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CYBERBULLYING: YOUTH'S PERCEPTIONS IN A JOHANNESBURG SCHOOL CONTEXT

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A thesis submitted to the Faculty of Humanities, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of Master of Psychology.

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CHAPTER 1: INTRODUCTION AND RATIONALE

1.1 Cyberbullying: An Emerging Problem

Cyberbullying is a new and significant type of bullying that has been added to traditional forms of violence. It has recently emerged as a negative by-product of the explosion of information communication technologies (ICTs). The last decade saw significant and rapid changes in youth activity as they migrated to social networking sites, cell phones, instant messaging platforms, blogs, and virtual worlds (Jones, Mitchell & Finkelhor, 2013; Sugarman & Willoughby, 2013).

Recent studies show that on-line communication has become integral to youths' interactions and relationships. It can be described as the centrepiece of adolescents' social life and it has been suggested that adolescents view these social network technologies as a critical and indispensable element in their everyday lives. As adolescents are competent and the most prolific users of social media, it is overwhelmingly apparent that new ICTs are their preferred and dominant method of interacting (Mishna, Saini & Solomon, 2009).

Furthermore, the ever-evolving world of ICT has altered individuals' social interactions and ways of communicating. It is evident that as new technologies have shifted, so have the definitions come to reflect not only bullying in a cyber-environment, but also the increasing sophistication of the technologies in use. What makes cyberbullying distinct is the use of electronic communication technology as a means through which to threaten, harass, embarrass, or socially exclude others (Hinduja & Patchin, 2009). Thus, technological advances played a role in altering violent behaviour and creating vulnerability for youth in particular (Sugarman & Willoughby, 2013).

As a result of the contemporary landscape, the extensive use and potential benefits that the Web and electronic communication has afforded are undeniable. These benefits however are not without their dangers and inherent risks as the nature of the online environment may influence and facilitate individuals, especially youth, to engage in harassment. Several disadvantages

and the potential for abuse have emerged as this technology provides a powerful weapon and new means through which youth are bullied. Modern technology has allowed would-be bullies to extend the reach of their aggression beyond the physical setting to cyberspace (Patchin & Hinduja, 2006). Cyberbullying might take the form of sending malicious text messages, posting messages or other expressions of a sexual nature, or uploading inappropriate pictures and/or videos of someone, and distributing the content online. Individuals or groups of people may impersonate others online or even create fake profiles to perpetuate cyberbullying. There is convincing evidence (Berson, Berson & Ferron, 2002; David-Ferdon & Hertz, 2007; Rivers & Noret, 2010; Smith et al., 2008; Ybarra & Mitchell, 2004a) that the consequences associated with cyberbullying victimisation can result in significant psychological, social, physical, and other behavioural health problems.

Additionally, reference has been made to the uncensored and unmonitored nature of the cyber environment, which has paved the way for harassment and aggression perpetuated against the young population. This brings the safety and security of teens using electronic devices into question, and reinforces public concern about the vulnerability of adolescents in cyberspace. Consequently, parents, educators, health practitioners, and society are faced with controversies and concerns surrounding the youths' participation in these online communities and digital worlds.

1.1.2 Cyberbullying research

Due to the massive popularity and exponential growth of online communication, recent attention has focused on understanding cyber risks and the potential for abuse, aggression and victimisation as the youth spend more time on-line than ever before (Mitchell, Finkelhor & Wolak, 2004). Certain characteristics inherent in these technologies increase the likelihood that the youth might be exploited for devious purposes (Patchin & Hinduja, 2006). This antisocial behaviour has been identified as a global concern, and a significant and prevalent problem affecting a meaningful proportion of youth in the last decade (Dehue, 2013; Patchin & Hinduja, 2006; Raskauskas & Stoltz, 2007).

The increased immersion of youth into the digital age has contributed to a rapid increase in awareness of cyberbullying and a spike in academic research on this phenomenon. However, despite the anticipated proliferation of cyberbullying, the potential for growth and the high level of concern, relatively little research has been conducted on cyberbullying in relation to adolescents. As the risk of cyberbullying gains attention, there has been a rise in the academic literature devoted to this new form of bullying due to the growing number and level of severity of the incidents (Berson et al., 2002; Hinduja & Patchin, 2009; Lenhart et al., 2011; Wolak, Mitchell & Finkelhor, 2007).

Most studies on cyberbullying (Aricak, Siyahaan, Uzunhasanoglu, Saribeyoglu, Ciplak, & Yilmaz,2008; Beran & Li, 2005; Dehue, Bolman & Vollink, 2008; Hinduja & Patchin, 2008; Li, 2006, Smith et al., 2008) relate to factors such as measuring prevalence, extent, and frequency, along with differences according to age and gender. Few studies have assessed the nature, context, and content of these behaviours among adolescents and research has produced mixed findings and somewhat inconsistent results (Dehue, 2013; Li, 2006; Slonje & Smith, 2008; Vandebosch & Van Cleemput, 2008). Current research is characterised by a lack of theoretical and conceptual clarity because of the unique environment in which it occurs, and the diverse categories, different classifications, and types of modalities employed across studies. Hinduja and Patchin (2008) posit that this can be attributed to the specific nonphysical and indirect manner in which the behaviour typically occurs and the intangible nature of the cyberbullying phenomenon, making it difficult to observe and study.

Despite the variability in results, studies to date have shown that technologies are widely used for cyberbullying and the number of adolescent victims is growing. There has been a dramatic rise in reports referring to the use of communication media to intimidate, control, manipulate, criticise, and humiliate others, with suggestions that this form of bullying has more severe effects than conventional bullying.

Concerns have been raised about the adequacy of current cyberbullying definitions (Slonje, Smith & Frisen, 2013; Tokunaga, 2010). Tokunaga (2010)

argues that it is necessary to adopt an exploratory approach as the scope of the phenomenon is yet unknown. Identifying unique technological characteristics is an integral component of understanding youth and cyberbullying behaviour (Ybarra & Mitchell, 2004a). The limited research contributions have been conducted in first world countries; therefore, owing to the distinct lack of local research the extent of the problem is unknown in South Africa.

The academic literature paints a complex picture of the role that digital ICT plays in adolescents' social worlds and it has become evident that cyberbullying can only be understood and addressed within the context and conditions of the new world of cyberspace.

1.2 Aims and Objectives of the Research

The focus of this research is to explore and establish adolescents' subjective perceptions of cyberbullying experienced as a negative outcome and consequence of online communication and virtual relationships. This study sought to uncover perceptions of cyberbullying by employing a Q methodological design (McKeown & Thomas, 1988), which can uncover groups of people who think similarly about cyberbullying. Furthermore, the procedures of Q methodology allow opinions to be noted with minimal bias arising from instrumentation effects or confounded by an external frame of reference brought by the researcher.

The aim of this research was to explore how a sample of Grade 9 adolescents, aged between 14 and 16 years old, from an urban high school in Johannesburg, perceive the phenomenon of cyberbullying behaviour within the context of their social groups and relationships. The objective was to acquire their understanding and establish adolescents' subjective viewpoints of what constitutes cyberbullying behaviour. The nature and severity of cyberbullying was investigated based on the participants' perceptions and evaluations of the seriousness of cyberbullying events. Finally, their reactions to the cyberbullying acts, in the form of coping mechanisms, were sought to qualify existing knowledge. This study explored cyberbullying from a youth perspective to gain

deeper insights into the perspectives of adolescents by illustrating the nature and content of this novel form of deviance.

1.3 Significance of the Research

By giving adolescents a voice, this research sought to add to the current body of knowledge on the topic, especially within the domain of perceptions of cyberbullying behaviour. This research addressed some of the fundamental concerns raised around the adequacy of the current cyberbullying definitions, by gathering knowledge of adolescents perceptions of cyberbullying behaviours and the ways in which online activities are contextualised in their lives. In light of the risks and dangers that accompany the expansion of the virtual world it was important to understand how adolescents perceive their interactions online.

The negative effects of cyberbullying are not trivial and the severity of the impact underscores the need to tackle the problem of cyberbullying. This study sought to qualify the understanding of the impact of cyberbullying by adolescents as they evaluate cyberbullying events based on their perceptions of its nature and severity. It was important to establish adolescents' viewpoints towards cyberbullying behaviour, in particular how they perceive the impact and severity of the behaviour.

The relevance of exploring learners' coping mechanisms and solutions was to reveal insights that would better inform and guide effective prevention and intervention strategies. It was important to understand what coping strategies young people employ to appropriately deal with negative experiences online.

For teachers and parents to effectively combat this new form of bullying there is a need to understand the phenomenon based on the beliefs and opinions that adolescents hold. This area of enquiry is especially important, as research has suggested that adolescents may be unlikely to speak about sensitive issues such as cyberbullying, and are reluctant to disclose their experiences to adults, thus may never receive adequate support (Dehue, Bolman & Vollink, 2008). Finally, it was also important to describe the phenomenon from a South African perspective.

1.4 Research Questions

The study was designed to understand how adolescents subjectively represent cyberbullying behaviour by answering three research questions.

(1) What are youths' perceptions and views of what they believe constitutes cyberbullying behaviour?
(2) What are the youths' evaluations of cyberbullying events?
(3) What are youths' coping strategies and responses to cyberbullying behaviour/acts?

1.5 The Rationale for Q Methodology

Q methodology was selected as the research design to explore and establish adolescents' subjective perceptions of cyberbullying behaviour because of its usefulness in organising and measuring subjective perceptions of participants, regardless of their personal experiences (Brown, 1986; McKeown & Thomas, 1988). The methodology was chosen to give adolescents the opportunity to express themselves in a subjective way without forcing *a priori* interpretations onto them. Adolescent's viewpoints of the complex, multidimensional concept of cyberbullying was of considerable importance. A pertinent benefit of Q methodology to this study was that it made the exploration of highly complex and socially contested concepts, from the perspective of the individuals involved, possible (Watts & Stenner, 2005). Additionally, Q methodology allows the identification of key bodies of knowledge relative to a particular subject matter, and renders them observable. A method was required that could document the opinions of adolescents and reveal the diversity of perspectives in order to understand what cyberbullying means to them and what risks they are facing.

Q methodology was designed to examine a person's beliefs, attitudes, and opinions on a topic, as it allows for people to express themselves in a qualitative way. The methodology allowed for a greater level of awareness regarding the way youth perceive practices and conceptions of cyberbullying.

The purpose was to aid a better understanding of the phenomenon and produce a more comprehensive guide to prevention decisions. This enquiry provided a research design capable of discovering the subjective and diverse meanings attached to cyberbullying behaviour and its impact in order to contextualise the knowledge from this emerging field of research.

1.6 Structure of the Research

A critical review of the literature on cyberbullying is given and the research is positioned in context. The aims and research questions are identified. Q methodology is discussed and a description of conducting a Q methodological study is outlined. Results are analysed and interpreted including accounts of all the viewpoints arising from the analysis. Findings are discussed in detail and are supported using additional material from the post-sort questionnaires.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The literature review examines the current body of knowledge on cyberbullying research, synthesising key issues, considering areas of convergence and divergence, and uncovering gaps and areas where further research is required. The purpose was to provide a framework of current cyberbullying literature to understand and address the problem in context and to provide justification for the proposed study and methodology. The literature review was developed from the broad context of the research area that anchored this study to specific research questions, which created a structure for the presentation and discussion of key concepts, arguments, and findings relevant to this research. Several main components in the literature were specifically selected and used as reference points to address the phenomenon of cyberbullying.

A rigorous body of research was gathered on traditional bullying and this explains the logical step researchers took in conceptualising a cyberbullying definition from the established traditional bullying research. In the context of current research, defining cyberbullying may not be as clear-cut as defining traditional bullying. These issues and the extent to which cyberbullying can be distinguished from traditional bullying are debated. The complexity and the accelerated evolution of new technologies create additional difficulties in conceptualising the definition of this new form of bullying. Research confirms that there are many forms of cyberbullying examined across studies including placing someone's picture on the internet without their consent, sending a virus, hacking, sending threatening mails involving violence, as well as sexually oriented messages. Cyberbullying can be conducted using various tools and through many online avenues. There is yet little agreement found in the literature about the diverse categories of this form of harassment, which leads to inconsistent findings and the need for further clarity. Researchers (Cassidy, Faucher & Jackson, 2013; Davis, 2013; Jones et al., 2013; Sugarman & Willoughby, 2013; Tokunaga, 2010) argue that despite the similarities between traditional bullying and cyberbullying, greater levels of nuance and

differentiation need to be explored to provide further comprehension of the reality and growth of this phenomenon.

The role of electronic communication has transformed the lives of many adolescents. Studies attest to the ‘wired’ culture within which contemporary teenagers operate (Kowalski & Limber, 2007). The proliferation of electronic communication and the inherent qualities of electronic communication have afforded adolescents a new means of bullying, which include some vastly different characteristics to traditional bullying. These important considerations, discussed in the literature, describe the technology that facilitates cyberbullying and portray its prevalence. Furthermore, one of the most compelling, and most dangerous, aspects of new technology is that it allows people to maintain their anonymity when communicating with others. Researchers suggest that the virtual environment in which cyberbullying occurs allows bullies to feel less inhibited and less accountable for their actions (Price & Dalgleish, 2010).

It is widely accepted that cyberbullying events cause distress and several negative effects stemming from cyberbullying victimisation have been documented. Research has shown that this includes poor academic performance, decline in family relationships, low self-esteem, depression, and stress (Badenhorst, 2011, Hinduja & Patchin, 2008; Patchin & Hinduja, 2010; Ybarra & Mitchell, 2008). The psychosocial, cognitive, and behavioural consequences emphasise the serious nature of the phenomenon and continue to be a significant public health concern, which validates the concern/alarm surrounding cyberbullying.

There are a range of coping tools available to victims of cyberbullying. Coping strategies and responses to cyberbullying include prevention by reducing risks, combatting cyberbullying, and buffering the negative impacts. A body of work describes these methods for coping with cyberbullying, which are being used or could be used; however, the evidence in support of such approaches is unclear. Most cyber victims do not alert adults, this inhibition is explained as the fear adolescents have of losing access to their technology, the fear of further retaliation, and the perceptions that adults could not intervene successfully or address the situation appropriately. These barriers to disclosure create a

challenge in providing support for adolescents being exposed to interpersonal violence, aggression, mistreatment, and harassment through cyberbullying.

What should be particularly noted is that the phenomenon of cyberbullying is highly complicated. There are multiple conditions and considerations which come into play that sometimes lead to contradictory results and indicate that more research is necessary.

2.2 Conceptualisations, Criteria, and Definitions

Several definitions and criteria have been proposed in the literature but there are variations in the meaning and conceptualisation of this behaviour. The rapid advancement in communication and information technologies, and their new qualities, create some difficulties in defining the phenomenon. Furthermore, there is little knowledge of how adolescents evaluate cyberbullying. Various studies of cyberbullying penetration and victimisation have yet to produce a systematic investigation of the phenomenon. In particular, cyberbullying research indicates the need for a common understanding of the phenomenon and there needs to be a focus on adolescents' understanding of cyberbullying (Nocentini et al., 2010). It is becoming apparent that existing wisdom about bullying may not transfer to cyberbullying (Cassidy et al., 2013).

A precise and widely accepted definition, which outlines the scope of the phenomenon of cyberbullying, is critical to advancing understanding and knowledge in order to produce a cohesive body of research and bring meaningful progress in the field of enquiry. What is evident is a collection of studies that are loosely linked by common interest (Bauman, 2013).

2.2.1 Traditional bullying

Research has established a significant link and overlap between learners involved in traditional 'school-yard' bullying and those involved in cyberbullying, and these findings have been replicated in a number of contributions (Li, 2005; Smith, 2012; Tokunaga, 2010). Studies have shown that cyberbullying co-exists and operates in concert with other forms of bullying, often occurring within the

context of existing offline social groups and cycles between home and school. Findings report a trend that individuals who are victims of cyberbullying are also often targets of traditional bullying, and perpetrators of cyberbullying are often perpetrators of traditional bullying (Smith et al., 2008). Cyberbullying also implies acts of traditional bullying (for example, insulting, spreading rumours, or threatening) which are carried out electronically; however, cyberbullying can include behaviours that have no analogue in traditional bullying (Calvete, Orue, Estevez, Villardon & Padilla, 2010) as it has specific unique characteristics. Furthermore, cyberbullying bears parallels with relational aggression, which was added to the category of traditional bullying in the 1990s. Typically, this new paradigm of covert psychological bullying includes behaviours such as rumours, gossip, exclusion, and attacks on reputation and relationships, which are synonymous with cyberbullying.

In light of the infancy and limited research on electronic aggression, much of the cyberbullying literature and theorising has been built on a tradition of well-established research that is called traditional or offline bullying. The scope, breadth, and consequences of traditional bullying are used as a comparative reference point to view and understand cyberbullying. Conceptually these definitions contain the three main attributes of bullying: intention to do harm, repetition, and the imbalance of power (Olweus, 1993). Traditional bullying is based on an imbalance of power and can be defined as a systematic abuse of power. Nansel, Overpeck, Pilla, Ruan, Simons-Morton and Scheidt (2001) concurred with these definitions of conventional bullying as a specific type of aggression in which (a) behaviour is intended to harm or disturb,(b) the behaviour occurs repeatedly over time, and (c) there is an imbalance of power, which a more powerful person or group attacking a less powerful one. There are several forms of traditional bullying – physical, verbal, relational, and indirect bullying.

By extending the definition from traditional bullying, cyberbullying has been defined as an aggressive act or behaviour that is carried out using electronic means by a group or individual repeatedly over time against a victim who cannot easily defend him or herself (Smith et al., 2008). Several cyberbullying

definitions have been offered in the literature, each containing some hostile, aggressive or harmful act or systematic abuse of power that is perpetrated by a bully through some electronic device. The distinctions between the definitions include details of those involved in the events, the necessary conditions or requirements for a situation to be considered cyberbullying, and the broad spectrum of cyberbullying acts. Although the definitions offered are similar and appear to share these definitional criteria, a precise and widely accepted definition continues to elude academics (Burton & Mutongwizo, 2009; Slonje et al., 2013; Tokunaga, 2010).

2.2.2 Conceptualising cyberbullying

The emergence of cyberbullying is mainly attributed to the rapid increase and pervasive presence of ICTs that permeate the lives of children and youth (Cassidy et al., 2013). The penetration of new technologies, coupled with ubiquitous internet access, has proven to be a particular challenge in the field of research. This can be largely attributed to the conditions under which cyberbullying acts are carried out (anonymity, impersonal environment, and lack of consequences for the aggressor), and qualities of the electronic devices through which the bullying occurs. Some definitional and conceptual aspects of cyberbullying are under debate and have become the subject of controversy among experts and researchers. Furthermore, new criteria have been proposed such as anonymity (Dehue et al., 2007) and publicity, which characterise the acts where a large audience is involved (Slonje & Smith, 2008). Youth who are bullied may not know the identity of the perpetrator and the potential audience of bystanders and observers of electronic bullying are limitless (Kowalski & Limber, 2007). Spears, Owens and Johnson (2009) describe cyberbullying as a boundary-less, complex form of behaviour.

It has been argued that due to the indirect nature of cyberbullying it is very difficult to identify the intention of the behaviour (Menesini & Nocentini, 2009). With information technology, intent can be easily misinterpreted. It is conceivable that what is intended as cyberbullying, is considered by some adolescents as teasing, as it is a subjective interpretation of the behaviour

(Dehue et al., 2008). Vandebosch and Van Cleemput (2008) reveal that youngsters acknowledge that there may be a difference between the way things were intended and the way things were perceived. The question as to whether intention is necessary to cause harm is under debate as unintentional acts may have equally deleterious consequences for youth.

2.2.3 Criteria

Slonje et al. (2013) suggest that repetition as a criterion is easier to quantify in traditional face-to-face circumstances than those perpetrated through electronic means, as one cyberbullying act may readily snowball out of control due to the technology used. Many sources suggest that a single act by one perpetrator has the potential to be repeated many times as it is distributed and forwarded by others, each time representing a potential experience by the victim. Repetition might not involve the primary perpetrator, but instead other individuals may carry out the act (Slonje et al., 2013). Additionally, Tokunaga (2010) highlights the fact that inconsistencies among definitions have resulted in researchers studying vastly different phenomena under the same term. This lack of agreement and conceptual difficulty in the attributes of repetition as a criterion has placed the reliability of results under threat.

Power imbalance in the context of cyberbullying arises from the inability of the victim to escape, and is identified as another definitional issue. Olweus (1993) referred to this in traditional bullying as describing the victim as weak, which could include physical and psychological weakness, and may be due to numbers in a group or popularity/rejection in a peer group context. Slonje et al. (2013) suggest that forms of power imbalance are more difficult to apply to cyberbullying, as they are not as straightforward as physical strength or strength of numbers, which are necessary for the perpetration of traditional bullying. However, other possibilities of power imbalance include technical proficiency with ICTs, anonymity, and social status. Vandebosch and Van Cleemput (2008) argue that a greater knowledge of ICTs may contribute to a power imbalance as some cyberbullying, such as impersonating someone else, does require more technical expertise. It is also argued that anonymity through

the ability of keeping the offender's identity unknown can contribute to the power imbalance. A number of studies (Raskauskas, 2010; Slonje & Smith, 2008; Smith et al., 2008) have shown that often the victim does not know the person behind the cyber-attacks, this invisibility of those doing the bullying increases the feelings of powerlessness and it is more difficult to respond effectively if the victim does not know the perpetrator. Another element of power imbalance in cyberbullying relates to the persistence of online communication, the material exists in cyberspace and it is difficult to remove or avoid.

Electronic bullies can remain virtually anonymous as many online venues make it very difficult for adolescents to determine the identity of the perpetrator. Anonymity that occurs when the victim does not know the identity of the bully may increase feelings of frustration and powerlessness (Slonje & Smith, 2008). The ability of individuals to hide behind their screens is a common theme in the literature and has been characterised as a significant differentiator between online and traditional bullying (Mishna et al., 2009; Ybarra & Mitchell 2004b). In the cyber context, publicity or private versus public characterises acts where a large audience is involved and the material becomes public as it enters the online domain. Slonje and Smith (2008) found cyberbullying acts including large and public audiences as the most severe type of cyberbullying. The two new cyber-specific criteria (anonymity and accessibility) might represent cyberbullying more adequately than previous common definitions; these are discussed in more depth in section 2.4.

2.2.4 Defining cyberbullying

The nature and complexity of cyberbullying is demonstrated by the disparity, divergence, and disagreement in its study by researchers. Across numerous studies different methodologies, different definitions, and different ways of calculating prevalence have been employed (Rivers & Noret, 2010). Adding to the difficulties of the interpretation of cyberbullying, a variety of umbrella terms are used, electronic bullying, internet bullying, online aggression, and cyber harassment suggesting a tremendous variability in the conceptualisation of what is broadly referred to here as cyberbullying. Burton and Mutongwizo

(2009) highlight that there has been no consistent use of the cyberbullying term across the literature. The problem is further compounded by the lack of a gold standard by which to measure electronic aggression (David-Ferdon & Hertz, 2007). Concomitant with issues surrounding the definition and inclusion criteria, prevalence rates have been calculated using assorted methods.

These differences are problematic as the definitions affect how participants respond to items being measured and different definitional perspectives of the phenomenon have produced inconsistent results, which impede accurate conclusions and comparisons across the limited studies. It provides little clarity for practitioners whose primary aim is to prevent cyberbullying. The concerns, shared by a number of authors, regarding the transferability and adequacy of adopting the attributes of traditional bullying, further places the results in question (Smith, 2012; Tokunaga, 2010). Wolak et al. (2007) raise the question of whether we can equate school bullying with harassment perpetrated through electronic means and highlight areas of consideration. Is cyberbullying an old problem in new guise or something completely new? This question, posed by various researchers, concerns an understanding of the phenomenon. Whereas quantitative research has a useful role in monitoring prevalence, attention should now focus on a qualitative understanding of cyberbullying, which seeks adolescents' perspectives, experiences, and knowledge of this relatively recent phenomenon (Rivers & Noret, 2010). In contrast, Francine Wint (2013) used Q Methodology to explore what bothers young people when communicating on Facebook. This study questions the utility of creating a conceptual definition of cyberbullying based on arbitrary criteria devoid of context, as it may only provide a partial account of the situations that concern young people online. Wint (2013) suggests that cyberbullying research should refocus its aims and concentrate on determining what bothers or harms young people online and how much it bothers them.

Typically, researchers measure respondents' experiences with a wide range of cyber experiences which are assumed to represent cyber activities. Vandebosch and Van Cleemput (2008) suggest that cyber activities, perceived as "forms of cyberbullying" by the researchers, are not always considered

cyberbullying by the respondents. Furthermore, these concerns call for an integrated definition of cyberbullying that shares a level of agreement by scholars and a definition of cyberbullying that is congruent with the perceptions of the research participants. Tokunaga (2010) provides the following definition with the aim of uniting the inconsistent definitions that appear in the literature: “Cyberbullying is any behaviour performed through electronic or digital media by individuals or groups that repeatedly communicates hostile or aggressive messages intended to inflict harm or discomfort on others” (p. 278). Tokunaga (2010) includes the following addendum to clarify what is meant by cyberbullying: “In cyberbullying experiences, the identity of the bully may or may not be known. Cyberbullying can occur through electronically-mediated communication at school; however, cyberbullying behaviours commonly occur outside of school as well” (p. 278).

What is evident is that as new technologies evolve, the definition of cyberbullying will continually need revisiting to facilitate an understanding of its substance and salience. Some researchers propose that greater attention to the core definition is required for progress in the field of research to effect change and contribute.

2.3 Types of cyberbullying

A number of studies have investigated the different types of cyberbullying. Research has shown that aspects of cyberbullying vary by the specific type of cyberbullying experienced. Initially researchers differentiated computer based bullying (e-mailing and social media) and mobile bullying (mobile phone calls and text messaging). With the advent of the smart phone (an advanced phone capable of accessing the internet) these differences have been negated and an overall classification has been adopted (Slonje et al., 2013). Some studies investigated cyberbullying via a range of specific media. Smith et al. (2008) used seven main media: mobile phone calls, text messages, picture/video clips, e-mails, chatrooms, instant messaging, and websites. Patchin and Hinduja (2010) used a similar cyber victimisation scale covering similar media.

An alternative to looking at the medium used is to look at the type of action and its content. Rivers and Noret (2010) suggested ten categories, threat of physical violence, abusive or hate related, name calling, death threats, ending platonic relationships, sexual acts, demands, damaging existing relationships, threats to home/family, and menacing chain messages. Others have investigated actors in relation to their role as a victim, perpetrator, or bystander. Each of these studies has provided alternative views of cyberbullying types. Research has shown that there is no consensus in the research community about the differentiation and diverse categories of this form of violence. The importance of a common conceptualisation of the definition is highlighted again as it has implications for the rationale for intervention.

Willard (2005) describes seven categories of common cyberbullying actions:

(1) *Harassment* involves the repeated and persistent sending of rude, threatening, or insulting material at an intended target. Although this primarily involves text, it may include video and images.
(2) *Flaming* describes a heated online fight, which involves hostile and often vulgar messages being exchanged. Although these incidents are often brief, they can spiral into online arguments that draw in a wider 'public' audience.
(3) *Denigration (put-downs)* involves the posting of disparaging comments or images that attack a person's character or reputation. This includes the posting or sending of images that have been edited to portray the intended victim in a harmful or sexually demeaning way (Burton & Mutongwizo, 2009).
(4) *Impersonation* or *identity theft* occurs when an online account is hacked, or a false persona is created, to assume the victim's identity. The perpetrator spreads damaging information in a bid to discredit or harm the victim.
(5) *Outing* refers to the act of extracting truthful information about a victim, via devious measures, and then sharing this online to cause distress.
(6) *Exclusion or ostracism* is an age-old traditional bullying practice of intentionally rejecting or isolating the victim from the peer group.

(7) *Cyber-stalking* refers to unwanted and obsessive harassment and intimidation by an individual online. There are also several reported cases where cyber-stalking has shifted from the internet into real life.

As the field of research on electronic aggression grows, it is evident that the use of different forms of technology to perpetuate aggression vary in prevalence, and the different aspects of cyberbullying may give rise to varying levels of distress, which may heighten the negative impact. It is widely accepted that rapid advancement in information technologies has 'muddied the waters'.

2.4 Unique Online Communication Factors

Kowalski and Limber (2007) propose that electronic bullying has features that make it more appealing than traditional bullying. There are several unique features inherent in new technology that increase the likelihood of exploitation and give a lot of power to youth who choose electronic means to perpetrate violence. These properties fundamentally alter social dynamics and complicate the way in which people interact and communicate in the cyber world. They affect the potential audience and the context in which the expression is received (Boyd, 2014). Some of these characteristics distinguish cyberbullying from traditional forms of bullying, and highlight the difficulty in tackling the problem of cyberbullying.

