can utilise the results of this study to develop templates and guidance to aid schools in their policy development. Equally, this study can be used by school management to enhance their cyberbullying policies ensuring that they cover the requirements as described in this study.

5.3 Recommendations

Based on the work carried out in this study, the researcher presents below a summary of the recommendations to improve the effectiveness of school policies as a measure to curbing the aggression amongst students. These recommendations are made in light of the findings discussed in detail in chapter 4.

The results of this study highlight the challenges schools face in developing effective policies. First, the various policies used by schools to address cyberbullying result in inconsistencies in handling cyberbullying incidents. Another finding of this study is that school policies are not in compliance with applicable laws, regulations, standards, and guidelines. For example, despite regulatory mandates for policies to include reporting and recording of incidents majority of the policies reviewed did not have this provision. It is therefore critical for the DBE to provide schools with templates and further guidelines. This will not only ensure harmonised anti-cyberbullying efforts by the department and schools but will further ensure that the department can easily supervise the management of cyberbullying in schools. These templates ought to include guidance on recording reported incidents especially when incidents are reported anonymously.

5.4 Limitations and Future Research

While section 5.2 above highlights the contribution of this study to methodology, practice and literature. This study also identified limitations and areas of further research that this study did not address.

First, the sample of schools whose policies were reviewed was relatively small. It is important to note that the sample size does not hinder the results of this study as researchers such as Saunder et al (2009) have supported the use of sample size of 30 and above for quantitative analysis. Further while only 31 schools were selected, some schools had more than one policy each. In totality 51 policies were reviewed. This is consistent with similar studies carried out in the global west. Furthermore, a secondary data set was collected which complemented the first sample. While the researcher was comfortable with continuing with a modest policy sample, future studies should consider larger samples to allow for greater generalisability.

Second, the study utilised a questionnaire to collect the data both from the school management and while reviewing the policies and procedures. This approach has been deemed appropriate for initial studies into a particular topic where no other studies of the nature exist. Future studies could leverage qualitative approaches to data collection and analysis. Examples of this could include future research adopting an interpretivism as the epistemology and subjectivism assumptions regarding the world view. A qualitative approach would allow for thematic analysis of policies which could help in identifying themes embedded in the policies to emerge. Furthermore, benefits of using qualitative analysis include getting greater understanding of the phenomena through engagement with the school management

responsible for developing the policies and procedures. In addition, the current study highlighted that parental engagement in policy development did not aid in creating robust policies. Greater understanding could be uncovered with interviews with stakeholders such as parents, teachers and students to understand challenges in being part of the development of these policies.

Lastly, responses were only collected from schools in urban areas, future studies should include rural schools to determine where they are in their policy development.

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Addendums

Addendum A – Research Instrument – Cyberbullying Policy Audit

Cyberbullying Policy Audit Survey		
A. Definition of cyberbullying behaviour (12 items)		
1. Has a definition of cyberbullying?	Yes	No
2. Does the definition make it clear that cyberbullying is different from other kinds of aggressive behaviour?	Yes	No
3. Mention direct verbal bullying (threats, insults, nasty teasing)?	Yes	No
4. Mention relational cyberbullying (rumours, social exclusion)?	Yes	No
5. Mention material cyberbullying (damage to belongings, extortion of money)?	Yes	No
6. Mention cyberbullying (email, text messages)?	Yes	No
7. Mention homophobic cyberbullying?	Yes	No
8. Mention racial cyberbullying (or harassment)?	Yes	No
9. Mention sexual cyberbullying (or harassment)?	Yes	No
10. As well as student–student cyberbullying, discuss the issue of adult/teacher–student cyberbullying or vice versa?	Yes	No
11. Mention cyberbullying due to disabilities?	Yes	No
12. Mention cyber bullying because of faith or religious beliefs?	Yes	No
B. Stipulating clear rules regarding the use of technology (3 items)		
1. Does the policy mention acceptable use of technology or refer to supplementing policy for this coverage?	Yes	No
2. Is the policy silent regarding prohibitation of technology usage on campus	Yes	No
3. Does the policy include a clear statemen that cyberbullying is not allowed?	Yes	No
C. Reporting and responding to cyberbullying incidents (13 items)		
1. State what victims of cyberbullying should do (e.g. tell a teacher; should clearly apply to victims/pupils who experience cyberbullying)?	Yes	No
2. Say how teaching staff should respond to a report of cyberbullying (should specifically mention cyberbullying, and be more specific than just “deal promptly”)?	Yes	No
3. Clearly mention the responsibilities of other school staff (teaching assistants, lunchtime supervisors, etc.) if they know of cyberbullying? (this should be more specific than simply referring to “all staff”)	Yes	No
4. Clearly mention the responsibilities of parents if they know of cyberbullying (this can include knowing if their child has a behaviour problem if cyberbullying is included elsewhere)?	Yes	No
5. Clearly mention the responsibilities of student bystanders if they know of cyberbullying?	Yes	No

