The Effects of an Intervention Program on Secondary School Students measuring Self-Esteem and Empathy towards Cyberbullying

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20th March 2015
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Submitted in partial fulfilment of the requirements of the Bachelor of Arts Degree (Psychology Specialization) at DBS School of Arts, Dublin.
Acknowledgments

Firstly I would like to thank each and every student who took the time to participate in my study by taking the time out of their schedules to conduct both pre and post questionnaires and the taking part in the intervention programme itself. Secondly I would like to express my sincere gratitude to the principals and teaching staff within my three participating secondary schools, not only for their generosity of time and patience but their enthusiasm in allowing me to conduct my intervention classes and collection of all data needed to complete my thesis.

Thirdly I would like to thank my supervisor, Dr. Rosie Reid for her guidance, support, time and energy throughout this lengthy process.

I would also like to extend my gratitude to my family, my work and my partner for all their encouragements, patience and endless support in my studies over the past four years.
Abstract

The aim of this study is to determine how prevalent cyberbullying is in secondary level schools in the North Dublin area and the impact it has on self-esteem and empathy levels on secondary school students. A mixed design was used in this study; a correlation design to look at the relationship that cyberbullying had on levels of self-esteem and empathy, as well as a between groups measure. Paper self-administered questionnaires were distributed to 3rd and 4th year students (n=118) over three different secondary schools, one mixed (n=41), one all boy’s (n=42) and one all girl’s (n=35) school. Students were given a questionnaire to fill out prior to receiving an intervention program, then the same questionnaire following the intervention. The intervention programme consisted of a Microsoft Power-point presentation and short film, lasting approximately 40 – 60 minutes in duration. Results showed no significant differences in self-esteem, empathy and cyberbullying levels after the intervention. Results also showed no significant difference between variables in the three different schools.
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**Introduction**

*Traditional Bullying:*

Traditional bullying in Irish secondary schools is not a new phenomenon and has been well established as a common and serious problem in Irish society. Dan Olweus’s (1993, p.9) definition of bullying has been strongly influential and widely applied (McGuckin & Lewis, 2004).

“A student is being bullied or victimised when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students”

*(Olweus 1993, p.9)*.

A negative action is when someone intentionally inflicts or attempts to inflict, injury or discomfort upon another – basically what is implied in aggressive behaviour (Olweus, 1973b). These negative actions, according to Olweus (1997), can be carried out by using direct physical contact such as hitting, pushing and kicking, or by using indirect or verbal means, such as threats, taunts or name-calling. Bullying behaviour can occur almost anywhere, but where there is no adult supervision it thrives. Irish research into traditional bullying over the last two decades from O’Moore (2001) study at the Anti-Bullying Centre in Trinity College Dublin found that some 31% of primary students and 16% of secondary students have been bullied at some time. From 870,000 Irish students, approximately 23% or 200,000 children are at the risk of suffering from bullying behaviour.

In the 1990’s Ireland has seen the arrival of fast growing advancement in networked communication technologies with fast accessibility and cheap costs, this may have been a contributing factor to a shift from traditional bullying behaviours into a new online cyber playground.
Cyberbullying:

Although sharing similar features in common with that of traditional bullying, cyberbullying represents a somewhat unique phenomenon that has gained momentum in recent years. Both academic literature and media coverage have identified that cyberbullying is a new form of harassment that is increasing in its frequency and negative effects, however, academic literature is still limited (Bamford, 2004).

In comparison to Olweus’s (1993) definition of bullying, cyberbullying also known as electronic bullying, electronic aggression or online social cruelty has been defined as:

“An aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself.”

(Smith, Mahdavi, Carvalho, Fisher, Russell, & Tippett, 2008, p.376).

This definition was further expanded upon by Price & Dagleish (2010,p3);

“Cyberbullying is the collective label used to define forms of bullying that use electronic means such as the internet and mobile phones to aggressively and intentionally harm someone. Like “traditional bullying, cyberbullying typically involves repeated behaviour and a power imbalance between aggressor and victim”.