The breadth of the potential audience is increased so cyberbullies can reach large audiences, which in particular might contribute to the impact of the act. It is difficult to escape from cyberbullying, suggesting it is 'non-stop', everywhere, and anywhere, as the victim can be sent messages or access website comments whenever and wherever they are. With cyberbullying, the victim is no longer safe in their own home and few places remain for victims to escape their tormentors (Mishna et al., 2009; Slonje & Smith, 2008). This ability of the perpetrator to reach beyond the physical boundaries to cause harm is another significant difference between cyber bullying and traditional bullying. Cyberbullying can be a pervasive and invasive form of violence in the lives of those who are victimised and together with the persistence of the existence of

bullying behaviours may result in even stronger negative outcomes than traditional face-to-face bullying (Tokunaga, 2010). Reasoning for this might be attributed to the nature of electronic communication; technological advances have meant that content including images and videos, which could previously only be viewed by a limited audience, can now be uploaded immediately, and accessed globally (Rivers & Noret, 2010).

Researchers have shown that at least some of the cyberbullying tactics capitalise on the particular features of communication technology. David-Ferdon and Hertz (2007) acknowledge that continued attention be given to how some of the unique elements of new media technology may contribute to or compound the negative impact of victimisation and increase the likelihood of perpetration. Slonje and Smith (2008) conclude that the increasing penetration, fluidity, and constantly evolving new technologies are changing the nature of cyberbullying, which presents new challenges to researchers and practitioners. New technologies and in particular mobile devices are being released on a regular basis so keeping up with the trends is imperative for understanding the ever-shifting nature of the phenomenon.

Specific features or properties of digital media and new technology influence wellbeing differently and are documented in the literature. They include anonymity, asynchronicity, and accessibility of online communication that are likely to enhance cyberbullying. It is argued that these features may stimulate disinhibited behaviour, diminish confrontation with the bully, and allow easy access and retrievability of the manifestations of cyberbullying.

2.4.1 Anonymity

Online adolescents can experience and explore several forms of anonymity. Researchers point out that anonymity may embolden individuals who might never engage in face-to-face bullying (Kowalski, Morgan & Limber, 2012; Tokunaga, 2010). An extreme form is source anonymity, which refers to a situation wherein online communication cannot be attributed to a specific individual or group of individuals. As cyberbullying is not a face-to-face experience, it provides those doing the cyberbullying with a degree of invisibility

and allows adolescents to mask their identity when they perpetrate aggression. The potential threat of anonymity is compounded by the fact that there is no capacity for the perpetrator to see the victim's emotional reactions or behaviour.

Another common form of anonymity is audio-visual anonymity, which refers to the lack of or reduction of nonverbal (visual or auditory) cues conveyed in online communication. This lack of physical and social cues implies that cyberbullies are not personally confronted with the way their victim reacts and with the consequences of the harassments. Anonymity may provide a 'cloak of invisibility' under which they may communicate things they would not say to another person face-to-face (Patchin & Hinduja, 2006; Smith et al., 2008). In addition, this prevents the victim from responding appropriately, as it hampers the interpretation of the message and encroaches on their private environment.

The use of pseudonyms or pseudonymous e-mail accounts makes it difficult for victims to determine the identity of offenders, which could contribute to the freedom enjoyed by an offender on the internet. The perpetrator may be less aware or even unaware of the consequences caused by their actions and this increases the risk of misinterpretation of the message by the victim and reduces the perpetrator's feedback. Without direct feedback, there might be fewer opportunities for empathy or remorse on the part of the perpetrator, and intervention from bystanders. Poor attempts at humour, which are devoid of immediate feedback and paralinguistic cues, can be misunderstood and be a source of distress. Anonymity could also stimulate impulsive reactions, which might result in disinhibited, aggressive and insulting behaviours online. Researchers agree that this perceived invisibility constitutes a power imbalance (Badenhorst, 2011; Burton & Mutongwizo, 2009; Hinduja & Patchin, 2008; Li, 2008; Smith et al., 2008).

The elements of perceived anonymity, invisible audiences, and the safety and security of being behind a computer screen, aid in freeing individuals from traditional constraining pressures of society, conscience, morality, and ethics in terms of behaviour. Anonymity also implies the absence of consequences, as the aggressors cannot be easily identified and therefore avoid detection and punishment (Calvete et al., 2010). While anonymity may be a distinguishing

factor in some cases consideration must be given to the fact that those who are victimised by cyberbullies often know the identity of the perpetrator (Kowalski & Limber, 2007; Wolak, Mitchell & Finkelor, 2007). This suggests that anonymity may compel certain individuals to use electronic devices to bully; however, the opportunity for anonymous communication is not seized by all cyberbullies.

2.4.2 Asynchronicity

Another feature unique to online communication is the asynchronous (delayed) characteristic of most online communication. This allows adolescents the opportunity to change and reflect on what they write before they press ‘send’ or ‘post’ to transmit a piece of communication. Therefore, the option to edit online communication is higher than face-to-face communication as it can be adjusted and controlled before it is transmitted. Asynchronicity and editing possibilities allow for careful compilation and revision of information, which means that adolescents can optimise their presentation and disclosure easily and effectively. This allows them to tailor information in such a manner that it can be misused and have negative consequences for their victims (Boyd, 2007; Valkenburg & Peter, 2011).

2.4.3 Accessibility

Accessibility is another unique feature inherent to electronic communication and many social media platforms. This provides the perpetrator an abundance of opportunities to find, create and distribute information and thereby inflict harm well beyond physical boundaries (Hinduja & Patchin, 2008; Li, 2006). This feature offers 24/7, non-stop access to technology highlighting the intrinsic limitation of privacy and the lack of structures to limit the audience. The potential persistence of bullying behaviours may result in stronger negative outcomes than traditional bullying. Evolving technology has increased adolescents’ access and exposure to violent and other inappropriate and potentially disturbing material.

The enhanced controllability offered by some features of social media technology in turn creates a sense of security in adolescents, allowing them to feel freer in their online interpersonal interactions than in face to-face situations. A further danger is the ability of the cyberbully to choose their audience and involve a wider audience, as electronic messages and images can be quickly and easily distributed (Smith, 2012). Finding someone's digital body is a matter of keystrokes as communication technologies record expressions and have search and discovery tools readily available.

Privacy and digital footprint issues have been highlighted as special risks for adolescents. O'Keeffe and Clarke-Pearson (2011) identify the lack of understanding of online privacy issues, and the fact that there is a collective and ongoing record providing evidence of an individual's web activity (called the 'digital footprint') is a big threat to young people on social media sites. They may post inappropriate messages, pictures, and videos without an understanding that 'what goes online stays online', which has implications for their reputation since the material exists in cyberspace and cannot be removed or avoided. Insults and malicious comments can be preserved and reread several times. This in itself can exacerbate its consequences and make the victim feel more vulnerable.

Danah Boyd (2007) situates these social media sites, which are common destinations for adolescents to interact and engage, in a broader discussion of "networked publics" (p. 120). These publics are affected by the mediated nature of the interaction with specific reference to the spaces and audiences that are bound together through the technological networks (the internet, mobile networks etc.). Networked publics are less constrained by geography and temporal collocation, which is not typically present in face-to-face engagement. What is unique about this is that it allows adolescents to participate in unregulated publics, and this adds to the controversial nature of the problem of cyberbullying in context. Boyd (2007) suggests that publics are new arenas for the formation and enactment of social identities and play a crucial role in the development of adolescents.

Cyberbullying is different from traditional bullying in a number of ways. Although they are not absolute, some factors such as breadth and reach of audience, and anonymity may affect other aspects such as motivation for cyberbullying and the impact on victims (Nocentini et al., 2010).

2.5 Risks of Online Communication

Hinduja and Patchin (2008) describe cyberbullying as the unfortunate by-product of the combination of teenage aggression and their ubiquitous access to electronic communication. It has been suggested that technology plays an indispensable and integral part in the lives of youth as they far outnumber adults in the use of communication technologies (Lenhart, Madden, Smith, Purcell, Zickuhr & Rainie, 2011; Valkenburg & Peter, 2009). This increased popularity and reliance on online communication has created mixed reactions and uncertainty about its consequences. Some theorists take an optimistic view, while others warn of the potential harmful effects of adolescent digital use.

In the midst of technological advances, it is paramount to consider the developmental influences these new technologies are having on young people as they participate in these online communities and digital worlds. Valkenburg and Peter (2011) call for an integrative perspective that will aid an understanding of the attraction of e-communication technologies online communication, as well as the risks and opportunities for psychosocial development of adolescents. According to an Eriksonian view, the development of a personally meaningful and socially validated identity constitutes a primary developmental step in adolescence (Erikson, 1968). They are confronted with two major developmental tasks: identity formation and redefining the relationships with family. Interpersonal relationships and social contexts play a key role in shaping adolescents' identity. Yet, the social contexts for today's adolescents differ markedly from those of their predecessors (Davis, 2013). The contemporary landscape of digital media technologies from social networking sites, cell phones, instant messaging platforms to blogs and virtual worlds, have created new social contexts for adolescents to express and explore their identities.

The potential risks of using these new forms of media technology are gaining tremendous attention as the number of adolescent victims of cyberbullying is growing (Wolak et al., 2007). Adolescents are particularly vulnerable to victimisation, this risk is alarming and deserves attention as the field of research grows (David-Ferdon & Hertz, 2007). Studies also indicate that there is a low level of support offered to victims of cyberbullying.

The mass adoption of communication technology activity is growing and it has been suggested that the majority of youth view these electronic tools as “critical tools for their social life” (Kowalski, Limber & Agatston, 2008, p. 2). Youth are described as sophisticated users of technology and their technological savvy and their ability to be online without much adult supervision can lead to behaviours of high risk (Agatston, Kowalski & Limber, 2007). It should be noted that while adolescents can easily navigate the online world, it does not mean that young people are able to handle challenging situations any better than they would in the ‘real world’.

O’Keeffe and Clarke-Pearson (2011) report that because of their limited capacity for self-regulation and susceptibility to peer pressure, adolescents are particularly at risk as they navigate and experiment with social media. The knowledge and skills gap between parents and youth create a disconnect in how they participate in the online world. Never before have adolescents had the chance to explore their identities with such a multiplicity of means without supervision by traditional socialising agents such as parents and schools (Valkenburg & Peter, 2011). Another contributing element is the increasingly common presence of computers in adolescents’ bedrooms; the lack of a policing agent and no clear individual or group who serve to regulate deviant behaviour online, is a significant problem. Empirical research has shown that adolescents can use technologies in both a positive and negative way; however, it is widely used for cyberbullying and online harassment (Valkenburg & Peter, 2011).

The statistics related to cyber harassment among our youth has led to its characterisation as a serious health concern. Some noteworthy cases have received particular attention:

- Jamey Rodemeyer, a 14-year-old gay American teenager was known for his activism against homophobia and his videos on YouTube to help victims of homophobic bullying. His suicide by hanging was attributed to constant bullying and relentless online harassment.
- Amanda Todd, a 15-year-old Canadian youth, committed suicide by hanging on 10 October 2012, reportedly after relentless cyberbullying and online harassment. Two months prior to her death she posted a YouTube clip entitled “My Story: struggling, bullying, suicide and self - harm”, in which she expressed her distress. She was convinced into exposing her breasts via webcam, which was used as a profile picture on Facebook and sparked a vicious cycle of verbal and online abuse.
- Megan Meier, a 13-year-old American adolescent, committed suicide by hanging in October 2006 after she was allegedly tormented by the mother of a former friend. Lori Drew, the mother and cyberbully, created a fake identity on My Space to harass and humiliate Megan (ABC News, 2007).

These are not isolated accounts and highlight the concerns about the undesirable social implications for this relatively new and emerging field of research. The increase in cyberbullying victimisation and its outcome is alarming and requires attention of researchers and policy makers. It has become imperative for adults to understand the new reality of young people’s lives.

The reviews on cyberbullying suggest that teens are highly impressionable and often a volatile population; therefore, adolescence is a peak period for involvement in cyberbullying (Smith, 2012; Tokunaga, 2010). A number of researchers describe this as an emerging health issue with adolescents in dire need of attention. The adolescent period merits careful consideration, as it is labelled a ‘brutalising period’ and is a time of abrupt biological and social change in the lives of youngsters (Pellegrini & Bartini, 2000). Social media adds to the complexity of managing social relationships and developing an identity as online exchanges take place in much more open, public, immediate, and lasting forums (Boyd, 2014).

It has become evident that adolescence can only be understood and addressed within the context of this new world of cyberspace. Identifying unique technological characteristics is an integral component of understanding youth and cyberbullying. Teachers, parents, and health service providers are constantly confronted with cyberbullying situations that they feel ill-informed to handle. It has become apparent that research is imperative to inform an understanding of the problem and to employ effective solutions in order to assist in the application of this knowledge at school and home. An understanding of what adolescents' think about cyberbullying is needed in order to pave the way towards enlightenment.

2.6 The Cyberbullying Victim

Valkenburg and Peter (2011) highlight the important challenge for future researchers, health care professionals, and parents to understand how to enhance opportunities of online communication and manage its risks. At the same time, youth should be empowered and responsible for their own online safety. An approach that blends digital citizenship and digital literacy by directly addressing online behaviour and its solutions is favoured. A number of sources acknowledge that bullying has entered the digital era and adults and other professionals require the knowledge and skills to help young people to understand the issues involved to protect themselves in this area.

2.6.1 Seeking help

The lack of supervision by adults and the unregulated nature of cyberspace is another important difference between online and offline bullying (Cassidy et al., 2013; Dehue, 2013) and this is a major concern raised in the literature. It is evident that online anti-social behaviour is less visible than face-to-face antisocial behaviour and this distinction has implications for supervising and monitoring online behaviours. A troubling finding is that a large proportion of youth do not disclose their experiences of cyberbullying to their parents or authorities (Mishna et al., 2009). On the other hand, victims often disclose their bullying concerns and seek help from their friends (Cassidy et al., 2013; Price &

Dalgleish, 2010; Smith et al., 2008). This is understandable as during this life stage the peer group often displaces parental relationships as the primary source of social support, so adolescents are more likely regard their friends as confidants.

A common theme in the literature is the lack of understanding of the cyberbullying phenomenon by adults. They are unfamiliar with modern communication technology and are frequently unaware that their children are engaging in cyberbullying or being cyberbullied (Aricak et al., 2008; Dehue et al., 2008). As a result cyber abuse is often not reported, victims may never receive adequate support and therefore the problem may be underestimated. Several reasons for not reporting victimisation or alerting adults have emerged. Victims believe their own freedoms may be limited and they fear punishment, loss of their own digital privileges, and potential isolation from peers (Kowlaski et al., 2008; Mishna et al., 2009; Tokunaga, 2010). Other reasons for not telling adults included wanting to be independent, and believing that effectively managing problems resulting from the use of communication technologies is a necessary skill.

Cyberbullying may appear exceptionally frightening to parents because it involves digital communication technologies with which they are unfamiliar (Jovonen & Gross, 2008). Many parents are unable to take the necessary precautions to protect their children (Popovac & Leoschut, 2012). Adults generally encourage adolescent victims to tell a teacher or a parent if they are being cyberbullied. Another prevalent theme in the literature (Agatston et al., 2007; Cassidy, Brown & Jackson, 2011; Mishna et al., 2009; Subrahmanyam & Greenfield, 2008) is that youth are reluctant to talk about cyberbullying, as they may not trust adults to understand the phenomenon. This suggests that youth believe that adults are unable to respond to the problem, will not do anything about the problem, and are therefore less likely to be approached. Other reasons include a lack of confidence in parents' and educator's ability to address the concerns appropriately, and they fear the situation will be trivialised. Youth perceive a generation gap and know that parents are often less expert in the new technologies (Mishna et al., 2009; Smith et al., 2008;

Subrahmanyam & Greenfield, 2008), which is further complicated by adults' misreading of youth participation in new media (Boyd, 2014). Studies have shown that adolescents hide their activities from their parents, and Valkenburg and Peter (2009) believe that attempts to intervene in adolescents' online communication may backfire because adolescents may consider such attempts intrusive. Interestingly, Prensky (2001, p. 3) coined the terms "digital natives" referring to this generation and "digital immigrants" for their parents and educators due to the gap in understanding between the age groups. This has become an essential feature used widely in the literature to highlight the important differences within each group.

2.6.2 Coping mechanisms

Strategies used to address cyberbullying and several methods for coping with cyberbullying experiences and reducing exposure to risks have received considerable focus in the literature. Technological coping strategies are commonly used to circumvent victimisation and can be effective in reducing exposure to risks. These include instituting privacy settings on technologies, changing passwords or e-mail addresses, and avoiding messages by blocking the cyberbully (Aricak et al., 2008; Juvonen & Gross, 2008; Smith et al., 2008). Many coping strategies focus on the individual, however there are reasons to adopt a wider view and adopt strategies at school level and beyond (Cassidy et al., 2013).

Other coping strategies, described as passive strategies or fatalistic responses such as ignoring cyberbullying encounters or avoiding online activity, are also employed to deal with cyberbullying. Avoidance or doing nothing is a common strategy that is advocated for cyberbullying and this pessimism was encountered in some focus group studies. Smith et al. (2008) suggest that the pessimism is justified, as it is unlikely that cyberbullying will be eradicated. While other studies indicate that victims seek active strategies to thwart cyberbullying such as confronting cyberbullies, telling them to end their harmful behaviour, or threaten to report them to someone of authority. Agatson et al. (2007) emphasise that students were less likely to be aware of strategies such

as to request the removal of objectionable websites, as well as how to respond as a helpful bystander when witnessing cruel behaviour online. The effectiveness of employing such strategies is unknown and further evidence is required as to the methods young people rely on most to deal with cyberbullying. Rivers and Noret (2010) suggest that these are short-term solutions and what is required is empowering youth to manage risks effectively.

Price and Dalgleish (2010) explored coping strategies, and in their research included open questions, which allowed young people to state what advice they would give to others being cyberbullied. Key themes were identified, and in order of prevalence, included: speaking out, ignoring, avoiding, being positive, and retaliating. Young people advise others to speak out and seek help, yet a common finding is that only a minority of victims choose to speak out about their experiences. There appears to be a gap between what users say they do and what they actually do. Retaliation or revenge as a coping strategy may increase the problem, leading to escalation of the bullying, rather than to deter the bully. Consideration should be given to young people who are using this as a coping strategy as its use may breed further bullying behaviour (Price & Dalgleish, 2010).

Overwhelmingly, studies find that rather few adolescents seek help from others and if they do tell someone, a consistent finding is that their first choice is to tell a friend, then a parent, and lastly a teacher (Agatston et al., 2007, Kowalski & Limber, 2007; Slonje et al., 2013). In a Q methodological study of traditional bullying, Wester (2004) proposed that adult attitudes about bullying and harassment play a role in determining the extent to which bullying occurs and might be tolerated in a setting. They suggest that passive tolerance by adults may be interpreted as tolerance or condolence of the behaviour. It is conceivable that this may apply to cyberbullying behaviour and could relate to adults' lack of understanding of the phenomenon. This reiterates the need to address the role of adults in the psychosocial development of adolescents, and reinforces the need to raise awareness among teachers and parents about cyberbullying and preventative measures. Jones et al. (2013) suggest that a full

understanding of the experience of youth and their negative experience online is needed in order for adult-driven experiences to connect with adolescents.

2.6.3 Prevention

It is not surprising that a major practical step in the prevention guidelines is to increase awareness among adults. Many adults are not aware of the potential for cyberbullying. Rivers and Noret (2010) suggest that that there is a task for researchers, in partnership with teachers and parents, to understand the context in which cyberbullying takes place, in particular its nature, expression, and content.

The research literature points to a need to address cyberbullying through education (Agatston et al., 2007; Patchin & Hinduja, 2011). One of the key critical components of prevention and education is a focus on skills building (Jones et al., 2013) in terms of digital literacy, technological skill, critical thinking skills, and e-safety. Learners' should be taught relational and social skills including perspective taking, emotional regulation, communication skills, and effective bystander intervention skills as they would most likely translate into an environment or communication modality. It has been suggested that the curriculum should include promoting empathy and self- esteem by fostering cyber-kindness, instead of trying to stop cyberbullying or remove the risks. Intervention should deal with the normative views about the use of violence through activities aimed at enhancing empathy and strengthening interpersonal relationships to promote a system of positive social support (Calvete et al., 2010). Research has suggested that isolation and perceived poor peer social support are risk factors for cyberbullying. Diverse studies propose measures to promote positive social support, including interventions targeted at empowering social relationships, bystanders, and peers, which may provide the greatest likelihood of successfully preventing cyberbullying.

Li (2007b) stresses the importance of systematic education and safety strategies from an early age to tackle the problem of cyberbullying in this new context, as cyberbullying has an impact on the learning environment and the

well-being of families and communities. There should be a joint effort at many levels from schools, families, communities, legislative levels, and society.

The majority of current safety guidelines recommend parental involvement and monitoring of children's use and access to the internet and other social networking sites; however, this is not sufficient in addressing the problem of cyberbullying, indicating that additional alternative measures are necessary. Regarding prevention, there is consensus by many authors, educators, and practitioners that stopping adolescents' access to and use of electronic media is not the answer. Additionally, several authors agree that sole reliance on constant cyber-monitoring and blocking or filtering software is not sufficient to address the problem. Findings in the literature (Livingstone, Haddon. Görzig, & Ólafsson, 2011; Patchin & Hinduja, 2012) emphasise the importance of establishing good communication and open dialogue between parents and adolescents, emphasising general positive parenting styles, rather than investing in monitoring software or other attempts at controlling adolescent online use. There is support for the notion that open, frank discussion and caring parent/child relations offer well-protected and well-adjusted children, than those who are monitored and controlled.

2.7 Impact and Outcomes of Cyberbullying

Spears et al. (2009, p. 195) found that "cyberbullying evoked strong negative feelings and emotions, aroused fear and concerns for safety, had a personal impact, and disrupted and dislocated relationships".

The digital world provides weapons for anti-social behaviour such as sending hate mail or threats, spreading rumours, or carrying out sexual or racial harassment, which is often referred to as cyberbullying (Dehue, 2013). Research provides a vast picture of the significant psychosocial difficulties and cognitive effects of cyberbullying and this underscores the serious nature of the phenomenon. Students who were cyberbullied reported feelings of sadness, loneliness, anxiety and fear, along with an inability to concentrate, which affected their grades (Beran & Li, 2005; Li, 2007a; Patchin & Hinduja, 2006).

These emotions have been correlated with maladaptive behaviour such as delinquency and interpersonal violence among youth. Studies have found clear evidence for negative behavioural and physical consequences associated with cyberbullying. Youth who were bullied on line were more likely to have skipped school, had detentions or suspensions, or carried a weapon to school (Mitchell, Ybarra & Finkelhor, 2007).

Research confirms that cyberbullying can have profound mental health outcomes including depression, anxiety, severe isolation, substance abuse, and tragically suicide is widely reported. Studies have established a significant link between cyberbullying and suicidal ideation, as well as attempted and successful suicides adding to the potential dangers (Patchin & Hinduja, 2010; Mitchell et al., 2007).

Some studies (Patchin & Hinduja, 2006; Smith et al., 2008) note that victims reported not being bothered by the cyberbullying event; believing that it is not 'real' or physical. This could indicate that perception is dependent on context (Vandebosch & Van Cleemput, 2009), or that certain acts are not regarded as antisocial (Dehue et al., 2008; Mishna et al., 2009). As with traditional bullying, some people are able to shrug off bullying acts because of peer or other social support or higher self-efficacy, while others are not able to deal with these events.

Some literature indicates that the effects of online antisocial behaviour are more severe than the effects of face-to-face antisocial behaviour (Mishna et al., 2009) due to the contributing factors that are potentially unique to internet harassment and victimisation. In particular, the seemingly limitless audience in which public humiliation or embarrassment can occur, the perceived anonymity of the perpetrator, the continuity of the message, and the level of pervasiveness that is possible (Hinduja & Patchin, 2008; Smith et al., 2008). Cyberbullying causes distress, but its impact relative to traditional bullying is uncertain. Many studies show there is significant overlap between online and offline bullying and its relative impact (Dehue et al., 2008; Mitchell et al., 2007).

The development of new technologies and methods of communication have redefined the understanding of young people's social interactions and this has undoubtedly had an impact on cyberbullying. Digital tools offer damaging ways to respond and communicate hostility. Many researchers have argued for further research on the consequences of cyberbullying (Dehue et al., 2008; Rivers & Noret, 2010). It is important to know how adolescents judge cyberbullying events and to identify which behaviours actually result in measurable negative outcomes. Educators could design more interventions aimed at effectively preventing cyberbullying. Furthermore, concerns raised surrounding unintentional behaviours with damaging outcomes is not sufficiently addressed.

2.8 The South African Context

The paucity of local research is of particular concern, which is highlighted by Badenhorst (2011): "There is limited research on cyberbullying and texting in South Africa. As such, it is unclear how many children are involved in these practices. The number of children subjected to cyberbullying is also unknown" (p. 5).

Although many South Africans do not have access to running water and electricity, they do have access to cellular phone technology. Data suggests that South Africans are one of the highest users of mobile technology and mobile social networking on the continent. This, combined with growing affordability of smartphones and data bundles, lends weight to the argument that the risk is similar to that evident in the United States and Europe. Fine (2008, cited in Burton & Mutongwizo, 2009) extends this thinking, by positing that South Africa, despite limitations to penetration, has experienced a rapid adoption of electronic media. Along with the convergence of voice and data services and the rapid advancement in information technologies (such as the shift to web 2.0 technologies), a fertile breeding ground for cyber violence exists locally.

In addition, the smart phone, now a standard offering with most pre-paid contracts in South Africa, typically include functionality that enable the user to access the internet, capture and display images and video, and identify their GPS (Global Positioning System) location. Young people are now able to communicate in ways that are relatively unfamiliar to both parents and educators. This can make it incredibly difficult to understand the nature of the issues, and do something constructive (Keith & Martin, 2005).

Although there is a host of international empirical research, the same cannot be said for South Africa (Badenhorst, 2011), and to date, there are only two major quantitative studies (Popovac & Leoschut, 2012). The findings from the 2009 Centre for Justice and Crime Prevention's pilot study (Burton & Mutongwizo, 2009) and the 2011 Nelson Mandela Metropolitan University study (De Lange & Von Solms, 2011) support the notion that ICTs are in high use among young people in South Africa. These studies confirm the high incidence of cyber aggression among South Africa's youth.

2.9 Theoretical Framing

Although cyberbullying research is vigorous, it lacks an overall theoretical approach, and has been conducted largely in the absence of theory (Slonje et al., 2013; Tokunaga, 2010). The major contributions can be credited to psychology (Smith, 2012). The indifference of cyberbullying researchers to established theories in related fields such as new information technology, mass media, and even criminology is alarming. Hay, Meldrum, and Mann (2010) argue that the absence of theory is problematic as science uses theory as a tool to organise accumulated knowledge and aid understanding. Some applications of theory and theory building for explaining and understanding cyberbullying behaviours and victimisation must be employed by cyberbullying researchers for there to be scholarly advancement (Tokunaga, 2010). This represents a gap in current literature and provides an opportunity for researchers to contribute to the current body of literature on the phenomenon.

More research needs to be done to understand the processes of cyberbullying in a way that is sensitive to adolescents and the dynamic nature of the topic. Many authors argue for a qualitative approach, due to the shortcomings of quantitative approaches. It can be argued that quantitative research lacks the depth and insight into the experiences of cyberbullying and the perceptions of those involved. Livingstone et al. (2011) reiterate that qualitative work based on listening to young people is vital to learn what risks they are experiencing. In addition, Agatston et al. (2007) highlights the need to gain an understanding of how concerned youth are about cyberbullying. Q methodology is a reasonable alternative to these approaches as it can examine participants' own concepts of cyberbullying yet it still has the advantages of quantitative approaches.

2.10 Summary

The literature review has illustrated that a growing body of academic literature has contributed to the understanding of the phenomenon of cyberbullying and the role of technology. Despite the similarities, there are distinct differences between traditional bullying and cyberbullying indicating the importance of research into this area. A concern shared by a number of authors is that the attributes that characterise bullying do not adequately describe cyberbullying. Current studies are inconsistent and ambiguous in their conceptualisation of the term due to the lack of consensus on a standardised definition of the term. There is evidence of a need to address the definitional issues within the area of aggression via electronic media.

Never before has information and education been so readily available and the opportunities for learning, exploration, and engagement are undeniable. These benefits are not without their dangers and inherent risks. The risks range from exposure to inappropriate content, undesirable contact with strangers, unacceptable conduct, and the emergent phenomenon of cyberbullying. The level of online risk facing adolescents and the harassment that takes place via electronic media has largely been neglected, and cyberbullying research is in its infancy.

The greater challenges for supervision of online behaviours have been highlighted. Many adults are unaware of the potential of cyberbullying and the types of interactions young people are engaging in online. There is a separation between adults and adolescents, which means that they are unaware of the difficulties young people face online and the effect that cyberbullying may be having on their well-being. It is critical for parents, educators and other professionals to be educated in this area to in order to combat risks. The literature calls for adult involvement in understanding young people's social networks and social interactions.

A number of studies demonstrate the severity of the impact of cyberbullying and further underscore the need to tackle the problem of cyberbullying in order to inform appropriate prevention and response strategies. It is argued that the nature of electronic communication and its inherent unique qualities may exacerbate the negative consequences of cyberbullying victimisation as adolescents frequently turn to cyberspace to harass others. While effects range from frustration to more serious psychosocial disorders, variations in perceptions of impact are considerable. The degree of impact depends on a number of factors, which include individual differences, situational dynamics, and technological factors.

