

An exploratory study on how factors such as gender, age groups and race affect incidence and type of bullying in a private high school in Pretoria

By

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I declare that: An exploratory study on how factors such as gender, age groups and race affect incidence and type of bullying in a private high school in Pretoria is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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21/07/2010

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(S H C SCHAFFNER)

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ABSTRACT

The purpose of the study was to investigate the frequency and type of bullying behaviours experienced in a Pretoria private high school in the past six months. The aim was to determine how factors such as gender, age and ethnicity influenced the frequency and type of bullying experienced. The different types of bullying behaviours were categorised into physical, indirect, verbal and cyber-bullying. A quantitative method was applied and a self-report questionnaire was administered to 367 learners ranging from ages 12 – 18 (Grade 8 to Grade 12). The results of the study indicated that indirect bullying (such as malicious gossip) was the highest form of bullying reported in the study and occurred equally throughout the grades. However a high amount of bullying in all categories was found in the grade 9 group. Females reported higher frequencies of indirect bullying than males but no differences were found with regards to gender and the other types of bullying. No differences were found between the ethnic groups and physical violence as well as cyber-bullying. Caucasians seem to experience higher frequencies in bullying behaviours when it came to indirect bullying compared to African and Asian learners. Indian learners were also more prone to experience indirect bullying than Asians. Caucasians were also more likely to experience verbal bullying than Asian learners. It was found that racial bullying might occur in the school but that it does so at a minimal level.

KEY TERMINOLOGY

Bullying, bullying behaviour, bullying prevalence, bullying in South Africa, type of bullying behaviours verbal bullying, indirect bullying, physical bullying, cyber-bullying, racism at school, inter – and intra – racism, Power-based theory, Buss's theory of aggression, school climate, *Facebook*, *MySpace*, *Mxit*, bullying intervention programmes



"The serial bully, who in my estimation accounts for about one person in thirty in society, is the single most important threat to the effectiveness of organizations, the profitability of industry, the performance of the economy, and the prosperity of society."

-Tim Field
(Anti-bullying activist)



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Chapter 1 Introduction

1.1 Violence in society and in schools

Forms of aggression are worldwide phenomena news of which we are bombarded with daily. In the South African context where there is a lot of social and political challenges and instability, there is also a lot of violence. It is unfortunate that adolescents are not exempt from these incidences and often fall prey to violence. As Gasa (2005) notes, these violent acts, whether they be direct or indirect affect the educational environment such as the teachers, school governing bodies, councils and communities.

Research relating to the aspect of bullying in the school environment is vital to enhance a schools' social climate and improve values and morale of learners. This is important as school learners will eventually become contributing members of the South African economy.

The importance of examining the extent of the problem of bullying in South Africa is that bullying can have bitter consequences for both the victim and the offender. Reports by the Pretoria newspaper: *Beeld* (21 August 2008) suggested that it was due to bullying that an 18 year old boy had stabbed a fellow student to death on the 18th of August in Krugersdorp. Other consequences include that bullies are also more likely to become involved in criminal activities later in life (Eron & Huesman, 1984). Both victims and bullies may suffer psychologically for a long time if they have been involved in bullying behaviour, whether or not it has occurred only once or whether it has occurred a multitude of times (Boulton & Underwood, 1992). Both victims and perpetrators tend to be more prone to depression and anxiety in adulthood (Boulton & Underwood, 1992). The information provided by the research project could help schools develop prevention and intervention strategies.



1.2. Rationale

1.2.1. Statement of the problem

In the current study, the aim is to discover the prevalence of bullying behaviours and how the factors of race, gender and grade affect the frequency and type of bullying occurs.

1.2.2. Justification, exploration and relevance of the study

1.2.2.1. From the playground to the street, from the streets to the playground

Research by Andershed et al. (2001) aimed to find out whether bullies in high schools were more likely than others to also be involved in violence on the streets. Their results showed that bullying behaviour in schools is strongly related to violent behaviour on the streets for both boys and girls. 63% of children that were violent on the street were also identified as either bullies or bully-victims in school. Bully-victims seemed to experience higher levels of violence than both bullies and non-bullies. Adolescents who were found to be bullying others in school also seemed more likely to be victimized on the streets – this was true for both genders. What can be concluded from this study is that school bullying isn't necessarily isolated in the school setting and that to a large extent violent behaviour in the streets and in the school often involves the same people. This is a reason why research into bullying behaviour is relevant because it affects entire communities and not necessarily just the school system.

1.2.2.2. Psychological consequences

Beale (2001) has stated that the consequences for the victim and the bully are very negative. Children who had been identified as bullies were three times more likely to break the law by the age of 30. Other consequences can be the development of anxiety and depression, carrying weapons, affiliations with

gangs, deteriorating school performance, school truancy and suicide (United States Department of Education, 1999).

Girls also seem to feel less in control than boys over a bullying situation; in many victims, the feeling of lack of control only increases the longer the bullying occurs (Hunter & Boyle, 2002). Victims of indirect bullying also tend to feel more lack of control than victims of direct bullying (Hunter & Boyle, 2002).

Further child literature by Parker and Asher (1987) found that being rejected by one's peers might lead to future adjustment problems.

1.3. Objectives of the study

The objectives of the study are as follows: To investigate...

- the overall prevalence of high school bullying
- the differences in the prevalence and type of bullying according to the grade of the victim.
- the difference in the prevalence and type of bullying according to gender
- whether there is an interaction of the gender of the bully and the gender of the victim.
- whether there is a pattern of bullying that occurs within and/or between racial groups.

1.4. Demarcation of the field of investigation

The study focuses on bullying behaviour in a private high school in Pretoria.

The school was chosen purposefully for its high socio-economic status. Due to the relatively small number of learners attending the school it was considered feasible to survey all the learners registered at the school. This was also done to increase the validity of the study. However, due to school circumstances there were several learners in grade 9 who did not get the chance to complete the questionnaire.



1.5. Definitions of terms and concepts

1.5.1. Bullying

1.5.1.1. Frequency of bullying

In his pioneering work, Olweus (1999) has defined bullying as repeated negative treatment that a child experiences over time on the part of one or more students. Olweus (1999a) has specifically added three criteria to define bullying. Bullying is characterized by: 1) an intent to harm 2) is repeated over time and 3) involves an interpersonal relationship characterized by an imbalance of power. However, in contrast to Olweus (1999a) who states that bullying should be repetitive to be considered bullying, Randall (1997) believes that aggressive behaviours do not have to be regular or repetitive to be considered bullying.

Research by Hoover, Oliver and Hazler (1992) has found that 75% of students had been bullied at least once. Hence, whether one defines bullying as occurring only once or whether one defines it as occurring regularly can have a significant outcome upon the research results. The present study reports on both the number of learners who have had a once off negative encounter with other peers as well as the number of learners who have been bullied regularly. However, in the statistical analyses, only learners who have been bullied twice or more are considered.

1.5.1.2. Types of bullying behaviours

Bullying is an act that strives to ridicule a person and to make that person the object of scorn and derision (Brendtro, 2001). Besag (1989) has defined bullying as: “repeated attacks – physical, psychological, social and verbal – by those in a position of power, which is formally or situationally defined, on those who are powerless to resist, with the intention of causing distress for their own gain and gratification” (p 4). There have been multiple definitions by different authors and researchers but the one that seems most succinct is that bullying can be divided into direct, indirect and verbal abuse (Whitney & Smith, 1993). Indirect bullying is

seen as relational and includes behaviours such as gossiping and social exclusion (Bjorkqvist, Lagerspetz & Kaikiainen, 1992). Hunter and Boyle (2002) have defined bullying in one of their research questionnaires to be any behaviour that other people inflict on others in order to hurt or upset them. They also claimed that bullying as a defining concept must happen repeatedly to a particular victim in order for the behaviour to be considered bullying. Olweus (1991, 1993) has presented the case that bullying can include not only physical assaults but ranges with behaviours such as: threatening, taunting, teasing, name-calling, making faces and dirty gestures and exclusion. Boulton, Trueman and Flemington (2002) added aspects such as laughing at individuals in a malevolent manner. Clarke and Kiselica (1997) have included other factors such as: sticking out of the tongue, sarcasm, and eye-rolling, giving someone the silent treatment and manipulating friendships. The research by Boulton et al. (2002) however also discovered that teenagers do not necessarily hold the same attitudes as adults about what constitutes bullying. In their study they found that only 40% of students felt that being socially excluded was a form of bullying.

The study focuses on direct, indirect, verbal and cyber bullying, the definitions for each are given below:

Direct bullying can be defined as occurring in the presence of the instigator and victim (Buss, 1986) and is acted out via the following behaviours: physical assaults, being forced to give money/object to someone else, being forced to do something against their will and own belongings being damaged/destroyed maliciously

Indirect bullying consists of harming the victim from a distance (Buss, 1986) and is operationalised as follows: gossiping, social exclusion i.e. being purposefully left out of activities in a malevolent fashion, malicious silent treatment and manipulating friendships i.e. turning friends against one another

Verbal bullying is considered to be a vocal response that delivers stimuli in the form of rejection and threats (Buss, 1986) and is operationalised as follows: threats, taunts, teasing, name-calling, making faces or showing dirty gestures, and laughing at people in a nasty way

Children who are involved in bullying can be placed in three categories, namely, the bully, the victim and the bully/victim. The last category consisting of those children that bully others but are also victims of bullies (Boulton & Smith, 1994). The current study focuses exclusively on the victims of bullying.

It is imperative that one should consider the new prevalence of bullying that occurs on social networking technologies such as *Facebook* and *Mxit*. *Facebook* is a contemporary social networking site that was started on February 4th 2004 (Facebook Website, 2008). This site has made it available for anyone to join networking sites and groups such as schools, workplace and geographical areas. It consists of an electronic reference book that includes a profile and pictures of the members that join (Wikipedia, 2008).

Mxit (pronounced “Mix it”) is a free instant messaging software application developed in South Africa that runs on GPRS/3G mobile phones with java (which is a high-level, object orientated language programming system) (Wikipedia, 2008).

MySpace is defined as: “...an online community that allows friends to keep in touch and meet new people...anyone who is at least 14 years old can sign up for a *MySpace* account at no cost...you can customize your profile by adding information about yourself, listing your interests, hobbies and educational background and uploading photos of yourself and friends. You can also create your own *blog* for others to read.” A *blog* can be defined as: “a *blog* (short for web log) is a personal online journal that is frequently updated and intended for general public consumption. Topics sometimes include brief philosophical

musings, commentary on internet and other social issues etc....” (The Tech Terms Computer Dictionary, 2009).

1.5.2. Learner

According to Mothata (2000) the term ‘learner’ refers to people in an ordinary public school setting and actually replaces the terms ‘pupil’ and ‘student’. The term ‘student’ actually refers to people that are undergoing a tertiary level education. However the labels have become increasingly blurred. For this study the learner/student/pupil refers to the adolescents in public high schools aged between twelve and nineteen.

1.5.3. Race and Culture

Racial and cultural diversity has been said to play a role in some bullying in high schools according to Gasa (2005). Because these aspects are important it must be stated that race and culture are not the same. Rosa (1994) has defined culture as: “The totality of socially transmitted behaviour patterns, arts, beliefs, institutions and all other products of human work and thought characteristic of a community or population” (p.61). Race however is defined as a human population that is different to another population according to physical characteristics such as skin colour (“About.com,” 2008).

1.6. Underlying Assumptions

Even though bullying occurs in many social climates and often happens to many learners regardless of their looks, gender, status, racial group age and beliefs. There are certain patterns of behaviours that target only certain groups of people. The fundamental assumptions of bullying behaviour are that in some cases the frequency and types of abuse amongst learners depend partially on their gender, age (grade) and racial group. These assumptions stem from the literature review conducted for the purposes of this paper. Numerous studies show that gender, age and race are influential factors in bullying behaviours (see references throughout)

1.7. Chapter Outlines

Chapter two deals with the literature on bullying behaviours and provides an overview of concepts and operationalisations used. Existing research in this field is explored from both an international and South African context. Theories explaining the phenomenon are also presented in Chapter 2.

Chapter three deals with the technicalities of the research design, method and the structure of the questionnaire. Ethical considerations relating to the study is discussed. The biographical information of the sample is revealed and in addition, the procedure for the data collection, hypotheses and statistical procedures used for data analysis are also included in this chapter.

Results of the hypotheses of the study are available in chapter four.

Chapter five is devoted to discussing the findings of the results in light of previous literature on an international and South African level. The discussion includes whether the hypotheses of the study can be confirmed or rejected.

Included in Chapter six are a summary of the findings as well as consequences these results can have over the school system and society as a whole. Limitations to the study are discussed and recommendations for future research are made.

Chapter 2 Literature Review

2.1. Problem Analysis

2.1.1. International Prevalence

Bullying in schools is a worldwide problem that has been documented as an international phenomenon (Olweus, 1991). Results of studies in different parts of the world give various percentages of the prevalence of bullying. Olweus (1999) found that there was a report of 10% of students in Norwegian countries that said that they were being bullied. The percentage was reported to be 21% in Canada and 22% in Portugal (Bentley & Li, 1995). Other studies done in England (Lane, 1989) have found that 23% of students reported being bullied.

It seems that on a global scale the number of learners being bullied seems to vary between one in every ten to one in every four learners. More specifically, the general incidence seems to range from 10% to 25% of learners that are bullied regularly.

2.1.2. South African Prevalence

A study in Johannesburg that examined the amount of violence in schools found that 36 percent of learners reported that they had physically attacked other learners (Fineran, Bennet & Sacco, 2001). Other studies conducted in the Kwazulu-Natal Midlands have found reports that 73 percent of students have witnessed violence at school (Govender & Killian, 2001). It must be remembered that the study carried out in the Kwazulu-Natal Midlands had a very specific population, in which the learners are exposed to very impoverished and violent circumstances and can therefore not necessarily be generalized to other schools in South Africa. This however might give an indication that certain areas in South Africa seem to be more exposed to a culture of violence. Studies investigating the prevalence's of school bullying can therefore be very rarely generalized to the whole country.

Over the past year, 2008 has shown many breaking news articles involving incidences of bullying behaviour in South Africa. One such article appeared on the 8th August 2008 in *The Star*, which claimed that bullying indicates a societal crisis that must be countered. A day later on the 9th August, *The Star* reported that a school pupil named Linda had been hit in the face by another pupil. A week later, Linda was stabbed in the head with a pair of scissors by a fellow student and later died in hospital. *The Star* also claimed that the SA Human Rights Commission administered a report earlier in the year stating that bullying has increased over the past years. It said that bullying has become the norm rather than the exception.

Concerns by the Educational Research Department were also raised earlier in 2008 with the implementation of Project Hlayisika to have 'early warning signs' of bullying in 240 Gauteng schools (*The Star*, 20th February 2008).

On the 12th April the *Sunday Tribune* raised the SA Human Rights Commissions concern that robbery and theft has become commonplace in high schools. The article also pointed out that in a study conducted by social workers in a prison population found that 91 percent of inmates had been bullies in high schools. This information corroborates with international research by Eron and Huesman, (1984) mentioned earlier that states that bullies are more likely to be involved in criminal activities as adults. What was new in the article on the 12th April was that they reported a higher incidence of girls being involved in bullying, who were either involved or instigators of bullying behaviours.

In *The Mercury* on June 2nd 2008 another article regarding bullying in South Africa was published. The report suggested that conflict amongst learners was healthy and teaches children to resolve problems. However, bullying by its very nature is an uneven battle and requires adult intervention. The reason why it can be said to be a battle is because it often involves power relations among learners

such as physical strength or manipulative power which the learner cannot conquer on his/her own.

In an article by IOL (Information Online website) on the 5th February 2008 entitled: “*SA schools most dangerous in the world*’ claimed that the SA Institute of Race Relations found that only 23 % of South African pupils felt safe at school compared to the world average of 47%. Schools in Denmark, Sweden and Norway were ranked as the safest with 70 % of pupils feeling safe. Failing to produce interventions and greater safety at schools will not teach children the skills needed to contribute to the South African economy.

It is clear that South African schools do seem to have problems of bullying in high schools and further investigation is warranted.

2.2. Factors affecting the type and frequency of bullying incidences

2.2.1. Introduction

The literature review reveals many factors as to why bullying occurs. Gasa (2005) attributes bullying to three main factors: the family, school and community environment. Considering the study to be undertaken is done in the school setting, most literature was obtained concerning the factors that can play a role in the school setting. Such factors that might play a role in bullying behaviour are: the age/grade of the learner, gender, socio-economic status of the school and the race of the learners.

2.2.2. Age/Grade of the learner

Previous literature such as Vail (1999) and Olweus (1999) has revealed that the amount and type of bullying varies among school grades. It was found that younger grades tend to be more physically violent and older grades tended to resort to verbal abuse.

The rate of bullying seems to reach its highest frequency in middle school and decline in high schools (Vail, 1999). This has also been shown by Olweus (1999a) that has claimed that the percentage of reported incidences of bullying decreases as age of the school learners increases.

However, research by Boulton et al. (2002) has found that there isn't always a gradual decline in all types of bullying activities throughout the early teenage years; this is corroborated by Hunter and Boyle (2002) who state that physical bullying is more prominent among younger learners whereas verbal and psychological bullying is more common amongst older learners. In the research by Hunter and Boyle (2002), 37% of their sample claimed that they had been bullied over a lengthy period of time with name calling being the most common form of bullying.

2.2.3. Gender of the victim and bully

When it comes to the type of bullying behaviour experienced by males and females, authors such as Boulton, Trueman and Flemington (2002) have found that girls use more indirect and verbal bullying than boys. However, it must be remembered by previous research of Lagerspetz and Bjorkvist (1994) that females often do not see social ostracism as a form of indirect bullying, hence questionnaires in this regard must be cautious in constructing questions that delve into the concept of ostracism. The current study has added ostracism as well as similar behaviour under the term of indirect bullying, so as not to exclude learner's who have experienced being maliciously excluded from previous friendship groups.