6. State, whether sanctions applied for cyberbullying, will depend on type or severity of incident? (It should be clear that the sanctions apply to bullying behaviour.)	Yes	No
C. Reporting and responding to cyberbullying incidents (13 items) … continued		
7. Mention follow-up to see whether the sanctions were effective?	Yes	No
8. Discuss what action will be taken if the cyberbullying persists?	Yes	No
9. Suggest how to support the victim? (More than just 'we will support victims'.)	Yes	No
10. Suggest how to help the student(s) doing the cyberbullying to change their behaviour (apart from sanctions)? (More than just 'we will support …')	Yes	No
11. Discuss if, when or how parents will be informed? ('Parents will be informed' is sufficient if it clearly refers to cyberbullying.)	Yes	No
12. Say reports of cyberbullying will be recorded?	Yes	No
13. Say who is responsible for coordinating the recording system?	Yes	No
D. Process for Review evaluating the policy (6 items)		
1. Show how records or survey data will be used to know whether the policy is working or not?	Yes	No
2. Mention periodic review and updating of the policy, including specifying frequency of review?	Yes	No
3. Does the policy have evidence of reviewed in the last year	Yes	No
4. Is the policy published and implemented (i.e. not in draft)?	Yes	No
5. Has the policy been signed by the appropriate personnel (i.e. principal or authorised authority)?	Yes	No
6. Are changes documented and dated after each review?	Yes	No
E. Strategies for preventing cyberbullying (6 items)		
1. Mention any of encouraging co-operative behaviour, rewarding good behaviour, improving school climate, or creating a safe environment?	Yes	No
2. Discuss general issues of peer support (beyond B5)?	Yes	No
3. Discuss advice for parents about cyberbullying (beyond B4)?	Yes	No
4. Mention the preventative role of playground activities or lunchtime supervisors?	Yes	No
5. Discuss issues of inclusiveness (e.g., non-English speakers; pupils with learning difficulties)?	Yes	No
6. Mention the issue of cyberbullying on the way to school or happening outside school	Yes	No

Addendum B – Research Instrument – Principal Cyberbullying Policy Questionnaire

Cyberbullying Policy Survey

Cyberbullying can be defined as the use of electronic devices to bullying through email, chat rooms, instant messaging and small text messages (Kowalski *et al.* 2007).

This questionnaire is confidential and so no one in your school will know what you have answered. It is anonymous, so please don't put your name on it anywhere.

This questionnaire is completely voluntary, and you can decide to exit at any time.

Please mark with an X in the relevant box provided.

A. General Information – Demographics					
1. Gender		Female		Male	
2. Years serving as teacher at your current school	1-3 years	4-6 years	7-9 years	10 years or more	
3. School Location		Suburb	Township	Rural	
4. School Sector		Public		Independent	
5. Number of Students		Less than 100	Between 100 and 500	Above 500	

B. Extent of Cyberbullying	**Strongly Disagree**	**Disagree**	**Sometimes**	**Agree**	**Strongly Agree**
6. I know what cyberbullying is and in what forms it can occur.	1	2	3	4	5
7. I know how many students at my school have been victims of cyberbullying, either while on campus or during school hours, that resulted in a reported school incident	1	2	3	4	5
8. I know how many students have cyberbullied others, either while on campus or during school hours, that resulted in a reported school incident	1	2	3	4	5
9. I am aware that students at my school have been victims of cyberbullying while off campus	1	2	3	4	5
10. I am aware that students at my school have cyberbullied others while off campus	1	2	3	4	5
11. I believe cyberbullying is a significant problem at my school	1	2	3	4	5
12. Cyberbullying incidents have increased in the past two years	1	2	3	4	5
C. Cyberbullying policy	**Strongly Disagree**	**Disagree**	**Sometimes**	**Agree**	**Strongly Agree**
13. My school has a clear cyberbullying policy	1	2	3	4	5
14. My school has a clear set of cyberbullying guidelines specific to our campus to further address cyberbullying concerns	1	2	3	4	5
14. What year did your school adopt these guidelines?					

15. My school district has a clear policy regarding cell phones and other portable electronic devices.	1	2	3	4	5
16. My students know the school district policy regarding the use of technology.	1	2	3	4	5
17. My staff members know the school district policy regarding the use of technology.	1	2	3	4	5
18. It is clear to students that the inappropriate use of technology will not be tolerated by the school administration.	1	2	3	4	5
19. My staff and I take suspected incidents of cyberbullying seriously at our school	1	2	3	4	5
20. My staff and I take actual incidents of cyberbullying seriously at our school.	1	2	3	4	5
21. My staff and I have developed a formal procedure specific to our campus for investigating incidents of cyberbullying.	1	2	3	4	5
22. My students are aware of a continuum of disciplinary consequences for cyberbullying incidents.	1	2	3	4	5
	1	2	3	4	5
23. When students are cyberbullied they know who to tell in order to get help	1	2	3	4	5
24. My school has an anonymous reporting system to allow students to report incidents of cyberbullying without fear of reprisal.	1	2	3	4	5
25. I know when I (or designated staff members in charge of discipline) can intervene in cyberbullying incidents that originate off-campus.	1	2	3	4	5
26. I am familiar with major court decisions related to student speech on the Internet.	1	2	3	4	5
27. I am familiar with how the school district's civil liability for failure to prevent cyberbullying incidents or improper response to cyberbullying incidents.	1	2	3	4	5
28. What type of cyberbullying instruction have the STUDENTS received to date or will receive					
29. What type of cyberbullying instruction have the STAFF received to date					
30. What role do you perceive the principal serves in PREVENTING cyberbullying?					
31. What role do you perceive the principal serves in RESPONDING to cyberbullying?					