Although the work that has been done on cyberbullying is a helpful framework for understanding the phenomenon, the need for a better understanding of cyberbullying is indicated. Cyberbullying is neither sufficiently understood, nor are the dynamics well portrayed theoretically. Perceptions need to be explored in order to capture the individual and collective meanings given to cyberbullying in a way that respects the complexity of the dynamics of this new form of harassment.

CHAPTER 3: Q METHODOLOGY

3.1 Q Methodology Background

Q methodology offers an alternative approach to the study of human behaviour through its emphasis on subjectivity. It is seen as a way for researchers to objectively study subjectivity.

Q methodology was developed by British physicist-psychologist William Stephenson, and its origins can be traced to a letter Stephenson (1935) published in the journal 'Nature' in 1935. Q methodology can be understood as an adaptation or inversion of Spearman's traditional quantitative method of factor analysis. The standard (R) factor analysis correlates items or measures for a sample of people, and factors out clusters of test items, with a view to discerning the latent construct represented by the items. Many of the outcome measures used in R appear in Q. This inversion of conventional factor analysis employs persons as its variables and traits or tests are treated as the sample or population. Stephenson (1935) proposed that individuals perform the measuring rather than being measured. This methodological advancement allowed Stephenson (1935) to make subjectivity his primary research focus, as access is obtained to individuals' thoughts and feelings by exploring patterns in their subjectivities. It was proposed as an alternative to the Newtonian logic and empirical methods in the context of psychology, and effectively transcends the opposing quantitative/qualitative research divide. Stephenson (1953) defines Q methodology as "a set of statistical, philosophy- of- science, and psychological principles" (p. 1). He posits that Q methodology serves as a challenge to psychology with the intention of restoring scientific order (Stevenson, 1953). Q methodology has been successfully used in diverse disciplines including communication, political science, health, ecology, agriculture, commerce, education, and related areas. It has been applied to explore individuals' subjectivity in a wide range of topics, for example attitudes towards, child abuse, jealousy, environmental issues, and love.

3.2 Q Methodology Defined

Q methodology is not simply a statistical technique but instead a complete methodology (McKeown & Thomas, 1988; Stephenson, 1953) with its own set of procedures, theory, and philosophy that provides a framework for the study of subjectivity (Brown, 1980, 2008). Q methodology is effectively used to explore and uncover the distinct subjective viewpoints that exist within a group of people in relation to a given topic. It is in pursuit of participant led subjective expressions and typically focuses on the range of viewpoints shared by specific groups of participants. The methodology is grounded in the fundamental properties of mathematics and modern science that provides researchers with a rigorous and systematic procedure for examining the subjective components of human behaviour.

Additionally, Q methodology attempts to examine the world from the internal standpoint of the individual being studied, and is designed as a systematic study of human subjectivity, an individuals' personal viewpoint. Q methodology uses the best of quantitative and qualitative research conventions (Brown, 1980). The focus is on quality rather than quantity, yet some statistical mechanisms are in the background. It brings qualitative research into the quantitative realm (McKeown & Thomas, 1988).

3.3 Reasons for Choosing Q Methodology

Q methodologists have an interest in other people's viewpoints, perspectives, or attitudes and believe that those viewpoints are important in the context of the subject matter and people's lives in general (Watts & Stenner, 2012). The value of Q methodology is that it enables entry into the subjective world of participants and provides the tools for making subjective meanings objective (McKeown & Thomas, 1988).

It ordinarily adopts a small multi-participant format, and most often is deployed to explore and make sense of highly complex and socially contested concepts and subject matters for the point of view of the group of participants involved

(Stainton-Rogers, 1995; Watts & Stenner, 2005). The key issue is to preserve and privilege the subject's subjective viewpoint and accurately interpret lived experiences.

The Q methodological approach seeks to discover how individuals conceptualise for themselves, in a self-referent manner according to the respondents own viewpoint, the subject matter under consideration. It gives substance to the logic of preference by explicitly recognising the central role of subjectivity involved in evaluations of all kinds. Furthermore, it is in no way dependent on constructed effects as there is no outside criterion for a person's own point of view as this exists naturally within a particular setting and is neither right nor wrong (Watts & Stenner, 2012).

Brown (1980) found that the factors resulting from the Q analysis represent clusters of subjectivity or personal profiles and common viewpoints so that the observer's understanding is informed by actual segments that are grounded in concrete behaviour. No claim to exclusivity of the factors is made, and in different samples, alternative or additional factors may emerge. It shows the particular combinations or configurations of themes that are preferred by a participant group. The methodology allows for the interpretation of emergent factors and the understanding of the nature of the shared viewpoints discovered, to a high level of qualitative detail. The methodological and theoretical departure from psychological tradition is highly significant as it allows for the pursuit of empirical discoveries of a qualitative kind (Stephenson, 1936).

3.3.1 Appropriateness of Q methodology for this study

The intention of the method is to systematically and holistically identify different types of people or types of viewpoints across different life domains and contexts (Watts & Stenner, 2012). The basic method combines the gathering of data in the form of Q sorts and their subsequent inter-correlation and factor analysis. The method employs an innovative by-person factor analysis in order to identify groups of participants who make sense of a pool of items in a comparable way (Stenner, Watts & Worrell, 2008). Stephenson (1935)

presented the idea of Q methodology as a way of investigating people's views on any topic. Thereby, allowing researchers to investigate research questions that involve determining various opinions within a group about a specific topic.

Various claims made in subsections of the literature review by authors of cyberbullying research, point to a need for a method that gives individuals the opportunity to express themselves in a way that allows for attitudes, perceptions, conceptions, and feelings about cyberbullying to be explored. A method was required that heard the voices of the adolescents, the population of interest, and allowed for diverse and varied viewpoints to emerge. It was assumed that adolescents would have different understandings of cyberbullying and its constitution and severity, and it was these understandings that were of relevance in this study.

Q methodology is primarily an exploratory technique and can bring a sense of coherence to research questions that have complex and socially contested answers (Stainton-Rogers, 1995). When researching, Stephenson (1953) tends to value curiosity and promote discovery and understanding, over the logic of testing. Q methodology was selected to tap the subjective understanding of the nature of cyberbullying (meaning and viewpoints). Q methodology is particularly effective in dealing with subjective evaluations of various issues and uncovering various viewpoints. In Q methodology opinions about items are self-referent and it is the gestalt point of view that matters more than the individual rankings of single statements.

For this study, Q methodology was selected as the preferred research design to explore youth's perceptions of cyberbullying behaviour and their subjective viewpoints and attitudes towards the nature and impact of this phenomenon. Q methodology is useful in organising and measuring subjective perceptions of participants regarding significant personal experiences. As the aim of this research was to give substance to perceptions, explore viewpoints, and generate new ideas, this choice of methodology had a logical fit as it permitted exploration of complex social and psychological phenomena. It demonstrated its 'sense-making' capacity even where variability and disparity prevail (Stenner et al., 2008). The factors in this study show that there were undeniably varied,

heterogeneous perceptions about what constitutes cyberbullying and its severity. The use of Q methodology was valuable in that the strengths of both quantitative and qualitative approaches could be drawn upon. Furthermore, the qualitative dimension is of particular importance in cyberbullying research in its ability to capture individual attitudes and give a voice to the marginal. The focus of this research was on studying the subjective meanings of cyberbullying and not empirically testing the percentage of people that felt a certain way.

3.4 Q Methodology Procedures

The technique provides operations that explore an individual's subjective understandings, beliefs, attitudes, and opinions that are typically overlooked in quantitative procedures (Li, Cross & Smith, 2011). It involves a heterogeneous set of sample items that are ranked within a standardised distribution by a group of participants according to certain criteria. Most typically a person is presented with a set of statements that fully represent possible views about a topic and is asked to actively rank order them according to a condition of instruction (usually by sorting items from 'agree' to 'disagree'). The statements are matters of opinion and the ranking from each individual's point of view is what brings meaning and subjectivity into the picture (Brown, 1993). Q methodology neither tests its participants nor imposes meaning *a priori*. Rather participants decide what is meaningful and impose their viewpoints onto the set of statements they are given. There is a sequential set of procedures, generally associated with a Q methodological study, and several steps outlined by Van Excel and de Graaf (2005) were used in this study. These are described in detail in section 3.4.1 to 3.4.7.

3.4.1 Pre-arranged distribution

The template for data collection consists of a 'pre-arranged distribution' that resembles a histogram in the shape of a normal curve. The columns are represented by a dimension, for example from 'most agree' to 'most disagree' (Stainton-Rogers, 1995). The novel and ingenious means of data collection may be enhanced by the imposition of a pre-arranged distribution. This

distribution serves to delineate and further standardise the ranking procedure. The Q methodologist provides a heterogeneous population of stimulus items, each of which must be assigned a ranking position relative to all the others in the distribution provided. This process is carried out by every participant along a face valid dimension, for example from ‘most agree’ to ‘most disagree’ (Stainton-Rogers, 1995). It also dictates the number of stimulus items that can be assigned a particular ranking value. Pre-arranged distributions are also known as forced distributions. Q methodologists generally choose a fixed distribution because it represents the most convenient and pragmatic means of facilitating the item ranking process. The sorting distribution is normally numbered from positive value at one pole, through zero, to the equivalent negative value at the other pole, for example, from +6 to -6. This general shape forces a relatively large number of items towards the midpoint of the distribution and allows fewer at the peripheries. According to Brown (1993) the range and distribution shape are arbitrary and have no effect on the statistical analysis.

3.4.2 Definition of the concourse

The first step in a Q methodology study is to define the concourse. Concourses constitute the raw material and this is a key concept to Q methodology (Brown, 1993). It refers to the volume of discussions about a topic (Stephenson, 1980). In Q methodology, the flow of communicability surrounding any topic is referred to as a concourse, which literally means ‘running together’ as when ideas run together in thought (Brown, 1993). It is a ‘universe of statements’, for any context or situation, which can be described as the communication or discussion surrounding a topic (McKeown & Thomas, 1988). The concourse is a technical concept for the collection of all the possible statements the respondents can make about a subject (Van Exel & De Graaf, 2005). Stephenson (1953) states that concourse is not restricted to words and may include pieces of art, photographs, cartoons, and even musical selections. All kinds of sources can be used to gather representative and relevant viewpoints and opinions about a topic. Typically, Q item samples are collected from reference to academic literature, popular literature, participant observation, interviews, television shows, and newspaper articles and often via pilot studies

and group discussions. The gathered material represents existing opinions and arguments about the topic and this constitutes the raw material.

Although concourses arise from shared understandings, meanings may differ for individuals depending on a particular content and context. In Q methodology naturalistic statements from participants are often used to ensure relevance of the statements and to discover themes that are not described in the literature or existing theory.

3.4.3 Development of the Q set

The next step in a Q study is to develop the Q set, sometimes referred to as the Q sample, which is a subset of heterogeneous statements generated from the concourse to be presented to the participants for sorting (Van Exel & De Graaf, 2005). Stainton-Rogers (1995) states that between 40 and 80 statements are normally sufficient for a Q study; Watts and Stenner (2012) assert that any less than this may not give accurate coverage whereas more may become unnecessary and unwieldly. The process of extracting the Q set from the larger concourse usually involves some sort of categorisation whereby statements are grouped by broad categories or themes. A theory can be imposed upon which the final set of statements is derived, or the final selection can be based on the kinds of items produced from the concourse (Van Exel & De Graaf, 2005). The main device relied upon to achieve representativeness is Fisher's experimental design principles (Brown, 1970). This structure is intended to ensure that statements allow for varied perspectives, and a selection of statements that are widely different from one another make the Q set broadly representative. Irrespective of what is considered a balanced structure, it is the subject that eventually ascribes meaning to the statements by sorting them in the context of a singular situation. The structure will in no way obtrude a person's rendering of their viewpoint. The size of the final Q set will naturally be dictated to by the subject matter, albeit smaller than the original concourse.

3.4.4 Selection of the P set

Once the final Q set has been established, a sample of participants, referred to as the P set needs to be recruited. In a Q methodological context a main concern is the relative likes and dislikes, meanings, interpretations, and understandings that inform the participants' engagement with the Q set. The P set comprises a group of participants used to actively sort the statements according to psychological significance based on their personal point of view. The P set must deliver interesting, informative, and relevant viewpoints relative to the research questions (Watts & Stenner, 2005). The criteria for selecting the P set is that it needs to be theoretically relevant to the topic being explored and that the participants are expected to have viewpoints about the topic (Brown, 1980). As each participant in a Q study serves as a variable the selection is preferably not random or opportunistic and no claim is made that the viewpoints exhaust the range of attitudes on the topic. A Q methodological study does not require a large number of respondents since the way the participants deal with the Q set is what is important and not the sample or its size (Brown, 1993). Reliability of each factor is enhanced if four to five participants define each factor. It is recommended that the participant group should generally comprise between 40 and 50 individuals to elicit the main viewpoints that are favoured by a particular group of participants (Stainton-Rogers, 1995; Van Exel & De Graaf, 2005). As it is a variety of social viewpoints that are being sought, it is more important to obtain a diverse sample in relation to variables (Watts & Stenner, 2005).

3.4.5 Data collection through the Q Sort

The Q sort refers to the process whereby the P set provide a viewpoint by actively ranking statements from the Q set according to their psychological significance based on the topic. Watts and Stenner (2012) suggest that the participants impose their own meanings onto the items and infuse them with personal and psychological significance through the sorting process.
Q methodological data is derived when a population or sample of items are measured relatively by a collection of individuals.

Q sorting is the technical means whereby data is collected and conventionally requires the rank ordering of a set of statements based on some feeling, preference, or judgement about them. This enables participants to provide a model of their points of view. The Q sort is a dynamic medium through which subjectivity can be actively expressed (Stephenson, 1953).

Generally, the items or statements for the Q sort are given to the participants in a pack of randomly numbered cards, each card containing one of the statements from the Q set. Participants must rank or assign the items according to their own subjective standpoint and according to specific instructions or rules that serve as a guide for the sorting process. They are required to place them on a Q sort grid, which is a continuum ranging from 'most positive' to 'most negative', for example 'most like' to 'most unlike' or 'most agree' to 'most disagree', using a given distribution and based on a condition of instruction (Brown, 1993). Participants are advised that there is no right or wrong way to complete the Q sort (Brown, 1980). Those with least personal significance will have the lowest ranking while those with the most personal significance will have the highest ranking (Watts & Stenner, 2012). A completed Q sort only indicates that a set of items have been differentially valued by a specific participant according to some subjective criterion (Watts & Stenner, 2005). Typically, 11- or 13-point scales are used, ranging from -5 to +5 or -6 to +6, with a zero value in the middle of the distribution (Watts & Stenner, 2005).

The condition of instruction is informed by the research question (Watts & Stenner, 2005). The items constituting the Q set are rank-ordered according to a condition of instruction that serves as a guide for the sorting process. Brown (1993) describes the condition of instruction as a rule according to which the participants must consider the statements. Participants have a fixed number of places where they can place statements, referred to as a forced normal distribution format (Brown, 1980). Participants are provided with either written or verbal instructions. Generally, they are instructed to read all the statements first to get an impression of the range of opinions. Participants are instructed to commence by roughly sorting the statements into three piles; those as agreeable in one pile, those disagreeable in a second pile, and the remainder in

a third pile. The next stage participants are to select statements that they most agree with and most disagree with and place these at the extremes of the distribution grid. The process continues alternately until the cards are all sorted. Participants can change the configurations before deciding that it is final. Participants will express their individuality and self-categorise via the Q sorting procedure and will ultimately be required to allocate all the Q set items an appropriate position in the distribution provided (Stenner et al., 2008).

It is recommended that an interview or questionnaire follow the Q sort to gather additional supporting information. This will allow Q sorters to elaborate on their points of view and give further insight into participants' thoughts and reasons for choices of the most salient statements especially the high and low ranking statements in the Q sorts (Watts & Stenner, 2005). It is also noted by Brown that those scored 0 or at the centre of the distribution can be revelatory by their lack of salience. This supporting information leads to more penetrating interpretation of the emergent factors and aids better understanding of results.

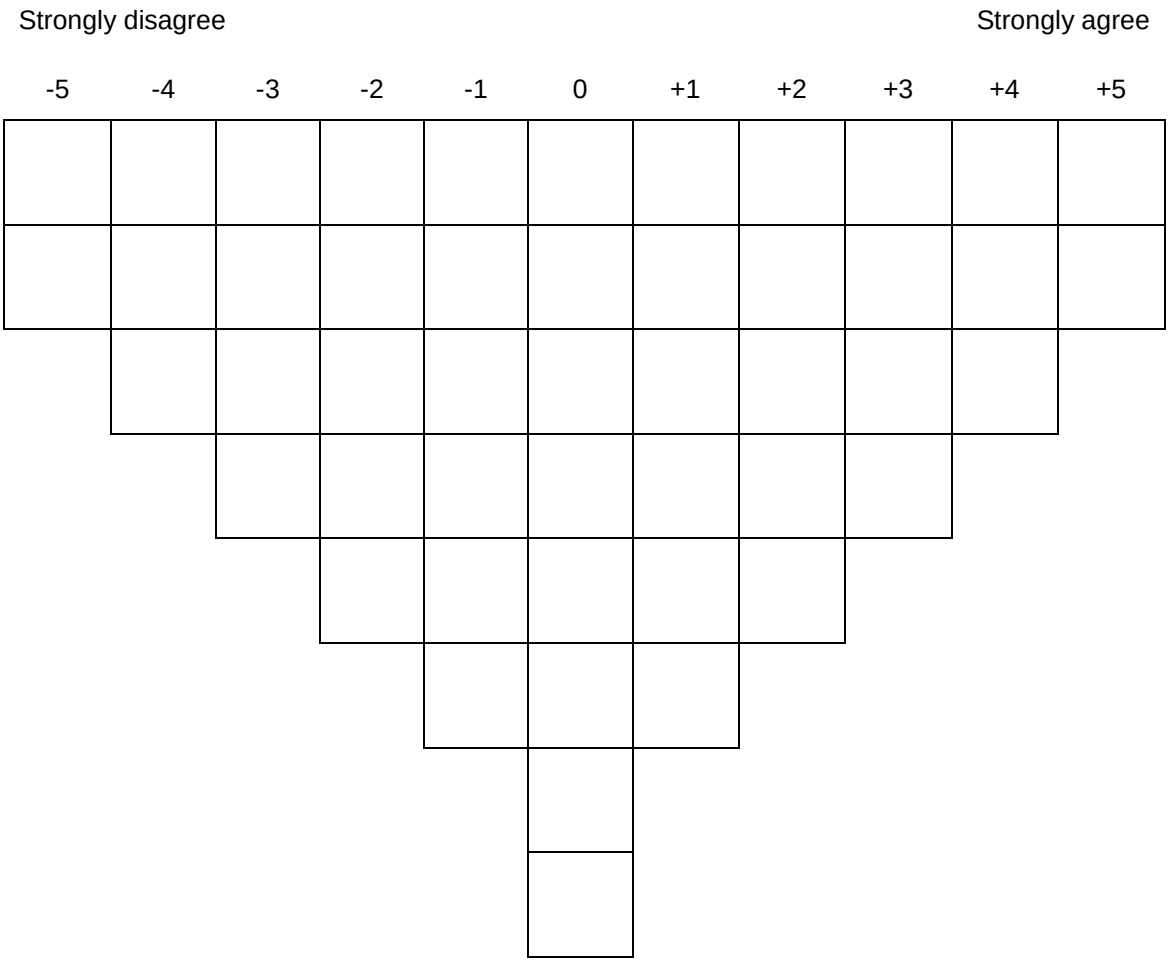

Figure 3.1: Example of a Q sort distribution

3.4.6 Analysis of Q sort data

The data analysis in Q methodology involves the application of correlation, factor analysis, and the computation of factor scores. Q methodology employs a by-person correlation and factor analytic procedure, as the analysis involves persons in place of variables. It is the overall configurations produced by the participants that are inter-correlated and factor analysed indicating segments of subjectivity that exist. Initially the correlation matrix of all the participants' Q sorts is calculated. The correlation matrix reflects the extent of the relationships that pertain between all the Q sorts in the group and demonstrates the relationship of each Q sort with every other Q sort configuration.

According to Brown (1993), the correlation matrix is a necessary means and a condition through which the data must pass to reveal the factor structure. This

matrix is subject to factor analysis to determine a set of factors onto which the participants load, based on the item configurations they created in their Q sort. The objective is to identify the natural groupings of Q sorts by virtue of being similar or dissimilar to one another. Factor analysis is looking for groups of persons who have rank ordered the stimulus items in a very similar fashion (Brown, 1980). People with similar views will share the same factor.

A factor loading is determined for each Q sort, which expresses the extent to which each Q sort is associated with each factor and can be said to exemplify the factor pattern. The factor loading captures different item configurations that are shared by and characteristic of the participants who load onto that factor. The factors obtained from the analysis “indicate clusters of persons who have ranked the statements in essentially the same fashion” (Brown, 1980, p. 6). Fundamentally, factor analysis examines the correlation matrix and determines how many basically different Q sorts are in evidence and how many factors exist. The idea is to identify groups of participants who sorted their Q sorts in a similar way and thus can be seen to share similar viewpoints.

Several dedicated Q methodology packages allow appropriate analysis to be conducted. Such packages facilitate data input, generate the by-person correlation matrix, and make the processes of factor extraction, rotation, and estimation straightforward. Different types of factor analyses exist and so do different methods of factor rotation. The type of analysis used depends on what theories might exist prior to analysis. In a Q methodological context, the oldest of factor techniques, centroid is the extraction method generally preferred as it offers a potentially infinite number of rotated solutions. This openness and indeterminacy is appealing as it gives freedom to consider the data set and select the solution considered most appropriate and theoretically informative.

Factor rotation should shift the perspective and ensure each factor offers the most meaningful vantage point from which to view the subject matter. Q sorts whose position and viewpoint closely approximate that of a particular factor are identified. Rotation does shift the perspective as it examines the Q sorts from different angles but it does not affect the consistency in sentiment throughout the individual Q sorts or the relationship between the Q sorts. Rotation may be

either objective according to some statistical principle (like Varimax rotation) or theoretical whereby the rotation is guided by abductory principles of the investigator. Theoretical or by-hand rotation allows the rotation of factors manually based on some theory or substantive knowledge of the subject matter or data. An objective rotation is usually an automated procedure, such as varimax, that will rotate the factors and position them according to statistical criteria to arrive at a final set of factors. In practice, many Q methodologists use modern factor rotation techniques, such as varimax, as the simplicity and reliability of the procedure is preferred. The varimax procedure is also consistent with one of the typical aims of Q methodology, which is to reveal the range of viewpoints that are favoured by the participant group. Given this aim, a rotated solution that maximises the amount of variance explained by the extracted factors should be pursued. The technique of rotation employed is dependent “on the nature of the data and the aims of the investigator” (Brown, 1980, p. 238).

An important step is to decide which factors should be selected for analysis. In Q methodology there are no firm rules on how many factors should be extracted from the analysis. A variety of statistical and theoretical criteria can be employed in making that determination. An important characteristic of the final set of factors is that they should account for as much of the variability in the original matrix as possible (Brown, 1980). Eigenvalues are indicative of factors’ statistical strength and explanatory power. A standard requirement is to select only those factors with an eigenvalue in excess of 1.00; a generally accepted means of safeguarding factor reliabilities. A second standard requirement is that an interpretable Q method factor must ordinarily have at least two Q sorts that load significantly upon it alone. These are called ‘factor exemplars’ as they exemplify the shared item pattern that is characteristic of that factor. Another useful parameter to guide the decision-making is to extract one factor for every six to eight participants in the study. It is important to distinguish between the statistical and theoretical significance of factors in Q methodology (Brown, 2008; McKeown & Thomas, 1988; Stenner et al., 2008). The importance of a factor cannot be determined by statistical criteria alone and common sense

may offer the best counsel when determining their theoretical and contextual significance.

In Q methodology, interpretations are primarily based on factor scores as they enable statistical means to be used to assess the significance of different statement locations within the factor arrays. To probe the character of these viewpoints a factor score or estimate is then generated via a weighted averaging of all the Q sorts that load significantly on a given factor and on that factor alone. In effect, Q sorts of all participants that load significantly on a given factor are merged to form a single, composite Q sort, which serves as an interpretable 'best estimate' of the pattern or item configuration that characterises that factor. For the sake of convenience, the statements are returned to the original Q sort format. The composite Q sort of the factor represents how a hypothetical respondent with a 100 percent loading on that factor would have ordered all the statements in the Q set. When a respondents loading exceeds a certain limit (usually $p < 0.01$) this is called a defining variate (Van Exel & De Graaf, 2005). To understand distinguishing statements, the concept of a difference score needs to be understood. The difference score is the magnitude of difference between a statement's score on any two factors that is required for it to be statistically significant. When a statements score on two factors exceeds this difference score, it is called a distinguishing statement (i.e., placed in the composite sort in locations that are significantly different) for that point of view. A statement that does not distinguish between any of the identified factors is called a consensus statement.

Factor scores and different scores on a factors composite Q sort point out salient statements that deserve special attention in describing and interpreting that factor. The statements ranked at both extreme ends of the composite sort of a factor are called characterising statements, and are used to produce the first description of the composite point of view presented by that factor. The distinguishing and consensus statements can be used to highlight the differences and similarities between factors.

Q sorts that do not load significantly on any factor or those that load significantly on two or more factors are confounded and are excluded from the

weighted averaging procedure (Akhtar-Danesh et al., 2008). Exclusion of confounding participants' Q sorts ensures that there is the maximum difference between each factor (McKeown & Thomas 1988). The endpoint of the statistical analysis is reached when each of the selected factors is represented by its own 'best estimate' or 'factor array'. A factor array is a single Q sort configured to represent the subjective viewpoint of a particular factor. These factor arrays are subjected to interpretation. The computation of factor arrays is one of the analytical strengths of the methodology.

3.4.7 Interpretation of factors

Factor analysis aids interpretation and involves the identification of patterns of similarity in the Q sort configurations. Factor interpretation aims to distil the core meanings brought to light by aforementioned technical and statistical means. It presents a challenging task in Q methodology, and making sense of the resultant factors requires an informed understanding of the research topic.

To proceed with factor description and interpretation, the factor scores of Q sort items characterising the factor and the factor loadings are of interest. The factor arrays constitute a composite Q sort and hence a generalisation of the subjective viewpoint (McKeown & Thomas, 1988). The factor arrays can be interpreted directly by comparing and contrasting the rankings of Q sample items (factor scores) in the factor arrays (Stainton-Rogers, 1995). Fundamentally, the factor scores are treated as separate Q sorts that represent distinct attitudes and perceptions, and takes on an ideal representation of that factor. The subjective input of the participant group is objectively reflected in the relevant item configurations.

All factor arrays need to be considered and interpreted to ensure the holistic nature of the social viewpoint is captured (Watts & Stenner, 2005). Interpretation takes on the form of a careful and holistic inspection of the patterns of the items, and their meaning within the broader context provided by the factor array. Key elements to consider are the relative position of the statements (particularly those at the extremes), the relative positions of the statements within and between factors, and the distinguishing and consensus

statements that highlight the differences and similarities between factors. The validity of interpretation is aided and verified by the use of opened-ended comments and explanations made by the participants after the Q sort is completed. These comments allow for a clearer interpretation of each factor and may be useful for the overall understanding of the results. Although interpretation is based on and constrained by the factor arrays, a subjective element is inevitable. Ultimately, factors are defined theoretically in terms of the social-psychological situation to which the emergent factors are related (Brown, 1998). In Q methodology, subjective input of the participant group is frozen in the item configurations, producing objective structures (Stenner et al., 2008).

Q methodology facilitates the understanding and explanation of the shared viewpoints discovered and allows for the interpretation of emergent factors at a high level of qualitative detail.

3.5 Reliability and Validity in Q Methodology

Stephenson (1953) argued that the traditional scientific concepts of reliability and validity are largely irrelevant and not applicable to Q methodology.
Q methodology is a small sample investigation of human subjectivity based on the sorting of items from one domain of interest of unknown reliability. Results from Q methodological studies have often been criticised for their lack of reliability and hence the possibility of generalisation. According to Brown (1980), replicability is the most important type of reliability for Q and from a scientific standpoint, it is easily reproducible by the subject who gave it originally. The supporters of Q methodology argue that the subjects have the status of variables; therefore, all that is required is enough subjects to establish the existence of a factor to compare one factor with another. “Q methodology makes no claim to have identified social viewpoints that are consistent within individuals and will hold across time” (Watts & Stenner, 2005, p. 85). This does not mean that a Q study cannot have wider implications; its findings can be generalised in relation to concepts, categories, theory, and models of practice, rather than to a population of people.

Accordingly, the notion of validity has no place since there is no external criterion for a persons' own attitude and opinion as it genuinely belongs to the subject (Brown, 1980). Since Q sorts are anchored in self-reference, McKeown and Thomas (1988) add that there is no external standard against which they can be compared to estimate their validity. The subjects' frame of reference is given prominence through factor analysis. The method claims to capture the viewpoints or perspectives of the participants in the form of Q sorts and it is argued that Q methodology delivers on this claim. Q methodology is not designed for large participant samples (Watts & Stenner, 2005) and results of studies cannot therefore claim to be generalizable to populations.