With regards to the gender of the victim and the gender of the bully, boys usually bully other boys whereas girls are bullied by both sexes (Olweus, 1991). This is corroborated with research from Clarke and Kiselica (1997). The above literature has found that both sexes often bully girls whereas boys usually tend to be bullied only by other boys, so that it is rare for girls to bully boys.

The current study aims to reveal whether such a pattern holds for this particular study.

In addition to investigating whether the gender of the victim and the gender of the bully plays a role in bullying behaviours Lane (1989) also estimated that boys bully three times more often than girls in general. The current study shall investigate whether boys are bullied more often than girls.

2.2.4. Socio-economic status of the school system

There have been limited studies on the effect of the school climate on bullying behaviour; similarly, Whitney and Smith (1993) have found no correlation between school size and location on the amount of incidences of school bullying. Nor did the ethnic structure of the school seem to play a role. On the other hand, Whitney and Smith (1993) did find a negative correlation at the high school level between socio-economic status of the families that the school serves and the frequencies of the incidences involving bullying.

In other words, they found that when the socio-economic status of the school is high the incidences of bullying are low and vice versa.

2.2.5. Race and culture

The importance of including racial factors in the current study is because South African schools now include a diversity of learners with different racial backgrounds. Because of these differences there is room for cultural misunderstandings and can result in suspicions, distrust and hostility (Irvine, 1990). For example, some students are forced in school circumstance to ignore their culture and this can result in bullying behaviours. Ethnocentrism which is defined as: “Where ones own values are viewed as different and more favourable to the values of the other cultures.” (Gasa, 2005: 14) might also become clear in the school setting. Strict boundaries between these races can occur. Especially in South Africa that has had a very categorical outlook on life and the segmentation of racial groups that can be seen in the Apartheid era, the aspect

of racism playing a role in bullying behaviour must be explored. As Gasa (2005) states, cultural diversity can lead to marginalization and rejection by the dominant groups that can lead to bullying behaviours. The relevance of including this controversial factor in the study is to help curb the possible occurrence of racism – should these incidences occur in the school setting.

2.2.6. Cyber-bullying

De Sousa and Dick (2007) have explained that it is very common for high school children to use social networking sites such as *Facebook* and *MySpace*. It is a site where learners can share their interests and activities and can keep online friendships based on real friendships. These sites now have millions of users, most of them ranging from the ages of 14 to 35. De Sousa and Dick (2007) claim that intrinsic and external motivations as well as social pressures drive the use of social networking sites. It is for these reasons that cyber-bullying has become more readily available and must be considered in the study of bullying amongst high school children. This is especially an interesting topic for debate and research, since this form of bullying can perhaps be even more distressing to the victim because the bullying behaviour can reach so many more people resulting in larger amount of humiliation as well as making it easy for the bully to target victims. It is also more likely that bullying over social networking sites will be higher in a private high school since these learners are more likely to have funds and facilities to access these networks on a regular basis.

On the 3rd of June 2008 the *Mail and Guardian* website reported the phenomenon that parents were signing up on social networking sites (such as Facebook) to track the interactions of their children on these sites. The parents' concern was that there had been reports of incidences of bullying and sexual predators on the net and that parents now joined *Facebook* in order to keep an eye on their children.



Evidence of the rise of bullying occurring over electronic social networking sites has been reported. The Internet forum ‘*Babymania*’ is an online discussion group for parents conversing and exchanging opinions about parental issues. Some quotes about parent’s worries concerning bullying over social networking sites such as *Mxit* are given below.

“So...today at work, I get a hysterical call from Donna-lee that she cant take it and can I come fetch her at school...she is crying etc. I call Kevin and we race through to the school and apparently she has been placed on one of these Slut lists that are doing the rounds on Mxit. She is heart broken and today the final crunch came when she was tormented and bullied/shoved around by a crowd of girls and jeering boys at school.” (Shirley, Cape Town)

“I have two nieces in high school in Boksburg and they showed me the stuff going on. It is hectic. Two schools are attacking each other and publicly giving out the full names of girls who they consider "sluts." This is terrible, but I do agree with Milly to a point. MXIT can be a wonderful form of communication, it is just the wrong people using it.” (Chantal, Boksburg).

“Anyone from Edenvale will know the trouble that has been going on at the high school regarding naked swims for water polo teams. Anyway the girl involved has had to move schools due to the constant bullying via Mxit and Facebook and graffiti on walls. The Facebook group that the bullies started to defame her and her family ended up being hijacked by another friend of mine and all of the members got told off for being stupid children.” (‘Chilli’, Edenvale).

These anecdotes simply highlight the problems that people are experiencing regarding cyber – bullying. As this is quite a recent phenomenon, no contemporary studies have been done to investigate these occurrences. The current study hopes to provide some information on how widespread this problem is and which people are affected.



2.3. Theoretical frameworks

While the operationalisations used to measure the factors that affect bullying are empirically observable, the underlying reasons for bullying are not so clear-cut. The next section deals with the underlying reasons as to why bullying occurs. The theories postulated in the following section aim to explain the bullying phenomena from a social and a cognitive perspective.

2.3.1. Cognitive Theories

2.3.1.1. The Social Information Processing Theory

One theory that is used to explain bullying is the social information processing theory by Crick and Dodge (1994). This theory explains that aggressive boys attributed the intentions of their peers to be generally more hostile when they were ambiguous. Victims of bullying also attributed the actions of the bullies with hostile intent (Crick & Dodge, 1994).

2.3.2. Social Theories

2.3.2.1. The Power-based Theory

Another theory that might be used to explain bullying is the power-based theory. This aims to explain that bullying occurs because of power relations and that bullies have a wish to dominate and control others in order to seem 'cool' in front of their peers (Hoover et al., 1993)

2.3.2.2. The Social Learning Theory

The social learning theory has also been used to explain the phenomenon. The social learning theory claims that the family plays a critical role in forming the personality characteristics of bullies and victims alike, either by 'creating' bullies and victims by abusing them at home or teaching them aggressive or highly passive behaviour by form of modelling (Lorber, Felton & Reid, 1984).

2.3.2.3. The Social Deficit Model and the Theory of Mind Skills

The social deficit model has since been challenged by the ‘theory of mind skills’ (Sutton, Smith & Swettenham, 1999a). This theory states that bullies have superior intellectual skills in which they manipulate and strike at their victims’ emotions. Previously, the social deficit model painted bullies as powerful but ‘oafish’ individuals that carelessly want to control others. The ‘theory of mind skills, however states that bullies possess good social skills, these skills are used to their advantage when choosing and manipulating their victims accordingly.

2.3.2.4. Buss’s Theory of Aggression

Buss’s theory of aggression (1986) can also be used as a starting point to measure bullying behaviours. Buss believed that aggression is a learned behaviour based on rewards and punishments. He specifically categorized different types of aggression into the physical, verbal, direct, indirect, active and passive aggression. Physical bullying occurs when physical pain is inflicted. The verbal aggression reflects the intent to harm via rejection and threats. Direct aggression occurs in the presence of the victim and is specifically aimed at them. Indirect aggression occurs from a distance to the victim and includes spreading gossip. Aspects such as passive aggression are used when a person blocks a desired goal from the victim.

2.3.2.5. Society and communities as an influential role in bullying

Communities such as schools are defined as groups that live in close proximity to each other and share some type of social organization. This can refer to religion, nationality and interests. It is for this reason that the research to be undertaken focuses on a high status school in order to investigate the frequency and type of bullying that occurs there.

According to Gasa (2005), school and society provide additional learning experiences outside of the family home. For this reason, adolescents acquire

new skills of interaction when in contact with others; these important social skills may stay with them for life. People are not born with the knowledge of how to use a weapon or how to be verbally abusive; these aspects are taught via interaction between people. Many adolescents become aggressive due to the environment and the community in which they live. If a community is characterized by violent actions a learner might need to learn survival skills to defend themselves, in such a way, aggressive behaviour can become part of his or her daily existence.

Unstable communities can include all types of aggressive behaviours such as suicides, rapes, killings, hijackings, housebreaking etc. Wolman (1989) has claimed that this type of behaviour might compel learners to be more aggressive. For this reason, it might be expected that low socio-economic schools tend to have more physical violence than high status schools. High status schools might have more relational bullying because physical violence is frowned upon. The results of this preliminary research might shed some new light on these matters. According to the theory that the social climate and type of community in which an individual lives influences the school climate and therefore human behaviour, both assumptions are substantiated because they are backed up by the theory of social climate. It is important to keep in mind that these assumptions are based on theory and not fact. According to the theory, these assumptions are derived through deductive logic which gives rise to testable hypotheses.

2.3.2.6. The social influence of peer relations

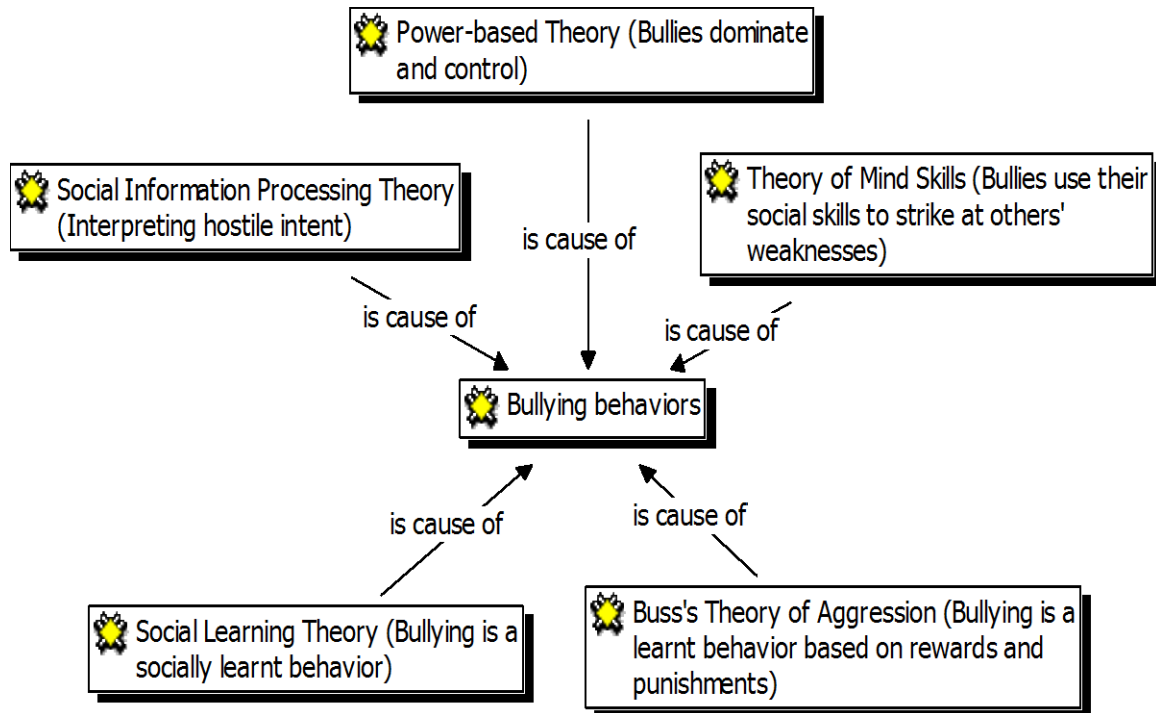
Gasa (2005) has also mentioned that peer relations are especially relevant and important in the adolescent years. Peer socialization provides social skills relating to sexuality, gender roles and empathy. These peer relations set roles of acceptable norms and 'rituals' within the group. Peer groups are considered the intermediary vehicle between the individual and society that provide role models. It has been found that adolescents that are exposed to aggressive peers are more likely to exhibit anti-social behaviours.

Prinsloo and Du Plessis (1998) claim that groups are characterized by relationships of dependence, acceptance, choice, and togetherness and are dialogical. Mwamwenda (1995) has also classified groups who have an influential effect on the individual. These groups can be classified into: the reference group, the social group and the friendship group. The reference group refers to role models that an individual sees as influential – these role models are usually of a high social status. However, for violent communities there is often a lack of positive role models. The reference groups provide normative, comparative and associative functions. This means that reference groups set standards by which to act, a way to compare oneself to others and to be able to bask in the glory of a certain ideal – in other words, to be associated with something that is seen as superior.

Social groups are composed of team mates, relatives, cliques or friends. These groups usually share common identities and interests and show similar patterns of organization of behaviour (Gasa, 2005). Social groups provide the individual with a sense of public identity.

The above theories are integrated as a whole in order to obtain a clearer picture of bullying as a phenomenon. *Figure 1* depicts the interaction of the separate theories.

Figure 1: Theories explaining bullying behaviours



2.4. Ontology and Epistemology

The ontology of a study describes which aspects of reality are being studied and specifies the research domain. In the current study, what is being measured or studied is the observed behaviour of learners. The ontology draws on the cognitive thought processes that learners regard themselves as being bullied in a certain situation. In other words, the learners interpret the malicious behaviour as hostile intent, and this hostile behaviour is what is being empirically studied.

The epistemology of the study refers to views on the nature and grounding of knowledge (Jordaan, 2004). The epistemology also refers to the criteria used when declaring knowledge as 'true', accurate and valid.

The study uses the philosophical ideas of neo-positivism. Neo-positivism bases its research premises on the idea that the social sciences should adapt the methods of the natural sciences. Neo-positivism is based on behaviourism and that methods of study should use quantifiable methods of data collection and analysis. Based on the work of George Lundberg, values and feelings are not

exempt from the endeavour but are measured in a quantifiable way via attitude scales (Turner, 1974). As can be seen, the study of bullying behaviour is studied in a quantifiable fashion, measuring which variables are most influential where the bullying behaviours occur. Likewise, the emotional reaction to bullying behaviour is measured in the questionnaire via an attitude scale.

In addition to being a neo-positivistic study, it is also influenced by the cognitive trend. The cognitive trend was born from behaviourism in the late 1950's (Jordaan, 2004) and means that behaviour is studied along with the mental processes that give rise to such behaviours. The processes are systemized so as to determine how people decide to give meanings to certain behaviours. The implications for this are that the study assesses what learners regard as bullying behaviours. In other words, only behaviours that the learners regard as bullying are analyzed in the study. If a learner was not affected by the incident then this is not regarded as bullying behaviour because the learner does not cognitively see him/herself as a victim.

Now that the background literature and concepts have been explored, the next chapter deals with the methodology of the present study and how these concepts have been operationalised.



Chapter 3 Methodology

3.1. Introduction

The methodology of the study deals with how the research is conducted and will logically be influenced by the ontology and epistemology. The following chapter provides the process followed to gain accurate and reliable information.

3.2. Research Design

The current study uses a quantitative research strategy which means that social information is collected and analyzed in a quantifiable fashion and data is transformed into numerals for analysis (Babbie, 2005). Quantitative methods sometimes involve analyzing frequencies to understand how often behaviour occurs. Theories and hypotheses are defined before the study commences and remain the same throughout the study. This type of study promotes objectivity, focuses on average behaviour and aims to maximize internal validity.

The quantitative approach means that the researcher aims to arrive at facts from an objective point of view so that the study is as free from bias as possible. The researcher structures the situation by identifying and isolating specific variables of the study and constructing devices to measure these variables in a quantitative fashion. Flexibility is kept to a minimum as hypotheses are either accepted or rejected at the end of the study (Jordaan, 2004).

The advantage of using a quantitative strategy is that large amount of information becomes workable and can be analyzed systematically with maximum accuracy and reliability (Babbie, 2005).

In addition to being quantitative, the study also uses a correlational (passive) strategy to expand knowledge. Correlational studies look for relationships between variables that are consistent over large number of cases (Whitley, 2002). Researchers use correlational studies to observe or measure variables



but do not manipulate them as is the case in experimental research. Due to the fact that this type of strategy is defined as a passive strategy, researchers will not always use correlational statistics but use T – or F – Tests to compare groups of people such as men and women, or different age or racial groups to each other. Nonetheless, the design is still considered passive and correlational because the researcher cannot manipulate into which gender a participant falls.

The current study on bullying is indeed correlational (passive) in that it aims to uncover how age, gender and race are related to frequencies and types of bullying behaviours.

The advantage of using the correlational method is that it allows researchers to test hypotheses that are not amenable to the experimental strategy because the variables are either impossible for the researcher to manipulate or manipulating certain variables would be unethical.

The disadvantage of the correlational study is that it cannot determine causality – it can merely determine if a dependant variable co-varies with an independent variable. In other words, it cannot rule out certain other alternative explanations (Whitley, 2002). Similarly, with regards to bullying behaviours, one can simply see whether females tend to bully each other more verbally. One cannot state that because they are female they are bullied verbally – other alternative explanations for types of bullying behaviours and who is the victim cannot be ruled out.

The research that is proposed is exploratory in nature. This is because one wants to answer the question of how widespread a problem is and what kinds of people are active in it (Babbie, 2005). The study is also cross-sectional in that it examines one section or sample of a population at one point in time. An important element in the research design includes that the study is retrospective



in nature because the learners are asked to recall bullying behaviours that have occurred to them in the past six months.

3.3. Method

In a study by Hunter and Boyle (2002), the authors included questions to students that measured what type of bullying they were exposed to. Aspects included were: name calling - being threatened - being forced to give money/object of value - left out of things - rumours - being forced to do something against your will - personal belonging being damaged - and being physically hurt. They also measured the duration of the victimization with forced choice responses with the options being: 1 – 4 weeks, 1 – 3 months and more than 6 months. Short term bullying was operationally defined as bullying that persisted for less than 4 weeks. The questionnaire was piloted beforehand and then handed out to entire classes by their schoolteachers. Boulton et al. (2002) have used a somewhat different approach. They chose one semi-rural secondary school and chose 600 pupils. They chose two registration classes from each year at random.

Similar to the above studies, the current study used the survey method and targeted the entire high school. Due to the fact that the school was a private high school, the amount of learners attending the school is relatively small, compared to public schools and was therefore considered feasible.