32. How often has the cyberbullying policy been reviewed?				
Never	Only once in the last year	Not sure	Once weekly in the past 3 months	Several times weekly in the past 3 months

33. Which form of cyber bullying policy does your school have	Specific anti-cyber bullying policy	Code of Conduct	Anti-bullying policy	Combination of policies	Other (please specify):

D. Cyberbullying Policy Development	Strongly Disagree	Disagree	Sometimes	Agree	Strongly Agree
34. Parents are involved in the development of anti-cyberbullying policies	1	2	3	4	5
35. Students are involved in the development of anti-cyberbullying policies	1	2	3	4	5
36. Cybersecurity experts are involved in the development of anti-cyberbullying policies	1	2	3	4	5
37. DBE is involved in the development of anti-cyberbullying policies	1	2	3	4	5
38. Teachers are involved in the development of anti-cyberbullying policies	1	2	3	4	5
39. I am aware of the guidelines provided by the DBE to develop anti-cyberbullying policies	1	2	3	4	5
E. Cyberbullying Policy Communication	**Strongly Disagree**	**Disagree**	**Sometimes**	**Agree**	**Strongly Agree**
40. The anti-cyberbullying policy is communicated to students	1	2	3	4	5
41. The anti-cyberbullying policy is communicated to parents	1	2	3	4	5
42. The anti-cyberbullying policy is communicated via and made available on	School Diary	School Website	School Classroom	Information sent with students home	Other (please specify):
43. When the anti-cyberbullying policy is updated, the changes are communicated to the school community	1	2	3	4	5
44. How often is the anti-cyberbullying policy communicated	Annually	Quarterly	Ad hoc (When changes are made)	Once every two years	Other (please specify):
Complete					
You have now completed all the questions. All of the sections are confidential, so please do not discuss the answers you have written with anyone. **THANK YOU FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE.**					

Addendum C – Cover Letter

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OR
Private Bag. Rondebosch 7701
Tel: +27 (0) 21 650 4028 Fax: +27 (0) 21650 2280
Internet: http://www.commerce.uct.ac.za/informationsystems/

04 July 2022

Dear Sir/Madam,

I am a student enrolled in the full-time MCom Information Systems programme at the University of Cape Town. I am conducting research on cyberbullying specifically looking into auditing school anti-cyberbullying policies to determine the extent these policies are compliant by reviewing the content of these policies. Whether they include key policy dimension that literature suggests are integral to curbing cyberbullying. Further, my research seeks to determine the effectiveness of anti-cyberbullying policies. I am looking at those schools with anti-cyberbullying policies.

My research has been granted permission by Director of Research in Western Cape and Gauteng Education Departments please see attached the permission letters. This research has also been approved by UCT Ethics Committee. I have further attached letter from my supervisor and my research proposal.

What does it entail?

Obtaining the anti-cyberbullying policy and analysing the contents to see whether for example cyberbullying is defined or the policy is reviewed and the last time the policy was a review. Whether the policy was communicated to students and parents.

What I request?

As my study is specifically looking at schools with anti-cyberbullying policies, your school has been identified as a participant as such:

1) I kindly request that you may allow me to use your school as part of my study;
2) Further that you may allow me to access the school's anti-cyberbullying policies (or any policy the school uses for cyberbullying);
3) Kindly complete the survey attached which will take no longer than 20 minutes

Participation is entirely voluntary and any personal information will be treated as confidential. Your participation would be much appreciated. The findings of this research study will be compiled into a report and presented to the University of Cape Town for academic purposes. Participants can rest assured that their schools' identity will remain anonymous. Participants will have the opportunity to receive a copy of the final report if required.

Thank you for your time and participation. For further information please do not hesitate to contact me by this email address

Yours Sincerely,

Simo-Sihle Ganca
Masters Student
Department of Information Systems
University of Cape Town
Email: gncsim001@myuct.ac.za

Prof. Michael Kyobe
Research Supervisor
Department of Information Systems
University of Cape Town
Email: michael.kyobe@uct.ac.za

Addendum D – Consent Letter

Department of Information Systems

Leslie Commerce Building
Engineering Mall, Upper Campus
OR
Private Bag. Rondebosch 7701
Tel: +27 (0) 21 650 4028 Fax: +27 (0) 21650 2280
Internet: http://www.commerce.uct.ac.za/informationsystems/

I _____, give the researcher of this study consent to conduct their study and:

- Use the schools anti-cyberbullying policy
- Administer their questionnaire to myself or my delegate

I am aware that participation is voluntary, and I may choose to withdraw from this study at any time, should I choose to do so.