Another important assumption behind Q methodology is that only a limited number of distinct viewpoints exist on any topic. Brown (1980) concludes that a well-structured Q sample containing a wide range of existing opinions on the topic will reveal these viewpoints and perspectives. Furthermore, the procedures of Q methodology allow voices and viewpoints to be heard with minimal bias arising from instrumentation effects or researcher imposed meanings, thus allowing the true voices of the population of interest to emerge (Stephenson, 1980).

3.6 Underlying Principles of Q Methodology

3.6.1 Subjectivity

At the crux of Q methodology is the concept of subjectivity. The primary purpose of undertaking a Q study is to discern people's perceptions of their world from the vantage point of self-reference. These viewpoints constitute the Q methodological understanding of subjectivity. The value of Q methodology is that it enables entry into subjective worlds and provides the tools for making subjective meanings objective. A crucial premise of Q methodology is that subjectivity is communicable, because only when subjectivity is communicated, when it is expressed in an operant manner, can it be systematically analysed just as any other behaviour (Stephenson 1953; 1968).

By using the term operant subjectivity, Stephenson (1953) was implying that subjectivity was not a mental concept such as mind or consciousness. Rather, it is a natural behaviour, best understood relative to its impact on the immediate environment. Subjectivity understood in operant terms is the sum of behavioural activities that constitutes a person's current point of view. The factors arising from Q analysis represent clusters of subjectivity that are operant, i.e., that represent functions rather than logical distinctions (Brown 1993; 1998).

Within the context of Q methodology, subjectivity is regarded as a person's communication of a point of view on a matter of personal or social importance. There is a twofold premise that subjective viewpoints are communicable and advanced from a position of self-reference. A key principle intended to preserve self-reference and subjective communicability is that "measurements and observations of a person's subjectivity can be made only by himself" (Stephenson, 1953, p. 17). Accordingly, subjective communicability is available for objective analysis, provided that the analytical means do not alter the self-referent properties arising from the investigator's external frame of reference.

Q methodology makes some important assumptions in relation to subjectivity:

- All subjective points of view are advanced from a position of self-reference, a personal frame of reference (McKeown & Thomas, 1988);
- Subjective viewpoints have structure and form (Brown, 1986);
- All subjective points of view are communicable; and
- When subjectivity is expressed in an operant manner, it can be systematically analysed like other behaviours (Van Exel & De Graaf, 2005).

3.6.2 Qualiquantological

One of the unique features of a Q methodological study is that it provides a scientific and systematic approach to studying subjectivity, while retaining the depth, diversity, and individuality of a more humanistic approach. It utilises both qualitative and quantitative means for data collection and analysis and therefore it is sometimes referred to as a qualiquantological method (Watts & Stenner,

2005). Q methodology has the strength of both qualitative and quantitative approaches, which could offer a bridge between the two. Its quantitative features render it a highly unusual qualitative research method; representing a unique way to measure subjectivity.

3.6.2 Abduction

Q methodology has close theoretical connections to the abduction approach (Brown, 1980; Stephenson, 1953). Abductive research focuses on everyday concepts and meanings, on how people interpret social behaviour, and on what kinds of reasons serve as motives for their choices and actions. Abduction observes the facts to establish a generally applicable description and explanation of the observed phenomenon. Research based on abductive reasoning is designed for discovery and explanation of new information and theory generation. Abduction is prominent in two stages of Q methodological procedures. The first is factor rotation, especially when by-hand or judgemental rotation technique is employed. The second, abductive logic plays a role in factor interpretation. In Q methodology a series of factors are derived to provide a plausible theoretical explanation of their appearance and a complete factor interpretation should aim to provide the best possible theoretical explanation of the relevant factor.

3.7 Definition of terms:

- *Factor*: It identifies a group of persons who share a similar perspective, viewpoint, or attitude about a topic at hand.
- *Factor score*: It is the normalised weighted average statement score (Z-score) of respondents that define that factor. It is an average score for the statement given by all the Q sorts associated with that factor.
- *Factor array*: It characterises a Q sort for a person loading 100 on the factor. It comprises the factor scores for each factor.

- *Defining variable*: A respondent's factor loading that exceeds a certain limit (usually $p<0.01$).

- *Distinguishing statement*: It highlights the differences and similarities between the factors. It represents items that a particular factor has ranked or located in a significantly different way between any two factors.

- *Consensus statement*: It is not distinguishing between any of the identified factors; all of the study factors have ranked them in a similar way.

- *Characterising statement*: It ranks at both extreme ends of the composite sort of a factor and is used to produce the first description of the composite point of view presented by that factor. It has a Z-score of larger than 1 or smaller than -1.

- *Confounded Q sort*: It loads significantly on two or more factors.

- *Factor loading*: It represents correlation coefficients designating the magnitude of a Q sort's correlation with a factor.

- *Difference score*: It is the magnitude of the difference between a statement score on any two factors that is required for it to be statistically significant.

3.8 Summary

Q methodology offers a unique approach and a complete methodology where the focus is on measuring subjectivity, which represents an individual's feelings, opinions, perspectives, or preferences. It relies on complex statistical analysis including correlation and factor analysis to extract clusters of people who think alike on the topic at hand. A concourse is a large and diverse set of statements representing all that can be said about the topic under investigation. The Q set is the final set of statements that reflect the diversity and are a fair representation of the statements contained in the concourse. A Q sort is the

actual process of sorting the statements in the Q-set onto a distribution grid, which is a template on which participants organise their items from most positive to most negative. The Q-sort is arranged according to a condition of instruction indicating how participants should rank their items and directly implicates the topic under investigation. In Q methodology participants who perform the Q sort are known as the P-set. Factors are thus groups of people who have ranked the items in similar ways (Brown, 1980) and share a similar perspective, viewpoint, or attitude about a particular topic and seem to be of a similar type (Watts & Stenner, 2012).

CHAPTER 4: METHODOLOGY

A careful perusal of the cyberbullying literature indicated that there is no consensual definition or conceptualisation of cyberbullying events, nor is there clarity on precisely what behaviour harms young people online. The focus of the study was to elicit and to describe a wide diversity of perspectives and opinions on cyberbullying behaviour and its perceived impact.

The techniques and procedural tools used for data collection for this study are discussed in this chapter. The procedural stages of the research process are discussed sequentially in sections 4.2 to 4.8.

4.1 Outline of Methodology

To reiterate, Q methodology is comprised of procedures and a conceptual framework that provides the basis for the science of subjectivity by uncovering the subjective viewpoints of people in relation to a topic. Abduction and discovery provide a foundation for strong Q methodological studies (Watts & Stenner, 2012) which attempts to find an explanation for the observed phenomenon. The methodology acknowledges that for any given topic there are likely to be multiple views (Stainton-Rogers & Stainton-Rogers, 1990), and it provides a way of presenting this variety of social viewpoints in an ordered way (Watts & Stenner, 2005). The individual is able to measure and observe his/her subjectivity without any objective or standardised scales intervening. Thus, the individual participant determines what is important and what their values and opinions should be.

A methodology was needed to listen to the voices of young people and minimise the extent to which *a priori* beliefs and expectations could influence the outcome. It was desirable to ensure that the methodology was accessible to young people to enable them to fully participate in the research. A potential barrier to participation was the sensitive nature of the topic and the pejorative undertone of the term, which may make it difficult for the participants to openly share their views. Findings obtained from these young people were supplemented by questionnaires to aid understanding. The preceding chapter

demonstrated that Q methodology has the potential to satisfy these requirements. The advantage of Q methodology in this study is that it allowed the subjective opinions and perspectives to emerge, regardless of the opinion and views held by the researcher.

For this study, two Q sorts were conducted. Q sort 1 was designed to answer the first research question, *What are youths' perceptions and views of what constitutes cyberbullying behaviour?* Q sort 2 aimed to answer the second research question, *What are youths' evaluations of cyberbullying events?* The participants completed post-sort questionnaires after each sort: questions explored learners coping mechanisms and solutions to inform and guide prevention and intervention strategies with the intention of delivering solutions. This attempted to answer the third research question, *What are youths' coping strategies and responses to cyberbullying behaviour/acts?*

Ethical clearance for the study was obtained prior to the commencement of the study (see section 4.9). The concourse was drawn from multiple sources, and refined in a logical manner and in consultation with experts, to compile the final sets of statements. This resulted in Q sets of 39 and 17 statements respectively. The sample comprised 46 volunteer Grade 9 learners from a public high school in Johannesburg. Q sort 1 had a distribution ranging from -4 (least like cyberbullying) and +4 (most like cyberbullying). Q sort 2 distribution ranged from -3 (least mean/cruel) and +3 (most mean/cruel). Participants completed the Q sorts in two separate group sessions, lasting approximately one hour each, within the school environment. At the end of each session, the learners each completed a post-sort questionnaire (see Appendix A).

4.2 Identifying a Concourse

A concourse is a 'universe of statements' for any context or situation that can be described as communications or discussion about a topic (McKeown & Thomas, 1988). It is important that the concourse covers all the opinions, beliefs, and perspectives about the topic under investigation. According to

Brown (1993), the breadth of exposure is the most important consideration at this point.

In this study, the subjective viewpoints of interest were the opinions and beliefs of the participants about what behaviours are considered acts of cyberbullying and the participants' evaluations of the severity of cyberbullying behaviour. As indicated in Chapter 3 the first step was a careful examination of the concourse of communication about the topic. This is an important and onerous aspect of a Q study. The aim was to collect all the statements, opinions, and views reflecting cyberbullying behaviour that exist in the academic and public domain.

As a point of departure, four pilot participants were strategically recruited and served as experts on the subjects of cyberbullying, adolescents, and digital technology and all practiced professionally in their field of expertise. They each received a Concourse Participation Information Sheet outlining the purpose of the study and their participation requirements (See Appendix B). The subjects were interviewed on a number of occasions in various settings in Johannesburg. The topic of discussion and conversation was broadly 'what is cyberbullying' and 'what behaviours are considered cyberbullying?', along with 'is cyberbullying a problem', and 'what behaviours are problematic?'. Themes emerged that encapsulated the essence of cyberbullying and these were included in the concourse. The Family Life Centre, which is a therapeutic counselling support and training organisation, was consulted for their views on cyberbullying. In addition, popular literature, including media reports and newspapers, was reviewed, as well as a comprehensive literature review of information from academic journals and books. This was followed by numerous informal conversations with informed colleagues and adolescents. The internet was extensively searched and various sites, blogs, and online news pages were scanned for chats or posts on cyberbullying. Potentially useful statements were added to the concourse. After this extensive review additional commentary became redundant, indicating that the concourse was saturated and adequately covered; although, theoretically, a concourse is infinite in nature.

Once the texts were gathered, the task was one of organisation, analysis, and presentation. Approximately 120 statements were generated. The next step of the research process involved developing representative sets of statements to form the Q sets.

4.3 Developing the Q Set

The stimulus items are designed to provide a medium though which a participant can impress their own viewpoints and opinions. The Q set, or Q sample is drawn from the larger concourse and its items are rank ordered through the mechanism of the Q sort. A Q sample approximates the total commentary of a given issue with the intention of achieving stimulus representativeness (Brown, 1980).

For the purpose of this study, the structure of item sampling emerged from examination of the statements in collaboration with the pilot participants. Although initially statements were imposed on the concourse based on the current theory and a body of knowledge that exists on the subject of the nature of cyberbullying and the particular context in which the behaviour is embedded. The categories used represented functional distinctions and were not pre-defined but emerged from the gathering of statements. This structure or categorisation of the Q sets was sufficiently comprehensive to demonstrate a range of opinion and reflected the diversity contained in the concourse. The emerging categories of cyberbullying behaviours included: threatening behaviour, exclusion/isolation, spreading rumours and telling lies, coercion and manipulation, inappropriate sexual and dating behaviours, and embarrassment and humiliation. An attempt was made to create a balanced appreciation of the statements within the Q set as a whole ensuring coverage and balance of the relevant conceptual material. To ensure this, duplicate, redundant and overlapping statements were removed or collapsed to reduce any ambiguity of meaning. Further, the statements were standardised to follow on from the condition of instruction, which was worded as an unfinished sentence i.e. ‘Cyberbullying is most like…to most unlike….’. Particular attention was placed on avoiding value-laden or bias towards some particular statements and that

they contained only one proposition. Once the final list was compiled an educational specialist was consulted to sense check the Q-set and ensure the statements were understandable, appropriate, and clear.

The selection and construction of the two final Q sets was loosely structured by design to maintain fluidity of the sampling process and to avoid rigidity. Through this process, the number of statements was reduced to 39 to comprise the first Q set. The second Q set flowed from the original concourse and the first Q set. In order to evaluate perceptions of the severity or 'meanness' of cyberbullying events, the statements of behaviours generated were revised and refined into short vignettes or scenarios depicting hypothetical cyberbullying acts. The condition of instruction was to consider the vignettes and sort them according to the criteria from 'most mean/cruel cyberbullying behaviour' to 'least mean/cruel cyberbullying behaviour' within a fixed distribution grid. This resulted in a final set of 17 items for the second Q set. In preparation for the sorting task, both Q sets were assigned arbitrary numbers. An academic who is familiar with Q methodology checked the final Q sets for content and face validity to ensure they met with the recommended criteria. Refer to Appendix C for the complete list of Q statement sets.

4.4 Selecting the P Set

The P set is the term used to refer to the group of participants that actively sort the statements according to psychological significance. The primary goal for the selection of participants is again representativeness.

Grade 9 learners aged between 14 and 17 years old from an urban high school in Johannesburg were the participants in this study. A conscious effort was made to ensure variability in the composition of the P set as this particular school offered a diverse set of learners in terms of race, religion, gender, culture, and social status variables. It was presumed that although the participants might not necessarily have had direct experience of cyberbullying, they would be able to place the hypothetical statements within a context based on other life experiences and interactions.

In light of the aims and rationale of the study, adolescents attending an urban high school were considered a structured sample of participants strategically selected as they were expected to have a clear and distinct viewpoint regarding the subject matter. A total of 46 learners participated in the study, which was adequate to establish the existence of the factors.

4.5 Administrating the Q Sort

Contact was made with the Headmistress of the identified school to request permission for learners' to participate in the study. The school was very interested in participation and welcomed the research project. Approval was granted from the school as well as the governing body of the school. Initially the school psychologist and deputy headmaster were involved in the organisation and management of the project and numerous meetings and discussions took place. A link teacher was assigned to assist; she was instrumental in the dissemination of the participant information sheets, signing of the various consent forms from the parents of the participants, as well as signing of the assent forms from the participants. She also assisted with communication about the ethical considerations of the project, with regard to confidentiality and anonymity, and the logistics of data collection venues, dates, and times for the Q sorting to take place. See Appendix D for the consent form and the assent form.

The Q sorting is accomplished by the active rank ordering of the Q sample stimuli by a participant under a specific condition of instruction. Respondents are asked to model their opinions with these items to produce a Q sort. In this study, each participant completed two Q sorts.

The research questions needed to be turned into a condition of instruction under which the subjects were instructed to perform their Q sorts. The condition of instruction for the first Q sort 1 was to 'sort the items according to those statements that are most like cyberbullying (+4) to those that are least like cyberbullying(-4)'. Q sort 2 items comprised of vignettes and participants had to base their point of view on the content and context of the scenarios presented.

The condition of instruction for Q sort 2 was to ‘sort the items according to those that describe the most mean/cruel behaviour (+3) to those that describe the least mean/cruel behaviour (-3)’. This was printed in a large, bold, clear font and displayed in the venue so the participants could refer to it when needed.

The final Q set statements were numbered randomly and printed out in a large font on thick white card. These cards were designed to the size of the actual Q sort grid blocks. Duplicates were produced so each participant received their own individual pack of Q statements for each of the Q sorts. The cards for each of the Q sorts were bound in a plastic band and placed in an envelope to keep them secure. Included in the pack of cards was a strip of ‘prestic’ used to attach the cards onto the distribution grid, an example of which is seen in Figure 4.1.

Most unlike cyberbullying								most like cyberbullying
-4	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**	**4**
17…sending something such as a virus or malware that is damaging to a person's device	3…teasing someone about their appearance	13…continuously ignoring someone's messages	2…posting lies about someone for others to see	10…posting disrespectful/insulting messages about other races, cultures or religions.	19…encouraging someone to chat online against their will	5…sending images of random pornographic content/material to other people.	12…tagging someone in a ridiculous photo without their consent	1...sending messages to a person to embarrass that person
35…breaking up with someone you are dating in a hurtful way for others to see	6…threatening to damage a person's property	22…ending a friendship in a mean or hurtful way for others to see	4…sending death threats to a person	11…sending repeated messages to annoy or frighten others	23…posting nasty or cruel messages about a person for others to see	31…writing embarrassing jokes about someone for others to see	21…sending cruel messages about someone's family	30…posting humiliating or shameful images of others online
	36….messing with or directly flirting with someone else's boyfriend/girlfriend on line	24…sending scary chain messages to a person	8… sending repeated, unwanted messages threatening harm to a person	16…sending messages to a person threatening to physically hurt that person	32…broadcasting a person's secrets for others to see	7…changing information on someone's profile without their consent	25…posting material about a person that contains sensitive or embarrassing information	
		29…sending threatening or mean audio/visual messages to a person	9…spreading rumours/gossip about a person for others to see	20…sending a message to a person that contains hate speech or cruel statements about that person.	34…pretending to be someone else on line and posting rude or offensive material to others	14…deliberately excluding someone from an online group		
		31…writing embarrassing jokes about someone for others to see	15…sending messages encouraging risky behaviour for others to see	26… sending repeated, unwanted messages threatening harm to a person	38…deliberately excluding someone from a party or social event online	28…gaining access to someone's personal information/password and using this without their consent		

Most unlike cyberbullying								most like cyberbullying
-4	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**	**4**
			18…sending messages demanding others to do embarrassing things	27…distributing photos of people taken in the bathroom on the sly	39…posting sexual images/videos of a friend for others to see			
				37…editing a picture of someone in a demeaning or horrible way for others to see.				

Figure 4.1: Example of a completed distribution grid for Q sort 1

Least mean						Most mean
-3	**-2**	**-1**	**0**	**1**	**2**	**3**
3. Pretending to be another person when chatting online.	4. Engaging in a hostile argument with another person.	2. Videoing a schoolmate being humiliated off line then posting this online.	7. Anonymously creating a social media page to damage that person's reputation.	1. Posting hate mail insulting a particular group of people.	15. Sneaking a recording by video or taking photos of people having sex.	6. Tricking a person into providing photos/images to humiliate that person.
	11. Setting up a chat group with schoolmates and purposefully excluding.	5. Deliberately sending a virus or malware to other.	9. Sending non-stop, repetitive threatening messages.	8. Hacking or getting access into someone else's social media account.	16. Sending nude or semi naked pictures of an ex- girlfriend / boyfriend.	
		14. Sending insulting messages to random numbers.	12. Taking and editing a photo of someone you know.	10. Threatening to reveal someone's personal secrets.		
			13. Starting a rumour by posting private personal information.			
			17. Sending a group message criticising a schoolmate's appearance.			

Figure 4.2: Example of a completed distribution grid for Q sort 2

A fixed distribution grid was selected for the study to facilitate a pragmatic analytical process. The Q sort distribution grids were created and printed on A2 pieces of card. Duplicates for each Q sort were produced so each participant again had their own distribution grid to complete. The first distribution had nine columns ranging from -4 (least like) to +4 (most like), with a central 0 column. The number of sort blocks for the items in each column was two, three, five, six, seven, six, five, three, and two. This grid was printed on a bright green background with the condition of instruction displayed appropriately. The second distribution grid had seven columns ranging from -3 (least mean/cruel) to +3 (most mean/cruel), with a central 0 column; the number of sort blocks for this distribution grid was one, two, three, five, three, two, and one for each of the columns. The background colour for this grid was navy blue and it displayed the condition of instruction. An exemplar of the distribution grids is provided in Appendix E.

4.5.1 Q Sorting procedure

The procedure of Q sorting is the technical means whereby data are obtained for factoring. Q sorting is an operation by which a person models self-reference by distributing Q sample statements along a distribution continuum defined by a specific condition of instruction (Watts & Stenner, 2005).

The school provided their viewing room for the purpose of executing the Q sorts. This was a well-lit space and had a large white board centrally situated. The room was large enough to accommodate at least 25 learners per sitting and the sorts were completed in a group setting during their school time. An assistant as well as the link teacher helped with the procedure and execution of the proceedings so a degree of control and order was maintained. The background to the research was explained and attention drawn to ethical considerations. Verbal instructions were given to the participants regarding the Q sorting process and this was supplemented with an exemplar Q sort, which was demonstrated on the white board before the commencement of the actual Q sorts. Participants were informed that the statements required subjective interpretation, by the participants, and that there were no right or wrong

answers. The condition of instruction was repeated numerous times throughout the procedure for each of the Q sorts. Participants were told that there was no time limit and that they could ask questions to clarify any concerns they might have regarding the task.

4.5.2 Steps in the Q sorting process

The Q sorting process comprised seven steps (McKeown & Thomas, 1988):

(1) *Familiarity with the Q sample statements*: The participants were instructed to read the Q sample statements and arrange their statements into three piles. To the right, those with which participants agree, to the left those with which the participants disagree, and in the middle those about which the participant is neutral, ambivalent, or uncertain.

(2) *Dispersion of the statements*: The participants were encouraged to disperse the statements onto the distribution grid maintaining the general positions of statements in the three piles in step one. This was described as an initial sorting of the statements with the aim of contextual reading of the statements to assist in the comparisons and selection of statements.

(3) *Selection of statements of strong agreement*: The participants were reminded of the condition of instruction and the conformity of the requested distribution. Participants were informed that the order of statements within the columns was not relevant but that the order of the statements across the columns was critical to the investigation. For example, those statements placed under +4 are all scored the same. They were required to examine the statements in the 'most like cyberbullying' pile to the right and select the two statements that they most agreed with and place them on the distribution grid under +4.

(4) *Selection of the statements of strong disagreement*: Participants were then instructed to turn to the 'least like cyberbullying' pile on the left and

select the two statements that they most strongly disagreed with and place them under -4 on the distribution grid.

(5) *Continuation of item selection*: Respondents are expected to repeat the selection process by alternating from the poles of the continuum and working towards the middle. They were encouraged to follow this instruction precisely in order to consider the statements carefully in relation to the others. Once they completed their Q sorts, they were encouraged to review their selection and make further adjustments if required.

(6) *Recording of the Q sort distribution*: The statement numbers for the completed Q sorts were recorded on a score sheet, which was a duplicate of the Q sort distribution grid. This exercise was executed by the researcher and the assistant.

(7) *Post-sort questionnaires*: Participants were asked to complete the first post-sort questionnaire after the first Q sort. This included demographic information, online habits, and questions relating to the first Q sort. They were required to complete the second post-sort questionnaire after the second Q sort. This included questions relating to the second Q sort, generation of solutions, and responses to cyberbullying behaviour.

4.6 Analysing the Q Sort Data

This stage of the study involved the analysis of the data and achieving an effective factor solution. A discussion of the mathematical complexities of factor analysis is beyond the scope of this study. In Chapter 3, the analytic procedure was summarised conceptually with an emphasis on basic principles and the products of the analysis. The Q sorts obtained from the participants were analysed using the PQMethod software (Schmolck, 2014), specifically tailored for this purpose. A choice of factor extraction and rotation methods is offered, and output files contain a variety of useful statistical information. It is noteworthy that the analysis of the Q sorts is a purely technical and objective procedure (Brown, 1980).

Each individual Q sort was entered into the program and an intercorrelation matrix was produced for each Q sort (See Appendix F). This represented the relationship between each individual Q sort with every other Q sort. The data was then subject to factor analysis to identify patterns of similarity in the Q sort configurations to aid the interpretative task. The process of factor analysis allowed for the expression of key viewpoints held in common within the participant group. It can be inferred that if participants gave similar accounts they hold a similar view of the subject matter. A Centroid Factor Analysis was the extraction technique used to explore the data for both Q sorts. Following extraction, factor loadings were produced in the form of correlation coefficients that measured the extent to which each individual Q sort exemplifies each factor pattern. Eigenvalues and variance estimates were provided to offer an indication of the strength and explanatory power of the extracted factor. An important characteristic of the final set of factors was that it accounts for as much of the variability in the original matrix as possible.

The next step of the analysis was to rotate all the extracted factors. This involves the movement of the factors about a central axis point so that its viewpoint closely approximates the viewpoint of a particular group of Q sorts. The varimax procedure was used, and PQMethod rotated the factors according to statistical criteria to account for the maximum amount of study variance. Varimax rotation, being statistically driven, reduces the possibility of any researcher bias in the analytical phase. The new rotated factor loadings demonstrated the extent to which each Q sort was associated with each of the study factors following rotation. The Q sorts that defined a particular factor were marked with an X indicating a defining sort. Refer to Appendix G for individual Q sort loadings on each factor.

The Q sorts for each of the participants loading on a factor were then averaged to create a ‘best estimate’ of the factor and thus provide a summary of most of the participants’ social viewpoints. The estimate of the factor’s viewpoint was prepared via a weighted average of all the individual Q sorts that loaded significantly on that factor. The weighted score was converted into a z (or standard) score in order to facilitate cross-factor comparisons. PQ Method

automatically produced each factor estimate and the factor arrays (see Table 5.5 and 5.6 for the factor arrays), which were hypothetical Q sorts configured from the factor scores to represent the viewpoint of a particular factor. The outcome of the analysis was the selection of factors, each representing one perspective.

Some general characteristics were calculated in order to compare factors. For each factor, the composite reliability and the standard error were provided. Lastly, the factor comparison identified the consensus and distinguishing statements for each of the factors.

The ‘best estimate’ configuration was the factor array used to facilitate the interpretation of the factors. A number of processes and procedures were applied throughout the interpretative stage to ensure a holistic approach that preserves the social viewpoint it represents. Characteristic of Q methodology is that the factors create boundaries within which factor interpretations must fit.

Table 4.1: Q sort 1 summary of results

Factor	1	2	3	4	5	total
Eigenvalues	1,84	4.6	7.36	3.22	6.9	
% variance	4	10	16	7	15	52
No of sorts	3	4	10	4	8	29
Males	0	1	6	0	3	10
Females	3	3	4	4	5	19

Table 4.2: Q sort 2 summary of results

Factor	1	2	3	total
Eigenvalues	5.98	7.36	8.25	
% variance	13	16	18	47
No of sorts	5	9	12	26
Males	0	4	8	12
Females	5	5	4	14

4.7 Interpreting the Factors

Q methodology provides a comprehensive snapshot of the major viewpoints being expressed by the participant group (Stenner et al., 2008). The interpretative task required the production of a series of summarising accounts constructed by careful reference to the position and overall configuration of the statements in the factor arrays (Stenner et al., 2008; Watts & Stenner, 2012). The aim was to describe the viewpoint provided by each of the factor arrays qualitatively. This was based on characteristic statements for each factor (statements at the extreme ends of the factors), distinguishing statements, consensus statements, and background information. Theorists caution against using the outputs in an automatic fashion and argue that the interpretation should take a holistic view of the results. The crib sheet system was applied to ensure a systematic and methodical approach to explicate the viewpoints being expressed by each factor. The process enhanced understanding and provided an explanation of the entire set of item configurations, so the whole viewpoint is captured in a genuinely gestalt fashion.

The crib sheet included four basic categories. These identified the statements given the highest and lowest rankings as well as two important categories that focused respectively on the statements ranked higher or lower on the relevant factor than by any of the other study factors. An advantage of the crib sheet method was that it has the ability to identify statements ranked at the middle of the distribution that are of potential importance in the interpretative process.

Researcher bias was minimal as the Q sorting portrays an objective account of reality that belongs to the participants and the factors emerge as genuine definitions of their points of view. Potential for researcher bias was further constrained by the configuration of the statements. Q methodology provides a perspective on behaviour that is from the subject's standpoint (Brown, 1993). Additionally, the factor loadings and factor scores formed part of the research report, and further consideration of the interpretation of this research is provided in Chapters 5 and 6.

4.8 Post-sort Questionnaires

Description of factors involved the interlacing of results with demographic and supporting qualitative explanations collected after the sorting procedure in order to add credibility to the research.

All participants completed a post-sort questionnaire after completing each of the Q sorts. The purpose of the questionnaires was to collect relevant demographic information, to explore participants' online habits and to ascertain the participants' wider understanding of the issue. It was important to discover why they sorted statements as they have, to explore the meanings of statements placed at the extremes of the distribution and to focus on the significance of salient and important statements. Respondents were required to offer solutions and means of coping available to them using the vignettes they selected as the 'most hurtful'.

4.9 Ethical Considerations

The standard codes of ethics pertaining to research and practice holds for research using Q methodology were taken into account. The Human Resources Committee and the Department of Education Ethics Board approved this study. (See Appendix H for Ethics Certificate) Necessary approval from the participating school and their governing body was obtained. All participants and their parents/guardians received a written participation information sheet that explained the nature of the research as well as the expectations. (See Appendix I for Participation information and parent/guardian information.)