3.3.1. The Survey Method

The survey method is a systematic way in which to gather information on people's behaviours, attitudes, opinions and beliefs. The survey method usually involves a questionnaire that respondents have to complete individually (Polland, 1998). Polland (1998) states that the survey method is ideal under the following three conditions: firstly, the goals for the research require quantitative or qualitative information, secondly, when the information sought is specific to the respondents and thirdly, the researcher has prior knowledge of what responses



are likely to emerge. The current study has clearly met all the above conditions to warrant the use of the survey method.

3.3.2. Advantages of the survey method

The Survey method has been a reliable tool that has been used most often in assessing bullying incidences, since they are capable of assessing the extent and the impact of bullying. The survey method also allows the researchers to conduct descriptive and inferential statistics to analyze the raw data. Given the whole school approach, it was suggested that the sample be large in size (Ma, Stewin & Mah, 2001). The survey method is also ideal because it is inexpensive, less time-consuming and allows the participants to answer sensitive questions in private (Whitley, 2001).

3.3.3. Disadvantages of the survey method

Even though self-report measures have the disadvantage of social desirability bias and the problem of accurate recall - previous research has indicated that the self-report measures used in assessing bullying behaviour has been reasonably valid (Andershed et al., 2001). Social desirability bias refers to a tendency to make the respondent 'look good' in the eyes of the researcher. This means that a lot of learners might not have admitted to being bullied out of shame. Similarly, the acquiescence response bias could also have operated. The acquiescence bias refers to simply agreeing or disagreeing to all questions regardless of the content of the questions due to lack of motivation to think about the questions (Whitley, 2001). In such cases, where responses were obviously random, the response was left out of statistical analysis.

3.3.4. The structure of the questionnaire

The questionnaire starts with a front page that requires the learners to provide biographical information about themselves such as their age, grade, gender and race. A question is also asked at the beginning of the questionnaire whether the learners have been a registered learner at their school for the past six months.

The reason for this question is that all bullying behaviours that have occurred in the last six months are considered, those learners that have been at the school for less than six months are not included in the analysis. Similarly, questionnaire responses which appeared to be spoilt and were answered in an incorrect or manipulative fashion were also discarded from the analysis.

The questionnaire is divided into four sections. Each section taps into a different type of bullying behaviour. Section A deals with physical (direct bullying) and four questions are asked in this regard, namely, whether the individual was physically attacked by another unarmed learner, whether the learner had been forced to do something against his/her will, whether objects had been stolen or destroyed intentionally and whether the learner had been attacked by a fellow learner with a weapon of any kind. Section B focuses on indirect bullying such as gossiping, rumours and ostracism which are all covered in one question. Section C involves verbal bullying and is likewise covered in one question that covers a variety of behaviours such as name-calling, teasing and taunting in public. Section D covers the area of cyber-bullying and three separate questions are asked referring specifically to three different social networking sites, being *Mxit*, *Facebook* and *MySpace* respectively.

Each question requires a closed ended response as to whether they have been bullied in that category or not. If they have been bullied in certain categories then learners answer on the closed ended response questions on a continuum regarding the frequency of the occurring behaviour. These types of closed ended questions are also regarded as ordered answer choices (Polland, 1998). The frequency continuum ranges from 'once' in the past six months' to 'everyday.' The learners were required to circle the box that was applicable to them regarding how often they had been bullied in each category. After each frequency continuum, each question/category includes a partially open-ended question in which the learners must write down the race and the gender of bullies. The question was purposefully designed to be partially open so that

learners could write down more than one racial group. Although the questions on gender ask about the quantity of male and/or female bullies, the quantity was not highly relevant in this regard. It was more important to discover the gender/s of the bullies rather than how many had been involved in a particular incident. However, it was deemed useful to ask a question on the quantity of males and females because this provides additional information on the questionnaire. If future studies should be conducted on the same questionnaire than this additional information is already provided. It is always better to illicit more information from a respondent than too little.

Semantic differential questions were asked on a five point rating scale, each box containing an adjective. These bi – polar adjectives are direct opposites and range from ‘not at all upset’ to extremely upset.’ The learners were required to circle the box that describes how upset they were by the experience if they had been bullied in that category. Learners who reported that they were not at all upset were also not included in the statistical analyses since they obviously did not perceive themselves as a victim and did not feel harmed by the experience.

The questionnaire ends off with an open question asking the learners to write any additional information, comments, impressions incidences or questions.

3.4. The Sample

Due to the nature of the problem statement, the sample is one of a purposive nature. According to Whitley (2001) this means that the sample is chosen because of its specific demographic composition, or with a target population in mind.

For purposes of the research the survey targeted all the learners in the school. Out of possible 445 learners, 367 learners completed the questionnaire. The remaining 78 learners could not complete the questionnaire due to the school’s

busy schedule. The final sample of 367 learners consisted out of 176 (48%) males and 190 (51.8%) females. One learner failed to indicate gender.

Table 1.1 indicates the amount of learners in each grade and table 1.2 indicates the racial groups.

Table 1.1 Amount of learners in each grade

Grade of learner	Number of learners (N)/Percentage
Grade 8	43 (11.7%)
Grade 9	43 (11.7%)
Grade 10	85 (23.2%)
Grade 11	104 (28.3%)
Grade 12	92 (25.1%)
Total	367 (100%)

Table 1.2 Ethnic groups of the candidates

Racial Group	Number of learners (N)/Percentage
Caucasian	159 (43.3%),
Indian	92 (25.1%),
African	58 (15.8%),
Asian	34 (9.3%),
Coloured	6 (1.6%)
Other	17 (4.6%)
Missing	1 (0.3%)
Total	367 (100%)

3.5. Data Collection

The current study surveyed all learners from the private high school for practical and statistical purposes. The questionnaire (see appendix d) was handed out by the life skills teacher at the school over a three week period during the second semester (April). In order not to interfere with the school's learning hours the questionnaire was handed out during the life-skills period. The teacher was given an instructional guide to aid her in the administration of the questionnaire (see appendix b). However, due to ongoing school projects, not all grade 8 and grade 9 learners had the chance to complete the questionnaire. A critical point to be

mentioned was that due to examinations, the grade 9 learners completed the questionnaire a few weeks after all the other grades. This might have negatively affected the results obtained from the grade 9 group as they might have been influenced by learners from the other grades who had already completed the questionnaire. The headmaster of the high school provided consent for the study to be undertaken at the institution (see appendix c). Learners had to fill out assent forms which clarified that their information is confidential and that their participation was voluntary (see appendix a). The assent form also included the contact details of a registered clinical psychologist to provide a support resource for learners who desire to obtain assistance for psychological counselling due to bullying experiences. After the three week period, the completed questionnaires were retrieved by the researcher.

3.6. Data Analysis

3.6.1. Hypotheses

Chapter 2 dealt with the literature and theoretical section of the possible reasons why bullying occurs as well as the variables that can play a role in bullying behaviours. As such, variables such as gender, age and race were said to play a role in the frequency and type of bullying behaviours occurring. Henceforth, the following hypotheses were derived from the literature and theory above.

Hypothesis 1

The highest frequency of bullying will be 1) indirect, 2) verbal, 3) cyber -, with the lowest frequency of bullying being physical bullying.

Hypothesis 2

There is a difference in the type of bullying behaviours between males and females.



Hypothesis 3

Females are bullied more frequently by both sexes than males. (Males are often only bullied by other males)

Hypothesis 4

There is a difference between the frequency and type of bullying behaviour and the grade of the victim.

Hypothesis 5

There will be no difference in the frequency or type of bullying behaviours between racial groups.

Hypothesis 6

There will be no difference in intra-racial and inter-racial bullying.

3.6.2. Statistical Procedures during Data Analysis

Bullying behaviours that occurred at least twice in the past 6 months were considered in the analysis. Behaviour that only occurred once is reported but not used in statistical analyses. Similarly, behaviour that did not upset the victim was not considered as a bullying incidence in the statistical analysis.

The statistical procedures that are used to analyse the different hypotheses above will be briefly discussed.

Hypothesis 1: The highest frequency of bullying will be 1) indirect, 2) verbal, 3) cyber -, with the lowest frequency of bullying being physical bullying.

In other words, it is expected that there will be more indirect bullying compared to verbal bullying. Similarly, the frequency of verbal bullying will be higher than the occurrence of cyber-bullying. The frequency of physical bullying will be the lowest. Descriptive statistics reveal the results of the prevalence of each type of bullying behaviour.

In the analysis of the second hypothesis the chi-square test for independence is used to see whether two or more categories are related. In this case, one wants to see whether males and females are bullied by 1) just males, 2) just females, 3) both genders, or 4) not bullied respectively. The chi-square compares the frequency of cases found in each category. In this case, the hypothesis will involve a 2 X 4 table.

For the third, fourth and fifth hypotheses the chi-square test for independence is used. The chi-square test is used because there are two categorical variables with two or more categories in each, such that gender is a category (with two levels – male and female) and each bullying behaviour is classified into two categories (either they have been bullied in that category or they have not). In other words, the differences between the two genders in the categories indirect, verbal, cyber and physical bullying are compared. Similarly, the differences between the 5 grades in each of the 4 types of bullying are compared. Lastly, it is compared if different races experience different types of abuse.

However, for the third and fourth hypotheses the statistical procedures used were more technical in nature. In addition to the chi-squares performed, the Kruskal-Wallis Test (statistical abbreviation = *H*) was used. The Kruskal-Wallis Test is the non-parametric alternative to the one-way between-groups analysis of variance. This allows for the comparison of three or more groups on a continuous variable (bullying). The scores are converted into ranks and the mean ranks for each group is then compared. The categorical independent variables were grade and race for hypotheses three and four respectively and the different types of bullying

behaviours are the dependent variables (physical, indirect, verbal and cyber-bullying). A separate Kruskal-Wallis Test was run for each type of bullying behaviour.

If a significant value at the alpha level equal or less than 0.05 was found in the Kruskal-Wallis Test a post hoc analysis was run using the Mann-Whitney U Test. The Mann-Whitney U Test was used to see which of the 5 groups should be different from each other. To avoid a type 1 error, the Bonferonni procedure was used to adjust to a stricter alpha level. This means, that the 0.05 alpha level was divided by the amount of groups for comparison. In other words, 0.05/5 resulted in a 0.01 alpha level, so that results would need to be 0.01 or less to be considered significant.

If the Mann-Whitney U Test provided a significant result then effect sizes were calculated. The z value provided by the SPSS output under the Mann-Whitney U Test was used to calculate the effect sizes. The formula is as follows:

$$R = z/\text{square root of } N$$

R = effect size

Z = z value from the Mann-Whitney U Test

N = Total Number of participants in the study.



Chapter 4 Results

4.1. Hypothesis 1

The highest frequency of bullying will be 1) indirect, 2) verbal, 3) cyber -, with the lowest frequency of bullying being physical bullying.

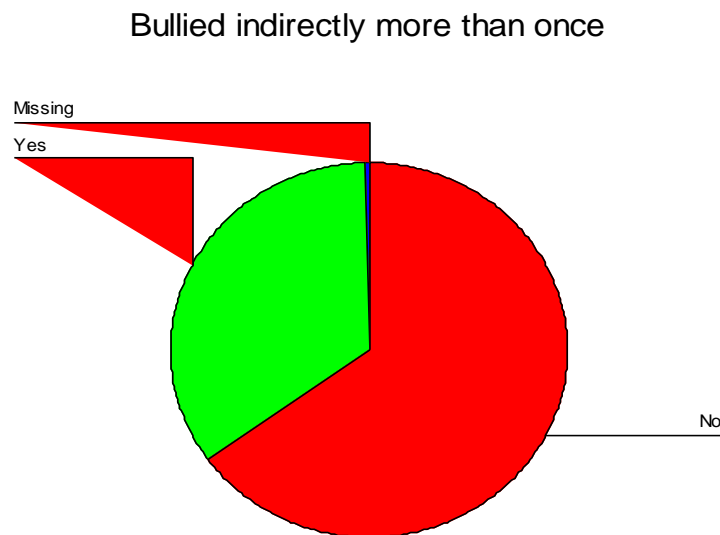
The first hypothesis stated that indirect bullying will occur more frequently than any other types of bullying behaviours. Verbal bullying will be the second most frequent type, followed by cyber – and physical bullying.

Two values are indicated for each type of bullying behaviour. Firstly, bullying behaviour that occurred once is reported (but not used in further statistical procedures) - however, it must be remembered that the learner might have indicated that he/she was not upset by the incidence/s and took it as a joke or the learner was not registered at the school for six months. The second reported value depicts the bullying incidences that occurred at least twice in the last six months and that upset the learner. The second value is in essence the more accurate and important value when considering the prevalence of bullying behaviours according to the pre-defined definition of what constitutes the concept of bullying. The defined concept stated that bullying behaviours must occur over a regular predefined period so that a pattern emerges as well as causing physical or emotional harm to the victim. In this study, the pattern that has been predefined to constitute bullying is that the behaviour must be repetitive (occurring at least twice) over a defined period (six months) and that it caused intentional harm to the learner.

4.2. Indirect bullying

Of a total of 367 learners, 208 (56.7%) learners reported being indirectly bullied at least once in the past six months regardless of whether the incidence upset them or not. However, learners who were repeatedly bullied indirectly so that it affected them negatively added up to 127 (34.7%) learners. In essence, just over one third of learners have been bullied indirectly. Figure 2 depicts the total amount of indirect bullying that occurred.

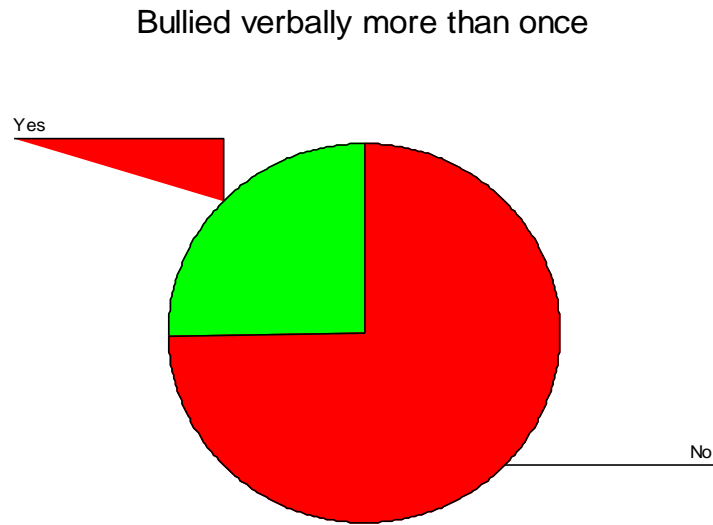
Figure 2: The prevalence of indirect bullying



4.3. Verbal bullying

154 (42%) of learners reported having been verbally abused at least once, the number dropped significantly to 93 (25.3%) of learners who had been bullied repeatedly and were affected negatively by the incidences. Figure 3 depicts the prevalence of verbal abuse in the school.

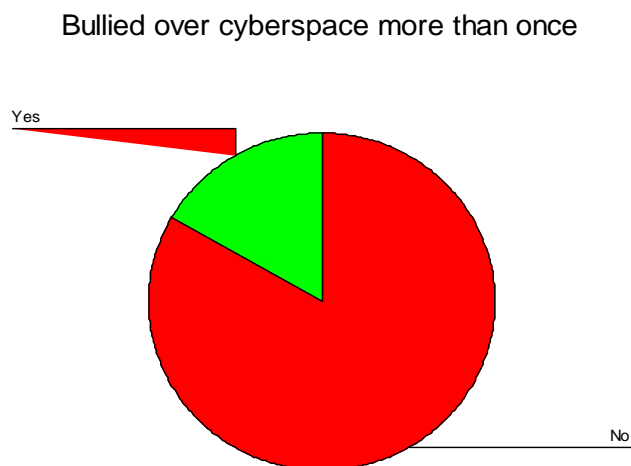
Figure 3: The prevalence of verbal bullying



4.4. Cyber-bullying

116 (31.6%) of learners stated that they had been harassed over social networking sites at least once. 61 (16.6%) of the learners reported repeated bullying. Figure 4 below depicts the total prevalence of cyber-bullying.

Figure 4: The prevalence of cyber-bullying

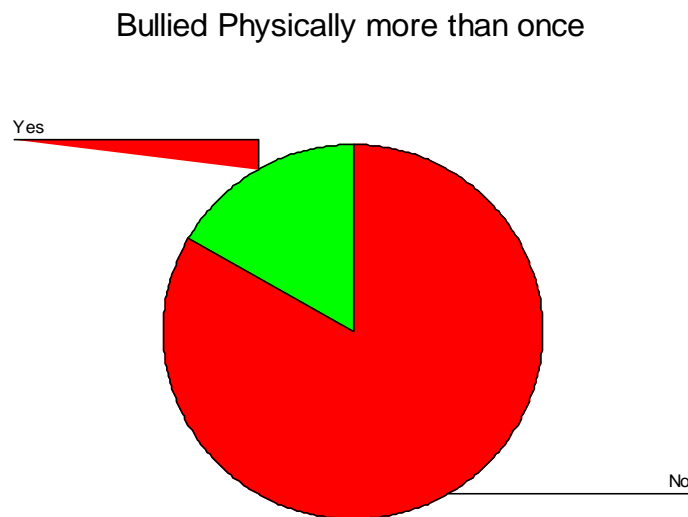


Of the total amount of learners who were cyber-bullied regularly, all of the 61 learners had been bullied over *Mxit* - 31 (8.4%) of the learners were also bullied on *Facebook* and 2 (0.5%) had been bullied over *MySpace*.

4.5. Physical bullying

Physical bullying occurred among 146 (39.9%) of learners at least once. However, 61 (16.6%) of learners were regularly affected by physical violence amongst each other. Despite the expected outcome, physical bullying was not less frequent to cyber-bullying but was equally common.

Figure 5: The prevalence of physical bullying



The first hypothesis was partially confirmed. The most prevalent type of bullying was indirect behaviour followed by verbal bullying. Contrary to expectation, cyber-bullying was not more common than physical bullying but equally as common.