_____ _____

Signature Date

Addendum E – Ethic Clearance Form

Faculty of Commerce
Private Bag X3, Rondebosch, 7701
2.26 Leslie Commerce Building, Upper Campus
Tel: +27 (0) 21 650 4375/ 5748 Fax: +27 (0) 21 650 4369
E-mail: jacques.rousseau@uct.ac.za
Internet: www.uct.ac.za
@Commerce UCT **UCT Commerce Faculty Office**

08 07 2022

Simo-Sihle Ganca

Department of Information Systems

University of Cape Town

REF: REC 2022/07/008

School anti-cyberbullying policies: An audit of their compliance with national e-legislations and the extent of their effectiveness

We are pleased to inform you that your ethics application has been approved. Unless otherwise specified this ethical clearance is valid until 31-Dec-2023 .

Your clearance may be renewed upon application.

Please be aware that you need to notify the Ethics Committee immediately should any aspect of your study regarding the engagement with participants as approved in this application, change. This may include aspects such as changes to the research design, questionnaires, or choice of participants.

The ongoing ethical conduct throughout the duration of the study remains the responsibility of the principal investigator.

We wish you well for your research.

2022.07.08
10:01:12 +02'00'

Jacques Rousseau
Commerce Research Ethics Chair
University of Cape Town
Commerce Faculty Office
Room 2.26 | Leslie Commerce Building

Office Telephone: +27 (0)21 650 2695 / 4375
Office Fax: +27 (0)21 650 4369
E-mail: jacques.rousseau@uct.ac.za
Website: http://www.commerce.uct.ac.za/com/Ethics-in-Research

Addendum F – Department of Education Approval Letter (WCED)

Western Cape Government
Education

Directorate: Research

meshack.kanzi@westerncape.gov.za
Tel: +27 021 467 2350
Fax: 086 590 2282
Private Bag x9114, Cape Town, 8000
wced.wcape.gov.za

REFERENCE: 20220718-4308
ENQUIRIES: Mr M Kanzi

Ms Simo-Sihle Ganca
909 Valentines House
51-69 Ilford Hill
Ilford
UK
IG1

Dear Simo-Sihle Ganca,

RESEARCH PROPOSAL: SCHOOL ANTI-CYBERBULLYING POLICIES: AN AUDIT OF THEIR COMPLIANCE WITH NATIONAL E-LEGISLATIONS AND THE EXTENT OF THEIR EFFECTIVENESS.

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

1. Principals, educators and learners are under no obligation to assist you in your investigation.
2. Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.
3. You make all the arrangements concerning your investigation.
4. Educators' programmes are not to be interrupted.
5. The Study is to be conducted from **18 July 2022 till 30 September 2022.**
6. No research can be conducted during the fourth term as schools are preparing and finalizing syllabi for examinations (October to December).
7. Should you wish to extend the period of your survey, please contact Mr M Kanzi at the contact numbers above quoting the reference number.
8. A photocopy of this letter is submitted to the principal where the intended research is to be conducted.
9. Your research will be limited to the list of schools as forwarded to the Western Cape Education Department.
10. A brief summary of the content, findings and recommendations is provided to the Director: Research Services.
11. The Department receives a copy of the completed report/dissertation/thesis addressed to:

The Director: Research Services
Western Cape Education Department
Private Bag X9114
CAPE TOWN
8000

We wish you success in your research.

Kind regards,
Meshack Kanzi
Directorate: Research
DATE: 18 July 2022

Addendum G – Department of Education Approval Letter (GDE)

GAUTENG PROVINCE
Department: Education
REPUBLIC OF SOUTH AFRICA

8/4/4/1/2

GDE RESEARCH APPROVAL LETTER

Date:	13 July 2022
Validity of Research Approval:	08 February 2022– 30 September 2022 2022/302
Name of Researcher:	Ganca S.T
Address of Researcher:	909 Valentines House
	1 – 69 Ilford Hill
	UK
Telephone Number:	+44 7586 126709
Email address:	gncsim001@myuct.ac.za
Research Topic:	School anti-cyberbullying policies: An audit of their compliance with national e-legislations and extent of effectiveness.
Type of qualification	MCom Information Systems
Number and type of schools:	100 Secondary schools
District/s/HO	All 15 Gauteng Dustricts

Re: Approval in Respect of Request to Conduct Research

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

14/07/2022

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

Making education a societal priority

Office of the Director: Education Research and Knowledge Management
7th Floor, 17 Simmonds Street, Johannesburg, 2001
Tel: (011) 355 0488
Email: Faith.Tshabalala@gauteng.gov.za
Website: www.education.gpg.gov.za