Participants were not coerced into participation in the study and were informed that they could withdraw from the study at any time. Informed consent was obtained from the parents or guardians of participants as well as assent from the participants. (See Appendix C for assent and consent forms.) This offered a guarantee of confidentiality and anonymity. The methodology dictated that the information was collected face-to-face, however the names of participants were not captured on the instruments. Instead, each questionnaire was assigned an

alphanumeric identification code and no identifying information was requested. Each participant was allocated a random identification code that ranged between 1 and 75 and all participants were anonymous in the final report.

Due to the sensitive nature of this research topic, all participants were offered the opportunity for debriefing or counselling if it was required. The researcher's contact details, as well as other relevant organisations, were provided to the participants should they have the need to speak further with someone about anything triggered by taking part in the research process; however, this proved unnecessary.

4.10 Summary

First, a concourse was created. From the concourse a smaller yet representative number of statements was selected and refined to form the Q-sets. Participants were asked to actively sort the statements according to the criteria provided. The participants performed two Q sorts each based on their own subjective interpretation of the statements. Following each Q sort, they completed a post-sort questionnaire. The gestalt array of statements produced by the participants was then analysed using statistical techniques of correlation and factor analysis to reveal patterns. These patterns were in turn interpreted to produce profiles of a range of points of views identified by the participants at that moment in time.

Chapter 5 outlines the steps of the analytic and interpretative stages and discusses the findings of the study.

CHAPTER 5: RESULTS

5.1 Introduction

Chapter 4 explained how data was collected from the participants and the procedure for analysis and interpretation. This chapter outlines the practical steps of the analytical and interpretative stages of this study.

An abductive approach was used where the data informed the results in an attempt to respect and preserve the integrity of the data, so that the research could be seen as sincere. The factor analytic procedure of Q methodology emphasises Gestalt principles. In Q methodology, the participants are inter-correlated and factored rather than tests or traits. Each participants' configuration of statements is considered in relation to every other participant's Q sort, and they are subsequently inter-correlated and factor analysed. Factor analysis is carried out on a by-person rather than by-item basis; hence, it is the participants who load onto the factors in the study. The application of this procedure allowed the revealing of a set of factors, represented by the original Q-sort statements, configured in a characteristic way.

In the present study, there were 46 participants, and following factor analysis for Q sort 1 it was possible to identify five groups of participants who presented their Q sorts in a similar way and so could be seen to share a similar social viewpoint. A total of 52 percent of the variance was explained, which accounted for 29 participants. A participant loading of 0.41 reached significance at $p<0.1$ for Q sort 1. For Q sort 2 three interpretable factors emerged representing three salient viewpoints among the participants. A total of 47 percent of the variance was explained which accounted for 26 participants. A participant loading of 0.63 reached significance at $p < .01$ in this Q-sort. Some of the Q sorts did not load significantly on any of the factors and others loaded significantly on more than one factor. In the latter case, the Q sorts are said to be confounded. In both instances, the Q sorts were excluded for further analysis and interpretation.

5.2 Transition 1: From Q Sorts to Factors

PQMethod software (Schmolck, 2014) was used for the analysis of the data in the current study. For each of the Q sorts, data for 46 participants was analysed.

- Q sort 1 involved the input of the 39 statements. A fixed distribution grid was established with +4 representing most like and -4 representing least like. Finally, each of the Q sorts for all of the 46 participants was entered into the program.

- Q Sort 2 required the input of 17 statements. PQ method attributed values of +3 and -3 for the grid, with +3 representing most mean and -3 representing least mean. Similarly, each of the Q sorts for all 46 participants were plotted into the programme

5.2.1 Correlation and factor extraction

All the completed Q sorts were correlated and a correlation was produced for Q sort 1 and Q sort 2 (see Appendix F for the correlation matrixes and sort factor loadings). As stated previously this demonstrates the relationship between each individual Q sort with every other Q sort. The data was then reduced by factor analysis, which identified patterns of similarity in the Q sort configurations.

PQMethod can extract a number of factors from the data to aid/facilitate the interpretation process. Each of the factors represents a group of participants who gave a similar viewpoint on the subject matter being studied. In this study, seven factors were extracted using Centroid Factor Analysis (CFA), and this applied to both Q sorts. This method of factor analysis was chosen in preference to Principal Component Analysis, because CFA allows factors to be rotated, which enables exploration of and familiarisation with the data so that a solution can be decided upon that is not only mathematically sound but also richer and more informative. Seven factors were extracted for each of the Q sort analyses, as that is the maximum that can be extracted using the PQMethod software. It is suggested that one factor is extracted for every six to

eight Q sorts in the study (Watts & Stenner, 2012). This study involved 46 participants, so seven was the recommended number of factors to extract.

Table 5.1: Q sort 1 eigenvalues for unrotated factors

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Eigenvalues	15.5685	2.5559	0.1379	1.8512	1.9577	0.1497	1.4669
% expl. Var	34	6	0	4	4	0	3

Table 5.2: Q sort 2 eigenvalues for unrotated factors

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Eigenvalues	13.8331	4.2994	3.5401	2.4561	2.8509	2.5204	2.4561
% expl. Var	30	9	8	5	6	5	5

5.2.2 Quantitative evaluation of the ‘best’ solution

The analytic process proceeded by assessing the extent to which the factor solutions met certain quantitative criteria and consequently which factor solution was quantitatively ‘best’. The best solutions quantitatively were then subject to qualitative analysis to determine the ‘best’ solution combining both quantitative and qualitative influences. Several of the criteria applied are explained below.

According to the Kaiser-Guttman criterion, only factors with eigenvalues of greater than one should be retained. This cut-off point is used because an extracted factor with an eigenvalue of less than 1.00 accounts for less study variance than a single Q sort. (Guttman, 1954; Kaiser, 1960, 1970, cited in Watts & Stenner, 2012), In Q sort 1 five factors met this criterion, and including more factors would not serve as an effective reduction of the data. In Q sort 2, all the factors met the criterion. An added criterion frequently used by Q methodologists is that a factor should contain at least two participants with significant loadings.

Brown (1980) provides the following formula for calculating the significance of loadings, which was used to determine the significance of Q sort 1 at the 0.01 level:

2.58 X (1÷√no of statements in Q set)

2.58 X (1 ÷√39)

2.58 X (1÷6.25)

2.58 X 0.16

0.413

A participant loading of 0.41 reached significance at P<.01 in the Q sort 1.

This parameter suggested accepting those factors that had a minimum of one Q sort with significant loadings following extraction, for consideration to determine an appropriate number of factors for the study. In Q Sort 1, five factors met this criterion. The Q sorts loading significantly on the same factor shared a similar sorting pattern and a distinct understanding of the question.

Brown (1980) provides the following formula for calculating the significance of loadings, which was used to determine Q sort 2:

2.58 X (1÷√no of statements in Q set)

2.58 × (1÷√17)

2.58 X 0.243

0.63

For Q sort 2 all three of the study factors satisfied this criterion.

Common variance is the term used to refer to the “portion of meaning and variability in a Q sort or study that is held in common with, or by the group” (Watts & Stenner, 2012, p. 98). Factor analysis extracts this shared meaning between some of the participants to create factors. The greater the level of common variance explained by the factors, the more effective the factor analysis has been in identifying what the Q sorts hold in common. A total study variance of greater than 35 to 40 percent should be considered sound. Both the

study Q sorts met this criterion with a total variance of 52 percent and 47 percent respectively.

5.2.3 Factor rotation

Following factor extraction the next stage of the analysis is rotation of the factors. This does not change the data rather it changes the angle from which the factors are examined. A decision had to be made whether to use a manual (judgemental) technique or an objective rotation, which is computer generated. For this study, a varimax rotation was used, as there was no theoretical justification for judgemental rotation. The aim was to understand the majority of viewpoints and diversity of perspectives, and not to confirm a theory.

Correlations between factor scores

Highly correlated factors are not desirable as it indicates that the factors share a high level of similarity. It must be borne in mind that in Q factor analysis , people are correlated to produce factors so deriving pure clusters of people is almost impossible and correlations are thus to be expected. For Q sort 1, a five-factor solution reported the correlation of 0.5628 between the two most highly correlated factors. For Q sort 2, the highest correlation between two factor scores was 0.5286. Correlations between factors could be explained by the perceptions of people in one factor having some relationship with the perceptions of people in another factor.

Table 5.3: Q sort 1 correlation between factor scores

Factor	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
1	1.0000	0.0108 -	0.0263	0.1219	0.1905
2	0.0108	1.0000	0.4445	0.4830	0.5174
3	0.0263	0.4445	1.0000	0.2688	0.5628
4	0.1219	0.4830	0.2688	1.0000	0.3228
5	0.1905	0.5174	0.5628	0.3228	1.0000

Table 5.4: Q sort 2 correlations between factor scores

Factor	Factor 1	Factor 2	Factor 3
1	1.0000	0.4607	0.4634
2	0.4607	1.0000	0.5286
3	0.4634	0.5286	1.0000

When deciding on the best solutions, consideration was given to:

- The Kaiser-Guttman criterion (all factors had eigenvalues greater than one);
- Significantly loading Q sorts (all factors had at least two participants loading at the critical level);
- The number of participants who loaded on a factor (maximising the number);
- The amount of variance explained by the solution (maximising the amount); and
- The degree of correlation between factors (minimising the amount of correlation).

For Q sort 1, a five-factor solution was chosen for interpretation and for Q sort 2 a three-factor solution was chosen as the most viable option. They each satisfied the quantitative criteria that are traditionally used when conducting a Q methodological study.

5.3 Transition 2: From Factors to Factor Arrays

A factor array is a single Q sort configured to represent the viewpoint of a particular factor and this factor exemplifying Q sort always conforms to the same distribution used in the data collection. A factor array provides a best-possible estimate of the relevant factor and in effect shows what a perfectly loading Q sort for that factor would look like. Hence, these factor arrays provide the basis for interpretation.

Each of the five factor arrays for Q sort 1 is outlined in Table 5.5.

Table 5.5: Q sort 1 factor arrays

Statement	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
1	4	0	-2	0	0
2	-1	0	0	2	1
3	-3	1	2	3	-1
4	-1	2	4	0	1
5	2	-3	3	1	2
6	-3	1	2	-3	-1
7	2	-3	0	-2	-1
8	-1	-1	1	1	3
9	-1	4	-1	4	1
10	0	3	0	2	2
11	0	-2	-2	-2	0
12	3	-4	-2	-2	-4
13	-2	-4	-4	-4	-4
14	2	-2	-4	-2	-2
15	-1	2	0	-1	-1
16	0	2	3	-1	4
17	-4	-3	-1	-1	-3
18	-1	2	-2	-1	0
19	1	-1	-3	-3	-2
20	0	1	0	0	2
21	3	0	2	1	0
22	-2	3	0	1	-3
23	1	1	1	0	4
24	-2	-2	-1	-4	-2
25	3	-1	-1	0	1

Statement	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
26	0	0	1	0	3
27	0	1	2	2	3
28	2	-1	0	1	-2
29	-2	0	1	-3	2
30	4	3	2	-1	1
31	2	-1	-3	2	0
32	1	2	-1	4	0
33	-2	1	4	-1	1
34	1	0	-1	3	0
35	-4	-2	1	2	-2
36	-3	-2	-2	0	-3
37	0	0	1	1	-1
38	1	-1	-3	-2	-1
39	1	4	3	3	2

Each of the three factor arrays for Q sort 2 is outlined in Table 5.6.

Table 5.6: Q sort 2 factor arrays

Statement	Factor 1	Factor 2	Factor 3
1	0	-1	1
2	1	2	-1
3	-1	-1	-3
4	2	0	-2
5	-3	0	-1
6	1	2	3
7	0	0	0
8	-1	1	1
9	0	-2	0
10	1	1	1
11	-2	0	-2
12	-2	-3	0
13	3	0	0
14	-1	-2	-1
15	0	3	2
16	2	1	2
17	0	-1	0

5.4 Transition 3: From Factor Arrays to Factor Interpretations

In keeping with Stephenson's (1935) pursuit of holism, the creation of factor arrays re-establishes the gestalt nature of the data as the final product must explain the entire item configuration including individual statements and their interrelationships. Participants sorted the statements according to psychological significance and every placement holds meaning and importance. Therefore, it is important that the entire gestalt configuration, and not just the extreme ends (+4 and -4) is taken into consideration. The crib sheet was used to methodically and holistically explore the sort pattern of each factor. The main categories included in the crib sheet were highest-ranking statements, lowest-ranking

statements, statements ranked higher in the factor array than any other factor arrays, and statements ranked lower in the factor array than in any other factor arrays.

Identification of the consensus and distinguishing statements allows for the factors to be compared and contrasted. The distinguishing statements show which statements within the array have been placed/ranked in a significantly different way to the other factors and thus demonstrate their uniqueness. They may reveal certain themes, which can be explored in relation to all the available information. On the other hand, consensus statements do not distinguish between factors suggesting that all the study factors have ranked them in a similar way. This shared ranking may highlight information.

This Q methodological study was conducted with learners in Grade 9 attending a Johannesburg High School. Determining the demographic profiles of each of the factor arrays did not yield patterns worthy of consideration.

Additional qualitative information from the post-sort questionnaires was used to complement and enhance the understanding of the factor arrays and to support the validity of the interpretation. It originated from the post-sort questionnaires completed by the participants to clarify their reasoning behind the Q sorting process.

5.4.1 Factor Interpretation

Tables 5.5 and 5.6 show the ranking assigned to each statement in each of the characteristic or ‘factor exemplifying’ Q sorts. Reading the table by column shows the configuration of statements, which characterise a particular factor. Reading the table by row shows the comparative ranking of a particular statement across the factors.

A narrative description of each factor is presented and rankings of relevant statements are provided. For example (12:+5) indicates that item 12 is ranked in the +5 position. This was aided by the use of qualitative comments from participants in the post-sort questionnaires. Comments made by participants

were cited where they clarify the interpretation. Common Q practice is to supply a title or label for each factor with the intention of providing a condensed version of the core theme of the factor under scrutiny.

5.4.2 Q sort 1

Factor 1 is a bipolar factor, which means that it was defined by both positively and negatively loading Q sorts (Watts & Stenner, 2012). Participants expressed two opposing viewpoints and each had a factor exemplifying Q sort that was the 'mirror image' of each other. It was necessary to present two narrative accounts for factor 1, one containing Q sorts with positive loadings and the other containing Q sorts with negative loadings.

Factor 1 had an eigenvalue of 1.84 and explained four percent of the variance within the study. Three participants (37, 42, and 54) significantly loaded on this factor (two on Factor 1+ and one on factor 1-).

Factor 1+: The humiliators

The focus of this viewpoint was on humiliation, shaming and 'putting down' others. Key indicators for cyberbullying were hurting others' feelings by embarrassing, humiliating or behaving insensitively online (1:+4) (30:+4) (12:+3) (25:+3). Participant 42 stated, "Statements that attack your feelings directly to make you doubt yourself are the worst". They seem to be aware of the need to respect others rights to privacy (7:+2) (28:+2). The attacks are of a personal nature and are targeted primarily at friends and family (21:+3). Factor 1+ is the only factor that highlights or recognises exclusion or isolation as a form of cyberbullying (14:+2) (38:+1). They do not view intrusion or disruption of others relationships to be cyberbullying (36:-3) (22:-2), nor is threatening behaviour particularly physical seen as cyberbullying (4:-1) (33:-2) (6:-3). Participant 42 stated, "Damaging property does not hurt you emotionally or personally and therefore it is not defined as cyberbullying". The results on the negative pole show that these exemplars do not characterise telling lies, teasing, or ending a relationship online as cyberbullying behaviour (2:-1) (3:-3)

(35:-4). The item ‘sending something such as a virus or malware that is damaging to a person’s device’, was ranked negatively by this factor (17:-4).

Factor 1- : The wreckers

The focus of this viewpoint was a combination of destroying relationships and damaging technological devices and property. Factor 1- represented a direct reversal of the configuration of statements characteristic of Factor 1+.

Cyberbullying behaviour for Factor 1- was ending a relationship (35:+4) (22:+2) and messing with others’ relationships (36:+3). This viewpoint emphasised threatening and damaging behaviour such as sending a virus or malware (17:+4), and sending threats to damage property (6:+3), or personal safety (33:+2) (24:+2). What clearly distinguished this factor is that embarrassing, humiliating or ridiculing behaviour is not judged to be like cyberbullying (1:-4) (30:-4) (12:-3) (25:-3). Participant 37 commented that the statements she ranked negatively are behaviours that “friends do to each other”. Her perception may suggest that this type of behaviour is ‘normal’ and therefore acceptable.

Table 5.7: Distinguishing statements for Factor 1

	Statements	Z-Scr	Q-Scr
1	Sending messages to a person to embarrass that person	2.08	4
30	Posting humiliating or shameful images of others online	2.06	4
21	Sending cruel messages about someone’s family	1.64	3
12	Tagging someone in a ridiculous photo without their consent	1.24	3
7	Changing information on someone’s profile without their consent	1.11	2
14	Deliberately excluding someone from an online group	0.66	2
38	Deliberately excluding someone from a party or social event online	0.24	1
22	Ending a friendship in a mean or hurtful way for others to see	-0.77	-2
35	Breaking up with someone you are dating in a hurtful way for others to see	-2.15	-4
17	Sending something such as a virus or malware that is damaging to a person’s device	-2.25	-4

Factor 2: The relationship invaders

Factor 2 had an eigenvalue of 4.6 and explained 10 percent of the variance. Four participants (4, 24, 47, and 63) loaded significantly on this factor.

The focus of this viewpoint was on demeaning and disrespecting relationships, friends, and family. Factor 2 exemplars shared the view that behaviour such as spreading rumours, gossip, or posting inappropriate sexual images of friends is regarded most like cyberbullying (9:+4) (39:+4). The participants whose views were represented by this factor seemed to be concerned about honouring and protecting friendships as well as respecting difference (22: +3) (30:+3) (10:+3). They included coercion and being manipulated into doing something undesirable as cyberbullying behaviour (15:+2) (18:+2). Exemplars within this factor did not rank the statements that ridicule and make fun of, or ignoring and excluding others highly, suggesting that these behaviours were regarded less as cyberbullying acts (12:-4) (13:-4). They did not view sending random pornography or abusing technological savvy/know how to be cyberbullying (5:-3) (7: -3). Participant 47 commented on her decision for ranking her statements least like cyberbullying “they would hurt but at least I could handle the pain”.

Table 5.8: Distinguishing statements for Factor 2

No	Statements	Z-Scr	Q-Scr
22	Ending a friendship in a mean or hurtful way for others to see	1.58	3
18	Sending messages demanding others to do embarrassing things	0.94	2
16	Sending messages to a person threatening to physically hurt that person	0.77	2
15	Sending messages encouraging risky behaviour for others to see	0.65	2
31	Writing embarrassing jokes about someone for others to see	-0.57	-1
5	Sending images of random pornographic content/material to other people	-1.37	-3

Factor 3: The thugs

Factor 3 had an eigenvalue of 7.4 and explained 16 percent of the variance. Ten participants (1, 3, 7, 11, 13, 19, 27, 40, 46 and 58) loaded significantly on this factor.

The focus of this viewpoint was on direct/overt violent threats to safety and security and they reported being concerned and scared about the potential of physical violence occurring. Young people might perceive this as a real source of potential danger. Factor 3 exemplars shared the view that threatening to physically hurt or damage property is most like cyberbullying (4:+4) (33:+4) (16:+3). Participant 1 explained, “Death threats and family safety and the things that matter the most”. They were also concerned about online material that is of a sexual nature (5: +3) (39: +3). The narrative that these young people share was that they are concerned about their reputation, indicating that there was awareness of how they are perceived by others and subsequently their social standing. Participant 13 stated, “The most terrible thing to do to me is to ruin my reputation”. Sending messages to embarrass, humiliate or offend others were ranked low on this factor (31:-3) (32:-1) (38:-3). Young people representing this viewpoint appeared less concerned about behaviour that was emotional or sensitive in nature and this was clarified by the statements that do not privilege exclusion, persuasion or ignoring others (38:-3) (13:-4) (14:-4) (18:-2). These types of situations seemed insignificant and did not demonstrate cyberbullying. Participant 40 stated, “There is a blurred line between friendship and cyberbullying”. This supported the notion of ambivalence in defining the phenomenon.

Table 5.9: Distinguishing statements for Factor 3

No	Statements	Z-Scr	Q-Scr
4	Sending death threats to a person	2.21	4
33	Threatening the safety of a person's family	1.74	4
35	Breaking up with someone you are dating in a hurtful way for others to see	0.24	1
7	Changing information on someone's profile without their consent	-0.03	0
32	Broadcasting a person's secrets for others to see	-0.28	-1
1	Sending messages to a person to embarrass that person	-0.85	-2
31	Writing embarrassing jokes about someone for others to see	-1.27	-3
38	Deliberately excluding someone from a party or social event online	-1.74	-3
14	Deliberately excluding someone from an online group	-1.87	-4

Factor 4: The mean gossip girls

Factor 4 had an eigenvalue of 3.22 and explained seven percent of the variance. Four participants (8, 9, 53, and 60) loaded significantly on this factor.

The focus of this viewpoint was on rumour mongering, spreading secrets and lies, social rejection, and backstabbing behaviour. Exemplars of this factor were bothered about behaviour that is dishonest and damaging to reputation. Salient statements seemed to indicate that behaviour such as spreading rumours, gossiping, broadcasting secrets, and posting lies online are perceived to be most like cyberbullying for people loading on this factor (9 :+4) (32: +4) (2:+2). Participant 9 shared that her friend was "exposed badly" as a result of cyberbullying. The two statements on dating and flirting behaviour were ranked higher on this factor (35: +2) (36:0). This is an example of a zero score in the middle of the distribution demonstrating relevance in relation to other factors. The item on 'posting sexual images/videos of a friend for others to see' was also ranked high by this account (39:+3). This might suggest that this group of people had a similar sense of social norms, demonstrated concern for others' character, and shared a need for the protection of private information. Young

people sharing this factor ranked behaviour that was perceived as hurtful, dishonest, and damaging to others reputation and status to be the most like cyberbullying. Online masquerading such as pretending to be someone else was ranked higher in this factor than any other factor arrays (34:+3). Compared to other factors they were the most concerned about deception. This group viewed exclusion and isolation from online communication as the least like cyberbullying (13:-4), physical and safety threats were defined as the least like cyberbullying (6:-3) (16:-1). Factor 4 exemplars did not value repetitive or annoying unwanted messages (11:-2). Participant 60 stated that the cyberbullying behaviours that she felt most strongly about would be “hurtful enough to commit suicide”. This highlights that cyberbullying behaviour was perceived by some young people as real source of potential risk and suggests that they feel vulnerable. All the learners who shared this viewpoint are female.

Table 5.10: Distinguishing statements for Factor 4

	Statements	Z-Scr	Q-Scr
32	Broadcasting a person’s secrets for others to see	1.86	4
34	Pretending to be someone else on line and posting rude or offensive material to others	1.55	3
3	Teasing someone about their appearance	1.51	3
35	Breaking up with someone you are dating in a hurtful way for others to see	0.89	2
36	Messing with or directly flirting with someone else’s boyfriend/girlfriend on line	0.27	0
30	Posting humiliating or shameful images of others online	-0.44	-1

Factor 5: The super villains

Factor 5 had an eigenvalue of 6.9 and explained 15 percent of the variance. Eight participants (10, 17, 33, 50, 51, 61, 64, and 70) loaded significantly on this factor.

This viewpoint’s focus was on a wide range of behaviours that are both physically and psychologically cruel and malicious. The positively scoring statements included behaviour that was perceived to be threatening or hurtful in

both a psychological and physical manner (16:+4) (23:+4) (26:+3) (27:+3) (20:+2) (29:+2). These statements included sending messages to physically threaten others and posting cruel messages including hate speech about others. Behaviours such as gaining access to someone's personal information and using this without their consent or even editing a picture of someone in a demeaning way were ranked lower on this factor than any other factor (28:-2) (37:-1). Ending a friendship in a hurtful way for others to see was a statement ranked lower on this factor than any other factor (22:-3). This might be interpreted as behaviour that was inherently hurtful and not specific to cyberbullying. As with other factors, except factor 1+, continuously ignoring someone's message is defined as least like cyberbullying (13:-4) and they appeared not to be concerned about excessive communication. Participant 33 commented on his choice of statements that he felt least strongly about, "these things just happen without noticing and make no difference to our lives". However, this group of participants are concerned about anonymity online and this was echoed in the post-sort questionnaires (8:+3). Of importance, it appears that the perceptions of cyberbullying behaviour were based on the intensity and harm of impact of such behaviours rather than on the behaviours themselves. This is evident by the participants' comments from post-sort questionnaire 1.

Table 5.11: Distinguishing statements for Factor 5

No	Statements	Z-Scr	Q-Scr
23	Posting nasty or cruel messages about a person for others to see	1.55	4
26	Sending repeated, unwanted messages threatening harm to a person	1.38	3
26	Sending repeated, unwanted messages threatening harm to a person	1.17	3
20	Sending a message to a person that contains hate speech or cruel statements about that person	1.02	2
9	Spreading rumours/gossip about a person for others to see	0.71	1
31	Writing embarrassing jokes about someone for others to see	0.02	0
22	Ending a friendship in a mean or hurtful way for others to see	-1.42	-3

5.4.3 Q sort 2

Three distinct viewpoints emerged based on centroid factor analysis and varimax rotation. Several other rotations were attempted; however, the results indicated that this solution yielded the clearest factors.

Factor 1: Humiliation by revealing personal information

Factor 1 had an eigenvalue of 5.98 and explained 13 percent of the variance. Five (7, 8, 27, 42, 54) participants loaded significantly on this factor.

Exemplars for this factor shared the view that gossiping and spreading rumours was the most mean of the cyberbullying behaviours (13:+3) (10:+1). The perspective highlighted by this factor, valued privacy of information of a personal nature. Behaviour that was hostile, humiliating, or threatening was ranked high on this factor (4:+2) (9:0) (6:+1). These behaviours seemed more concerning if they interfered with personal relationships. Sending inappropriate pictures of an ex-boyfriend or ex-girlfriend (16:+2) was considered mean, whereas sneaking a recording by video or taking photos of people having sex (15:0) was ranked lower on this factor than on any other factor. Behaviour that is technologically damaging was not rated highly by this group of participants (8:-1) (5:-3). A comment in the post-sort questionnaire 2 by participant 42 about her choice of the most mean behaviours was “the actions that would affect me personally because everyone can see it and think badly of me”. This suggests that she valued her reputation and because of the public nature of online communication, she needed to protect her privacy.

Table 5.12: Distinguishing statements for Factor 1

No	Statement	Q-SV Z-SCR	Q-SV Z-SCR	Q-SV Z-SCR
13	Starting a rumour by posting private personal information.	3 1.22*	0 0.02	0 0.19
4	Engaging in a hostile argument with another person.	2 0.91*	0 -0.43	-2 -1.30
6	Tricking a person into providing photos/images to humiliate that person.	1 0.77*	2 1.74	3 1.69
2	Videoing a schoolmate being humiliated off line then posting this online.	1 0.75	2 1.29	-1 -1.14
15	Sneaking a recording by video or taking photos of people having sex.	0 0.32*	3 1.89	2 1.25
1	Posting hate mail insulting a particular group of people.	0 0.28*	-1 -0.89	1 1.07
8	Hacking or getting access into someone else's social media account.	-1 -0.46*	1 0.64	1 0.35
11	Setting up a chat group with schoolmates and purposefully excluding someone.	-2 -2.02*	0 -0.46	-2 -1.20
5	Deliberately sending a virus or malware to other	-3 -2.10*	0 -0.49	-1 -0.57

Factor 2: Humiliation by duplicity

Factor 2 had an eigenvalue of 7.36 and explained 16 percent of the variance. Nine participants (2, 3, 24, 25, 32, 37, 40, 46, 51) loaded significantly on this factor.

Participants who held this view judged behaviour that was deceptive, sneaky and involved manipulation as hurtful (15:+3) (2:+2) (6:+2). They appeared to be concerned about people trying to influence or place pressure on them and this was indicated in the post-sort questionnaire 2 responses. Participant 2 commented on her selection of the most mean statements; "They are the things that people cannot control". Participant 3 stated "…because they humiliate and can ruin someone's life". Recipients of such behaviour have little control over it and cannot just ignore it. Statements that referred to a recording of private information or action seemed to bother this group more than sending insulting

or threatening content (1:-1) (4:0) (9:-2). Material that was of a sexual nature was offensive (15:+3). Social exclusion, in relation to the other factors was ranked higher on this factor than on other factors (11:0). Taking and editing a picture of someone you know is evaluated as least hurtful cyberbullying (12:-3). Based on comments in the post-sort questionnaire 2, they perceive this behaviour as “fun and friendly”, as opposed to “mean and hurtful”. Participant 37 commented on her choice of least mean statements, “….most friends enjoy having fun and embarrassing each other in a friendly manner”. The statements on the negative side of the grid confirmed the general impression of this viewpoint gained from looking at the positive side of the grid.