4.6. Hypothesis 2

Females are bullied more frequently by both sexes than males. (Males are often only bullied by other males)

Table 2 shows the cross tabulation of the males and females who were bullied by just males, just females, both sexes or who weren't bullied overall. There were 227 people who indicated that they were bullied at least twice regardless of the type of bullying that occurred to each of them. Three females failed to indicate the gender of the bully and one candidate failed to indicate his/her own gender and were discarded from the analysis. Hence, the total amount of learners in this analysis added up to 223.

Table 2: Frequency of gender of victim and gender of bully interaction

	Bullied by males	Bullied by females	Bullied by both sexes	Total
Males	32 (14.3%)	9 (4%)	70 (31.4%)	112 (50.2%)
Females	7 (3.1%)	23 (10.3%)	79 (35.4%)	111 (49.8%)
Total	39 (17.5%)	32 (14.3%)	149 (66.8%)	223 (100%)

The Pearson-Chi Square indicated a significant result $\chi^2 (8, N = 223) = 26.640, p = 0.0011$) The Phi-coefficient is a correlational coefficient with higher values indicating a stronger association between the variables. The Phi-coefficient ($\phi = 0.343$) showed a medium effect size (Cohen, 1988). What the above table demonstrates is that males are bullied more often by males exclusively rather than being bullied by just females. The same is apparent for female victims, who are more likely to be bullied by other females than bullied by males exclusively. The crux of the situation is that both male and female victims are equally bullied

by both male and female bullies. The above hypothesis can therefore be rejected.

4.7. Hypothesis 3

There is a difference in the type of bullying behaviours between males and females.

The chi-square for independent samples was run to compare the type of bullying experienced by males and females. The results indicated that 35 (19.9%) of the males and 25 (13.2%) of the females were physically bullied in the last six months. Due to the study using a 2 X 2 table design, instead of using the Pearson Correlation, the continuity correction is used to analyze the significance of the differences between the two groups. However, the continuity correction did not indicate a significant result $\chi^2 (1, N = 366) = 3.018, p = 0.111$. In other words, the proportion of males who were physically bullied did not differ to the proportion of females who were physically bullied.

The chi square test compared whether males and females differed with regards to indirect bullying. 46 (26.3%) of males and 80 (42.1%) of females indicated that they had experienced indirect bullying. The continuity correction indicated a significant result $\chi^2 (1, N=365) = 9.398, p = 0.002$. In other words, females experienced more indirect bullying than males. The effect size ($\eta = 0.166$) was small when using Cohen's (1988) criteria for effect sizes. Therefore, one can conclude that females get bullied indirectly more often than males and that there is a small but significant difference between them.

Out of all the males 51 (29%) and 42 females (22.1%) experienced verbal abuse in school. However, the continuity correction indicated no significant difference between the two groups $\chi^2 (1, N = 366) = 1.928, p = 0.165$.

There was absolutely no significance between the genders and the frequency of cyber-bullying $\chi^2 (1, N = 366) = 0.055, p = 0.815$. The results indicated that 28 (15.9%) of males experienced cyber-bullying and 33 (17.4%) of females fell victim to this type of abuse.

4.8. Hypothesis 4

There is a difference between the type of bullying behaviour and the grade of the victim.

The fourth hypothesis states that there is a significant difference between the types of bullying that occurs depending on the grade that the victim is in. Each type of bullying behaviour was analyzed separately and compared to the grades of the learners. Therefore, the four following sections depict the four different categories of bullying.

4.8.1. Part 1 – Physical bullying

The percentages of learners being bullied are depicted in the table below.

Table 3: Frequency of physical bullying categorized by the grade of the learners

Grade of learner	Frequency of physical bullying
Grade 8	6 (14%)
Grade 9	15 (34.9%)
Grade 10	15 (17.6%)
Grade 11	11 (10.6%)
Grade 12	14 (15.2%)
Total	61 (100%)

The results indicate that the learners in grade 9 have more incidences of physical bullying than learners from other grades $\chi^2 (4, N = 367) = 11.898, p = 0.018$. It seems that learners in grade 9 are twice more likely to be physically bullied than learners from other grades. The Kruskal-Wallis Test was used to test whether



these differences were significant. The test indicated that there were significant differences ($H = 13.469$, $p = 0.009$).

Table 4: Kruskal-Wallis Rank Table

Grade of Candidate	Number of candidates	Mean Rank
Grade 8	43	179.10
Grade 9	43	217.51
Grade 10	85	185.88
Grade 11	104	172.91
Grade 12	92	181.42
Total	367	

Table 5: Kruskal-Wallis Test Statistics

Bullied physically more than once	
Chi – Square	13.469
Df	4
Asymp. Sig.	0.009

Post Hoc comparisons were run using the Mann-Whitney U Test. In order to avoid the making a type 1 error, the alpha level was made stricter by using the Bonferroni procedure. This means that the alpha level of 0.05 was divided by the amount of groups that are compared. In this case $0.05/5$ (5 grades). This means that the alpha level was set at 0.01. Table 6 provides the comparisons between the different grades.



*Table 6: Post hoc comparisons between the grades regarding physical bullying.
(Mann-Whitney U Test at $\alpha = 0.01$)*

Grade	Comparative Groups	Mann-Whitney U Results
Grade 8	Grade 9	0.025
	Grade 10	0.596
	Grade 11	0.562
	Grade 12	0.848
Grade 9	Grade 8	0.025
	Grade 10	0.03
	Grade 11	0.000 significant
	Grade 12	0.01 significant
Grade 10	Grade 8	0.596
	Grade 9	0.03
	Grade 11	0.161
	Grade 12	0.663
Grade 11	Grade 8	0.562
	Grade 9	0.000 significant
	Grade 10	0.161
	Grade 12	0.332

The above comparisons indicated that the grade 9's were bullied physically more often than the Grade 11 and Grade 12's. The Mann-Whitney U Test indicated no significant differences between the grade 8, 9 and 10's. The effect size between grade 9 and grade 12 ($\eta = 0.13$) was small. Similarly, the effect size between Grade 9 and Grade 11 was small ($\eta = 0.19$).



4.8.2. Part 2 – Indirect bullying

Table 7 indicates the number of learners who had experienced indirect bullying such as gossip and ostracism.

Table 7: Frequency of indirect bullying categorized by the grade of the learners

Grade of learner	Frequency of indirect bullying
Grade 8	14 (32.6%)
Grade 9	22 (51.2%)
Grade 10	26 (31%)
Grade 11	31 (29.8%)
Grade 12	34 (37%)
Total	127 (100%)

It seems that indirect bullying is mostly prevalent in the grade 9 group. More than half the learners in grade 9 had experienced indirect bullying in some form or another. The other grades all had similar prevalence levels.

The Kruskal-Wallis Test indicated a non-significant result of ($H = 7.037$, $p = 0.134$). Therefore, post hoc analyses were not necessary. However, it does seem that the grade 9's have a higher problem with regards to indirect bullying than the other grades.

4.8.3. Part 3 – Verbal bullying

Table 8 depicts the number of learners bullied verbally in each grade. These learners had experienced incidences of name-calling, teasing, taunting and/or verbal threatening.



Table 8: Frequency of verbal bullying categorized by the grade of the learners

Grade of learner	Frequency of verbal bullying
Grade 8	8 (18.6%)
Grade 9	18 (41.9%)
Grade 10	28 (32.9%)
Grade 11	22 (21.2%)
Grade 12	17 (18.5%)
Total	93 (100%)

Table 8 indicates that grade 9's have the highest score in verbal bullying. The amount of incidences of verbal bullying seems to decrease as the grade of the learner increases, so that the grade 8 and grade 12 learners have similar occurrences and most verbal bullying occurring in grade 9 and grade 10.

The Kruskal-Wallis Test results are shown in table 9 and indicate a significant result ($H = 13.047$, $p = 0.011$).

Table 9: Kruskal-Wallis Rank Table

Grade of Candidate	Number of candidates	Mean Rank
Grade 8	43	171.64
Grade 9	43	214.31
Grade 10	85	197.95
Grade 11	104	176.32
Grade 12	92	171.41
Total	367	

Table 10: Kruskal-Wallis Test Statistic

	Bullied verbally more than once
Chi – Square	13.047
Df	4
Asymp. Sig.	0.011

Due to the significant Kruskal-Wallis statistic, the results for the post hoc test are shown below.



Table 11: Post hoc comparisons between the grades regarding verbal bullying (Mann-Whitney U Test at $\alpha = 0.01$)

Grade	Comparative Groups	Mann-Whitney U Results
Grade 8	Grade 9	0.02
	Grade 10	0.09
	Grade 11	0.728
	Grade 12	0.986
Grade 9	Grade 8	0.02
	Grade 10	0.322
	Grade 11	0.011 significant
	Grade 12	0.004 significant
Grade 10	Grade 8	0.09
	Grade 9	0.322
	Grade 11	0.068
	Grade 12	0.028
Grade 11	Grade 8	0.728
	Grade 9	0.011 significant
	Grade 10	0.068
	Grade 12	0.640

The grade 9's proved to be significantly more verbally bullied than the other grades especially compared to the grade 11's ($p = 0.011$). The effect size ($\eta = 0.14$) was however small. Compared to the grade 12's, the grade 9's were also more likely to be verbally abused ($p = 0.004$), the effect size for this significant result was also small ($\eta = 0.17$). However, the grade 9's were not significantly more bullied than the grade 8 - or grade 10 learners.



4.8.4. Part 4 – Cyber-bullying

Table 12: Frequency of cyber-bullying categorized by the grade of the learners

Grade of learner	Frequency of cyber-bullying
Grade 8	7 (16.3%)
Grade 9	14 (32.6%)
Grade 10	14 (16.5%)
Grade 11	10 (9.6%)
Grade 12	16 (17.4%)
Total	61 (100%)

Cyber-bullying proved to be most prevalent in grade 9 and least prevalent in Grade 11. The results for the Kruskal-Wallis Test are shown in table 13.

Table 13: Kruskal-Wallis Rank Table

Grade of Candidate	Number of candidates	Mean Rank
Grade 8	43	183.37
Grade 9	43	213.24
Grade 10	85	183.72
Grade 11	104	171.14
Grade 12	92	185.41
Total	367	

Table 14: Kruskal-Wallis Test Statistic

Cyber – bullied more than once	
Chi – Square	11.577
Df	4
Asymp. Sig.	0.021

The Kruskal-Wallis indicated a significant result between the groups ($H = 11.577$, $p = 0.021$) and warranted a post hoc analysis.



Table 15: Post hoc comparisons between the grades regarding cyber bullying (Mann-Whitney U Test at $\alpha = 0.01$)

Grade	Comparative Groups	Mann-Whitney U Results
Grade 8	Grade 9	0.081
	Grade 10	0.978
	Grade 11	0.252
	Grade 12	0.873
Grade 9	Grade 8	0.081
	Grade 10	0.038
	Grade 11	0.001 significant
	Grade 12	0.049
Grade 10	Grade 8	0.978
	Grade 9	0.038
	Grade 11	0.160
	Grade 12	0.871
Grade 11	Grade 8	0.252
	Grade 9	0.001 significant
	Grade 10	0.160
	Grade 12	0.110

The significant differences seemed to occur between the grade 9's and the grade 11's ($p = 0.001$). The effects size is small ($\eta = 0.18$).

Table 16 depicts the total amount of bullying (regardless of the type of bullying) according to grade. The data is sorted from the lowest to the highest average.

Table 16: Frequency of total bullying behaviours categorized by the grade of the learners

Grade of learner	Total amount of bullying (regardless of type of bullying)
Grade 11	17.8%
Grade 8	20.38%
Grade 12	22.03%
Grade 10	24.5%
Grade 9	40.15%

Grade 9 has the highest number of bullying incidences with grade 11 having the lowest frequency overall.

The fourth hypothesis can therefore not be confirmed. It seems that the different types of bullying behaviours are prevalent throughout the grades equally, even though the grade 9's experience higher levels of abuse overall. A detailed discussion of these results will follow in Chapter 5.

4.9. Hypothesis 5

There will be no difference in the frequency or type of bullying behaviours between racial groups.

The fifth hypothesis states that there will be no difference in the frequency or type of bullying behaviours between racial groups. The same procedure that was used to analyse the differences between the grades is now used to analyse the differences between the racial groups.

4.9.1. Part 1 – Physical Bullying

Table 17: Frequency of physical bullying categorized by racial groups

Racial Groups	Number of learners physically bullied
Caucasian	31 (19.5%)
African	11 (19.0%)
Indian	13 (14.1%)
Coloured	0 (0%)
Asian	4 (11.8%)
Other	1 (5.9%)
Total	60 (100%)

On face value it would seem that there might be differences between the racial groups. It seems that Caucasians and Africans are bullied more often. However,



the number of learners in each racial group can obscure these values. The Kruskal-Wallis below depicts the level of significance found.

Table 18: The Kruskal-Wallis Rank for physical bullying within racial groups

Race Group	Number of learners (N)	Mean Rank
Caucasian	159	189.18
African	58	188.21
Indian	92	179.36
Coloured	6	153.50
Asian	34	175.03
Other	17	164.26
Total	366	

Table 19: The Kruskal-Wallis Test Statistic

	Bullied physically more than once
Chi – Square	4.806
Df	5
Asymp. Sig.	0.440

The Kruskal-Wallis Test indicated no significant result between the racial groups regarding physical bullying ($H = 4.806$, $p = 0.440$).

4.9.2. Part 2 – Indirect bullying

Table 20: Frequency of indirect bullying categorized by race

Racial Groups	Number of learners indirectly bullied
Caucasian	72 (45.3%)
African	12 (20.7%)
Indian	36 (39.6%)
Coloured	0 (0%)
Asian	2 (5.9%)
Other	4 (23.5%)
Total	126 (100%)



Table 21: The Kruskal-Wallis Rank for indirect bullying amongst racial groups

Race Group	Number of learners (N)	Mean Rank
Caucasian	159	202.64
African	58	157.76
Indian	92	192.20
Coloured	6	120.00
Asian	34	130.74
Other	17	162.94
Total	366	

Table 22: The Kruskal-Wallis Test Statistic for indirect bullying amongst the racial groups

Bullied indirectly more than once	
Chi – Square	30.402
Df	5
Asymp. Sig.	0.000

The Kruskal-Wallis indicated a significant result ($H = 30.402$, $p = 0.000$) which warrants further post-hoc analysis for comparisons.

Table 23: Post hoc comparisons between the racial groups regarding indirect bullying (Mann-Whitney U Test at $\alpha = 0.01$)

Ethnicity	Comparative Groups	Mann-Whitney Results	U
Caucasian	African	0.001 significant	
	Indian	0.380	
	Coloured	0.029	
	Asian	0.000 significant	
	Other	0.086	
African	Caucasian	0.001 significant	
	Indian	0.017	
	Coloured	0.220	
	Asian	0.058	
	Other	0.803	
Indian	Caucasian	0.380	
	African	0.017	
	Coloured	0.053	



Ethnicity	Comparative Groups		Mann-Whitney U Results
		Asian	
	Other	0.211	
Coloured	Caucasian	0.029	
	African	0.220	
	Indian	0.053	
	Asian	0.547	
	Other	0.201	
Asian	Caucasian	0.000 significant	
	African	0.058	
	Indian	0.000 significant	
	Coloured	0.547	
	Other	0.068	

The results showed a significant difference between the frequencies of indirect bullying experienced by Caucasians then by African learners. The Caucasians seemed to fall victim to more indirect bullying than African learners ($p = 0.001$). The effects size proved to be ($\eta = 0.18$ which is a small effect).

Similarly, the Caucasian learner's proved to be significantly more bullied indirectly than the Asian learners ($p = 0.000$). The effects size added up to 0.23 which is a low medium effect according to Cohen's (1988) criteria.

Indian learners were significantly more prone to be victims of indirect bullying than Asians ($p = 0.000$) A low medium effect size was calculated ($\eta = 0.20$). The Mann-Whitney U Tests and their mean ranks can be viewed in the appendix.



4.9.3. Part 3 – Verbal Bullying

Table 24 below depicts the percentages of each race who were bullied verbally

Table 24: Percentages of each racial group who were bullied verbally

Racial Groups	Number of learners verbally bullied
Caucasian	48 (30.2%)
African	11 (19 %)
Indian	28 (30.4%)
Coloured	1 (16.7%)
Asian	1 (2.9%)
Other	3 (17.6%)
Total	92 (100%)

Table 25: The Kruskal-Wallis Rank Table for verbal bullying within racial groups

Race Group	Number of learners (N)	Mean Rank
Caucasian	159	192.75
African	58	172.21
Indian	92	193.20
Coloured	6	168.00
Asian	34	142.88
Other	17	169.79
Total	366	

Table 26: The Kruskal-Wallis Test Statistic

	Bullied physically more than once
Chi – Square	14.300
D	5
Asymp. Sig.	0.014

The results indicated that there are significant differences between the racial groups regarding verbal bullying ($H = 14.300$, $p = 0.014$). The Post hoc Mann-Whitney U Tests results are shown below.



Table 27: Post hoc comparisons between the racial groups regarding verbal bullying (Mann-Whitney U Test at $\alpha = 0.01$)

Ethnicity	Comparative Groups	Mann-Whitney-U
Caucasian	African	0.101
	Indian	0.967
	Coloured	0.478
	Asian	0.001 significant
	Other	0.280
African	Caucasian	0.101
	Indian	0.120
	Coloured	0.892
	Asian	0.028
	Other	0.903
Indian	Caucasian	0.967
	African	0.120
	Coloured	0.476
	Asian	0.001 significant
	Other	0.285
Coloured	Caucasian	0.478
	African	0.892
	Indian	0.476
	Asian	0.160
	Other	0.958
Asian	Caucasian	0.001 significant
	African	0.028
	Indian	0.001 significant
	Coloured	0.160
	Other	0.068

Caucasian learners seemed to be significantly more affected by verbal bullying than Asian learner's ($p = 0.001$) with a small effect size ($\eta = 0.18$). There also seemed to be a significant difference between Indian and Asian learners, with Indian learner's being bullied verbally more often than Asian learners ($p = 0.001$). This effect size also proved to be small ($\eta = 0.17$).