1. *The letter would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study.*
2. *The District/Head Office Senior Manager/s must be approached separately, and in writing, for permission to involve District/Head Office Officials in the project.*
3. ***Because of the relaxation of COVID 19 regulations researchers can collect data online, telephonically, physically access schools, or may make arrangements for Zoom with the school Principal. Requests for such arrangements should be submitted to the GDE Education Research and Knowledge Management directorate.***
4. ***The Researchers are advised to wear a mask at all times, Social distance at all times, Provide a vaccination certificate or negative COVID-19 test, not older than 72 hours, and Sanitise frequently.***
5. *A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB) that would indicate that the researcher/s has been granted permission from the Gauteng Department of Education to conduct the research study.*
6. *A letter/document that outlines the purpose of the research and the anticipated outcomes of such research must be made available to the principals, SGBs, and District/Head Office Senior Managers of the schools and districts/offices concerned, respectively.*
7. *The Researcher will make every effort to obtain the goodwill and cooperation of all the GDE officials, principals, and chairpersons of the SGBs, teachers, and learners involved. Persons who offer their cooperation will not receive additional remuneration from the Department while those that opt not to participate will not be penalised in any way.*
8. *Research may only be conducted after school hours so that the normal school program is not interrupted. The Principal (if at a school) and/or Director (if at a district/head office) must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.*
9. *Research may only commence from the second week of February and must be concluded before the beginning of the last quarter of the academic year. If incomplete, an amended Research Approval letter may be requested to conduct research in the following year.*
10. *Items 6 and 7 will not apply to any research effort being undertaken on behalf of the GDE. Such research will have been commissioned and be paid for by the Gauteng Department of Education.*
11. *It is the researcher's responsibility to obtain written parental consent of all learners that are expected to participate in the study.*
12. *The researcher is responsible for supplying and utilising his/her research resources, such as stationery, photocopies, transport, faxes, and telephones, and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.*
13. *The names of the GDE officials, schools, principals, parents, teachers, and learners that participate in the study may not appear in the research report without the written consent of each of these individuals and/or organisations.*
14. *On completion of the study, the researcher/s must supply the Director: Knowledge Management & Research with one Hard Cover bound and an electronic copy of the research.*
15. *The researcher may be expected to provide short presentations on the purpose, findings, and recommendations of his/her research to both GDE officials and the schools concerned.*
16. *Should the researcher have been involved with research at a school and/or a district/head office level, the Director concerned must also be supplied with a summary of the purpose, findings, and recommendations of the research study.*

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

Kind regards

.....

Mr. Gumani Mukatuni
Acting CES: Education Research and Knowledge Management

DATE: 14/07/2022

Office of the Director: Education Research and Knowledge Management
7th Floor, 17 Simmonds Street, Johannesburg, 2001
Tel: (011) 355 0488
Email: Faith.Tshabalala@gauteng.gov.za
Website: www.education.gpg.gov.za

Addendum H – District Offices Approval Letter (GDE)

GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

Enquiries: A. Hutton
Tel: 011 389 6220
Ref: ISSP: P&P 12/22

To: District Based Support Team

Subject: Research Approval

Please be advised that the Gauteng Department of Education has given ST.Ganca permission to conduct research. The research is purely on a voluntary basis and the researcher would be interviewing Principals, Deputies, HOD's, teachers and learners. The research at the schools will be conducted during Term 4 of 2022.

The research title is:
"School anti-cyberbullying policies: An audit of their compliance with national e-legislation and extent of effectiveness."

B.P. Luthuli
District Director
31 August 2022

OFFICE OF THE DISTRICT DIRECTOR: EKURHULENI SOUTH
Tel: (011) 389 6000
02 Robin Close Infinity Office Park, Meyersdal Alberton 1447 I Private Bag X8001, Alberton North 1456
Email: Busi.Luthuli@gauteng.gov.za
www.gautengonline.gov.za I Hotline: 08600 11 000

Simo-sihle Ganca

From: Somikazi Chabalala (GPEDU) <Somikazi.Chabalala@gauteng.gov.za>
Sent: 06 September 2022 22:17
To: Simo-sihle Ganca
Subject: RE: Notification of Permission: Research Conducted in School

Evening Simo-sihle

You can proceed with your research

Kind regards

From: Simo-sihle Ganca <GNCSIM001@myuct.ac.za>
Sent: Tuesday, 06 September 2022 09:25
To: Somikazi Chabalala (GPEDU) <Somikazi.Chabalala@gauteng.gov.za>
Subject: RE: Notification of Permission: Research Conducted in School

Good day Ms Chabalala

I hope you are well.

I am following up on the below notification, could you kindly advise if I can proceed with research from these schools or should I await formal letter confirming approval to contact schools?