Table 5.13: Distinguishing statements for Factor 2

No	Statement	Q-SV Z-SCR	Q-SV Z-SCR	Q-SV Z-SCR
15	Sneaking a recording by video or taking photos of people having sex.	0 0.32	3 1.89*	2 1.25
2	Videoing a schoolmate being humiliated off line then posting this online	1 0.75	2 1.29	-1 -1.14
4	Engaging in a hostile argument with another person	2 0.91	0 -0.43*	-2 -1.30
11	Setting up a chat group with schoolmates and purposefully excluding someone	-2 -2.02	0 -0.46*	-2 -1.20
17	Sending a group message criticising a schoolmate’s appearance.	0 0.17	-1 -0.74*	0 0.26
1	Posting hate mail insulting a particular group of people.	0 0.28	-1 -0.89*	1 1.07
9	Sending non-stop, repetitive threatening messages.	0 0.04	-2 -1.01*	0 0.04

Factor 3: Humiliation by shaming in a sexual manner

Factor 3 had an eigenvalue of 8.25 and explained 18 percent of the variance. Twelve (1, 5, 10, 19, 31, 33, 47, 49, 56, 58, 60, 62) participants loaded significantly on this factor.

Participants defining this factor had strong feelings about deliberately or intentionally hurting, humiliating, or insulting people (6:+3) (15:+2) (1:+1)

(16:+2); this behaviour included trickery. Participant 33 stated, “My stuff is meant to be kept secret and we do not have the right to expose it”. These participants believe that intrusion into someone’s social media account (8:+1) is considered mean behaviour. This item was ranked distinctly different on factor 1 of Q sort 2. These participants might have been aware of their need to protect their social wellbeing online and were revealing their potential vulnerability. Participant 1 commented on the importance of her statements, “Threats are very scary and we need privacy”. The results on the negative side of the grid show that these participants did not value masquerading or pretending online (3:-3). Having a hostile argument online (4:+2) was not rated as hurtful, which is in direct contrast with factor 1 of Q sort 2. Purposefully excluding also had a negative ranking (11:-2). Comments on the post-sort questionnaire 2 by participants qualify that the statements on the negative side of the grid are easier to solve or avoid and this was a criterion used to judge the statements relative to one another.

Table 5.14: Distinguishing statements for Factor 3

No	Statement	Q-SV Z-SCR	Q-SV Z-SCR	Q-SV Z-SCR
15	Sneaking a recording by video or taking photos of people having sex.	0 0.32	3 1.89	2 1.25*
1	Posting hate mail insulting a particular group of people	0 0.28	-1 -0.89	1 1.07*
12	Taking and editing a photo of someone you know.	-2 -0.86	-3 -1.13	0 -0.25
2	Videoing a schoolmate being humiliated off line then posting this online	1 0.75	2 1.29	-1 -1.14*
11	Setting up a chat group with schoolmates and purposefully excluding someone.	-2 -2.02	0 -0.46	-2 -1.20*
4	Engaging in a hostile argument with another person	2 0.91	0 -0.43	-2 -1.30*
3	Pretending to be another person when chatting online	-1 -0.57	-1 -0.72	-3 -1.34*

5.4.4 Post-sort questionnaires

Questionnaires were completed to validate and support the narratives from the interpretation of the data for Q sort 1 and 2.

Coping mechanisms

Post-sort questionnaire 2 included qualitative questions, with the intention of meeting the third research question of this study, which was to identify what actions in the form of coping strategies young people were currently using to address cyberbullying incidents. For the purpose of the study, the questions were designed to ask participants to offer advice and solutions to a friend if they experienced behaviour that they evaluated as 'most mean' in the cyberbullying vignettes for Q Sort 2. With regard to advice young people would give others being cyberbullied, qualitative analysis found some contrasting recommendations as well as many similarities. The key themes identified included: (1) telling someone; speaking out, or go for counselling; (2) technological strategies such as deleting, blocking, or changing passwords and/or usernames; (3) Ignoring and being positive; (4) abstaining and avoiding going online; (5) taking legal action; and (6) confronting the bully and retaliating. The following participant comments were relevant and informative in respect of the themes that surfaced.

- *Participant 1*: "Talk to someone older and that you trust about it".
- *Participant 3*: "…you should be aggressive to solve the problem".
- *Participant 12*: "Improve your firewalls and security on your computer".
- *Participant 20*: "One should remove themselves from social media platforms"
- *Participant 34*: "Delete your social media life completely".
- *Participant 34*: "I think people should take legal action".

In the case of online harassment and intimidation, an array of preventative tools was available to young people. With regard to online strategies, participants in this study reported that they were familiar with online intervention tools. This is consistent with other research (Juvonen & Gross, 2008; Li, 2005). However, it is not known whether adolescents did rely on these tactics to prevent online incidents, or that inaction might be associated with increased risks. On the

contrary, some participants might have some social desirability bias, and may not acknowledge the truth due to concerns over the societal implications of doing so.

What is particularly noteworthy is that adolescents advised others to speak out about their experiences, yet they do not appear to do this in practice.

In order to address the problems that cyberbullying raises it was important to be aware of what coping strategies young people have available and use to deal with negative experiences online. Unfortunately, this did not allow for the disparity between what respondents would do and what they would recommend others do, in response to cyberbullying.

Telling adults

Two further questions were included in the questionnaire that relate to telling adults about cyberbullying issues. The first addressed adults' efficacy in dealing with cyberbullying and the second questioned whether adolescent participants would tell an adult if they were cyberbullied.

The majority of respondents, 63 percent, indicated that adults did not know how to deal with cyberbullying effectively. This finding was particularly relevant as it endorsed the current assumption that adults are not considered reliable or effective social support in managing cyberbullying experiences. This may be due to the generation divide, or that participants believe they need to learn how to deal with it themselves, or the fear of restrictions sanctioned by adults. This was a concern as cyberspace has been conceptualised as a risky environment for adolescents, and cyberbullying is associated with a number of difficulties including psychosocial problems, declining academic performance, and troubles at home.

Surprisingly, a slight majority of respondents, 54 percent, reported that they would tell an adult if they were cyberbullied. This is an encouraging finding; however, it is inconsistent with current research presented in the literature review. Furthermore, it is contradictory in light of the results of the first question.

Why would youth tell an adult if they were cyberbullied when they consider adults ineffective in dealing with the matter? Again, these participants might be demonstrating social desirability bias by acknowledging that they would tell an adult in the case of cyberbullying; because, that was what they thought an appropriate answer or because they believed that answer suited the predictions of the researcher.

5.5 Summary

The study sought to elicit learners' perspectives of cyberbullying by uncovering clusters of people who have similar perceptions about cyberbullying in South Africa. The findings highlighted the complexity of the inherent meaning in each of the dominant interpretations of the emerging viewpoints.

5.5.1 Q sort 1

Analysis of the data for Q sort 1 revealed a five factor solution representing different viewpoints of the conceptualisation of cyberbullying as defined by adolescent participants. Each of the views identified a different emphasis on what constitutes cyberbullying behaviour. There were distinct differences in the extent to which participants viewed cyberbullying. The diversity in accounts revealed in this study referred to differences in relation to humiliation and hurting feelings, destroying relationships, direct violent threats to safety and security, social rejection, and exclusion. The factors were labelled "the humiliators" (factor 1+), "the wreckers" (factor 1 -), "the relationship invaders" (factor 2), "the thugs (factor 3); "the mean gossip girls" (factor 4), and "the super villains" (factor 5).

5.5.2 Q sort 2

Analysis of the data for Q sort 2 generated three factors revealing how online adolescents evaluate bullying incidents. Although generally quite distinct, they shared some similarity. These factors were labelled "humiliation by revealing personal information" (factor 1), "humiliation using duplicity" (factor 2), and

“humiliation by shaming in a sexual manner” (factor 3). Each of the views prioritised humiliation as a form of harmful behaviour; however, there were differences in the extent to which participants evaluated the severity of cyberbullying events. These differences included being more or less concerned about sexual and private information being shared, gossiping and spreading rumours, and being disrespectful towards others’ beliefs and individuality.

CHAPTER 6: DISCUSSION AND CONCLUSIONS

6.1 Introduction

Empirical studies exploring adolescents' use of and experiences with digital media unequivocally report the increasing pervasiveness of digital technologies in youths' lives. Advancing technology has improved the quality of life for many; however, youth are becoming more vulnerable to the distress that it comes with. New technology has influenced how violence occurs in everyday life.

With the advent of the internet, and in particular social media, cyberbullying has emerged as a new form of harassment or aggression. What is clear from research is that when youth are victimised through traditional or electronic means, they can be affected in many ways, which is associated with psychological, emotional, social, and academic problems. Cyberbullying shares many major characteristics with traditional bullying; however, there are a number of significant differences, which make it critical to distinguish between the two and commit independent research in comprehending the reality and growth of this new phenomenon.

Although the evidence base for programs targeting cyberbullying is in its infancy, researchers are learning more about the coping strategies currently being used and to what degree these strategies are successful. For a variety of reasons, young people do not tell adults when they are cyberbullied, but they may tell their friends. Empowering peers to be ready to respond to such situations through empowerment and peer-led initiatives is an obvious starting point. Greater awareness of the technical and psychological aspects of cyberbullying would assist psychological service providers, teachers, and parents towards informed approaches for intervention.

In this chapter, the findings are discussed in relation to existing literature and attention is given to the contribution this research could make towards the knowledge and understanding of young people's attitudes and opinions (perceptions) of the nature, content, and expression of cyberbullying. The discussion includes implications for schools and the practice of parents and

other stakeholders for intervention and prevention. Some personal reflections are shared, and suggestions for further research opportunities in this area considered.

This research did not elicit the learners' own experiences and involvement in cyberbullying due to the inherently sensitive nature of the subject. By design, the participants responded in general terms about their beliefs and understanding of cyberbullying that they may or may not have experienced themselves.

This study combines a qualitative and quantitative approach and uses young people as participants to focus on their understanding of cyberbullying. This is important, as representations of cyberbullying by others could be quite different to the representations that adolescents assign to the behaviour. Q methodology was the chosen methodology, which makes use of self-referent enquiry and does not impose *a priori* constructs on respondents. This enables the research to access the subjective opinions and values of a person and still capture the rich diversity of people's representations of a topic.

The primary aim of this study was to give a voice to the interpretations of cyberbullying by adolescents and to understand how they make sense and meaning of this behaviour. This study attempted to gain insights into this behaviour by exploring youths' perceptions of what constitutes cyberbullying behaviour, their evaluations of its severity as perceived by youth and their coping strategies and reactions in relation to hypothetical cyberbullying acts. The Q methodological study revealed a solution for each of the Q sorts and a number of factors were identified and interpreted. Given the limited nature of participant and item samples, it was not claimed that the factors described in Q sorts 1 and 2 were exhaustive of the viewpoints held on cyberbullying.

6.2 Viewpoint Insights in Relation to Existing Literature

6.2.1 Q-sort 1

Q Sort 1 attempted to answer research question 1: *What are youths' perceptions and views of what they believe constitutes cyberbullying behaviour?*

The factors from this Q-sort are summarised as follows:

- *The humiliators*: Factor 1+ represented concerns about humiliation, shaming and 'putting down' others. Cyberbullying was viewed as disrespecting others rights and beliefs by embarrassing and excluding people. Participants loading onto this factor emphasised the importance of privacy of information. Cyberbullying was not about actions that may disrupt relationships nor threaten physical harm.

- *The wreckers*: Factor 1- represented concerns about sending a virus or malware and emphasised physically threatening behaviour. Cyberbullying was viewed as ending a relationship online and destroying personal relationships. Cyberbullying was not about humiliation, ridicule, or shaming others.

- *The relationship invaders*: Factor 2 represented concerns about demeaning and disrespecting relationships, especially family and friends. Cyberbullying was conceived as coercion and manipulation into doing something undesirable. Cyberbullying was not about ostracism or excluding others.

- *The thugs*: Factor 3 represented concerns about physical and hostile behaviour including threats to personal safety and property. Cyberbullying was characterised by sending material that is of a sexual nature. Cyberbullying was not about actions that are emotionally and psychologically sensitive, such as embarrassing or ridiculing others.

- *The mean gossip girls*: Factor 4 represented concerns about ridiculing and demeaning others online by rumour mongering, spreading secrets, and posting lies. Cyberbullying included behaviour that was dishonest, damaging to others reputation and status. Cyberbullying was not defined by actions that were physically threatening, and excluded, or ignored others.

- *The super villains*: Factor 5 represented concerns about a wide range of behaviours that include direct physical threats and psychologically cruel acts. Cyberbullying was a variety of offensive behaviours ranging from threatening physical harm to posting cruel messages. Cyberbullying was not described as behaviour that disrupts relationships, nor as sending a virus or malware.

The factors presented reflect a range/spectrum of possible perspectives on how cyberbullying is conceptualised by adolescents. It was possible to suggest that a variety of ways has been identified in which adolescents construct cyberbullying victimisation and these accounts reflect different ways of understanding what cyberbullying 'is'. Furthermore, each account had a different emphasis reflecting the definitional difficulties as discussed in the literature. Each account echoed different interpretations and views on cyberbullying, demonstrating the complexity and diversity of the phenomenon. This study considered the subjective dimension and demonstrated that cyberbullying was not a unitary concept. Five discrete viewpoints were discerned, and this had a useful function of clarification and making sense of cyberbullying. The perspectives that emerged from this Q analysis resonated with other findings in the cyberbullying field. Several further points can be developed on the basis of the current findings.

Cyberbullying definitions

The factor interpretations lend support for the argument presented in the literature review that there is not a singular operationalised standard definition of cyberbullying. South African adolescents attach multiple and diverse meanings to cyberbullying and interpret this behaviour in various ways. In

addition, it is also evident that the three attributes that have been borrowed from traditional bullying do not adequately describe the phenomenon (Slonje et al., 2013; Tokunaga, 2010).

These findings lend support to existing studies showing that often youngsters define and interpret cyberbullying in different ways and associate the phenomenon with a wide range of practices. Furthermore, the literature about cyberbullying suggests that cyber activities perceived as forms of cyberbullying by researchers, are not always considered cyberbullying by the respondents (Vandebosch & Van Cleemput, 2008).

In addition, measures of prevalence based on current definitions might report situations that do not concern young people, or even omit situations that do concern young people. Inflated or deflated rates could be the upshot of definitional inconsistencies. Some online bullying behaviour might be perceived as bullying by adolescents and similarly, some perpetrators might not intend to harm the other person. Unfortunately, it is difficult to discern which harassment involves simply jest, and which has the potential to escalate. An additional concern is that many of the definitions of cyberbullying have been written from the perspective of the perpetrator, whereas the outcome and impact is based on the victims' classification, and not the action of the perpetrator.

Online security

Despite the variable results most studies are in agreement that there is a meaningful proportion of adolescents involved in cyberbullying (Hinduja & Patchin, 2013), and the number of youth being cyberbullied is on the increase. Findings from this study supported the notion that cyberbullying is a social concern and an issue of central importance in South Africa. Findings also reveal that cyberbullying is associated with strong negative emotions and in some cases vulnerability, which emerges in some of the factor interpretations. This implies a sense of helplessness and powerlessness for adolescents growing up in the digital age. The possibility of being harmed is very real threat to the youth; this is echoed by some researchers in related cyberbullying literature (Calvete et al., 2010; Rivers & Noret, 2010). There is the fear of

invasion of privacy, as adolescents recognise that there are considerable risks in the cyberworld. The lived reality of the participants in this study offered clear support for this point. Additionally, the interactivity of the Web can compromise safety, especially when youth reveal information about themselves to others on line. Some perspectives reveal the potential influence of cyberbullying on the 'self'. For example, some adolescents highlighted the potential loss of reputation and public humiliation as a concern. Adolescents also hold deep concerns about friends and families ranging from emotional and physical threats to the invasion of relationships. The conduct of and maintenance of relationships in the "real' world is difficult enough for most, without the added dimension that cyberspace brings (Spears et al., 2009). These findings suggest that cyberbullying is an issue not only of a person's security online, but also for his/her virtual and real social relations. Hinduja and Patchin (2008, p. 138) defined cyberbullying as, "Online bullying can include: bothering someone online, teasing in a mean way, calling someone hurtful names, intentionally leaving persons out of things, threatening someone, and saying unwanted sexually-related things to someone."

These findings indicated that many of the aforementioned acts and behaviours did not consistently nor necessarily bother the participants, or only bothered some of the participants, which was verified by their conceptualisation of what defines cyberbullying behaviour. For example, only Factor 4 participants expressed a real concern for posting lies about someone or teasing someone online, and recognised these actions as cyberbullying. Intentional exclusion was deemed to be cyberbullying by Factor 1+ and ignoring messages was only recognised as cyberbullying by participants loading on Factor 1-. No other factor viewpoints were concerned about behaviour that is ostracising and excluding and this was not generally perceived as cyberbullying. Furthermore, sharing content of a personal or sexual nature was not viewed as cyberbullying for some participants across the viewpoints. Even sending random pornography online was evaluated or perceived considerably differently by the various viewpoints; the absence of common features or consensus statements suggests that the statements are unique and distinct from each other. An important finding was that this and other definitions cited do not include respect

for privacy of information and personal safety which was the central focus represented by some of the factors. Researchers on cyberbullying emphasise the importance of safety and security for adolescent in the virtual world.

Bauman (2013) states that it is very difficult to determine the intent of a person accurately; rather, intent is based on either the outcome of a person's actions or the circumstances from which the act was initiated. Due to the indirect nature of cyberbullying, it is difficult to identify the intention of the behaviour (Menesini & Nocentini, 2009b) and with information technology, intent can easily be misinterpreted. It is conceivable that due to the subjective interpretation of behaviour, what was intended as bullying is considered teasing by some people. This is evident in the findings of this study. Item 3, "teasing someone about their appearance", was perceived vastly differently by the participants. Poor attempts at humour, for example, can be easily misunderstood due to lack of feedback and paralinguistic cues, and cause distress. Thus, posting comments or images intended to be funny can cause as much damage as those that intended to hurt. Concerns surrounding unintentional and careless behaviour with hurtful or damaging outcomes were not addressed adequately. This distinction requires further clarity in order to inform both researchers and decision-makers. It places the credibility of research in question and limits the effectiveness of policy and suggested solutions.

Repetition

Considering the notion of repetition in the technology environment where the ability to share messages (copy and paste) and thereby draw on larger audiences places doubt on the transferability of this attribute. Posting content online in itself constitutes repetition as they can be viewed and forwarded repeatedly (Kowalski, Limber & Agatston, 2008). The repetition may not involve the primary perpetrator, but may be carried out by other individuals (Slonje, Smith & Frisen, 2013). Cyberbullying does not require a persistent interaction between the perpetrator and the victim, primarily because of the anonymity cyberbullying affords the perpetrator (Wolak et al., 2007). This research too suggested that cyberbullying could be experienced after only a single incident,

possibly owing to the feature of anonymity and the potential limitless audience available. The relevance of repetition as a criterion for cyberbullying is questioned as these findings supported other studies that suggest that a cyberbullying definition does not rely upon repetition as a major characteristic (Kowalski, Limber & Agatston, 2008; Vandebosch & Van Cleemput, 2008; Wolak et al., 2007). Another conceivable reason for this result is that repetition of messages could be interpreted merely as annoying or frustrating, and therefore not characterised as cyberbullying.

Power imbalance

The final attribute of power imbalance translated into the information technology environment could include technical proficiency, anonymity, or social status. Again, considering the ability to share information that new technology affords, no perceivable imbalance may be evident. For example, sharing a message about someone, which is seemingly harmless, with a wider audience leaves the victims powerless to defend themselves, and the comments cannot be removed. Internet harassment and conventional face-to-face bullying differ in the aspect of asymmetrical power as the ability to maintain anonymity is a unique way of asserting dominance online (Ybarra & Mitchell, 2008). Furthermore, cyberbullies rate themselves as internet experts. Although not explored in this research, no explicit or implicit power imbalance emerged, therefore it can be assumed based on previous research that this differential may be a criterion for bullying however no studies have proved its relevance for cyberbullying.

Conceptualising cyberbullying

The concerns regarding the transferability and adequacy of adopting the attributes of traditional bullying, place existing results in question (Smith, 2012; Tokunaga, 2010). This challenge constitutes a significant gap in the literature. Findings from this study showed considerable variability in the conceptualisation of cyberbullying by adolescents, identifying different viewpoints perceived by young people. The range and diversity of the

viewpoints mirrors the multidimensionality of cyberbullying and the nuances among the perceived definition of the behaviour. There were sufficient nuances in the findings for a five-factor solution to be selected for interpretation. It appears that the existing research provides a partial account of cyberbullying behaviour.

“Cyberbullying is a problem only to the extent that it produces harm to the victim” (Patchin & Hinduja, 2006, p. 155). This research reflects the heterogeneity in views and perhaps cyberbullying research could concentrate on determining what behaviour harms young people online. This would allow researchers to identify high-risk environments and high-risk behaviours, which are important due to the disparity between how different situations are perceived by different people. Understanding which behaviours hurt and offend young people online may be beneficial in our attempt to define and conceptualise cyberbullying as it is largely agreed that only if the victim is affected by the behaviour, does it constitute cyberbullying. This is advocated by some researchers, “we need to conceptually define what cyberbullying is” (Rivers & Noret, 2010, p. 668).

These findings also indicate that many of the commonly occurring behaviours or events that occur via the internet and other mediated technologies would not be classified as cyberbullying. These acts include ignoring, name-calling, and sending mean comments. This might suggest that some adolescents demonstrated resilience and were able to deal with such instances in a prosocial or normative manner. However, this differed across the viewpoints suggesting that some of the factor participants were more sensitive and vulnerable than others. On the other hand, potential for physical harm also differed across the viewpoints and was perceived as cyberbullying by some of the factor participants and not by others. Some people may believe that direct physical threatening and aggressive behaviour is more serious and harmful as it is more overt and immediate than other types of behaviours. Being ignored may simply reflect behaviours that deserved the outcome, rather than wilful aggression.

The differences in the viewpoints leads to the likelihood that different approaches to intervention would be needed to assist young people navigate their conduct online.

Factor 1+

The viewpoint shared by factor 1+ expressed concerns about hurting others' feelings and communicates sensitivity and vulnerability. This is in line with other research, which investigates the ill effects and consequences that young people face because of cyberbullying. Victimisation is associated with serious problems and is reported to have an effect on self-confidence, self-esteem, and friendships. Spears et al. (2009) report that cyberbullying made participants feel like the problem was inescapable, they were unsafe and that they were alone. Ybarra, Mitchell, Wolak and Finkelhor (2006) state that it is evident that cyberbullying reinforces a sense of worthlessness among victims. Vulnerability was expressed in relation to privacy of information online, and this is evident in the interpretation of some of the factors. Interestingly the respondents in this factor exemplified a sensitive interpretation of cyberbullying yet they reject behaviours such as teasing or breaking up with someone you are dating in a hurtful manner. This further demonstrates the difficulty in understanding the phenomenon. Research by Livingston et al. (2011) stated that researchers needed to listen to the voices of children and be more aware of the risks that concern young people including personal data misuse. Interventions need to be tailored to make youth feel safe and empowered to manage the risks.

Factor 1-

The viewpoint expressed by factor 1- was distinguished by an emphasis on physically threatening behaviour and damaging technological devices by sending a virus or malware to others. A feature of this viewpoint was the lack of concern for humiliation and the perception that shaming and ridiculing or embarrassing others was not perceived as cyberbullying. The question that needs to be addressed when considering this viewpoint was whether youth are fully aware of the sensitivities of others online. Consideration needs to be given

to what is and is not acceptable to share or disclose online based on the harm it may cause others or self.

Factor 2

Factor 2 participants expressed a concern for relationships; friends and family were particularly valued. However they did not regard behaviours such as exclusion and ignoring as cyberbullying as revealed in most of the factors that emerged. Electronic communication offers many new ways of satisfying the need for social connection but also provides ways for this need to be thwarted. It is well documented that ostracism, being ignored and excluded is a common social experience that threatens fundamental needs i.e. belonging, self - esteem, control, and meaningful existence. Current research undertaken has found that cyber ostracism affects adolescents' sense of belonging. It is expected that cyberbullying can similarly cripple the self-esteem of an adolescent (Patchin & Hinduja, 2006). This calls for a greater awareness of the complexity of social interactions online including the need for a more thorough consideration of the affective responses. This viewpoint and account of cyberbullying supports the notion that cyberbullying is a relationship problem. If cyberbullying is considered a relationship problem then recognising the impact of cyberbullying has on relationships is imperative.

Factor 3

The viewpoint for factor 3 prioritised the threat of physical harm and victimisation but did not appear to rate behaviour that is sensitive or emotional in nature to be cyberbullying. Although physical harm and aggressive threats were not a homogenous concern, this finding supported the notion that cyberbullying does not preclude physical harm. This viewpoint may demonstrate resilience and appear more robust as they are not really bothered by mean comments or being ignored by friends. Furthermore, the statements that included behaviour that was manipulative and coercive were regarded as least like cyberbullying by this factor. This may suggest a level of maturity in the sense that they were demonstrating self-control and resisting peer pressure, as

they would not be persuaded into doing something that was risky or potentially harmful. It certainly does question how attuned some young people are to the harm and hurt that could potentially arise from less overt threats such as embarrassing or humiliating others online.

Factor 4

Factor 4 participants considered manipulating relationships through rumour mongering and backstabbing others by spreading secrets and lies to be most like cyberbullying. They were most concerned about their social standing, reputation, and how they are perceived by their friends. These participants presented a concern for 'self'. Only female participants loaded onto this factor.

"To begin, the elements of perceived anonymity on-line, and the safety and security of being behind a computer screen, aid in freeing individuals from traditionally constraining pressures of society, conscience, morality, and ethics to behave in a normative manner (Hinduja & Patchin, 2008, p. 134).

This lends support to the liberating or disinhibiting mechanisms as an explanation of negative online communication. Ybarra and Mitchell (2004b) also consider the anonymity of interacting online means that socially accepted roles do not have to be observed, and the internet can be an arena for aggressive acts. Consequently, young people feel less vulnerable about self-disclosure and this can have negative consequences for adolescents. Cyberbullying and online harassment may be associated with the disinhibition that is due to reduced auditory, visual, and contextual cues in computer mediated communication. Further consideration needs to be given to teaching young people how to interact online in a socially acceptable way. It is concerning to think that adolescents might believe that behaviour online is separate from behaviour offline.

The gendered nature of cyberbullying has been difficult to understand and research results are contradictory and inconsistent, as many victims report that they do not know the identity of the aggressor. However, research does indicate that there are differences in the types of cyberbullying employed by boys and

girls (Rivers & Noret, 2010). The sending of nasty or threatening messages may provide a means by which perpetrators ensure that currently unpopular girls remain unpopular as well as providing a means to isolate the victim. The perspective highlighted by factor 4 reflects an account of cyberbullying by girls that is similar to indirect or relational aggression, which may add support to the inferences drawn by some researchers (Kowalski & Limber, 2007; Rivers & Noret, 2010).

Factor 5

The viewpoint expressed by factor 5 offers a more balanced evaluation of cyberbullying behaviours that are physically threatening and others that are psychologically harmful. Many of the commonly occurring behaviours online such as teasing or ridiculing someone did not seem to affect this group of participants. Some messages may be perceived as acceptable by the sender and the recipient but may violate third party norms. It is important to discuss how a problematic messages online may be interpreted differently. Targeting the role of the bystander, such as how and when to take action, is relevant when considering this viewpoint. However, the bystander roles in cyberbullying are more complex than in most traditional bullying.

“Identifying unique internet characteristics is an integral component of understanding youth online aggression” (Ybarra & Mitchell, 2008, p. 352).

The development of new technologies, including 3G phones and social media sites, has undoubtedly had an impact on cyberbullying. Those images, videos, or utterances used to shame or embarrass the target can now be uploaded immediately onto the World Wide Web or other unrestricted sites and accessed globally. Many of the studies cited have failed to take into account advances in technology, which may broaden the opportunity to engage in violent and abusive behaviours.

6.2.2 Q-sort 2

Q sort 2 attempted to answer research question 2: *What are youths' evaluations of cyberbullying events?*

Each factor was unique and distinct from each other; however, some statements were treated in a largely homogenous way throughout the factors. Across all three factors, behaviour that is humiliating was evaluated as mean and cruel. The rankings were towards the positive side of the scale and tended to be ranked higher in terms of perceived severity by the participants. Public shaming and humiliation is a theme that exists in the literature and is considered a salient socio-digital stressor (Hinduja & Patchin, 2008; Smith et al., 2008). The factors from this Q-sort are summarised as follows

- *Humiliation by revealing personal information:* Factor 1 highlighted by this factor was that gossiping and spreading rumours was the most mean or hurtful cyberbullying behaviour. Private and personal information is valued. Behaviour that is hostile and humiliating was also rated as hurtful.
- *Humiliation by duplicity:* Factor 2 represented a view that is concerned with behaving in a secretive and dishonest manner. Behaviour that involves intimidation and trickery is regarded as particularly hurtful. They seem to be concerned about being influenced or pressured into behaving/acting inappropriately.
- *Humiliation by shaming in a sexual manner:* Factor 3 exemplars acknowledge that acts that are most obviously public and deliberately embarrassing, humiliating and insulting are cruel and distressing. Behaviour that includes trickery and manipulation is also evaluated negatively. They are concerned about their privacy online and are aware that this needs to be guarded against.