4.9.4. Part 4 – Cyber-bullying

Table 28 below depicts the percentages of each race who were bullied verbally

Table 28: Percentages of each racial group who were subjected to cyber-bullying

Racial Groups	Number of learners cyber-bullied
Caucasian	30 (18.9%)
African	6 (10.3%)
Indian	19 (20.7%)
Coloured	1 (16.7%)
Asian	1 (2.9%)
Other	3 (17.6%)
Total	60 (100%)

The results indicated no significant results between the racial groups and cyber – bullying $\chi^2 (5, N = 366) = 7.985, p = 0.157$.



4.10. Hypothesis 6

There will be no difference in intra-racial and inter-racial bullying.

The following table depicts the frequencies of intra – and inter – racial bullying

Table 29: Frequency of intra – and inter – racial bullying

	Not bullied	Bullied by own racial group	Bullied only by other racial groups	Bullied by own & other racial groups	Total
Caucasians	23 (14.9%)	59 (38.3%)	9 (5.8%)	63 (40.9%)	154 (100%)
Africans	15 (26.8%)	15 (26.8%)	4 (7.1%)	22 (39.3%)	56 (100%)
Indian	16 (17.6%)	36 (39.6%)	9 (9.9%)	30 (33.3%)	91 (100%)
Coloured	2 (33.3%)	0 (0%)	2 (33.3%)	2 (33.3%)	6 (100%)
Asian	22 (66.7%)	1 (3%)	7 (21.2%)	3 (9.1%)	33 (100%)
Other	6 (40%)	1 (6.7%)	4 (26.7%)	4 (26.7%)	15 (100%)

The Pearson Chi-Square indicated a significant difference between the groups $\chi^2(15, N = 355) = 75.650, p = 0.000$. The effect size indicated by the Phi-coefficient shows a large effect ($\eta = 0.462$). From the data above it seems that there is almost no bullying between the different races. Most learner's were bullied by either just their own racial group or both their own and other racial groups. 35 (9.5%) of learners have been bullied by only other racial groups, however, it would be pre-mature to state that the bullying that those learners experienced was due to racism, it is nonetheless important to be aware of this statistic. What can be concluded so far is that race does not affect who is bullied by other races. In other words, it appears that the race of the learners is irrelevant when it comes to bullying behaviours in this particular study. Hypothesis 6 can therefore be confirmed.



Chapter 5 Discussion

5.1. Overall frequency of bullying behaviours

International studies indicate that bullying happens to 10% - 25% of learners (Bentley and Li, 1995; Lane, 1989; Olweus, 1999b). Dake, Price and Telljohann (2003) report the prevalence of a study done in Great Britain using a large sample in which they report 4.2% of learners being bullied. Similarly, a small study done in Australia reported higher results of 25%. South African studies mentioned that 36% of learner's had been physically attacked whereas 73% of learners had witnessed some form of violence at school. A similar South African study by Richter, Palmay and de Wet (2000) reported an overall bullying prevalence of 38% using a sample of 1073 learners. The current results are also similar to the studies in other South African schools but have also found that the occurrences of bullying vary according to the type of behaviours that occur. It was found that 34.7% of learners experienced indirect bullying such as gossiping, manipulations and '*back-stabbing*'. 25% experienced direct verbal abuse such as name calling, teasing and taunting. 16.6% experienced either cyber – and/or physical bullying. However, most learners experienced more than one form of bullying. It seems that the results found in this particular study were similar to international trends with bullying behaviour ranging from 16.6% to 34.7%. However, indirect bullying seems occur more frequently in this school than international trends would suggest. Indirect bullying seems to be a specific problem area in this particular school.

5.2. Grade/Age of learners and their experience of bullying

International authors such as Vail (1999), Olweus (1999a) and Hunter and Boyle (2002) state that younger learners experience more bullying overall, especially physical bullying and that all types of bullying decreases as the age of the learner increases. However, Olweus (1999a) claims that verbal and indirect bullying will increase rather than decrease depending on the grade of the learner. The current study reveals some interesting findings. It was found that 34.9% of learner's in

grade 9 had experienced physical bullying. There is a significant difference between the grade 9 learners and the grade 11 (10.6% had been physically bullied) and grade 12 learners (15.2% had been physically bullied). No significant differences were found when comparing the grade 9 learners to grade 8 or the grade 10 learners. It seems there is some evidence to support international authors when they state that younger learners experience more physical violence. However, this relationship is not so clear cut as might seem obvious. Due to the fact that there are no significant differences between the grade 8 group and the higher grades (such as grade 10, 11 and 12), in this particular study it would be a fallacy to claim that younger learners are more prone to physical violence in general. There seems to be a unique phenomenon in the grade 9 group as they are twice more likely than any other grade to experience physical bullying. Possible explanations to this phenomenon can be further found in chapter 6 on ethical considerations and recommendations.

No significant difference was found between the grades and indirect bullying – suggesting that indirect bullying occurs regardless of age. This is corroborated by studies done by Boulton, Trueman and Flemington (2002) who state that there isn't always a gradual decline in all types of bullying throughout the teenage years. However, it is still noteworthy that the grade 9 group indicated a prevalence of 51.2% whereas the other grades reported indirect bullying incidences ranging from 29.8% to 33%. These findings are slightly different to other international studies that suggested that indirect bullying increases with age. In this particular study, indirect bullying was prevalent almost equally in each grade. This might suggest that public image and popularity is an important part of this particular school climate regardless of age.

Significant differences were found between the grade 9 and grade 11 groups with regards to verbal and cyber-bullying, of which 32.6% the grade 9 group compared to 9.6% of the grade 11 group experienced cyber-bullying.

5.3. Gender of learners and type and frequency of bullying reported

The current study can partially (explanation still to come) confirm the research by Boulton, Trueman and Flemington (2002) who stated that girls use more indirect and verbal bullying. It was found that girls bully indirectly significantly more than their male counterparts. 42.1% of females have been bullied indirectly whereas 26.3% of males are targets of indirect bullying. However, contrary to Boulton et al (2002), no significant difference was found between male and female victims regarding verbal abuse. Studies by Joseph, Price and Telljohann (2002) confirm this finding that girls and boys are equally as likely to be targeted via direct verbal bullying. There were also no significant results between males and females regarding physical and cyber-bullying. It seems that, males are not much more physically aggressive than females when it comes to bullying in this particular study. Males accounted for 19.9% of physical bullying and females 13.2%. A possible explanation for this is that physical violence is generally low at this school because it is deemed less acceptable than other forms of bullying. If it does occur, both females and males feel it's their right to be assertive in conflict situations. Stainton Rogers and Stainton Rogers (2001) suggest that in a modern day society females are often encouraged to adopt traditional male characteristics such as aggressiveness and assertion to get what they want or to exert influence and control. The fact that the school is of high status might also mean that the school climate encourages females to be confident and assertive which might inadvertently lead some females to handle situations more aggressively in order to 'get ahead in the world.'

It must be remembered that the physical bullying reported did not involve extreme violence or dangerous weapons for the most part. Disturbingly, there was one learner who claimed to have been threatened with a gun and three learners who claim to have been threatened with a knife. Even though only a few learners in this study reported being bullied with the threat of a weapon, these occurrences should not be underestimated. A number of such occurrences have been reported in recent years on international levels that have resulted in school

shootings and stabbings (Fratt, 2006). The fact that a handful of participants mentioned that they have been threatened or attacked with a weapon should be noted for precautionary measures.

As mentioned before, there were also no differences between males and females regarding cyber-bullying. The gender differences might become blurred in this regard due to different interactional styles of females and males. Females are more verbal and bully indirectly more than males when they are in a group at school, whereas boys generally aren't seen to gossip as much as girls in public. However, when both sexes are at home alone in front of their personal computers it is more likely that males as well as females might partake in cyber-bullying.

5.4. The relationship between ethnicity and the type and frequency of bullying behaviours

No significant differences were reported between the racial/ethnic groups regarding physical bullying. In contradiction to Carlyle and Steinmann (2009), physical bullying does not occur significantly more amongst African youth.

The results for indirect bullying indicate that Caucasians are significantly more prone to be bullied in this category than African or Asian learners. There are several possible reasons for these results. Caucasian females tend to be focused more on aspects that involve body satisfaction, weight concerns and popularity and it is likely that they bully each other more than African or Asian learners because they place a higher value on their public image (Celio, Zabinski & Wilfley, 2002). Barlow and Durand (2005) also state that Western women such as Caucasian females are generally more competitive with each other, whereas African and Asian females have a stronger sense of community closeness.

No differences in frequencies were found in cyber-bullying between the ethnic groups. Possible explanations can include: due to the high status of the school

almost - if not all - learners have readily available access to social networking sites via home computers regardless of ethnicity. Therefore, some learners might feel a sense of anonymity and detachment from the bully victim. An additional reason can also be postulated in that theoretically people with a more passive interactional style are braver to make comments and spread rumours over the internet whereas they would have been too shy to make comments about other people directly in front of a group. The availability of the internet as well as people with different interactional styles might cause racial lines to be blurred over the internet.

5.5. Intra – and inter racism

The 6th hypothesis stated that there will be no bullying between the different racial groups. The results indicated that 9.5% of the learner's were bullied by only other ethnic groups. This is noteworthy as it might indicate a minor problem with ethnic conflict. However, it is not known whether these reported incidences of bullying by other ethnic groups are due to racism or are purely coincidental. Again, it is however noteworthy to be aware of this percentage.

30.5% of learners indicated that they were bullied by their own ethnic group, whereas 34% indicated being bullied by both by their own and other ethnic groups. As can be seen, it is more likely that bullying occurs across and within ethnic groups randomly. It is unlikely that bullying was largely due to racism in this particular school setting. Parallel to the findings of Carlyle and Steinmann (2009), it seems that the relationship is more specific to racial dynamics and is more community and school specific rather than applying to ethnic groups as an aggregate.

5.6. Summary

A study by Dake, Price and Telljohann (2003) sampled 79,492 learners from an American metropolitan area and found that 20.1% of learner's had been bullied



repeatedly in the past year. The current study found similar percentages of bullying behaviours (Direct bullying: 34.7%, Verbal: 25.3%, Physical: 16.6% Cyber: 16.6%) that occurred in the past six months. These trends are also in line with studies carried out in Canada, England and Portugal. It seems that in this particular study the prevalence is in line with international trends.

The most noteworthy prevalence was that indirect bullying occurred very frequently (34.7%). It seems that Caucasian females have higher incidences of indirect bullying than any other demographic group. Interestingly, males and females also did not differ significantly regarding the frequency of verbal, physical and cyber-bullying.

It was found that not all types of bullying decrease with age. Indirect bullying was found to be very prevalent throughout the school. Interestingly, the grade 9's showed a high prevalence in all types of bullying behaviours, although external variables such as unfavourable testing conditions regarding the grade 9 groups cannot be ruled out (see Chapter 6).

The results also indicated that if racial bullying does occur, it happens at a minimal rate.

Malicious gossip and rumours occurring in the school seems to be the biggest problem as the results and some qualitative data suggests. In conclusion, what follows are some negative and positive comments written by learners in the school regarding bullying:

“I don’t get offended physically as I fight back and shrug it off. Insults hurt more than physical pain – especially rumours.” – Grade 11, Caucasian male

“Learners always come across as if they know something you don’t.” – Grade 11, Caucasian female

“People, especially teens can be very vindictive, mean and hurtful. They do whatever they can do to save their reputations – You can hardly trust anyone.” – Grade 12, African female

“From what I see, there are not a lot of cases of bullying at my school.” – Grade 12, Asian male

“I do not accept friend requests or invites from people I do not like, I do not want to give them access to my private life. I would rather ignore them than to try to be their friend.” – Grade 12, Caucasian female

Girls have a tendency to be extremely judgemental – several times this year I have been stared at in a judgemental and very uninviting manner as I have walked past a group of girls.” – Grade 12, ‘Other’ female

“I think I was bullied only because I draw attention, because I tried to be different.” – Grade 12, Caucasian male

“I love my school and everything. There are rights and equalities between students and between students and teachers.” – Grade 10, Asian male

“I have seen in other incidences that students have a lack of respect when handling situations with fellow students.” – Grade 10, Indian female

“The environment in the college is friendly and safe so I haven’t experienced many incidences at all.” – Grade 10, Indian male

“It really is terrible when people want to hurt others, I am a very sensitive girl and it tears me to pieces.” – Grade 10, Indian female



“There is a huge amount of anti-Semitism throughout the whole school.” – Grade 9, Caucasian male

“Bullying is quite well controlled at the school.” – Grade 9, Caucasian male

“Most of the students in the school are being racist and don’t treat other people the same.” – Grade 8, Asian female

“Gossip is the main start of bullying. It can be used very badly against children. Teenage pornography is sent on Mxit and by cell phones. I find this disgusting and wish it could be stopped. It has hurt me very much, my boyfriend cheated on me this way.” – Grade 9, Caucasian female

“People can get a bit nasty at times and make up names for you. That’s what happened to me.” – Grade 8, Indian male

The above quotes show different perspectives of the bullying situation at the school. It is apparent that some learners feel safe and feel that bullying is not an issue. On the other hand, there seem to be learners that are affected very negatively from bullying incidences that occur. It is hoped that the current study provided scientific information on such occurrences and that interventions can be formulated according to these results. The importance of not ignoring the problem cannot be highlighted enough, as numerous literatures explained, bullying can have many long term negative effects on learners who will later have to become productive members of society.



Chapter 6

Limitations, Recommendations and Ethical Considerations

The first limitation that is presented in the study is the challenge of a representative sample. Due to the socio-economic status and the purposive sampling technique, the findings cannot be generalised to the South African population of high school learners. As previous South African studies of bullying indicate varying frequencies of bullying and different levels of violence occurring in different school settings depending on the different school environments, it is suggestive that the community in which the school is situated plays an integral role to the culture of violence prevalent in the school. It is unlikely that any study conducted in South Africa will be able to find a national average of the occurrence of bullying behaviours amongst school children. What might be concluded is that this type of behaviour is very context-specific depending on the location of the school and the school climate. Future studies might do well to conduct the study with the same questionnaire in different socio-economic schools to compare the dynamics of bullying behaviours in different settings.

Furthermore, Coloured learners were poorly represented in the sample. Learners who indicated that they were neither Caucasian, African, Indian, Coloured nor Asian were also very poorly presented. Another similar drawback was that some of the grade 8 and grade 9 learners did not have a chance to complete the questionnaire. Even though the Chi-Square statistic compensates against the type 1 and type 2 errors when comparing a larger sample in one grade to a smaller sample in another grade it would have been more advantageous to have all learners in the lower grades complete the questionnaire.

Another important finding that deserves some reflection and ethical consideration is the high number of bullying incidences reported by the grade 9 group. It must be mentioned that the grade 9's filled out the questionnaire a few weeks after the other groups because they were busy with examinations. It is suspected that the grade 9's answered in such a way as to bias the research results. The effect that



might have occurred here is what Whitley (2002) would call the 'negative participant' role. This is the exact opposite of the 'good participant' who answers in such a way as to give desirable results to the researcher. In other words, the 'negative participant' role is activated when people feel coerced into doing things they don't want to do. Possible reasons for this are that the teacher perhaps chose an inconvenient time to administer the questionnaire when the learners had their minds on their studies. This possible feeling of infringement on the participant's choice of freedom might have aroused what Brehm and Brehm (1981) call *psychological reactance*. This reactance shows the researcher that they (the participants) cannot be pushed around and they demonstrate their independence by doing the exact opposite of what the researcher wants them to do. In this case, the learners might have answered dishonestly to inflate their results. Unfortunately, because this might not reflect their normal responses it does influence the internal validity of the study negatively. However, it must be remembered that this effect is only suspected by the researcher. It is still possible that the grade 9's answered honestly and that this particular group does have high incidences of bullying. Replication of this study is warranted to test the reliability of the results. The replication should however allow the grade 9's to complete the questionnaire at a more convenient time. If there are any differences in the results for the grade 9 group in the replication under more favourable conditions than one could conclude that the negative participant effect might have had an influence in this particular study. If the replication would find similar results under more favourable conditions then it is more likely that the grade 9 group happens to have higher incidences of bullying comparatively to other groups.

Even though there were a handful of learners who indicated that they were bullied only by other ethnic groups it is impossible to say that these incidences were necessarily due to racism. A future suggestion is to include questions in the survey that deal with why the learner thought he was being bullied and what specifically was said in the encounter. A question such as: "Do you think the

incidence was due to racism?” should however not be included in the questionnaire. This type of question would be leading the learner to answer in a certain way by actually putting the idea forward that it was race related when in fact it may not have been.

One learner suggested that when it comes to cyber-bullying that a replication study should include the social networking tool; ‘*Mig 33*’ as this is similar to Mxit. The learner reported that many of his/her friends had been bullied over this networking site. If other studies were to deal with cyber-bullying it is recommended to add this aspect to the measurement concept of cyber-bullying.

6.1. Strategies to prevent bullying

Cartwright (1995) provides some suggestions as to what can be done to decrease the incidences of bullying. It is suggested that the problem first needs to be acknowledged, after which school based intervention programmes can be administered. Research on the extent of the problem at the school can inform pupils, teachers and parents on the severity of the problem. Myths about bullying need to be debunked – such myths include: Students that are bullied will “just get over it”, some kids deserve to be bullied, bullies will go away if you ignore them, it is ‘tattling’ to tell an adult when you are being bullied and the best way to deal with a bully is to get even. Another popular myth about bullying is that it “toughens them up” and prepares them for adulthood (Cartwright, 1995).

The strategies to curb the incidences of bullying can include:

- 1) Promote the belief that bullying behaviour is totally unacceptable
- 2) School codes should be in place to deal with transgressors
- 3) Intervention programs can include conflict and anger management training
- 4) Counselling services should be provided for bullies and victims
- 5) The effectiveness of the bullying and intervention programmes should be evaluated regularly.