Thank you and regards
Simo-Sihle

GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

Enq: MK Majola
Tel: 012 725 1356
Ref no: 8/4/4/1/2

TO: **THE PRINCIPALS**
NM TSUENE, MABOPANE, RANTAILANE, FR SMANGALISO MKHATSHWA, LOTUS GARDENS, FUSION, HILLVIEW AND SOSHANGUVE EAST SECONDARY SCHOOLS, HOËRSKOOL GERRIT MARITZ AND HOËRSKOOL AKASIA

CC: **CIRCUIT MANAGERS**

FROM: **MS YVONNE MOOKE**
DISTRICT DIRECTOR
TSHWANE WEST DISTRICT

REQUEST TO CONDUCT RESEARCH: GANCA ST

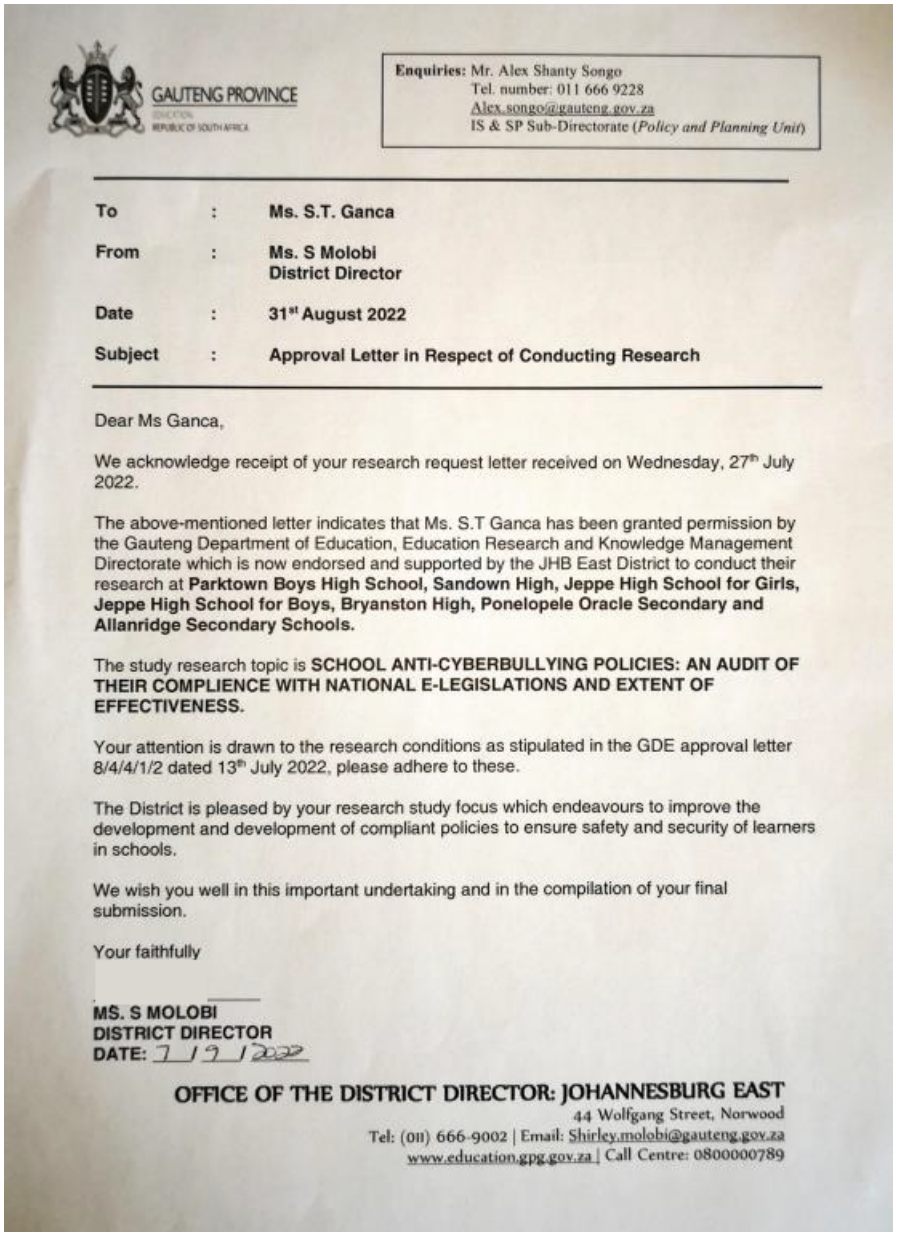
This letter serves to indicate that approval has been granted to Ganca ST to conduct research at your school in respect of the study indicated below.

Research Topic: **"School anti-cyberbullying policies: An audit of their compliance with national e-legislations and extent of effectiveness."**

Because of the relaxation of COVID-19 regulations, researchers can collect data online, telephonically physically access schools, or may make arrangements for virtual meeting with principal. Request for such arrangements for Zoom with the school Principal. Requests for such arrangements should be submitted to the GDE Education Research and Knowledge Management directorate. The Researchers are advised to always wear a mask, maintain social distance at all times, provide a vaccination certificate or negative COVID-19 test, not older than 72 hours, and sanitise frequently.

A copy of this letter must be forwarded to the chairperson of the School Governing Body (SGB). Teaching and learning should not be compromised.

Ms Yvonne Mooke
District Director
Date: 31/08/2022



GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

Enquiries: Mr. Alex Shanty Songo
Tel. number: 011 666 9228
Alex.songo@gauteng.gov.za
IS & SP Sub-Directorate (*Policy and Planning Unit*)

To : **Ms. S.T. Ganca**

From : **Ms. S Molobi**
District Director

Date : **31st August 2022**

Subject : **Approval Letter in Respect of Conducting Research**

Dear Ms Ganca,

We acknowledge receipt of your research request letter received on Wednesday, 27th July 2022.