Other researchers have described cyberbullying as exploiting technology (Kift, 2007), and can be experienced by both children and adults (Shariff, 2008). Again it includes harassing people through social networking sites by writing hurtful comments about others that can be available publicly for others to view (Campbell, 2005). Whatever the specific phrase used to capture its essence, cyberbullying, broadly defined, refers to bullying that involves the use of e-mail, instant messaging, Web pages, Web logs (blogs), chat rooms or discussion groups, digital images or messages sent to a cellular phone, online gaming, and
other information communication technologies (Health Resources and Services Administration, 2006; Patchin & Hinduja, 2006; Shariff & Gouin, 2005; Willard, 2006).

“What makes cyber bullying so dangerous . . . is that anyone can practice it without having to confront the victim. You don’t have to be strong or fast, simply equipped with a cell phone or computer and a willingness to terrorize”.

(King, 2006,p43).

We are living in a world where technology and communications are advancing at a phenomenal rate. Within a generation we have progressed from a time when the only communications device in the home was a traditional landline telephone to the present era where a small handheld device, can replace a person’s calendar, music player, watch, (Gps) maps, camera and computer. It is important to note here that as we spend more time online, there have been growing concerns that we are becoming dependent on the Internet, possibly to the extent of it becoming an ‘addiction’ (Beard, 2008; Block, 2008). So many kids use the Internet and its many communication venues that it has been referred to as the “digital communication backbone of teens’ daily lives” (Lenhart, Madden, & Hitlin, 2005, p. iii). Although there are many ways people can perpetrate harm online through means of cyberbullying, this study will focus on peer-targeted aggression among secondary school students and its different type of methods.

Although school yard bullying still occurs regularly, however times are changing. Children and adolescents in Ireland are keeping pace with the changes much more readily than adults. In addition, with the accessibility of free e-mail services, such as Hotmail, Gmail, and Yahoo (“Internet bullies,” 2006), a single child or adolescent who cyberbullies can communicate with a victim using multiple e-mail addresses.
“Online aggression isn’t just traditional bullying with new tools. It’s widespread, devastating, and knows no downtime.”

(Hinduja & Patchin, 2011, p. 48)
Cyberbullying Compared to Traditional Bullying:

Kowalski, Giumetti, Schroeder, and Lattanner (2014) found that while face-to-face bullying and cyberbullying share many similarities, there are differences. They found that cyberbullies feel anonymous which gives them more of an incentive to be aggressive as they feel there will be no consequences. Additionally, the physical stature of a victim or the bully is not taken into account because the threat of physical harm is not present. In face-to-face bullying the bully can see the impact as the attack happens whereas the cyberbully cannot see any of the outcomes, perhaps resulting in further aggression. Vannucci, Nocentini, Mazzoni, and Menesini (2012) further add that the reward for cyberbullying often has a temporal delay as the impact could take minutes or days to reverberate and reach its target. Similarly to traditional bullying (Kowalski & Witte, 2006) states that the perpetrators of cyberbullying share feelings of enjoyment, power and/or revenge as motivations for their actions, such motives are obvious or concern and are deserving of further study. This study therefore aims to expand on this subject by trying to investigate the predictors of cyberbullying.

Another notable manner in which the two types of bullying differ is the accessibilities of victims, with traditional bullying the victims within proximity are privy to the bullying whereas the opportunity to bully someone online can happen to anyone, at any time 24/7 therefore increasing the possibility for a vast audience. Some researchers state that traditional face-to-face bullying can be perceived as more of a physical attack on a person, whereas cyberbullying can be viewed as slanderous. The permanence is synonymous with the digital age: almost everything online is available to everyone, everywhere. Once information (slanderous, libellous, bullying, or otherwise) goes on to the Internet it is next to impossible to erase all evidence of it (Pearson, Andersson, & Porath, 2005).
The Consequences of Traditional and Cyberbullying:

For some bullying victims, bullying or cyberbullying creates memories that often last a lifetime were the devastating effects of bullying may be felt years after the bullying has ended. Bullying victims may also experience problems associated with their health, well-being, and academic work. More commonly, however, the effects of cyberbullying tend to parallel those of traditional bullying with victims of school yard bullying often reporting feelings of depression, low self-esteem, helplessness, social anxiety, reduced concentration, alienation, and suicidal ideation. Based on predominantly correlational research to date, victims of cyberbullying report similar effects of their victimization (Beran & Li, 2005; Hinduja & Patchin, 2005, 2007; Imamura et al., 2009; Juvonen & Gross, 2008; Kowalski & Limber, 2011; Mason, 2008; Saini & Solomon, 2009; Patchin & Hinduja, 2010; Ybarra & Michell, 2004).