Comments by learners in this particular school give the following annotations on intervention for bullying:

“In order to reduce such incidents people need to be taught about better communications at schools. Charity begins at home. Many children with violent tendencies learn this from home. The home is the source of the pattern.” – Grade 12, “Other” male

Even though I haven’t been bullied myself, I’ve seen people being verbally abused. Personally, I don’t think there is anything a school can do to stop bullying. A bullied problem starts at home and can only be solved at home.” – Grade 11, Caucasian female

Carter and Stewin (1999) suggest that bullying can also be combated by challenging gender roles that are taught at home; the role played by the media in glorifying violence; and considering relationship factors amongst peers and family when implementing education or life skills classes. Barone (1997) suggests better supervision and training by teachers to combat bullying amongst learners. For passive victims, strategies of assertiveness training and achieving a stronger visual profile can help victims of bullying (Batsche & Knoff, 1994).



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Appendixes Appendix A: Learner’s Assent Form



Researcher: Sylvia Schaffner
Tel: 079 – 664 – 7859
Email: schaffner.sylvia@gmail.com

**Faculty of Humanities
Department of Psychology**

Assent Form

It is kindly requested that you participate in the following study: An exploratory study of the prevalence of bullying behaviours amongst learners in a Pretoria Private High School. The purpose of the study is to measure the prevalence of bullying behaviours and how these behaviours are acted out according to a person’s race, age and gender. The results of the study are purely for research purposes and will not be broadcasted.

In order for you to participate it is required that you answer a few quick questions that shouldn’t take longer than 20 minutes to complete.

The topic is of a sensitive nature, if at any time you feel upset about any of the questions you are welcome to stop. However, there are contact details of a psychologist on the front of the questionnaire if you want someone to talk to and go to for help.

Your participation is voluntary (which means you don’t have to fill out the questionnaire if you don’t want to) and you can withdraw/stop at any time if you no longer feel comfortable. Your identity will be kept confidential, in other words, no one will know who you are. If you have any questions about the study please feel free to contact the researcher (contact details above)!

If you want help or just someone to talk to, please contact Linda Blokland (Psychologist) at:

Tel: 012 - 842 - 3522

Email: linda.blokland@gmail.com

----- Please cut/tear here

I hereby assent to take part in the study above for research purposes and acknowledge that I have been made aware of my rights as a participant.

Signature of participant

Signed at (Name of school): _____

Today’s Date : _____

Signature of Researcher



Appendix B: Administration Guideline



Faculty of Humanities
Department of Psychology

Administrative Guideline

Dear Teacher/s

Your classes will be asked to fill out a questionnaire on the topic of high school bullying. It is very important that your learners complete these forms **individually** and do not talk to other learners whilst filling out the questionnaire as this might confound the validity and reliability of the study.

Please make sure that your pupils fill out the bottom of the assent form and tear off the slips. These must be returned to the teacher/test administrator. All of the slips must also go back to the researcher. Your learners will need about 20 minutes to read and complete the questionnaire.

After you have taken in all of the questionnaires and assent form slips please leave them at the headmaster’s office immediately where they will be collected by the researcher as soon as possible. It is requested that you please do not make copies of the questionnaires once participants have completed them as the information is considered highly confidential and may not be used for personal perusal. Results of the study shall be made available to your headmaster in due course.

I hereby declare that I have read the administrative guidelines and will follow these guidelines to the best of my ability.

Teachers Signature

Today’s Date

Thank you kindly for your co-operation
Yours sincerely
Sylvia Schaffner

If there are any doubt or queries please contact:
Tel: 079 – 664 – 7859
Email: schaffner.sylvia@gmail.com

Researcher’s Signature



Appendix C: Principal's Permission Form

Not available to the public due to confidentiality issues



Appendix D: Learner’s Questionnaire

LEARNERS’ QUESTIONNAIRE

Hi there! This is a questionnaire on bullying behaviours. This is not a test but a questionnaire for which you have all the answers!

Bullying is: actions or words that are used to harm/hurt or humiliate/embarrass another person on purpose!

1. Please be honest when answering the questions!
2. Write in INK, not a pencil!
3. You must fill in the front **and the back** of every page!
4. Remember that the questions refer ONLY to what happens in YOUR school and doesn’t refer to learners that come from other school that might have bullied you after school hours!

Please fill out the following information:

Age : _____

Grade : _____

Gender (Male or female) : _____

Race (white, black, Indian, Coloured, Asian, Other) : _____

Have you been at this school for **the whole of this year**: (draw a circle around the answer that you choose): YES / NO

SECTION A: **QUESTION 1**

- 1.1) In this past school year have you ever been physically attacked by hand - **not a weapon** (this includes any of the following: being hit, kicked, shoved, slapped, bitten, punched) by a fellow student? (Please **circle** the answer)

YES / NO (if you answered **NO** go to **Question 2**)

- 1.2) How many times has this happened this year? Please circle **ONLY ONE** box.

Once	2 – 5 times	At least once a month	At least once every week	Everyday
------	-------------	-----------------------	--------------------------	----------

- 1.3) How many **girls** have physically attacked you this year? _____

- 1.4) What was the **race** of the girl/s that attacked you? _____



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- 1.5) How many **boys** have physically attacked you this year? _____
 1.6) What was the **race** of the boy/s that attacked you? _____
 1.7) How upset were you about what happened to you this year?
 (**Circle** the box that applies to you).

Not at all upset	Slightly upset	Somewhat upset	Very Upset	Extremely upset
------------------	----------------	----------------	------------	-----------------

QUESTION 2

- 2.1) Has a **fellow student** at your school forced you to do anything against your will in this year? (This includes forcing you to give money or objects to someone)

Circle the answer (if you answer **NO**, go to **Question 3**)

YES / NO

- 2.2) How many times has this happened in the **past six months**? Please circle **ONLY ONE** box

Once	2 – 5 times	At least once a month	At least once every week	Everyday
------	-------------	-----------------------	--------------------------	----------

- 2.3) How many **girls** have forced you to do something against your will this year? ____
 2.4) What was the **race** of the girl/s that forced you? _____
 2.5) How many **boys** have forced you to do something against your will in this year?
 2.6) What was the **race** of the boy/s that attacked you? _____
 2.7) How upset were you about this event?
 (**Circle** the box that applies to you).

Not at all upset	Slightly upset	Somewhat upset	Very Upset	Extremely upset
------------------	----------------	----------------	------------	-----------------

QUESTION 3

- 3.1) In this year, have any of your belongings been taken or destroyed intentionally (not by accident) by another pupil at your school?

Circle the answer (if you answer **NO**, go to **Question 4**)

YES / NO

- 3.2) If YES, How many times has this happened this year? Please circle **ONLY ONE** box.



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Once	2 – 5 times	At least once a month	At least once every week	Everyday
------	-------------	-----------------------	--------------------------	----------

- 3.3) How many **girls** have broken or taken something from you in a mean way in this year? _____
- 3.4) What was the **race** of the girl/s? _____
- 3.5) How many **boys** have broken or taken something from you in a mean way in this year? _____
- 3.6) What was the **race** of the boy/s that attacked you? _____
- 3.7) How upset were you about this event? (**Circle** the box that applies to you)

Not at all upset	Slightly upset	Somewhat upset	Very Upset	Extremely upset
------------------	----------------	----------------	------------	-----------------

QUESTION 4

- 4.1) Have you been attacked with **any object** that can be used as a weapon by another pupil in your school this year?

Circle the answer (if you answer **NO**, go to **Question 5**)

YES / NO

- 4.2) What weapon/s were used? _____
- 4.3) How many times has this happened in the year? Please circle **ONLY ONE** box.

Once	2 – 5 times	At least once a month	At least once every week	Everyday
------	-------------	-----------------------	--------------------------	----------

- 4.4) How many **girls** have attacked you with a weapon this year? _____
- 4.5) What was the **race** of the girl/s that attacked you? _____
- 4.6) How many **boys** have attacked you with a weapon this year? _____
- 4.7) What was the **race** of the boy/s that attacked you? _____
- 4.8) How upset were you about this event? (**Circle** the category that applies to you).

Not at all upset	Slightly upset	Somewhat upset	Very Upset	Extremely upset
------------------	----------------	----------------	------------	-----------------

SECTION B
QUESTION 5

- 5.1) Have you been bullied in **any** of the following ways **this year**: had a rumor spread about you, noticed that people were gossiping about you, had someone turn your friend/s against you, been left out of activities on purpose?
Circle the answer (if you answer **NO**, go to **Question 6**)
YES / NO



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- 5.2) How many times did **any** of the above happen to you in the past six months?
Please circle ONLY ONE box.

Once	2 – 5 times	At least once a month	At least once every week	Everyday
------	-------------	-----------------------	--------------------------	----------

- 5.3) How many **girls** have done this to you this year? _____
 5.4) What was the **race** of the girl/s? _____
 5.5) How many **boys** have done this to you this year? _____
 5.6) What was the **race** of the boy/s? _____
 5.7) How upset were you about this event? (**Circle** the box that applies to you)

Not at all upset	Slightly upset	Somewhat upset	Very Upset	Extremely upset
------------------	----------------	----------------	------------	-----------------

SECTION C
QUESTION 6

- 6.1) **In this year** has any of the following happened to you: been teased, taunted, laughed at in a nasty way that was meant to publicly embarrass you, called you nasty names, mean faces being pulled at you, someone making dirty gestures at you?

Circle the answer (if you answer **NO**, go to **Question 7**)

YES / NO

- 6.2) How many times has this happened this year? Please circle ONLY ONE box.

Once	2 – 5 times	At least once a month	At least once every week	Everyday
------	-------------	-----------------------	--------------------------	----------

- 6.3) How many **girls** have done this to you in the past 3 months? _____
 6.4) What was the **race** of the girl/s? _____
 6.5) How many **boys** have done this to you in the past 3 months? _____
 6.6) What was the **race** of the boy/s? _____
 6.7) How upset were you about this event/s? (**Circle** the box that applies to you)

Not at all upset	Slightly upset	Somewhat upset	Very Upset	Extremely upset
------------------	----------------	----------------	------------	-----------------



QUESTION 7

7.1) Do you use MXIT? (**Circle** the LETTER that applies e.g. A)

- A) YES
- B) NO
- C) Don't know what it is (if you answer C, go to **question 8**)

7.2) Has anyone made nasty comments about you on MXIT **this year**? (Whether or not you use it)? **Circle** the answer (if you answer **NO**, go to **Question 8**)

YES / NO

7.3) How many times has this happened this year? Please circle **ONLY ONE** box.

Once	2 – 5 times	At least once a month	At least once every week	Everyday
------	-------------	-----------------------	--------------------------	----------

7.4) How many **girls** have done this to you this year? _____

7.5) What was the **race** of the girl/s? _____

7.6) How many **boys** have done this to you this year? _____

7.7) What was the **race** of the boy/s? _____

7.8) How upset were you about this event? (**Circle** the box that applies to you)

Not at all upset	Slightly upset	Somewhat upset	Very Upset	Extremely upset
------------------	----------------	----------------	------------	-----------------

QUESTION 8

8.1) Are you a registered member on FACEBOOK? (**Circle** the LETTER)

- A) Yes, I use FACEBOOK
- B) No, I am not a registered member and I do not use FACEBOOK
- C) I don't know what FACEBOOK is (if you answer C, go to **Question 9**)

8.2) Has anyone ever made public nasty comments about you on FACEBOOK (whether or not you use it)? **Circle** the answer:

YES / NO (If you answered NO, go to **Question 9** on **page 10**)

8.3) How many times has this happened this year? Please circle **ONLY ONE** box.

Once	2 – 5 times	At least once a month	At least once every week	Everyday
------	-------------	-----------------------	--------------------------	----------

8.4) How many **girls** have done this to you this year? _____

8.5) What was the **race** of the girls? _____



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- 8.6) How many **boys** have done this to you this year? _____
 8.7) What was the **race** of the boy/s? _____
 8.6) How upset were you about this event? (Circle the category that applies to you)

Not at all upset	Slightly upset	Somewhat upset	Very Upset	Extremely upset
------------------	----------------	----------------	------------	-----------------

QUESTION 9

- 9.1) Are you a registered member on MYSPACE? (**Circle** the LETTER)
- A) Yes, I am a registered member on MYSPACE
 B) No, I am not a registered member on MYSPACE
 C) I don't know what MYSPACE is (If you answer C, you can **STOP** answering the questionnaire).

- 8.2) Has anyone ever posted nasty comments about you on MYSPACE (whether or not you use it)? **Circle** the answer:

YES / NO (If you answer **NO**, you can **STOP** answering the questions)

- 9.2) How many times has this happened this year? Please circle **ONLY ONE** box.

Once	2 – 5 times	At least once a month	At least once every week	Everyday
------	-------------	-----------------------	--------------------------	----------

- 9.3) How many **girls** have done this to you this year? _____
 9.4) What was the **race** of the girls? _____
 9.5) How many **boys** have done this to you this year? _____
 9.6) What was the **race** of the boy/s? _____
 9.7) How upset were you about this event? (**Circle** the category that applies to you)

Not at all upset	Slightly upset	Somewhat upset	Very Upset	Extremely upset
------------------	----------------	----------------	------------	-----------------

You can now write any extra information, comments/impressions/incidences or questions:

THE END – THANK YOU FOR PARTICIPATING!



Appendix E: Descriptive Statistics

HYPOTHESIS 1

GENDER OF LEARNERS

Gender	Frequency	Percentage
Male	176	48.1
Female	190	51.9
Missing	1	0.3
Total	367	100

GRADE OF LEARNERS

Grade	Frequency	Percentage	Cumulative Percentage
Grade 8	43	11.7	11.7
Grade 9	43	11.7	23.4
Grade 10	85	23.2	46.6
Grade 11	104	28.3	74.9
Grade 12	92	25.1	100
Total	367	100.0	

ETHNICITY OF LEARNERS

Ethnicity	Frequency	Percentage	Cumulative Percentage
Caucasian	159	43.3	43.4
African	58	15.8	59.3
Indian	92	25.1	84.4
Colored	6	1.6	86.1
Asian	34	9.3	95.4
Other	17	4.6	99.7
Missing	1	0.3	100
Total	367	100	



FREQUENCIES OF TYPES OF BULLYING BEHAVIOURS

INDIRECT BULLYING

	Bullied only once	Bullied more than once	Total indirect bullying
Yes	81 (8.4%)	127 (34.6%)	208 (56.6%)
No	285 (77.6%)	239 (65.1%)	158 (43.05%)
Missing	1 (0.3%)	1 (0.3%)	1 (0.3%)
Total	367	367	367

VERBAL BULLYING

	Bullied only once	Bullied more than once	Total verbal bullying
Yes	61 (16.6%)	93 (25.4%)	154 (42%)
No	306 (83.4%)	274 (74.7%)	212 (57.8%)
Missing			1 (0.3%)
Total	367	367	367

CYBER – BULLYING

	Bullied only once	Bullied more than once	Total cyber bullying
Yes	55 (15%)	61 (16.6%)	116 (31.5%)
No	312 (85%)	306 (83.4%)	249 (67.8%)
Missing			2 (0.55%)
Total	367	367	367



CYBER BULLYING AND TYPE OF SOCIAL NETWORKING SITES

Type of social networking sites

<u>Mxit</u>		<u>Facebook</u>		<u>MySpace</u>	
More than one	Percentage	More than once	Percentage	More than once	Percentage
61	16.6 %	31	8.4 %	2	1 %

PHYSICAL BULLYING

	Bullied only once	Bullied more than once	Total physical bullying
Yes	85 (23 %)	61 (16.6 %)	146 (39.8 %)
No	282 (76.8 %)	306 (83.4%)	220 (59.9%)
Missing			1 (0.3 %)
Total	367	367	367



APPENDIX F: STATISTICAL ANALYSES

HYPOTHESIS 2

CHI – SQUARES FOR GENDER CROSS TABS

Gender of candidate (victim)	Gender of bully				Total
	Not indicated	Bullied by just male bullies	Bullied by just female bullies	Bullied by both sexes	
Male	0	32	9	70	112
Female	3	7	23	79	114
Missing	4				
Total	7	39	32	149	227

Chi-Square Tests

	Value	df	Asymp. Sig. (2 – sided)
Pearson Chi – Square	26.640	8	0.001
Likelihood ratio	29.550	8	0.000
Linear by Linear Association	0.000	1	0.991
N of Valid Cases	227		

a. a 0 cells (.0%) have expected count less than 5. The minimum expected count is 25.55.

SYMMETRIC MEASURES

Nominal by Nominal	Value	Approx Sig.
Phi	0.343	0.001
Cramer’s V	0.242	0.001
N of Valid Cases	227	

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.



HYPOTHESIS 3

TYPE OF BULLYING AND GENDER

GENDER VS. PHYSICAL BULLYING CROSSTAB

		Bullied physically more than once		Total
		No	Yes	
Gender of victim				
	Male			
	Count	141	35	176
	% within Gender of Candidate	80.1%	19.9%	100.0%
Female	Count	165	25	190
	% within Gender of Candidate	86.8%	13.2%	100.0%
	% within Bullied Physically more than once	46.1%	58.3%	48.1%
	% of Total	38.5%	9.6%	48.1%
Total	Count	306	60	366
	% within Gender of Candidate	83.6%	16.4%	100.0%
	% within Bullied Physically more than once	100.0%	100.0%	100.0%
	% of Total	83.6%	16.4%	100.0%



CHI SQAURE TESTS FOR GENDER VS PHYSICAL BULLYING

	Value	df	Asymp. Sig. (2 – sided)	Exact Sig. (2 – sided)	Exact Sig. (1 – sided)
Pearson	3.018	1	.082		
Chi-Square					
Continuity	2.547	1	.111		
Correction					
Likelihood	3.023	1	.082		
ratio					
Fisher’s				.091	.055
Exact Test					
Linear By	3.010	1	.083		
Linear					
Association					
N of Valid	366				
Cases					

a Computed only for a 2x2 table

b 0 cells (.0%) have expected count less than 5. The minimum expected count is 28.85.