The above-mentioned letter indicates that Ms. S.T Ganca has been granted permission by the Gauteng Department of Education, Education Research and Knowledge Management Directorate which is now endorsed and supported by the JHB East District to conduct their research at **Parktown Boys High School, Sandown High, Jeppe High School for Girls, Jeppe High School for Boys, Bryanston High, Ponelopele Oracle Secondary and Allanridge Secondary Schools.**

The study research topic is **SCHOOL ANTI-CYBERBULLYING POLICIES: AN AUDIT OF THEIR COMPLIENCE WITH NATIONAL E-LEGISLATIONS AND EXTENT OF EFFECTIVENESS.**

Your attention is drawn to the research conditions as stipulated in the GDE approval letter 8/4/4/1/2 dated 13th July 2022, please adhere to these.

The District is pleased by your research study focus which endeavours to improve the development and development of compliant policies to ensure safety and security of learners in schools.

We wish you well in this important undertaking and in the compilation of your final submission.

Your faithfully

MS. S MOLOBI
DISTRICT DIRECTOR
DATE: 7/9/2022

OFFICE OF THE DISTRICT DIRECTOR: JOHANNESBURG EAST
44 Wolfgang Street, Norwood
Tel: (011) 666-9002 | Email: Shirley.molobi@gauteng.gov.za
www.education.gpg.gov.za | Call Centre: 0800000789

Simo-sihle Ganca

From: Somikazi Chabalala (GPEDU) <Somikazi.Chabalala@gauteng.gov.za>
Sent: 06 September 2022 22:17
To: Simo-sihle Ganca
Subject: RE: Notification of Permission: Research Conducted in School

Evening Simo-sihle

You can proceed with your research

Kind regards

From: Simo-sihle Ganca <GNCSIM001@myuct.ac.za>
Sent: Tuesday, 06 September 2022 09:25
To: Somikazi Chabalala (GPEDU) <Somikazi.Chabalala@gauteng.gov.za>
Subject: RE: Notification of Permission: Research Conducted in School

Good day Ms Chabalala

I hope you are well.

I am following up on the below notification, could you kindly advise if I can proceed with research from these schools or should I await formal letter confirming approval to contact schools?