The findings yielded rich and informative accounts of the risks and harm young people face online. The depth of impact was brought to the fore by some of the factor representations revealing humiliation and anger, and violation and vulnerability, clearly supporting previous studies, which reported that the impact

of cyberbullying is significant (Patchin & Hinduja, 2006; Smith et al., 2008). These findings enhance the understanding of specifically which behaviours were perceived as mean and harmful by adolescents, and make an important contribution to the definition and conceptualisation of cyberbullying. Some researchers previously advocated this: “We need to conceptually define what cyberbullying is” (Rivers & Noret, 2010, p. 668).

Cyberbullying events

The argument in the literature review (David-Ferdon & Hertz, 2007; Tokunaga, 2010) highlights that several cyberbullying actions cause distress and different aspects of cyberbullying give rise to varying levels of distress. The factor interpretations lend support to the diversity of youths’ perceptions and interpretation of offenses as distinctly differing viewpoints emerged based on participants evaluations of the behaviours put forward. Participants were asked to sort the cyberbullying vignettes according to their life experiences and personal views and opinions about the severity of the cyberbullying events. Each account had a different emphasis, reflecting the difficulty in definition and difficulty in application. For example, receiving aggressive or threatening messages personally versus having messages posted in a very public manner on a popular social media site might have varying impacts and require different prevention and intervention strategies. More private or personal forms of cruel messages or threats may appear superficially less hurtful. The field of research on electronic aggression suggests that the severity of cyberbullying varies in breadth with incidents ranging from annoying to dangerous. As noted previously the use of different forms of technology to perpetuate aggression vary contextually and individual factors give rise to varying levels of distress (Mishna et al., 2009; Slonje & Smith, 2008; Smith et al., 2008).

The emotional impact of cyberbullying is clearly negative including feelings of anger, fright, depression, embarrassment, self- denigration, and loss of confidence and self-esteem. Enhancing understanding of what behaviours and characteristics of cyberbullying distress adolescents by assessing their

judgements of cyberbullying can target specific features that need to be taken into account.

In a medium devoid of standards for conduct and codes of ethics, many young people falter in the quality of their online interactions with others, demonstrating instead a paucity of respect, responsibility, honesty, kindness, justice, or tolerance (Willard, 2005).

Factor 1

The viewpoint expressed by factor 1 emphasised spreading rumours and hostile and humiliating behaviour as the most distressing. A feature of this viewpoint was the concern for privacy of personal information and value of their reputation. Some unique features of new technology, especially anonymity, lack of a safe haven, and embarrassment due to the potentially large audience, can make the impact of cyberbullying especially strong for some young people in some circumstances. Explanations of teens experiences of ‘meanness’ and ‘cruelty’ may lie in the conditions under which cyberbullying are carried out, including the impersonal environment and the lack of consequences for the aggressor. Although there are differing views, some aspects of cyberbullying may heighten its negative impact. This could be attributed to the perceived large audience and the concreteness effect, i.e. actually seeing the message/picture. The fear of not knowing who has seen the message/photo may underlie how participants view the severity of the behaviour online. Nocentini et al. (2010) suggest that anonymity and publicity are not necessary to label an action as cyberbullying, but they can connote the context in terms of the severity and nature of the attacks, the relationship between the actor and the victim, as well as the victims’ reactions.

Factor 2

Factor 2 participants believed that behaviour that is deviant, deceptive, sneaky, and manipulative was perceived as the most cruel form of cyberbullying. This viewpoint also demonstrated a concern about complying with peer pressure.

Clearly, youth were challenged to confront choices that conflict with their attitudes, values, and social functioning as they grow up in the digital age. What occurs within the context of what a youth considers a trusted or committed friendship may quickly move into the realm of cyberspace with its potential for immediate, anonymous, widespread, and lasting distribution and access. For example, an adolescent may share information such as a picture or a password with a trusted friend without anticipating the risks and consequences should the relationship change. The posters of these messages/expressions are not necessarily oblivious to the negative potential consequences of sharing inappropriate information, but must weigh the possibility of unwanted outcomes against a perceived opportunity for intimacy and connection.

The concerns echo common challenges of social relationships that indisputably predate digital technologies: conflict between friends and issues of trust in relationships. Yet, they also reflect unique challenges of navigating relationships in a networked age, including the ease of deception and genuine confusion about evolving relationship norms. The “parallel universe of cyberspace” (Spears, et al., 2009, p. 190) that exists alongside family and schooling contexts, presents additional challenges. Online harassment is becoming more common and experts claim that popular social network sites may have created more opportunity for youth to embarrass and upset their peers, as messages and pictures are posted publically and are therefore more visible to victims. Youth are able to see more negative or threatening comments about themselves than used to be the case. This behaviour may be seen as hurtful, be driven by the fact that messages are immediate, and can be accessed globally. It appears that adolescents are equating legal behaviour with ethical behaviour online, and consequently feel unrestrained within a ‘culture of deception’ to engage in online harassment (Berson et al., 2002). Young people often perceive that there is little chance for detection of misconduct online, and as a result minimise the potential harm to others. In addition, malicious words and statements that an individual might be ashamed or embarrassed to use in a face-to-face setting are no longer off-limits or tempered when that person is positioned behind a keyboard in a physically distant location from the victim. Researchers suggest that the virtual

environment in which cyberbullying occurs, allow bullies to feel less inhibited and less accountable for their actions (Price & Dalgleish, 2010).

Factor 3

Factor 3 participants evaluated cyberbullying behaviours that were humiliating and insulting as most hurtful. This factor acknowledges trickery and manipulation as hurtful, as it is clearly perceived negatively. Security and safety in the virtual world is a concern highlighted by this perspective.

Some researchers suggested that the nature of the online environment may influence an increasing number of youth to engage in peer harassment (Juvonen & Gross, 2008; Kowalski & Limber, 2007; Mishna et al., 2009; Tokunaga, 2010), implying that they may not otherwise behave in this way. The ability to interact anonymously on the internet contributes to a lower self-awareness in individuals and may lead them to react impulsively and aggressively towards other individuals online. Youth frequently say things online that would not be said face-to-face, and might be untrue. This suggests that students engage in harassing behaviours in the face of anonymity (Aricak et al., 2008). In terms of cyberbullying, Hinduja and Patchin (2008) suggest that the virtual world represents an environment where explicit sensibilities are no longer applicable or less applicable. As a result, the environment creates the perception that it grants a greater licence to express implicit beliefs and attitudes and engage in harmful behaviour with less chance of detection. Nocentini et al. (2010) conclude that information about anonymity and publicity contributes to a better understanding of the nature and severity of the act, as well as the potential effects on the victim. Identifying which online behaviours are perceived as hurtful and malicious by the youth is important, as the trend of online harassment is becoming more common and adolescent culture is being increasingly reflected in the online environment.

It has been shown that each factor is unique and distinct from each other; however, some statements have been treated in a similar way across the factors. Statements on which there was a shared response by all the groups, provide insight into adolescent perspectives on cyberbullying. The shared

positive ranking of item 10 ‘threatening to reveal someone’s personal secrets’ suggests that there is consensus that this behaviour is mean. It is also notable that participants believe that sharing personal information of a sexual nature (item 16) is mean behaviour. Item 7, ‘anonymously creating a social media page to damage a person’s reputation’ is also a consensus statement. This may lend testament to the notion that cyberbullies can more readily conceal their identity in cyberspace than they could in the real world, contributing further to the impact of this form of bullying. Public shaming and humiliation online is one of the components of cyberbullying that exemplifies indirect and relational hostility and can play out on the online stage. This adds to the spectrum of challenges in managing relationships that adolescents face as they navigate their life online.

6.2.3 Common features across the Q sorts

Open ended comments made by the participants after the sorting task indicate that participants felt that personal experiences, directly and indirectly influenced how they sorted the statements for each of the Q sorts. It is arguable that individual, situational, and contextual factors influence how cyberbullying is perceived and evaluated. Participants reported that the Q sort tasks gave them an opportunity to reflect on cyberbullying in general and engage with the topic in a more meaningful manner.

6.3 Coping Strategies and Solutions

To date there is a body of work that describes what coping strategies are being used, however the evidence base for successful strategies is limited when addressing cyberbullying (Cassidy et al., 2013).

The coping strategies used or suggested by participants in this study include passive strategies such as, do nothing, ignore it, or avoid the website. This is concerning as when victims avoid a specific online platform in order to avoid cyberbullying they are in fact excluding themselves from social relationships. Another explanation is that victims may be feigning indifference to the

cyberbullying because of feelings of helplessness. Technical solutions such as blocking the cyberbully, implementing privacy settings, and changing email addresses were suggested by the participants as a way to use technology to counter cyberbullying. However, such approaches might serve to drive the bullying back to the schoolyard. Also, giving advice to keep the message as 'proof' might enhance the damage as the message or expression remains accessible and serves as a constant reminder of the incident. Social support such as telling someone or getting help in the form of counselling was another coping mechanism proposed by the participants. This was considered one of the best indicators of success. This raises the question of whether the helpers have the ability to offer adequate support.

Other approaches recommended by participants in this study fell under the category of active strategies such as, confront the bully, tell them to stop, or threaten them. In studies reviewed by Perren, Dooley, Shaw, and Cross (2012), it was found that such approaches could increase the problem rather than alleviate it, because these strategies could lead to an escalation of the problem rather than a deterrent. Despite this concern, some researchers offer suggestions of this nature. Learners suggested reporting to the police or authorities as a solution to cyberbullying. Young people appear to be familiar with such strategies but the usage and effectiveness of such methods is unclear. A critical response to effectively addressing cyberbullying relies on both help-seeking behaviour and improving the efficacy of those providing the help.

The recognition of threats to adolescents in cyberspace is an important first step in developing solutions and a plan that fosters protective learning experiences (Berson, Berson & Ferrron, 2002). The risks to young people online have been outlined and necessitate awareness and interventions to promote safety and wellbeing of adolescents. The Youth Internet Safety Survey (Ybarra et al., 2006) reported that a number of youth are exposed to a variety of inappropriate and risky experiences online, from an array of sources. Furthermore, as described in the literature review there is a lapse in prevention intervention to create and maintain awareness and safety for young people.

This research supports previous finding that online experiences challenge youth to confront choices that are contradictory or conflicting with the development of socially functioning attitudes and values.

6.4 Telling adults

The reluctance of victims of cyberbullying to tell adults was highlighted and underscores the importance of systematic education from an early age. Findings from this study corresponded with the literature, wherein adults are perceived to be ineffective in dealing with cyberbullying interventions. This may be because they do not understand technology or they will not or cannot do anything to help. The issue of adult awareness is critical when it comes to effective action against cyberbullying; do adolescents have the perception of not being believed by adults or are adults perceived as unsuccessful in giving support? The barriers to disclosure need further investigation; what measures are currently in place to encourage victims to speak out, and how is this behaviour engendered? Young people need to be informed regarding the benefits of seeking help, how to seek help, and who they can safely turn to for support. Youth prefer support and advice from adults rather than approaches that are punitive and fear-based. They will seek adults who are open-minded, trustworthy, and do not blame the victim (Agatston et al., 2007).

6.5 Prevention and intervention

Cyberbullying research has provided some direction for tacking the issue and working towards its prevention. To some extent, this has been addressed in the literature review. Some solutions are highlighted.

It is suggested that youth play a greater role in developing approaches for dealing with cyberbullying. Peer-led interventions have been found to be effective and empowering as they produce active involvement and allow youth to take responsibility. Adolescents may respond better to initiatives where they play the leading role, due to the pervasive belief that youth understand

technology better than do adults. Peer-led programmes may be perceived as inherently more credible.

Parents are relevant stakeholders and need to be included in the development of appropriate solutions. Cyberbullying often originates from the use of personal electronic devices while the children are at home. It has been shown that children are more likely to confide in their parents than in schoolteachers if they are cyberbullied (Cassidy et al., 2011); therefore, it is important that parents are prepared to respond in helpful ways by working collaboratively with school personnel and their children to find effective solutions.

Greater awareness of technological and legal aspects of cyberbullying would benefit psychological service providers, teachers, and parents in working toward effectively responding to incidents. Education is a key component to prevention, not only for the youth, but also for educators, parents, and the wider community. Adults need better training and should be encouraged to engage with the online world in order to bridge the digital divide.

Collier (2012) points out that diversity and change characterise online users, their tools, and behaviours. Therefore, a variety of approaches are needed including education, filtering and technology, family values and prosocial norms, school rules, and policies. Furthermore, the onus and emphasis is on education, rather than regulation, which includes critical thinking about content consumed and downloaded, content posted and uploaded, and respect for others.

6.6 Limitations of this study

Generating the concourse and selection of the Q statements is very time consuming, remains at the researcher's discretion, and depends on thoughtful and methodical reviews of the topic. It may be possible that some important representations of cyberbullying were overlooked. However, there were no comments or feedback on the post-sort questionnaires to suggest that additional statements needed to be developed. New accounts and undiscovered views are always possible and research should be ongoing.

Q methodology is criticised for a number of reasons, not least of which is that it does not necessarily yield the same result when repeated on the same persons; this has led to questioning the reliability of the methodology. Stainton-Rogers (1995) states that social psychology disregards this criticism, as there is no expectation that an individual will have the same attitude or view on two separate occasions.

A risk of bias at the interpretative stage exists, as it relies on the researchers analytical skills to move beyond mere description. The transparency of the factor analysis does leave the interpretation open to public scrutiny and challenge as other plausible reading of the data could be made.

Furthermore Q methodology relies on the cooperation of the respondent. Although the forced distribution grid limits the number of uncertain responses there is still a risk that the respondents will use the instrument to give an account that they think is acceptable to the researcher rather than their true feelings about the issue (Li et al., 2011). As this study was administered face-to-face, the presence of the researcher may have added to the pressure on respondents to sort the statements as accurately as possible. However, the presence of the researcher had the advantage of allowing for immediate response to any queries. The issue of participants not giving their full commitment to the research is a difficult issue to address in many methodologies. However, it is important to note that the factors emerging from a Q methodological study are the result of the sorting activity by the participants themselves. This procedure requires participants to construct their own meanings during the sorting process based on what has value or significance from their perspective (Watts & Stenner, 2005).

The selection of the P set also lies with the researcher. The sample in this study, while a convenience sample, is still valid for a Q-methodology study because such studies do not attempt to generalise to the rest of the population.

The potential for researcher bias was minimised and constrained and every attempt was made to respect the integrity of the respondents by remaining faithful to the participants' interpretations and identifying the meanings ascribed

to the item configurations they produced. However, one could argue that it is impossible that no bias entered the process as how one reads and interprets factors are informed and influenced by the researchers' personal values and experiences.

6.7 Conclusion

The adolescents of today are the first generation to be raised in a wired world where their lives, relationships and interactions are saturated by technology. The online safety and security of our youth is a growing concern particularly with society's increased reliance on technology. Cyberbullying presents itself as a substantive social problem affecting a meaningful proportion of youth. One would err to dismiss cyberbullying as normative behaviour or a rite of passage of growing up in the digital age. This research has introduced cyberbullying from a South African perspective and highlights it relevance as a topic that merits further academic enquiry and underscores its pernicious nature.

A more complete understanding of cyberbullying required an approach to the topic that was able to discover adolescents meaning and interpretations of cyberbullying. Understanding how cyberbullying operates is necessary to understand adolescents' defences against the realities of aggression, gossip and humiliation online (Boyd, 2014). The existing literature was a useful framework to this study and contributed to the comprehension of the phenomenon of cyberbullying. The study hoped to identify and explore the spectrum of viewpoints that do exist among this population in relation to the nature of cyberbullying. The impact of the experience of cyberbullying is of particular importance for further studies.

The aim of the study was to discover clusters of people who think similarly about cyberbullying in South Africa. Some clearly different factors of people emerged in the analysis and there is undeniable variation and difference in the way adolescents view cyberbullying behaviour and its severity. The findings were able to discriminate between the different actions of cyberbullying and map out some of the core elements of the phenomenon.

This study offers a unique approach in understanding the complexity and severity of cyberbullying and adds a different dimension to the findings surrounding cyberbullying. Despite the mathematical substructure, Q methodology's purpose is to reveal subjective structures, attitudes, and perspectives from the standpoint of the persons being observed (Brown, 1998). It is hoped that by exploring perspectives on cyberbullying using a Q methodological approach that these insights will move the literature forward by adding to the current knowledge on cyberbullying in South Africa.

This study affirms the place for Q methodology in research as an appropriate and relevant means of exploring attitudes and subjective opinion. The use of Q methodology allowed for rich diversity of viewpoints, opinions, and perceptions of cyberbullying to emerge in a self-referent manner. This allows a deeper understanding of how cyberbullying is viewed. These perspectives suggest that an integrated approach to cyberbullying needs to be addressed in order to benefit and protect adolescents.

Furthermore, a multidisciplinary approach to prevention, intervention and education, so teens can navigate cyberspace competently, is supported. Developing responsible digital citizens who can embrace advanced technology is advocated. Schools should have policies that cover traditional bullying as well as cyberbullying. In the literature it is suggested that prevention programmes should include emotional regulation and the various dimensions of social competence. More research on interventions regarding cyberbullying is needed so policies and interventions can be effectively implemented and evaluated. The culture of responsibility spans parent, educators, and young people, supported by government and industry. Everyone has a role to play in empowering youth to stay safe and benefit from opportunities that new technologies afford.

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APPENDIX A: POST-SORT QUESTIONNAIRES

Post-sort Questionnaire 1

Name/Unique code:

Age:

Grade:

Gender: M /F other

Race (optional): W/ B/C/A/other

On-Line Habits (optional)

1. Please estimate how long you spend online in an average day?
2. What is your preferred means of interacting online?

   Mobile/ email/ Instant messaging/ texting/ picture/video /social networking sites/ blogs / photo/video sharing sites/ chat room

Q Sort 1: Cyberbullying is most like….least like….

1. Look at the cards you have sorted to the far left and far right. These are answers you have felt most strongly about. What do you think makes these statements important to you?
2. Are there any further statements you would like to comment about?
3. Did you understand all the statements? Yes or No

   If No, please explain why:
4. Do you think all the statements in this sort belong here? Yes or No

   If No, please explain why:
5. Are there any additional statements you may wish to have included?

Post-sort Questionnaire 2

Name/Unique code:

Q Sort 2: Most mean/cruel cyberbullying behaviour….least mean/cruel cyberbullying behaviour.

1. Look at the cards you have sorted to the far left and far right. These are answers you have felt most strongly about. What do you think makes these statements important to you?
2. Are there any further statements you would like to comment about?
3. Did you understand all the statements? Yes or No

   If No, please explain why:
4. Do you think all the statements in this sort belong here? Yes or No

   If No, please explain why:
5. Are there any additional statements you may wish to have included?
6. Based on the cards you have sorted to the far left as the least mean/cruel cyberbullying event and to the far right as the most mean/cruel cyberbullying event please offer advice and solutions to a friend if they experienced such an action.
7. Do adults (e.g. parents/teachers) know how to effectively deal with cyberbullying? Yes or No
8. If you were cyberbullied would you tell an adult? Yes or No

APPENDIX B: CONCOURSE PARTICIPATION INFORMATION SHEET

Psychology
School of Human & Community Development
University of the Witwatersrand
Private Bag 3, WITS, 2050
Tel: (011) 717 4500 Fax: (011) 717 4559

September 2014

Concourse Participation Information Sheet

Dear Arthur Goldstuck

My name is Karen Moross and I am conducting research in fulfilment of a Masters' Degree in Research Psychology at the University of the Witwatersrand.

I am interested in the phenomenon of cyberbullying that has emerged as a potential risk particularly to adolescents as they are prolific users of information communication technologies. The purpose of this research is to explore the personal meanings and understanding attached to this cyberbullying behaviour by Grade 9 pupils in a Johannesburg high school. Specifically, I will be looking at what behaviour constitutes cyberbullying, their evaluation of cyberbullying and what should be done to prevent and protect young people based on their opinions and perceptions of the cyberbullying behaviour. It is hoped that these insights will better inform and guide intervention strategies in the future. I would like to invite you to participate in this study.

As the aim of this study is to give substance to perceptions, explore viewpoints and generate new ideas I have chosen Q methodology as the preferred design. The adolescents will be required to complete 2 Q sorts and a short questionnaire. There is a sequential set of procedures generally associated with such a study. The first step is to identify a concourse of items that contain all the relevant aspects of all the discourses and all the possible statements and communications that respondents can make about the subject at hand. It is at this point that I would require your participation. From this concourse a smaller more manageable number of statements are selected and refined to form the Q set to be presented to the participants. This Q set is a subset of the concourse and needs to be representative of the possible breadth of viewpoints on the particular topic which in this case is cyberbullying.

Participation in this research as an expert in your field will entail a few hours of your time over the next three months. I envisage all discussion and communication to take place via email or other electronic means. You will be given pertinent information on the study while involved in the project and you are welcome to the results once they are available.

Your participation is voluntary and you may withdraw from the study at any time. The study will be conducted with due competence and professionalism. Please be aware that results of this study may be disseminated through a report, publication in a journal and/or via conference proceedings and on the internet. It will be your decision to be identifiable in the final research report.

Your participation and contribution to this study will be greatly appreciated. I can be contacted telephonically on 0824408128 or via email at karen@moross.co.za. My supervisor is Professor Gillian Finchilescu and her email address is gillian.finchilescu@wits.ac.za.

Kind regards

Karen Moross

APPENDIX C: Q SET STATEMENTS

The Q set statements were randomly numbers so that no bias would enter the sorting procedure.

Q Set 1

1. Sending messages to a person to embarrass that person.
2. Posting lies about someone for others to see.
3. Teasing someone about their appearance.
4. Sending death threats to a person.
5. Sending images of random pornographic content/material to other people.
6. Threatening to damage a person’s property.
7. Changing information on someone’s profile without their consent.
8. Sending hurtful and mean comments from an unknown profile.
9. Spreading rumours/gossip about a person for others to see.
10. Posting disrespectful/insulting messages about other races, cultures, or religions.
11. Sending repeated messages to annoy or frighten others.
12. Tagging someone in a ridiculous photo without their consent.
13. Continuously ignoring someone’s messages.
14. Deliberately excluding someone from an online group.
15. Sending messages encouraging risky behaviour for others to see.
16. Sending messages to a person threatening to physically hurt that person.
17. Sending something such as a virus or malware that is damaging to a person’s device.
18. Sending messages demanding others to do embarrassing things.

19. Encouraging someone to chat online against their will.
20. Sending a message to a person that contains hate speech or cruel statements about that person.
21. Sending cruel messages about someone's family.
22. Ending a friendship in a mean or hurtful way for others to see.
23. Posting nasty or cruel messages about a person for others to see.
24. Sending scary chain messages to a person.
25. Posting material about a person that contains sensitive or embarrassing information.
26. Sending repeated, unwanted messages threatening harm to a person.
27. Distributing photos of people taken in the bathroom on the sly.
28. Gaining access to someone's personal information/password and using this without their consent.
29. Sending threatening or mean audio/visual messages to a person.
30. Posting humiliating or shameful images of others online.
31. Writing embarrassing jokes about someone for others to see.
32. Broadcasting a person's secrets for others to see.
33. Threatening the safety of a person's family.
34. Pretending to be someone else on line and posting rude or offensive material to others.
35. Breaking up with someone you are dating in a hurtful way for others to see.
36. Messing with or directly flirting with someone else's boyfriend/girlfriend on line.
37. Editing a picture of someone in a demeaning or horrible way for others to see.
38. Deliberately excluding someone from a party or social event online.
39. Posting sexual images/videos of a friend for others to see.

Q Set 2

1. Posting hate mail insulting a particular group of people.
2. Videoing a schoolmate being humiliated off line then posting this online.
3. Pretending to be another person when chatting online
4. Engaging in a hostile argument with another person
5. Deliberately sending a virus or malware to other
6. Tricking a person into providing photos/images to humiliate that person.
7. Anonymously creating a social media page to damage that person's reputation.
8. Hacking or getting access into someone else's social media account.
9. Sending non-stop, repetitive threatening messages.
10. Threatening to reveal someone's personal secrets.
11. Setting up a chat group with schoolmates and purposefully excluding someone.
12. Taking and editing a photo of someone you know.
13. Starting a rumour by posting private personal information.
14. Sending insulting messages to random numbers
15. Sneaking a recording by video or taking photos of people having sex
16. Sending nude or semi naked pictures of an ex- girlfriend / boyfriend
17. Sending a group message criticising a schoolmate's appearance.

APPENDIX D: CONSENT FORM AND ASSENT FORM

Consent Form

Psychology
School of Human & Community Development
University of the Witwatersrand
Private Bag 3, WITS, 2050
Tel: (011) 717 4500 Fax: (011) 717 4559

Consent Form

I_____Parent/Guardian of _____

in grade 9 at _____ give consent for him/her to be involved with the proposed research conducted by Karen Moross on the nature of cyberbullying from an adolescents' perspective.

I am aware that this will take place at school during school hours and that it entails completing two sorting exercises as well as completing a questionnaire. The research details have been explained to me and I clearly understand the process.

I understand:

- Participation in this study is voluntary, and that the participant is not advantaged or disadvantaged in any way by participating in this study.
- That the participant may refuse to answer any questions he/she would prefer not to.
- He/she may withdraw from the study at any time.
- No information that may identify the participant will be included in the research report and their responses will remain confidential.

Signed (Parent/Guardian):_____

Date:_____

Assent Form

Psychology

School of Human & Community Development
University of the Witwatersrand
Private Bag 3, WITS, 2050
Tel: (011) 717 4500 Fax: (011) 717 4559

Assent form

I_____ in Grade 9 at _____

agree to participate in the proposed research conducted by Karen Moross on the nature of cyberbullying from an adolescents perspective.

I am aware that this will take place at school during school hours and that it entails completing two sorting exercises as well as completing a questionnaire. I have read the information sheet and the nature of the research has been explained to me and I clearly understand the process.

I understand:

- Participation in this study is voluntary, and that I am not advantaged or disadvantaged in any way by participating in this study.
- That I may refuse to answer any questions I would prefer not to.
- I may withdraw from the study at any time.
- No information that may identify me will be included in the research report and my responses will remain confidential.