GENDER VS. INDIRECT BULLYING CROSSTAB

		Bullied indirectly more than once		Total	
		No	Yes		
Gender of victim	Male	Count	129	46	175
		% within Gender of Candidate	73.7%	26.3%	100.0%
		% within Bullied indirectly more than once	54.0%	36.5%	47.9%
		% of Total	35.3%	12.6%	47.9%
Female	Count	110	80	190	
		% within Gender of Candidate	57.9%	42.1%	100.0%
		% within Bullied Indirectly more than once	46.0%	63.5%	52.1%
		% of Total	30.1%	21.9%	52.1%



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Total	Count	239	126	365
	% within Gender of Candidate	65.5%	34.5%	100.0%
	% within Bullied Indirectly more than once	100.0%	100.0%	100.0%
	% of Total	65.5%	34.5%	100.0%

CHI SQUARES FOR GENDER VS INDIRECT BULLYING

	Value	df	Asymp. Sig. (2 – sided)	Exact Sig. (2 – sided)	Exact Sig. (1 – sided)
Pearson Chi-Square	10.086	1	.001		
Continuity Correction	9.398	1	.002		
Likelihood ratio	10.185	1	.001		
Fisher’s Exact Test				.002	.001
Linear By Linear Association	10.058	1	.002		
N of Valid Cases	365				

a Computed only for a 2x2 table

b 0 cells (.0%) have expected count less than 5. The minimum expected count is 60.41.

SYMMETRIC MEASURES

Nominal by Nominal	Value	Approx Sig.
Phi	.166	.001
Cramer’s V	.166	.001
N of Valid Cases	365	

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.



GENDER VS. VERBAL BULLYING

		Bullied verbally more than once		Total	
		No	Yes		
Gender of victim	Male	Count	125	51	176
		% within Gender of Candidate	71.0%	29.0%	100.0%
		% within Bullied Verbally more than once	45.8%	54.8%	48.1%
		% of Total	34.2%	13.9%	48.1%
Female		Count	148	42	190
		% within Gender of Candidate	77.9%	22.1%	100.0%
		% within Bullied Verbally more than once	54.2%	45.2%	51.9%
		% of Total	40.4%	11.5%	51.9%
Total		Count	273	93	366
		% within Gender of Candidate	74.6%	25.4%	100.0%
		% within Bullied Verbally more than once	100.0%	100.0%	100.0%
		% of Total	74.6%	25.4%	100.0%

CHI – SQUARE TESTS FOR GENDER VS VERBAL BULLYING

	Value	df	Asymp. Sig. (2 – sided)	Exact Sig. (2 – sided)	Exact Sig. (1 – sided)
Pearson Chi-Square	2.277	1	.131		
Continuity Correction	1.928	1	.165		
Likelihood ratio	2.277	1	.131		
Fisher's Exact Test				.150	.082



Linear By Linear Association	2.270	1	.132
N of Valid Cases	366		

a Computed only for a 2x2 table

b 0 cells (.0%) have expected count less than 5. The minimum expected count is 44.72.

GENDER VS. CYBER - BULLYING

		Bullied over cyber - space more than once		Total
		No	Yes	
Gender of victim Male	Count	148	28	176
	% within Gender of Candidate	84.1%	15.9%	100.0%
	% within Bullied over cyber space more than once	48.5%	45.9%	48.1%
	% of Total	40.4%	7.7%	48.1%
Female	Count	157	33	190
	% within Gender of Candidate	82.6%	17.4%	100.0%
	% within Bullied over cyber – space more than once	51.5%	54.1%	51.9%
	% of Total	42.9%	9.0%	51.9%
Total	Count	305	61	366
	% within Gender of Candidate	83.3%	16.7%	100.0%
	% within Bullied cyber space more than once	100.0%	100.0%	100.0%
	% of Total	83.3%	16.7%	100.0%



	Value	df	Asymp. Sig. (2 – sided)	Exact Sig. (2 – sided)	Exact Sig. (1 – sided)
Pearson Chi-Square	.140	1	.708		
Continuity Correction	.055	1	.815		
Likelihood ratio	.140	1	.708		
Fisher’s Exact Test				.779	.408
Linear By Linear Association	.140	1	.709		
N of Valid Cases	366				

a Computed only for a 2x2 table

b 0 cells (.0%) have expected count less than 5. The minimum expected count is 29.33.

HYPOTHESIS 4

CHI-SQUARES FOR GRADE

Grade vs. physical bullying

		Bullied physically more than once		Total
		No	Yes	
Grade of candidate Grade 8	Count	37	6	43
	% within Gender of Candidate	86.0%	14.0%	100.0%
	% within Bullied Physically more than once	12.1%	9.8%	11.7%
	% of Total	10.1%	1.6%	11.7%
Grade 9	Count	28	15	43
	% within Gender of Candidate	65.1%	34.9%	100.0%



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Grade 10	% within Bullied Physically more than once % of Total	9.2%	24.6%	11.7%
	Count	70	15	85
	% within Gender of Candidate	82.4%	17.6%	100.0%
Grade 11	% within Bullied Physically more than once % of Total	22.9%	24.6%	23.2%
	Count	93	11	104
	% within Gender of Candidate	89.4%	10.6%	100.0%
Grade 12	% within Bullied Physically more than once % of Total	30.4%	18.0%	28.3%
	Count	78	14	92
	% within Gender of Candidate	84.8%	15.2%	100.0%
Total	% within Bullied Physically more than once % of Total	25.5%	23.0%	25.1%
	Count	306	61	367
	% within Gender of Candidate	83.4%	16.6%	100.0%
	% within Bullied	100.0%	100.0%	100.0%



Physically more than once	% of Total	83.4%	16.6%	100.0%
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a 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.15.

KRUSKAL – WALLIS TEST FOR GRADE VS. PHYSICAL BULLYING

	Value	df	Asymp. Sig (2 – sided)
Pearson Chi-Square	13.506	4	.009
Likelihood Ratio	11.898	4	.018
Linear – by – Linear Association	2.423	1	.120
N of Valid Cases	367		

KRUSKAL – WALLIS RANKS

Grade of learner	N	Mean Rank
Grade 8	43	179.10
Grade 9	43	217.51
Grade 10	85	185.88
Grade 11	104	172.91
Grade 12	92	181.42
Total	367	

TEST STATISTICS

Chi – squares	13.469
Df	4
Asymp. Sig	0.009

a Kruskal Wallis Test

b Grouping Variable: Grade of Candidate



MANN WHITNEY U FOR GRADE 8 VS. 9 FOR PHYSICAL BULLYING

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 8	43	39.00	1677.00
Grade 9	43	48.00	2064.00
Total	86		

Mann Whitney U	731.000
Wilcoxon	1677.000
Z	-2.246
Asymp. Sig. (2 – sided)	.025

a Grouping Variable: Grade of Candidate

MANN WHITNEY U FOR GRADE 8 VS. GRADE 10 FOR PHYSICAL BULLYING

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 8	43	62.93	2706.00
Grade 10	85	65.29	5550.00
Total	128		

Mann Whitney U	1760.000
Wilcoxon	2706.000
Z	-.531
Asymp. Sig. (2 – sided)	.596

a Grouping Variable: Grade of Candidate

MANN WHITNEY U TEST FOR GRADE 8 VS. GRADE 11 FOR PHYSICAL BULLYING

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 8	43	75.76	3257.50



Grade 11	104	73.27	7620.50
Total	147		

Mann Whitney U | **2160.500**

Wilcoxon | 7620.500

Z | -.580

Asymp. Sig. (2 – sided) | .562

a Grouping Variable: Grade of Candidate

MANN WHITNEY U TEST FOR GRADE 8 VS. GRADE 12 FOR PHYSICAL BULLYING

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 8	43	67.42	2899.00
Grade 12	92	68.27	6281.00
Total	135		

Mann Whitney U | **1953.000**

Wilcoxon | 2899.000

Z | -.192

Asymp. Sig. (2 – sided) | .848

a Grouping Variable: Grade of Candidate

MANN – WHITNEY U TEST FOR GRADE 9 VS. GRADE 10 FOR PHYSICAL BULLYING

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 9	43	71.83	3088.50
Grade 10	85	60.79	5167.50
Total	128		



Mann Whitney U	1512.500
Wilcoxon	5167.500
Z	-2.166
Asymp. Sig. (2 – sided)	.030

a Grouping Variable: Grade of Candidate

MANN WHITNEY U FOR GRADE 9 VS GRADE 11 FOR PHYSICAL BULLYING

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 9	43	86.64	3725.50
Grade 11	104	68.77	7152.50
Total	147		

Mann Whitney U	1692.500
Wilcoxon	7152.500
Z	-3.502
Asymp. Sig. (2 – sided)	.000

a Grouping Variable: Grade of Candidate

MANN – WHITNEY U TEST FOR GRADE 9 VS. GRADE 12 FOR PHYSICAL BULLYING

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 9	43	77.05	3313.00
Grade 12	92	63.77	5867.00
Total	135		



Mann Whitney U	1589.000
Wilcoxon	5867.000
Z	-2.583
Asymp. Sig. (2 – sided)	.010

a Grouping Variable: Grade of Candidate

MANN- WHITNEY U TEST FOR GRADE 10 VS. GRADE 11 FOR PHYSICAL BULLYING

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 10	85	98.68	8387.50
Grade 11	104	92.00	9567.50
Total	189		

Mann Whitney U	4107.500
Wilcoxon	9567.500
Z	-1.400
Asymp. Sig. (2 – sided)	.161

a Grouping Variable: Grade of Candidate

MANN – WHITNEY U TEST FOR GRADE 10 VS GRADE 12 FOR PHYSICAL BULLYING

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 10	85	90.12	7660.00
Grade 12	92	87.97	8093.00
Total	177		



Mann Whitney U	3815.000
Wilcoxon	8093.000
Z	-.435
Asymp. Sig. (2 – sided)	.663

a Grouping Variable: Grade of Candidate

Mann-Whitney U Test for Grade 11 vs. Grade 12 for physical bullying

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 10	104	96.37	10022.00
Grade 12	92	100.91	9284.00
Total	196		

Mann Whitney U	4562.000
Wilcoxon	10022.000
Z	-.969
Asymp. Sig. (2 – sided)	.332

a Grouping Variable: Grade of Candidate

GRADE VS. INDIRECT BULLYING

		Bullied indirectly more than once		Total
		No	Yes	
Grade of candidate Grade 8	Count	29	14	43
	% within Gender of Candidate	67.4%	32.6%	100.0%
	% within Bullied indirectly more than once	12.1%	11.0%	11.7%
	% of Total	7.9%	3.8%	11.7%



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Grade 9	Count	21	22	43
	% within Gender of Candidate	48.8%	51.2%	100.0%
	% within Bullied indirectly more than once	8.8%	17.3%	11.7%
	% of Total	5.7%	6.0%	11.7%
Grade 10	Count	58	26	84
	% within Gender of Candidate	69.0%	31.0%	100.0%
	% within Bullied indirectly more than once	24.3%	20.5%	23.0%
	% of Total	15.8%	7.1%	23.0%
Grade 11	Count	73	31	104
	% within Gender of Candidate	70.2%	29.8%	100.0%
	% within Bullied indirectly more than once	30.5%	24.4%	28.4%
	% of Total	19.9%	8.5%	28.4%
Grade 12	Count	58	34	92
	% within Gender of Candidate	63.0%	37.0%	100.0%
	% within Bullied indirectly more than once	24.3%	26.8%	25.1%
	% of Total	15.8%	9.3%	25.1%
Total	Count	239	127	366



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% within Gender of Candidate	65.3%	34.7%	100.0%
% within Bullied indirectly more than once	100.0%	100.0%	100.0%
% of Total	65.3%	34.7%	100.0%

KRUSKAL WALLIS TEST RANKS FOR GRADE AND INDIRECT BULLYING

Grade of learner	N	Mean Rank
Grade 8	43	179.58
Grade 9	43	213.63
Grade 10	84	176.64
Grade 11	104	174.55
Grade 12	92	187.63
Total	366	

KRUSKAL WALLIS TEST

Chi – Square	7.037
Df	4
Asymp.	.134

a Kruskal Wallis Test
b Grouping Variable: Grade of Candidate

GRADE VS VERBAL BULLYING

Grade of candidate		Bullied verbally more than once		Total
		No	Yes	
Grade 8	Count	35	8	43
	% within Gender of Candidate	81.4%	18.6%	100.0%
	% within Bullied verbally more than once	12.8%	8.6%	11.7%
	% of Total	9.5%	2.2%	11.7%



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Grade 9	Count	25	18	43
	% within Gender of Candidate	58.1%	41.9%	100.0%
	% within Bullied verbally more than once	9.1%	19.4%	11.7%
	% of Total	6.8%	4.9%	11.7%
Grade 10	Count	57	28	85
	% within Gender of Candidate	67.1%	32.9%	100.0%
	% within Bullied verbally more than once	20.8%	30.1%	23.2%
	% of Total	15.5%	7.6%	23.2%
Grade 11	Count	82	22	104
	% within Gender of Candidate	78.8%	21.2%	100.0%
	% within Bullied verbally more than once	29.9%	23.7%	28.3%
	% of Total	22.3%	6.0%	28.3%
Grade 12	Count	75	17	92
	% within Gender of Candidate	81.5%	18.5%	100.0%
	% within Bullied verbally more than once	27.4%	18.3%	25.1%
	% of Total	20.4%	4.6%	25.1%
Total	Count	274	93	367
	% within Gender of Candidate	74.7%	25.3%	100.0%



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% within Bullied verbally more than once	100.0%	100.0%	100.0%
% of Total	74.7%	25.3%	100.0%

KRUSKAL WALLIS TEST FOR VERBAL BULLYING

Grade of learner	N	Mean Rank
Grade 8	43	171.64
Grade 9	43	214.31
Grade 10	85	197.95
Grade 11	104	176.32
Grade 12	92	171.41
Total	367	

Chi – Square	13.047
Df	4
Asymp.	0.011

GRADE AND CYBER - BULLYING

		Bullied over cyber - space more than once		Total
		No	Yes	
Grade of candidate Grade 8	Count	36	7	43
	% within Gender of Candidate	83.7%	16.3%	100.0%
	% within Bullied over cyber - space more than once	11.8%	11.5%	11.7%
	% of Total	9.8%	1.9%	11.7%



University of Pretoria – Schaffner, S. (2010)

Grade 9	Count	29	14	43
	% within Gender of Candidate	67.4%	32.6%	100.0%
	% within Bullied over cyber - space more than once	9.5%	23.0%	11.7%
	% of Total	7.9%	3.8%	11.7%
Grade 10	Count	71	14	85
	% within Gender of Candidate	83.5%	16.5%	100.0%
	% within Bullied over cyber - space more than once	23.2%	23.0%	23.2%
	% of Total	19.3%	3.8%	23.2%
Grade 11	Count	94	10	104
	% within Gender of Candidate	90.4%	9.6%	100.0%
	% within Bullied over cyber - space more than once	30.7%	16.4%	28.3%
	% of Total	25.6%	2.7%	28.3%
Grade 12	Count	76	16	92
	% within Gender of Candidate	82.6%	17.4%	100.0%
	% within Bullied over cyber - space more than once	24.8%	26.2%	25.1%
	% of Total	20.7%	4.4%	25.1%
Total	Count	306	61	367



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% within Gender of Candidate	83.4%	16.6%	100.0%
% within Bullied over cyber - space more than once	100.0%	100.0%	100.0%
% of Total	83.4%	16.6%	100.0%

Grade of learner	N	Mean Rank
Grade 8	43	183.37
Grade 9	43	213.24
Grade 10	85	183.72
Grade 11	104	171.14
Grade 12	92	185.41
Total	367	

KRUSKAL WALLIS TEST

Chi – Square	11.577
Df	4
Asymp.	0.021

a Kruskal Wallis Test

b Grouping Variable: Grade of Candidate

MANN – WHITNEY U TESTS FOR GRADE AND CYBER – BULLYING

GRADE 8 AND GRADE 9

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 8	43	40.00	1720.00
Grade 9	43	47.00	2021.00
Total	86		



Mann Whitney U	774.000
Wilcoxon	1720.000
Z	-1.747
Asymp. Sig. (2 – sided)	.081

a Grouping Variable: Grade of Candidate

GRADE 8 AND GRADE 10

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 8	43	64.42	2770.00
Grade 10	85	64.54	5486.00
Total	128		

Mann Whitney U	1824.000
Wilcoxon	2770.000
Z	-.028
Asymp. Sig. (2 – sided)	.978

a Grouping Variable: Grade of Candidate

GRADE 8 AND GRADE 11

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 8	43	77.47	3331.00
Grade 11	104	72.57	7547.00
Total	147		

Mann Whitney U	2087.000
Wilcoxon	7547.000
Z	-1.145
Asymp. Sig. (2 – sided)	.252

a Grouping Variable: Grade of Candidate



GRADE 8 AND GRADE 12

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 8	43	67.49	2902.00
Grade 12	92	68.24	6278.00
Total	135		

Mann Whitney U	1956.000
Wilcoxon	2902.000
Z	-.160
Asymp. Sig. (2 – sided)	.873

a Grouping Variable: Grade of Candidate

GRADE 9 AND GRADE 10

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 9	43	71.34	3067.50
Grade 10	85	61.04	5188.50
Total	128		

Mann Whitney U	1533.500
Wilcoxon	5188.500
Z	-2.071
Asymp. Sig. (2 – sided)	.038

a Grouping Variable: Grade of Candidate

GRADE 9 AND GRADE 11

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 9	43	85.93	3695.00
Grade 11	104	69.07	7183.00
Total	147		