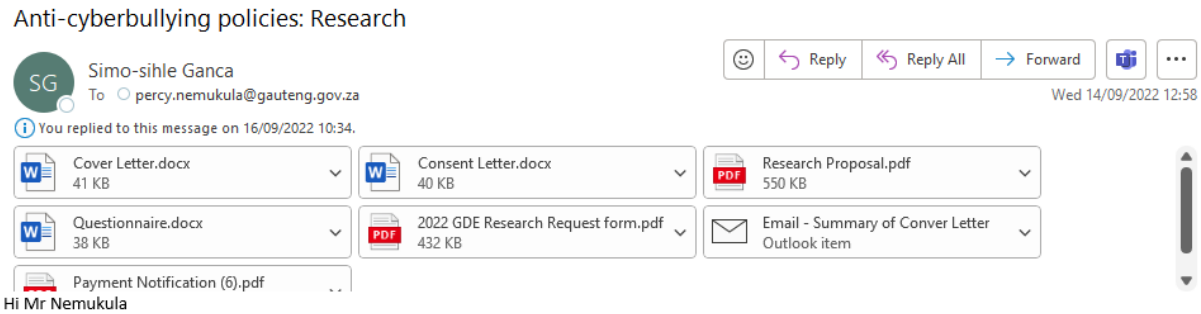
Thank you and regards
Simo-Sihle

Addendum I - Cronbach Alpha – Instrument A – Overall

variable	Summary for scale: Mean=11.6452 Std.Dv.=7.45005 Valid N:31 (Anti-Cyberbullying Policy Audit (Responses)Variables Updated) Cronbach alpha: .900541 Standardized alpha: .901382 Average inter-item corr.: .205244 Mean if deleted	Var. if deleted	StDv. If deleted	Itm-Totl deleted	Alpha if deleted
A1Definition	11.226	49.465	7.033	0.577	0.895
A2Definition	11.323	48.993	6.999	0.688	0.894
A3Definition	11.226	48.433	6.959	0.733	0.893
A4Definition	11.355	49.326	7.023	0.656	0.894
A5Definition	11.484	50.895	7.134	0.511	0.897
A6Definition	11.226	48.175	6.941	0.773	0.892
A7Definition	11.323	49.122	7.009	0.667	0.894
A8Definition	11.355	49.777	7.055	0.582	0.895
A9Definition	11.387	50.753	7.124	0.444	0.898
A10Definition	11.516	53.088	7.286	0.105	0.902
A11Definition	11.548	53.151	7.290	0.110	0.901
A12Definition	11.484	51.992	7.211	0.299	0.900
B1Rules	11.065	52.383	7.238	0.152	0.903
B2Rules	10.806	51.963	7.209	0.305	0.900
B3Rules	11.194	50.866	7.132	0.366	0.899
C1Responding	11.097	49.958	7.068	0.498	0.897
C2Responding	11.290	49.303	7.022	0.622	0.895
C3Responding	11.387	49.592	7.042	0.638	0.895
C4Responding	11.355	51.132	7.151	0.366	0.899
C5Responding	11.387	50.237	7.088	0.529	0.896
C6Responding	11.194	50.479	7.105	0.422	0.898
C7Responding	11.613	52.302	7.232	0.540	0.898
C8Responding	11.419	51.018	7.143	0.422	0.898
C9Responding	11.613	52.302	7.232	0.540	0.898
C10Responding	11.581	53.792	7.334	-0.039	0.902
C11Responding	11.387	52.495	7.245	0.162	0.902
C12Responding	11.258	49.417	7.030	0.593	0.895
C13Responding	11.452	50.570	7.111	0.531	0.897
D1Reviewing	11.548	51.732	7.192	0.445	0.898
D2Reviewing	11.387	51.205	7.156	0.370	0.899
D3Reviewing	11.355	53.713	7.329	-0.031	0.905
D4Reviewing	10.742	52.191	7.224	0.336	0.899
D5Reviewing	11.387	52.108	7.219	0.224	0.901
D6Reviewing	11.548	51.990	7.210	0.384	0.899
E1Preventing	10.935	53.351	7.304	0.024	0.904
E2Preventing	11.613	53.528	7.316	0.060	0.901
E3Preventing	11.548	52.119	7.219	0.353	0.899
E4Preventing	11.581	51.598	7.183	0.582	0.897
E5Preventing	11.581	51.792	7.197	0.526	0.898
E6Preventing	11.387	51.334	7.165	0.349	0.899

Addendum J – District Offices Approval Letter (GDE)

Email stating what is to be sent to school principal including attached email template:



Anti-cyberbullying policies: Research

SG Simo-sihle Ganca
To percy.nemukula@gauteng.gov.za

Reply | Reply All | Forward

Wed 14/09/2022 12:58

You replied to this message on 16/09/2022 10:34.

Cover Letter.docx 41 KB
Consent Letter.docx 40 KB
Research Proposal.pdf 550 KB
Questionnaire.docx 38 KB
2022 GDE Research Request form.pdf 432 KB
Email - Summary of Conver Letter Outlook item
Payment Notification (6).pdf

Hi Mr Nemukula

I hope you are well.

As discussed please find attached relevant information to be sent.

I need two things (also documented in my cover letter and email template I use to reach out to school – my email address is included in the email template as well gncsim001@myuct.ac.za):

1. Complete survey - Online Survey/Questionnaire or attachment
2. Policies they use - some schools might not have specific anti-cyberbullying policies but use their code of conduct or anti-bullying policies (I have seen social media policies as well).

Below is a list of district and status of whether permission has been granted. Could you include this in the requests to schools too.

EIDistrict	Status	Contact	Attachment
TSHWANE SOUTH	No response yet – sent follow up email on 13 September	mhlupheki.mdluli@gauteng.gov.za	
TSHWANE WEST	Received		MEMO-RESEARCH-Ms. ST GCANCA.pdf
JOHANNESBURG CENTRAL	No permission yet – sent requested information on 13 September Ms Caroline Tladi has been responsive	caroline.tladi@gauteng.gov.za	
GAUTENG WEST	Received		Gauteng West RESEARCH APPROVAL LETTER GANCA ST.pdf
JOHANNESBURG NORTH	No permission yet – sent follow up email on 13 September. Ms Siphokazi Ngidi responded initially and requested a list of schools	Siphokazi.Ngidi@gauteng.gov.za	
GAUTENG NORTH	No response yet – sent follow up email on 13 September	nthabiseng.Ramorula@gauteng.gov.za	
JOHANNESBURG EAST	Received		Johannesburg East Approval Letter Ms Ganca.pdf
EKURHULENI SOUTH	Received		

Email template:

Send

To Simo-sihle Ganca

Cc

Subject Email - Summary of Conver Letter

Department of Information Systems

Leslie Commerce Building

Engineering Mall, Upper Campus

OR

Private Bag. Rondebosch 7701

Tel: +27 (0) 21 650 4028 Fax: +27 (0) 21650 2280

Internet: http://www.commerce.uct.ac.za/informationsystems/

Dear Principal

I hope you are well.

My name is Simo-Sihle Ganca a student enrolled in the full-time MCom Information Systems programme at the University of Cape Town. I am conducting research on cyberbullying specifically looking into auditing school anti-cyberbullying policies to determine the extent these policies are compliant by reviewing the content of these policies. Whether they include key policy dimensions that literature suggests are integral to curbing cyberbullying. Further, my research seeks to determine the effectiveness of anti-cyberbullying policies. I am looking at those schools with anti-cyberbullying policies.

My research has been granted permission by the Director of Research in the Gauteng Department of Education please see attached the permission letter. This research has also been approved by UCT Ethics Committee. I have further attached l my research proposal.

What does it entail?