Signed (Participant):_____

Date _____

APPENDIX E: DISTRIBUTION GRID SHEETS

Q Sort 1

Thinking of what cyberbullying means to you personally, sort the statements according to which you think cyberbullying is most like (+4) to those that are least like cyberbullying (-4)

Cyberbullying is least like...								**Cyberbullying is most like...**
-4	-3	-2	-1	0	1	2	3	4

Q Sort 2

Thinking about what cyberbullying means to you personally, sort the statements according to which you think are the most mean/cruel cyberbullying behaviours (+3) to those that are least mean/cruel cyberbullying behaviours (-3)

Least Mean/Cruel						**Most** Mean/Cruel
-3	-2	-1	0	1	2	3
			-		-	
		-		-		

APPENDIX F: CORRELATION MATRIX BETWEEN SORTS

Q Sort 1

SORTS	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
1 G047	100	14	39	36	31	16	43	52	72	26	12	38	45	12	8	42	67	33	47	51	39	5	45	29	59	22	18	54	56	42
2 G064	14	100	31	9	-6	15	26	8	19	5	23	26	32	30	38	19	17	-6	26	34	26	-2	12	16	17	35	12	44	32	14
3 G065	39	31	100	24	27	11	44	25	35	24	39	50	42	12	46	35	19	2	46	46	48	15	58	44	49	44	33	43	46	41
4 G046	36	9	24	100	52	-5	59	49	34	2	25	36	30	24	-9	36	29	4	45	34	36	12	19	15	41	29	39	28	42	36
5 G040	31	-6	27	52	100	-16	51	35	25	28	28	34	23	7	9	29	5	19	46	25	9	-2	20	5	38	27	32	29	45	32
6 G060	16	15	11	-5	-16	100	8	-10	27	-11	24	-6	22	15	19	14	8	43	12	4	-2	0	-8	17	25	-15	-9	4	16	-6
7 G058	43	26	44	59	51	8	100	46	32	21	32	48	41	9	21	51	32	23	50	55	40	-2	29	36	51	44	49	42	49	39
8 G062	52	8	25	49	35	-10	46	100	55	39	38	50	40	26	12	45	54	22	46	38	46	-9	27	7	55	35	54	45	51	50
9 G056	72	19	35	34	25	27	32	55	100	26	32	35	57	30	15	34	42	32	50	51	42	9	43	24	55	20	13	58	56	34
10 G049	26	5	24	2	28	-11	21	39	26	100	10	31	22	5	-6	29	32	18	29	41	19	-12	18	-14	14	25	4	35	18	31
11 G043	12	23	39	25	28	24	32	38	32	10	100	30	40	11	48	12	12	-1	45	12	44	1	6	1	29	20	31	28	25	38
12 G035	38	26	50	36	34	-6	48	50	35	31	30	100	48	14	39	38	18	1	46	19	49	26	47	19	51	45	30	39	45	30
13 G041	45	32	42	30	23	22	41	40	57	22	40	48	100	14	26	28	24	18	42	28	43	32	31	25	34	14	25	61	54	25
14 G051	12	30	12	24	7	15	9	26	30	5	11	14	14	100	16	18	11	7	15	26	45	12	22	15	23	34	4	28	30	-16

15	G042	8	38	46	-9	9	19	21	12	15	-6	48	39	26	16	100	1	-5	-11	21	4	35	12	38	19	31	20	31	17	30	23
16	G052	42	19	35	36	29	14	51	45	34	29	12	38	28	18	1	100	30	39	29	45	36	-1	19	24	42	25	39	37	52	46
17	G063	67	17	19	29	5	8	32	54	42	32	12	18	24	11	-5	30	100	5	28	47	35	8	14	23	40	24	39	37	32	31
18	G037	33	-6	2	4	19	43	23	22	32	18	-1	1	18	7	-11	39	5	100	14	26	-11	-21	-6	3	15	-8	-8	22	25	-5
19	G034	47	26	46	45	46	12	50	46	50	29	45	46	42	15	21	29	28	14	100	39	49	5	37	12	49	52	21	41	60	26
20	G050	51	34	46	34	25	4	55	38	51	41	12	19	28	26	4	45	47	26	39	100	27	-4	39	21	32	47	9	49	47	23
21	G044	39	26	48	36	9	-2	40	46	42	19	44	49	43	45	35	36	35	-11	49	27	100	23	46	31	41	42	31	38	46	28
22	G054	5	-2	15	12	-2	0	-2	-9	9	-12	1	26	32	12	12	-1	8	-21	5	-4	23	100	11	24	1	-5	3	6	8	-25
23	G061	45	12	58	19	20	-8	29	27	43	18	6	47	31	22	38	19	14	-6	37	39	46	11	100	35	36	38	8	46	51	32
24	G053	29	16	44	15	5	17	36	7	24	-14	1	19	25	15	19	24	23	3	12	21	31	24	35	100	41	9	38	18	37	12
25	G036	59	17	49	41	38	25	51	55	55	14	29	51	34	23	31	42	40	15	49	32	41	1	36	41	100	42	41	41	62	45
26	G070	22	35	44	29	27	-15	44	35	20	25	20	45	14	34	20	25	24	-8	52	47	42	-5	38	9	42	100	22	52	45	10
27	G003	18	12	33	39	32	-9	49	54	13	4	31	30	25	4	31	39	39	-8	21	9	31	3	8	38	41	22	100	13	42	45
28	G017	54	44	43	28	29	4	42	45	58	35	28	39	61	28	17	37	37	22	41	49	38	6	46	18	41	52	13	100	53	31
29	G021	56	32	46	42	45	16	49	51	56	18	25	45	54	30	30	52	32	25	60	47	46	8	51	37	62	45	42	53	100	38
30	G001	42	14	41	36	32	-6	39	50	34	31	38	30	25	-16	23	46	31	-5	26	23	28	-25	32	12	45	10	45	31	38	100
31	G002	47	35	43	64	44	9	51	58	51	17	40	50	54	28	28	35	39	5	75	31	52	16	29	18	54	51	54	48	79	38
32	G031	58	29	59	54	49	9	62	52	45	30	29	42	41	31	28	51	48	19	55	58	51	8	51	35	58	49	51	54	77	34
33	G005	62	36	59	55	57	18	56	47	69	16	38	45	39	29	26	34	39	22	69	55	39	11	49	41	71	52	33	58	69	36

34	G009	38	25	25	13	12	40	18	12	28	-29	6	14	9	21	22	23	14	19	4	8	0	3	10	33	38	3	22	9	26	17
35	G032	56	32	51	30	9	14	41	47	59	9	36	20	53	28	31	39	55	15	29	48	59	15	38	39	50	42	45	66	64	36
36	G033	41	22	44	44	46	2	54	41	32	34	13	42	49	6	12	33	44	13	35	41	29	21	43	40	39	41	45	59	54	16
37	G013	14	5	34	38	22	6	35	52	20	11	25	18	15	30	8	58	5	31	24	34	25	-1	7	9	23	21	44	12	38	22
38	G004	28	8	10	13	15	-10	16	11	24	-1	16	4	15	-29	6	19	21	-5	42	12	16	1	5	8	16	30	19	26	41	34
39	G008	49	13	24	33	8	34	40	10	43	-29	4	16	29	24	12	15	32	8	32	38	10	25	34	46	42	27	4	39	43	5
40	G025	67	35	42	35	22	10	35	55	65	16	32	49	59	32	26	47	49	22	60	46	59	18	29	25	48	50	29	64	64	16
41	G007	44	26	56	59	50	-3	61	53	41	16	33	59	38	25	18	35	29	-1	51	35	38	-6	39	45	68	51	41	46	59	44
42	G011	29	12	38	31	21	-12	32	37	17	49	26	42	13	17	-7	36	34	-15	51	19	52	-5	23	25	35	43	28	26	39	36
43	G010	38	41	50	36	38	-5	48	52	45	28	39	54	41	44	45	28	31	-6	62	47	52	18	38	15	51	47	27	52	46	30
44	G027	26	28	50	36	31	10	44	45	38	4	36	40	21	18	45	44	12	15	34	31	27	-9	18	31	64	43	51	34	49	28
45	G024	72	26	34	25	14	18	11	28	58	-5	15	22	32	22	16	36	45	13	38	29	29	21	29	28	38	8	17	27	55	25
46	G019	31	-2	19	56	52	-9	47	58	24	26	23	23	0	3	-5	35	21	20	42	21	12	-41	16	-2	44	38	50	24	36	51

Q Sort 2

SORTS	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
1 050	100	22	10	5	5	10	-5	35	-22	-32	40	-28	-12	30	28	12	3	3	22	35	-28	15	32	-17	22	25	-3	30	8	45
2 042	22	100	-35	25	40	25	60	70	8	10	43	32	3	32	32	30	12	28	52	50	47	10	12	35	47	28	57	77	52	5
3 065	10	-35	100	-12	17	-10	-15	-20	-12	32	-20	10	-12	17	25	-10	-12	8	12	-10	12	57	-3	0	-15	-35	-17	0	-8	37
4 041	5	25	-12	100	30	25	40	32	-5	37	-8	10	30	22	47	35	17	-3	32	3	3	5	22	3	35	25	28	35	40	-10
5 054	5	40	17	30	100	-15	47	30	-17	0	-5	12	28	40	57	52	32	30	22	47	32	-3	17	15	47	10	45	52	17	28
6 058	10	25	-10	25	-15	100	43	47	32	25	57	3	47	32	40	25	22	52	45	-8	12	40	-8	5	50	-10	43	22	62	5
7 046	-5	60	-15	40	47	43	100	65	32	25	32	-3	8	43	45	28	-3	52	45	52	52	32	8	47	50	8	75	70	47	10
8 047	35	70	-20	32	30	47	65	100	12	-5	65	3	12	15	68	30	25	35	37	40	28	40	5	10	30	-5	57	57	28	10
9 052	-22	8	-12	-5	-17	32	32	12	100	5	32	-3	-3	-17	-3	3	-15	40	12	-22	32	30	25	-8	12	0	12	-15	15	32
10 040	-32	10	32	37	0	25	25	-5	5	100	-10	57	-3	25	8	20	-25	25	62	5	62	30	0	57	15	5	43	35	43	-5
11 049	40	43	-20	-8	-5	57	32	65	32	-10	100	20	5	15	32	45	8	55	43	28	22	35	10	-12	35	-12	43	35	28	12
12 034	-28	32	10	10	12	3	-3	3	-3	57	20	100	8	-3	0	37	15	22	47	8	57	5	-12	22	10	-15	30	32	28	-8
13 064	-12	3	-12	30	28	47	8	12	-3	-3	5	8	100	22	43	45	75	43	-5	-5	-15	-15	-12	-17	37	3	25	3	40	-5
14 043	30	32	17	22	40	32	43	15	-17	25	15	-3	22	100	37	32	5	50	32	52	12	25	-3	40	68	10	35	68	62	15
15 056	28	32	25	47	57	40	45	68	-3	8	32	0	43	37	100	52	47	40	20	17	5	37	3	-3	32	-15	43	45	20	25
16 063	12	30	-10	35	52	25	28	30	3	20	45	37	45	32	52	100	22	60	45	35	25	-17	25	0	45	25	57	43	25	5
17 036	3	12	-12	17	32	22	-3	25	-15	-25	8	15	75	5	47	22	100	17	-25	-3	-20	-12	-25	-17	25	-22	15	5	15	17

18	062	3	28	8	-3	30	52	52	35	40	25	55	22	43	50	40	60	17	100	40	50	45	25	-10	35	45	-10	62	47	40	32
19	053	22	52	12	32	22	45	45	37	12	62	43	47	-5	32	20	45	-25	40	100	32	70	32	35	35	55	28	60	57	60	22
20	070	35	50	-10	3	47	-8	52	40	-22	5	28	8	-5	52	17	35	-3	50	32	100	37	-3	0	57	32	20	60	77	20	17
21	037	-28	47	12	3	32	12	52	28	32	62	22	57	-15	12	5	25	-20	45	70	37	100	35	20	55	35	8	68	47	40	20
22	060	15	10	57	5	-3	40	32	40	30	30	35	5	-15	25	37	-17	-12	25	32	-3	35	100	8	0	17	-37	12	22	35	25
23	061	32	12	-3	22	17	-8	8	5	25	0	10	-12	-12	-3	3	25	-25	-10	35	0	20	8	100	-32	35	75	20	3	25	20
24	051	-17	35	0	3	15	5	47	10	-8	57	-12	22	-17	40	-3	0	-17	35	35	57	55	0	-32	100	12	3	52	57	20	12
25	044	22	47	-15	35	47	50	50	30	12	15	35	10	37	68	32	45	25	45	55	32	35	17	35	12	100	28	52	50	80	28
26	035	25	28	-35	25	10	-10	8	-5	0	5	-12	-15	3	10	-15	25	-22	-10	28	20	8	-37	75	3	28	100	28	17	30	-5
27	025	-3	57	-17	28	45	43	75	57	12	43	43	30	25	35	43	57	15	62	60	60	68	12	20	52	52	28	100	70	50	8
28	021	30	77	0	35	52	22	70	57	-15	35	35	32	3	68	45	43	5	47	57	77	47	22	3	57	50	17	70	100	55	10
29	033	8	52	-8	40	17	62	47	28	15	43	28	28	40	62	20	25	15	40	60	20	40	35	25	20	80	30	50	55	100	0
30	004	45	5	37	-10	28	5	10	10	32	-5	12	-8	-5	15	25	5	17	32	22	17	20	25	20	12	28	-5	8	10	0	100
31	005	43	57	-10	0	17	43	22	55	17	-10	70	30	-5	12	30	25	20	22	52	10	28	28	8	-8	50	-17	22	32	30	40
32	019	5	45	-8	10	35	57	50	30	37	15	40	12	57	68	43	50	35	80	30	32	30	20	8	22	70	15	55	50	70	25
33	024	5	37	20	35	25	52	75	50	10	57	32	15	10	55	52	30	0	55	50	45	47	50	3	55	37	3	77	73	52	8
34	013	-35	12	22	-5	-5	22	32	25	75	37	20	22	0	-12	17	3	-12	47	20	-8	57	55	5	17	-8	-17	25	3	12	22
35	003	-28	37	-12	8	28	-3	45	22	12	45	-15	12	-12	15	12	8	-8	25	28	37	62	-3	-5	80	15	15	55	35	8	20
36	010	20	32	-5	17	-12	75	35	55	22	20	50	0	35	40	43	5	32	40	28	8	20	60	5	10	50	-5	43	30	65	10
37	027	32	30	5	15	70	-22	30	10	-32	-20	-22	-20	8	45	15	3	22	0	12	52	12	-8	22	20	55	25	20	40	25	40

38	032	-5	45	30	0	15	30	55	40	45	52	25	25	-12	35	28	0	-12	50	47	30	75	70	12	52	30	-3	52	50	47	35
39	011	-3	65	-8	8	37	35	62	50	22	22	37	25	28	55	32	37	5	75	40	60	50	25	-20	47	40	-3	52	68	50	5
40	031	8	55	28	17	57	43	60	52	17	43	37	35	28	52	52	43	17	65	68	45	75	55	20	35	68	3	70	62	65	35
41	017	-22	32	-37	-35	20	-22	32	-3	32	-12	-3	-10	-17	5	-32	-5	-17	15	0	35	45	-17	35	30	25	45	37	15	15	5
42	002	-28	50	10	30	57	30	73	28	-5	43	-3	22	32	60	35	28	10	45	37	43	47	20	-10	50	47	8	62	70	62	-15
43	008	17	50	-3	70	40	28	40	35	-3	30	-12	12	22	22	37	8	30	-10	47	3	25	15	32	15	55	32	32	40	57	28
44	007	52	60	-3	28	50	50	60	70	-5	5	60	-3	15	65	60	47	12	47	60	55	32	37	25	17	77	12	60	68	55	28
45	009	17	15	-8	12	47	5	43	37	15	-40	0	-60	3	-3	45	8	10	-5	-8	3	-8	0	37	-15	20	22	22	3	-12	28
46	001	-15	3	-20	3	15	35	40	22	43	-10	25	-15	52	20	10	17	28	62	0	30	22	17	3	3	40	-3	35	5	35	12

SORTS		31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
1	050	43	5	5	-35	-28	20	32	-5	-3	8	-22	-28	17	52	17	-15
2	042	57	45	37	12	37	32	30	45	65	55	32	50	50	60	15	3
3	065	-10	-8	20	22	-12	-5	5	30	-8	28	-37	10	-3	-3	-8	-20
4	041	0	10	35	-5	8	17	15	0	8	17	-35	30	70	28	12	3
5	054	17	35	25	-5	28	-12	70	15	37	57	20	57	40	50	47	15
6	058	43	57	52	22	-3	75	-22	30	35	43	-22	30	28	50	5	35
7	046	22	50	75	32	45	35	30	55	62	60	32	73	40	60	43	40
8	047	55	30	50	25	22	55	10	40	50	52	-3	28	35	70	37	22
9	052	17	37	10	75	12	22	-32	45	22	17	32	-5	-3	-5	15	43

10	040	-10	15	57	37	45	20	-20	52	22	43	-12	43	30	5	-40	-10
11	049	70	40	32	20	-15	50	-22	25	37	37	-3	-3	-12	60	0	25
12	034	30	12	15	22	12	0	-20	25	25	35	-10	22	12	-3	-60	-15
13	064	-5	57	10	0	-12	35	8	-12	28	28	-17	32	22	15	3	52
14	043	12	68	55	-12	15	40	45	35	55	52	5	60	22	65	-3	20
15	056	30	43	52	17	12	43	15	28	32	52	-32	35	37	60	45	10
16	063	25	50	30	3	8	5	3	0	37	43	-5	28	8	47	8	17
17	036	20	35	0	-12	-8	32	22	-12	5	17	-17	10	30	12	10	28
18	062	22	80	55	47	25	40	0	50	75	65	15	45	-10	47	-5	62
19	053	52	30	50	20	28	28	12	47	40	68	0	37	47	60	-8	0
20	070	10	32	45	-8	37	8	52	30	60	45	35	43	3	55	3	30
21	037	28	30	47	57	62	20	12	75	50	75	45	47	25	32	-8	22
22	060	28	20	50	55	-3	60	-8	70	25	55	-17	20	15	37	0	17
23	061	8	8	3	5	-5	5	22	12	-20	20	35	-10	32	25	37	3
24	051	-8	22	55	17	80	10	20	52	47	35	30	50	15	17	-15	3
25	044	50	70	37	-8	15	50	55	30	40	68	25	47	55	77	20	40
26	035	-17	15	3	-17	15	-5	25	-3	-3	3	45	8	32	12	22	-3
27	025	22	55	77	25	55	43	20	52	52	70	37	62	32	60	22	35
28	021	32	50	73	3	35	30	40	50	68	62	15	70	40	68	3	5
29	033	30	70	52	12	8	65	25	47	50	65	15	62	57	55	-12	35

30	004	40	25	8	22	20	10	40	35	5	35	5	-15	28	28	28	12
31	005	100	25	8	0	-3	32	15	20	22	43	-8	-3	32	62	12	-8
32	019	25	100	50	32	20	57	17	50	70	65	30	57	20	52	8	55
33	024	8	50	100	30	37	55	5	65	45	60	5	68	30	52	12	17
34	013	0	32	30	100	37	32	-37	75	45	45	20	15	-5	-5	-5	40
35	003	-3	20	37	37	100	15	20	57	37	43	47	32	25	20	17	10
36	010	32	57	55	32	15	100	-5	57	35	55	0	22	30	55	0	43
37	027	15	17	5	-37	20	-5	100	5	15	37	32	35	50	47	40	17
38	032	20	50	65	75	57	57	5	100	57	75	35	45	25	37	0	28
39	011	22	70	45	45	37	35	15	57	100	68	25	65	8	50	-10	50
40	031	43	65	60	45	43	55	37	75	68	100	22	62	43	73	12	43
41	017	-8	30	5	20	47	0	32	35	25	22	100	25	-5	8	28	32
42	002	-3	57	68	15	32	22	35	45	65	62	25	100	37	40	12	25
43	008	32	20	30	-5	25	30	50	25	8	43	-5	37	100	40	30	-5
44	007	62	52	52	-5	20	55	47	37	50	73	8	40	40	100	35	25
45	009	12	8	12	-5	17	0	40	0	-10	12	28	12	30	35	100	5
46	001	-8	55	17	40	10	43	17	28	50	43	32	25	-5	25	5	100

APPENDIX G: Q SORT LOADINGS

Q Sort 1

Factor Matrix with an X Indicating a Defining Sort

QSORT		1	2	3	4	5
1	G047	-0.2124	0.6591X	0.1990	0.3443	0.3763
2	G064	0.1638	0.0879	0.0674	0.1359	0.4173X
3	G065	0.2224	0.1432	0.3886	0.1901	0.5089
4	G046	0.0192	0.1323	0.6502X	0.1146	0.1599
5	G040	-0.1028	-0.0385	0.6335X	0.0293	0.1861
6	G060	-0.0115	0.0838	-0.0911	0.4867X	0.0540
7	G058	0.0115	0.0816	0.6566X	0.1498	0.3745
8	G062	-0.0843	0.4960	0.5464	-0.1450	0.3058
9	G056	-0.0965	0.5504	0.1779	0.3069	0.4507
10	G049	-0.2441	0.2012	0.1144	-0.4250	0.4419
11	G043	0.3301	0.2520	0.3253	-0.0298	0.2006
12	G035	0.3351	0.1533	0.4235	-0.0238	0.4562
13	G041	0.1923	0.4039	0.1128	0.1805	0.4756
14	G051	0.0704	0.0092	0.0915	0.0987	0.4033X
15	G042	0.5609X	-0.0037	0.1746	0.1946	0.2602
16	G052	-0.3082	0.3520	0.4651	0.1060	0.2468
17	G063	-0.0952	0.5704X	0.1511	0.0979	0.2510

18	G037	-0.4636X	0.1153	0.1145	0.2199	0.0759
19	G034	0.1325	0.3232	0.5103	0.0191	0.3915
20	G050	-0.3759	0.1055	0.2674	0.1017	0.6449X
21	G044	0.3459	0.4444	0.1844	-0.0766	0.5169
22	G054	0.4143X	0.0334	-0.1750	0.2280	0.1583
23	G061	0.1053	0.1644	0.1398	0.1621	0.5091X
24	G053	0.1614	0.0536	0.1742	0.4973X	0.2347
25	G036	0.1046	0.3174	0.5517	0.3243	0.2930
26	G070	0.0440	0.0550	0.3912	-0.1150	0.5490X
27	G003	0.1329	0.2539	0.5773X	0.0770	0.0355
28	G017	-0.0763	0.2769	0.1799	0.0847	0.7283X
29	G021	-0.0001	0.3824	0.5068	0.3354	0.4324
30	G001	-0.0283	0.4115	0.5037X	-0.0701	0.0452
31	G002	0.2247	0.4624	0.5738	0.1329	0.3546
32	G031	-0.0619	0.2507	0.5442	0.2053	0.5885
33	G005	0.0367	0.2232	0.5313	0.3660	0.5348
34	G009	-0.0799	0.0946	0.2008	0.6276X	0.0083
35	G032	0.0074	0.5055	0.1792	0.3151	0.5225
36	G033	-0.0643	0.0887	0.3876	0.1739	0.5242X
37	G013	-0.1360	0.0588	0.4741X	0.0787	0.1864
38	G004	0.0752	0.4770X	0.1596	0.0486	-0.0716
39	G008	0.0436	0.1632	0.1317	0.5960X	0.2429
40	G025	0.0903	0.5927	0.2488	0.1709	0.5173
41	G007	0.1802	0.1535	0.6969X	0.1962	0.3312

42	G011	0.1522	0.2478	0.4729X	-0.2466	0.2342
43	G010	0.2997	0.2191	0.3374	-0.0279	0.6281X
44	G027	0.0474	0.1382	0.5617X	0.1960	0.2629
45	G024	-0.0187	0.5570X	0.0991	0.5115	0.1888
46	G019	-0.2138	0.1230	0.7971X	-0.0815	-0.0490
%	expl.Var.	4	10	16	7	15

Q Sort 2

Factor Matrix with an X Indicating a Defining Sort

QSORT	1	2	3
1 050	0.4732	-0.4850	0.2631
2 042	0.5778X	0.3904	0.3253
3 065	-0.1758	0.0332	0.1024
4 041	0.4474	0.1282	0.0774
5 054	0.6678X	0.1851	0.1299
6 058	-0.0069	0.0853	0.7372X
7 046	0.4285	0.5873X	0.3927
8 047	0.4454	0.1524	0.5304X
9 052	-0.2894	0.2399	0.3672
10 040	-0.1481	0.7360X	0.0072
11 049	0.0719	0.0027	0.6469X
12 034	-0.0346	0.3406	0.0642
13 064	0.0898	-0.0582	0.4018
14 043	0.3220	0.2735	0.4131
15 056	0.4303	-0.0224	0.5363X
16 063	0.4546	0.1293	0.3221
17 036	0.2064	-0.2723	0.3305
18 062	0.0388	0.3877	0.7010X
19 053	0.3751	0.4898	0.3322

20	070	0.4609	0.3797	0.1582
21	037	0.0736	0.8603X	0.1866
22	060	-0.2583	0.1603	0.5921X
23	061	0.3511	0.0373	0.0197
24	051	0.0819	0.7276X	-0.0657
25	044	0.5661	0.2248	0.5480
26	035	0.4640	0.1965	-0.2457
27	025	0.4963	0.6843X	0.3385
28	021	0.5857	0.5220	0.3101
29	033	0.3104	0.4112	0.5245X
30	004	0.1383	-0.0175	0.3464
31	005	0.3176	-0.0901	0.4916X
32	019	0.2256	0.2925	0.7464X
33	024	0.2031	0.6022X	0.4392
34	013	-0.4712	0.5232	0.4061
35	003	0.1864	0.6663X	-0.0381
36	010	0.0024	0.1094	0.7944X
37	027	0.6459X	-0.0082	0.0281
38	032	-0.1060	0.7176X	0.5083
39	011	0.1690	0.5110	0.5282
40	031	0.3221	0.5489	0.6620X
41	017	0.1593	0.3960	-0.0768
42	002	0.3040	0.6251X	0.2343
43	008	0.5710X	0.1952	0.1795

44	007	0.6500X	0.1161	0.6288
45	009	0.4293	-0.1473	0.0915
46	001	-0.0455	0.1585	0.5237X
%	expl.Var.	13	16	18

APPENDIX H: ETHICS CERTIFICATE

Research Office

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

ACKNOWLEDGEMENT OF RETROSPECTIVE APPLICATION FOR ETHICS CLEARANCE
R14/49

CERTIFICATE OF RETROSPECTIVE ACKNOWLEDGEMENT
PROTOCOL NUMBER H14/06/19

PROJECT	*Cyberbullying: Youth's perception in a South African School context*
INVESTIGATORS	Mrs K Moross
DEPARTMENT	Human and Community Development
DATE CONSIDERED	20 June 2014
EXPIRY DATE	18 September 2020
DECISION OF THE COMMITTEE*	Retrospective Acknowledgement

NOTE:
- **The HREC (Non-Medical) acknowledge receipt of this retrospective ethics clearance application.**
- **The HREC (non-medical) found no ethics problems.**
- **This acknowledgment is valid for three (3) years.**

DATE 19 September 2017 **CHAIRPERSON** .....
(Professor J Knight)

cc: Supervisor : Prof G Finchilescu

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University.

I/We acknowledge that appropriate permission should have been sought, this acknowledgement does not entitle the applicant to conduct further research under this protocol number.

.....
Signature

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

APPENDIX I: INFORMATION SHEETS

Participant Information Sheet

Psychology
School of Human & Community Development
University of the Witwatersrand
Private Bag 3, WITS, 2050
Tel: (011) 717 4500 Fax: (011) 717 4559

Participant Information Sheet

Good Day

My name is Karen Moross and I am conducting research as part of a Masters' Degree in Research Psychology at the University of the Witwatersrand.

I am interested in cyberbullying that takes place using information communication technologies such as the internet, social media and other electronic devices. The purpose of this research is to explore your personal meanings and understanding about cyberbullying behaviour as Grade 9 pupils. I want to find out about what behaviour you think forms cyberbullying, your judgement of cyberbullying events and what should be done to prevent and protect young people based on your opinions and viewpoints of the cyberbullying behaviour. I would like to invite you to participate in this study.

Participation in this research will entail completing two sorting activities. You will be asked to rank or order a number of statements and scenarios based on a simple set of instructions. This will take about 25 minutes per sort to complete and you will also be asked to complete a questionnaire which will take about 20 minutes as well. I will be present if you have any questions or do not understand something. This will take place at school as part of your Life Skills subject.

Participation is voluntary which means that it is up to you whether you take part. You will not be advantaged or disadvantaged in any way for choosing to complete or not complete the task. While questions are asked about personal views and opinions, no identifying information, such as name or I.D. number, is asked for, and as such you will remain anonymous. All information obtained will be kept strictly confidential and no one apart from my supervisor and I will have access to the information.

Remember that you can pull out of the study at any time if you feel uncomfortable with answering the questions or if you find the something too difficult. Please be aware that the results of this study may be available through a report, publication in a journal and/or via conference proceedings and on the internet.

Due to the sensitive nature of the topic I have arranged counselling services with The Family Life Centre free of charge should this be required. So if you found it hard to talk about the topic or you feel upset afterwards we can discuss who you could go to if you want to talk more. Miss Claudia Abelheim and Mrs Alessandra Newton have been identified as suitable counsellors for these purposes.

If you choose to participate in the study you will be given a form to sign and your parents or legal guardians will also have to sign consent for you to participate.in this research. Please inform your grade supervisor at school. Alternatively, I can be contacted telephonically at 0824408128 or via email at karen@moross.co.za. My supervisor is Professor Gillian Finchilescu and her email address is gillian.finchilescu@wits.ac.za. The Family Life Centre is based in Parkwood Johannesburg and the Tel. no. is 011 788 4784.

Your participation in this study would be greatly appreciated and if you do choose to participate the results of the study will be made available to you.

Kind Regards

Karen Moross

Parent/Guardian Information Sheet

Psychology
School of Human & Community Development
University of the Witwatersrand
Private Bag 3, WITS, 2050
Tel: (011) 717 4500 Fax: (011) 717 4559

Parents Information Sheet

Dear Parent

My name is Karen Moross and I am conducting research in fulfilment of a Masters' Degree in Research Psychology at the University of the Witwatersrand.

I am interested in the phenomenon of cyberbullying that takes place using information communication technologies. The purpose of this research is to explore the personal meanings and understanding attached to this cyberbullying behaviour by Grade 9 pupils. Specifically, I will be looking at what behaviour constitutes cyberbullying, their evaluations of cyberbullying events and what should be done to prevent and protect our youth based on their opinions and perceptions of the cyberbullying behaviour. I would like to invite your child to participate in this study.

Participation in this research will entail completing two sorting exercises. They will be asked to rank a number of statements and scenarios according to a simple condition of instruction. This will take about 25 minutes per sort to complete and they will also be asked to complete a questionnaire which will take about 20 minutes as well.

Participation is voluntary, and your child will not be advantaged or disadvantaged in any way for choosing to complete or not complete the task. While questions are asked about personal views and opinions, no identifying information, such as name or I.D. number, is asked for, and as such you will remain anonymous. All information obtained will be kept strictly confidential and no one apart from my supervisor and I will have access to the data.

Your child can withdraw from the study, at any time during the study, if they feel uncomfortable with answering the questions or if they find the study too intrusive. The study will be conducted with due competence and professionalism. Please be aware that the results of this study may be disseminated through a report, publication in a journal and/or via conference proceedings and on the internet.

Due to the sensitive nature of the topic I have counselling services arranged with The Family Life Centre free of charge should this be required. Miss Claudia Abelheim and Mrs Alessandra Newton have been identified as suitable counsellors for these purposes.

If you choose to allow your child to participate in the study you will be given a consent form to sign. Please inform his/her grade supervisor at school. Alternatively, I can be contacted telephonically at 0824408128 or via email at karen@moross.co.za. My supervisor is Professor Gillian Finchilescu and her email address is

gillian.finchilescu@wits.ac.za. Family Life Centre is based in Parkwood Johannesburg and the Tel no is 011 788 4784.

Your child's participation in this study would be greatly appreciated and if you do choose to participate the results of the study will be made available to you.

Kind Regards

Karen Moross