Mann Whitney U	1723.000
Wilcoxon	7183.000
Z	-3.412
Asymp. Sig. (2 – sided)	.001

a Grouping Variable: Grade of Candidate

GRADE 9 AND GRADE 12

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 8	43	74.98	3224.00
Grade 9	92	64.74	5956.00
Total	135		

Mann Whitney U	1678.000
Wilcoxon	5956.000
Z	-1.968
Asymp. Sig. (2 – sided)	.049

a Grouping Variable: Grade of Candidate

GRADE 10 AND GRADE 11

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 10	85	98.56	8378.00
Grade 11	104	92.09	9577.00
Total	189		

Mann Whitney U	4117.000
Wilcoxon	9577.000
Z	-1.404
Asymp. Sig. (2 – sided)	.160

a Grouping Variable: Grade of Candidate



GRADE 10 AND GRADE 12

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 10	85	88.58	7529.00
Grade 12	92	89.39	8224.00
Total	177		

Mann Whitney U	3874.000
Wilcoxon	7529.000
Z	-.163
Asymp. Sig. (2 – sided)	.871

a Grouping Variable: Grade of Candidate

GRADE 11 AND GRADE 12

Grade of learner	N	Mean Rank	Sum of Ranks
Grade 11	104	94.92	9872.00
Grade 12	92	102.54	9434.00
Total	196		

Mann Whitney U	4412.000
Wilcoxon	9872.000
Z	-1.598
Asymp. Sig. (2 – sided)	.110

a Grouping Variable: Grade of Candidate

HYPOTHESIS 5

CHI – SQUARES FOR RACIAL GROUPS

ETHNICITY AND PHYSICAL BULLYING

	Bullied physically more than once		Total
	No	Yes	



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Ethnicity Of learner				
Caucasian	Count	128	31	159
	% within Gender of Candidate	80.5%	19.5%	100.0%
	% within Bullied physically more than once % of Total	41.8%	51.7%	43.4%
		35.0%	8.5%	43.4%
African	Count	47	11	58
	% within Gender of Candidate	81.0%	19.0%	100.0%
	% within Bullied physical more than once % of Total	15.4%	18.3%	15.8%
		12.8%	3.0%	15.8%
Indian	Count	79	13	92
	% within Gender of Candidate	85.9%	14.1%	100.0%
	% within Bullied physical more than once % of Total	25.8%	21.7%	25.1%
		21.6%	3.6%	25.1%
Colored	Count	6		6
	% within Gender of Candidate	100.0%		100.0%
	% within Bullied physically more than once % of Total	2.0%		1.6%
		1.6%		1.6%



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Asian	Count	30	4	34
	% within Gender of Candidate	88.2%	11.8%	100.0%
	% within Bullied physically more than once	9.8%	6.7%	9.3%
	% of Total	8.2%	1.1%	9.3%
Other	Count	16	1	17
	% within Gender of Candidate	94.1%	5.9%	100.0%
	% within Bullied physically more than once	5.2%	1.7%	4.6%
	% of Total	4.4%	.3%	4.6%
Total	Count	306	60	366
	% within Gender of Candidate	83.6%	16.4%	100.0%
	% within Bullied physically more than once	100.0%	100.0%	100.0%
	% of Total	83.6%	16.4%	100.0%

CHI - SQUARE FOR ETHNIC GROUPS (PHYSICAL BULLYING)

Chi – Square	4.806
Df	5
Asymp. Sig.	50.440

KRUSKAL WALLIS TEST FOR ETHNIC GROUPS (PHYSICAL BULLYING)

Ethnic Group	N	Mean Rank
Caucasian	159	189.18
African	58	188.21



Indian	92	179.36
Colored	6	153.50
Asian	34	175.03
Other	17	164.26
Total	366	

Test Statistics

a Kruskal Wallis Test

b Grouping Variable: Race of Candidate

ETHNICITY AND INDIRECT BULLYING

Ethnicity of learner		Bullied indirect more than once		Total
		No	Yes	
Caucasian	Count	87	72	159
	% within Gender of Candidate	54.7%	45.3%	100.0%
	% within Bullied indirectly more than once	36.4%	57.1%	43.6%
	% of Total	23.8%	19.7%	43.6%
African	Count	46	12	58
	% within Gender of Candidate	79.3%	20.7%	100.0%
	% within Bullied indirectly more than once	19.2%	9.5%	15.9%
	% of Total	12.6%	3.3%	15.9%
Indian	Count	55	36	91
	% within Gender of	60.4%	39.6%	100.0%



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	Candidate			
Colored	% within Bullied indirectly more than once % of Total	23.0%	28.6%	24.9%
	Count	6		6
	% within Gender of Candidate	100.0%		100.0%
	% within Bullied indirectly more than once % of Total	2.5%		1.6%
Asian	Count	32	2	34
	% within Gender of Candidate	94.1%	5.9%	100.0%
	% within Bullied indirectly more than once % of Total	13.4%	1.6%	9.3%
	Count	8.8%	.5%	9.3%
Other	Count	13	4	17
	% within Gender of Candidate	76.5%	23.5%	100.0%
	% within Bullied indirectly more than once % of Total	5.4%	3.2%	4.7%
	Count	3.6%	1.1%	4.7%
Total	Count	239	126	365
	% within Gender of Candidate	65.5%	34.5%	100.0%



University of Pretoria – Schaffner, S. (2010)

	% within Bullied indirectly more than once	100.0%	100.0%	100.0%
	% of Total	65.5%	34.5%	100.0%

CHI SQUARE TEST FOR INDIRECT BULLYING

Chi – Square	30.403
Df	5
Asymp. Sig.	0.000

KRUSKAL WALLIS TEST FOR ETHNIC GROUPS (PHYSICAL BULLYING)

Ethnic Group	N	Mean Rank
Caucasian	159	202.64
African	58	157.76
Indian	91	192.20
Colored	6	120.00
Asian	34	130.74
Other	17	162.94
Total	365	

Test Statistics
a Kruskal Wallis Test
b Grouping Variable: Race of Candidate

MANN – WHITNEY U TESTS FOR ETHNICITY AND INDIRECT BULLYING

CAUCASIAN AND AFRICAN

Ethnicity of learner	N	Mean Rank	Sum of Ranks
Caucasian	159	116.13	18465.00
African	58	89.45	5188.00
Total	217		

TEST STATISTICS



Mann Whitney U	3477.000
Wilcoxon	5188.000
Z	-3.284
Asymp. Sig. (2 – sided)	.001

CAUCASIAN AND INDIAN

Ethnicity of learner	N	Mean Rank	Sum of Ranks
Caucasian	159	128.10	20368.50
Indian	91	120.95	11006.50
Total	250		

TEST STATISTICS

Mann Whitney U	6820.500
Wilcoxon	11006.500
Z	-.877
Asymp. Sig. (2 – sided)	.380

CAUCASIAN AND COLORED

Ethnicity of learner	N	Mean Rank	Sum of Ranks
Caucasian	159	84.36	13413.00
Colored	6	47.00	282.00
Total	165		

TEST STATISTICS

Mann Whitney U	261.000
Wilcoxon	282.000
Z	-2.189
Asymp. Sig. (2 – sided)	.029

CAUCASIAN AND ASIAN

Ethnicity of learner	N	Mean Rank	Sum of Ranks
Caucasian	159	103.70	16488.00



Asian	34	65.68	2233.00
Total	193		

TEST STATISTICS

Mann Whitney U	1638.000
Wilcoxon	2233.000
Z	-4.278
Asymp. Sig. (2 – sided)	.000

CAUCASIAN AND OTHER

Ethnicity of learner	N	Mean Rank	Sum of Ranks
Caucasian	159	90.35	14365.50
Other	17	71.21	1210.50
Total	176		

TEST STATISTICS

Mann Whitney U	1057.500
Wilcoxon	1210.500
Z	-1.716
Asymp. Sig. (2 – sided)	.086

AFRICAN AND INDIAN

Ethnicity of learner	N	Mean Rank	Sum of Ranks
African	58	66.41	3852.00
Indian	91	80.47	7323.00
Total	149		

TEST STATISTICS

Mann Whitney U	2141.000
Wilcoxon	3852.000
Z	-2.395



Asymp. Sig. (2 – sided) | .017

AFRICAN AND COLORED

Ethnicity of learner	N	Mean Rank	Sum of Ranks
African	58	33.12	1921.00
Colored	26.50	159.00	
Total	64		

TEST STATISTICS

Mann Whitney U	138.000
Wilcoxon	159.000
Z	-1.226
Asymp. Sig. (2 – sided)	.220

AFRICAN AND ASIAN

Ethnicity of learner	N	Mean Rank	Sum of Ranks
African	58	49.02	2843.00
Asian	34	42.21	1435.00
Total	92		

TEST STATISTICS

Mann Whitney U	840.000
Wilcoxon	1435.000
Z	-1.898
Asymp. Sig. (2 – sided)	.058

AFRICAN AND OTHER

Ethnicity of learner	N	Mean Rank	Sum of Ranks
African	58	37.76	2190.00



Other	17	38.82	660.00
Total	75		

TEST STATISTICS

Mann Whitney U	479.000
Wilcoxon	2190.000
Z	-.250
Asymp. Sig. (2 – sided)	.803

INDIAN AND COLOURED

Ethnicity of learner	N	Mean Rank	Sum of Ranks
Indian	Indian	91	50.19
Coloured	Colored	6	31.00
Total	97		

TEST STATISTICS

Mann Whitney U	165.000
Wilcoxon	186.000
Z	-1.933
Asymp. Sig. (2 – sided)	.053

INDIAN AND ASIAN

Ethnicity of learner	N	Mean Rank	Sum of Ranks
Indian	91	68.73	6254.00
Coloured	34	47.68	1621.00
Total	125		

TEST STATISTICS

Mann Whitney U	1026.000
Wilcoxon	1621.000



Z	-3.628
Asymp. Sig. (2 – sided)	.000

INDIAN AND OTHER

Ethnicity of learner	N	Mean Rank	Sum of Ranks
Indian	91	55.86	5083.50
Other	17	47.21	802.50
Total	108		

TEST STATISTICS

Mann Whitney U	649.500
Wilcoxon	802.500
Z	-1.251
Asymp. Sig. (2 – sided)	.211

COLOURED AND ASIAN

Ethnicity of learner	N	Mean Rank	Sum of Ranks
Coloured	6	19.50	117.00
Asian	34	20.68	703.00
Total	40		

TEST STATISTICS

Mann Whitney U	96.000
Wilcoxon	117.000
Z	-.602
Asymp. Sig. (2 – sided)	.547

COLOURED AND OTHER

Ethnicity of learner	N	Mean Rank	Sum of Ranks
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Coloured	6	10.00	60.00
Other	17	12.71	216.00
Total	23		

TEST STATISTICS

Mann Whitney U	39.000
Wilcoxon	60.000
Z	-1.279
Asymp. Sig. (2 – sided)	.201

ASIAN AND OTHER

Ethnicity of learner	N	Mean Rank	Sum of Ranks
Asian	34	24.50	833.00
Other	17	29.00	493.00
Total	51		

TEST STATISTICS

Mann Whitney U	238.000
Wilcoxon	833.000
Z	-1.826
Asymp. Sig. (2 – sided)	.068

CROSSTABS FOR ETHNICITY AND VERBAL BULLYING

Ethnicity of learner		Bullied verbally more than once		Total
		No	Yes	
Caucasian	Count	111	48	159
	% within Gender of Candidate	69.8%	30.2%	100.0%
	% within	40.5%	52.2%	43.4%



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African	Bullied verbally more than once			
	% of Total	30.3%	13.1%	43.4%
	Count	47	11	43.3%
	% within Gender of Candidate	81.0%	19.0%	100.0%
Indian	% within Gender of Candidate	17.2%	12.0%	15.8%
	Bullied verbally more than once			
	% of Total	12.8%	3.0%	15.8%
	Count	64	28	92
Colored	% within Gender of Candidate	69.6%	30.4%	100.0%
	% within Gender of Candidate	23.4%	30.4%	25.1%
	Bullied verbally more than once			
	% of Total	17.5%	7.7%	25.1%
Asian	Count	5	1	6
	% within Gender of Candidate	83.3%	16.7%	100.0%
	% within Gender of Candidate	1.8%	1.1%	1.6%
	Bullied verbally more than once			
Other	% of Total	1.4%	.3%	1.6%
	Count	33	1	34
	% within Gender of Candidate	97.1%	2.9%	100.0%
	% within Gender of Candidate	12.0%	1.1%	9.3%
Other	Bullied verbally more than once			
	% of Total	9.0%	.3%	9.3%



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Total	% within Gender of Candidate	82.4%	17.6%	100.0%
	% within Bullied verbally more than once	5.1%	3.3%	4.6%
	% of Total	3.8%	.8%	4.6%
	Count	274	92	366
	% within Gender of Candidate	74.9%	25.1%	100.0%
	% within Bullied verbally more than once	100.0%	100.0%	100.0%
	% of Total	74.9%	25.1%	100.0%

RANKS

<u>Ethnicity</u>	<u>N</u>	<u>Mean Rank</u>
Caucasian	159	192.75
African	58	172.21
Indian	92	193.20
Coloured	6	168.00
Asian	34	142.88



Other	17	169.79
Total	366	

CHI – SQUARE TESTS

Chi Square	14.300
Df	5
Asymp. Sig.	0.014

a Kruskal Wallis Test

b Grouping Variable: Race of Candidate

ETHNICITY AND CYBER - BULLYING

Ethnicity of learner		Bullied over cyber space more than once		Total
		No	Yes	
Caucasian	Count	129	30	159
	% within Gender of Candidate	81.1%	18.9%	100.00%
	% within Bullied physically more than once	42.2%	50.0%	43.4%
	% of Total	35.2%	8.2%	43.4%
African	Count	52	6	58
	% within Gender of Candidate	89.7%	10.3%	100.0%
	% within Bullied physical more than once	17.0%	10.0%	15.8%
	% of Total	14.2%	1.6%	15.8%
Indian	Count	73	19	92
	% within Gender of Candidate	79.3%	20.7%	100.0%
	% within	23.9%	31.7%	25.1%



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Coloured	Bullied physical more than once % of Total	19.9%	5.2%	25.1%
	Count	5	1	6
	% within Gender of Candidate	83.3%	16.7%	100.0%
Asian	% within Bullied physically more than once % of Total	1.6%	1.7%	1.6%
	Count	33	1	34
	% within Gender of Candidate	97.1%	2.9%	100.0%
Other	% within Bullied physically more than once % of Total	10.8%	1.7%	9.3%
	Count	14	3	17
	% within Gender of Candidate	82.4%	17.6%	100.0%
Total	% within Bullied physically more than once % of Total	4.6%	5.0%	4.6%
	Count	306	60	366
	% within Gender of Candidate	100.0%	100.0%	100.0%



than once			
% of Total	83.6%	16.4%	100.0%

	Value	df	Asymp. Sig (2 – sided)
Pearson Chi-Square	7.985	5	0.157
Likelihood Ratio	9.996	5	0.075
Linear – by – Linear	1.471	1	0.225
Association			
N of Valid Cases	366		

a 2 cells (16.7%) have expected count less than 5. The minimum expected count is .98.

Hypothesis 6

Crosstabulation for intra – and inter – racial bullying

	Inter – and Intra - Racism				Total
	Not bullied	Bullied by own race (Intra-racism)	Bullied by other racial group (Inter-	Bullied by both own and other	



Ethnicity of learner	racism)					racial groups
	Count					
Caucasian	Count	23	59	9	63	154
	% within	14.9%	38.3%	5.8%	40.9%	100.0%
	Gender of Candidate					
	% within	27.4%	52.7%	25.7%	50.8%	43.4%
Bullied physically more than once						
	% of Total	6.5%	16.6%	2.5%	17.7%	43.4%
African	Count	15	15	4	22	56
	% within	26.8%	26.8%	7.1%	39.3%	100.0%
	Gender of Candidate					
	% within	17.9%	13.4%	11.4%	17.7%	15.8%
Bullied physical more than once						
	% of Total	4.2%	4.2%	1.1%	6.2%	15.8%
Indian	Count	16	36	9	30	91
	% within	17.6%	39.6%	9.9%	33.0%	100.0%
	Gender of Candidate					
	% within	19.0%	32.1%	25.7%	24.2%	25.6%
Bullied physical more than once						
	% of Total	4.5%	10.1%	2.5%	8.5%	25.6%
Coloured	Count	2		2	2	6
	% within	33.3%		33.3%	33.3%	100.0%
	Gender of Candidate					
Bullied	% within	2.4%		5.7%	1.6%	1.7%



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	physically more than once					
	% of Total	.6%		.6%	.6%	1.7%
Asian	Count	22	1	7	3	33
	% within Gender of Candidate	66.7%	3.0%	21.2%	9.1%	100.0%
	% within Bullied	26.2%	.9%	20.0%	2.4%	9.3%
	physically more than once					
	% of Total	6.2%	.3%	2.0%	.8%	9.3%
Other	Count	6	1	4	4	15
	% within Gender of Candidate	40.0%	6.7%	26.7%	26.7%	100.0%
	% within Bullied	7.1%	.9%	11.4%	3.2%	4.2%
	physically more than once					
	% of Total	1.7%	.3%	1.1%	1.1%	4.2%
Total	Count	84	112	35	124	355
	% within Gender of Candidate	23.7%	31.5%	9.9%	34.9%	100.0%
	% within Bullied	100.0%	100.0%	100.0%	100.0%	100.0%
	physically more than once					
	% of Total	23.7%	31.5%	9.9%	34.9%	100.0%

Chi-Square Tests



	Value	df	Asymp. Sig. (2 – sided)
Pearson Chi – Square	75.650	15	0.000
Likelihood ratio	75.613	15	0.000
Linear by Linear Association	11.932	1	0.001
N of Valid Cases	355		

a. a 8 cells (.0%) have expected count less than 5. The minimum expected count is 25.55.

SYMMETRIC MEASURES

Nominal by Nominal	Value	Approx Sig.
Phi	0.462	0.000
Cramer's V	0.267	0.000
N of Valid Cases	355	

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.