Many researchers and writers on cyberbullying (e.g., Ybarra & Michell, 2004; Willard, 2006) believe that the long-term effects of cyberbullying are as negative as those that accompany traditional bullying. Interesting enough La Fontaine (1991) pointed out, that bullying behaviour does not need to last a long time in order to cause pain and distress to the victim. Bullied children are also more likely than other children to think about harming themselves or attempts to take their own lives which prompted Rigby (1996) to conduct a study amongst Australian children which found that those who were frequently bullied (i.e., at least once a week) were twice as likely as other children to wish they were dead or to admit to having recurring thoughts of suicide. Victims of bullying can be seen to experience embarrassment and shame due to victimisation by bullies (Lewis, 2004).

Behaviours such as suicide are always determined by multiple factors so it would be incorrect to say that cyberbullying was the sole cause of such behaviour. Recently in Ireland
there have been a number of high-profile suicides directly linked to cyberbullying. With 3 young teenage girls, Ciara Pugsley, 15 years old, Erin Gallagher 13 years old and Laura Burns 12 years old, all taking their own lives after vicious cyberbullying attacks occurred on the website “Ask.fm” a popular social networking site. Shannan Gallagher who was 15 and sister of Erin Gallagher took her own life only weeks after her sister’s death, an imminent solution is needed. (Irish Examiner News Articles).

Another example of suicide is from a 15 year old girl, from Vancouver in Canada. Prior to her death she posted a video to YouTube where she used a series of flash cards to explain the torment she had suffered of being bullied, physically assaulted and blackmailed into exposing her breasts via webcam. All of which were traced back to cyberbullying and when police rushed to her home she was found dead. Her final YouTube video — titled ‘My Story: struggling, bullying, suicide and self-harm’ — today March 2015, has been seen by over 17.6 million people worldwide. Her family have given their permission for this video to be used in schools around the world as part of an intervention method, warning adolescents of the dangers of cyberbullying.
Types and Methods of Cyberbullying:

The Internet offers individuals the freedom of truthful self-disclosure but also allows users to ‘engage in creative self-presentation, misrepresentation and outright lies’ (Witney and Joinson, 2008, p. 55). Although there are positive behaviours online, this study will focus on the disruptive online behaviours that constitutes cyberbullying but psychology can provide insights into some of these behaviours. In one of the first books to address the topic of cyberbullying, Cyberbullying and Cyberthreats, Nancy Willard (2006), an attorney who is the director of the Centre for Safe and Responsible Internet use, outlined a number of behaviours that she argues constitute cyberbullying; flaming, harassment, denigration, impersonation, outing and trickery, exclusion, cyberstalking, happy slapping and sexting.

Flaming: Refers to a brief, heated exchange between two or more individuals that occurs via any communication technology. Typically, though, flaming occurs in “public” settings, such as chat rooms or discussion groups, rather than private e-mail exchanges. If a series of insulting exchanges ensues, then a flame war has started. (Willard, 2006).

Harassment: Cyber harassment generally is viewed as a unique form of cyberbullying that involves repetitive offensive messages mostly sent to a target via personal communication such as e-mail, but harassing messages may also be sent through public forums, such as chat rooms and discussion groups. One form of harassment, referred to as text wars, involves one or more perpetrators and a single target where that that target is sent hundreds or even thousands of text messages to their mobile phone. Although conceptually similar to flaming, harassment differs in two ways, firstly with flaming there is a mutual exchange of insults between the individuals involves as harassment is more one sided. Secondly harassment is a longer term than flaming. Harassment also occurs among a special group of online bullies known as griefers. A griefer is less concerned about winning a particular game than he or she is about running the playing experience for other players.
Typical griever behaviours include extensive use of profanity, blocking certain areas of the game, and cheating (Merritt, 2009). In an investigation of the presence of griefers among second-life residents, 95% of the respondents indicated that they had come upon griefers (Coyne et al., 2009).

One particular troubling form of harassment is perpetrated by “cyber trolls.” These individuals post negative, harassing information on message boards, social network sites, Web pages, even on the memorial pages of recently deceased individuals (Famiglietti, 2011). In the latter case, some do it simply to be mean. Others do it to incite friends of the deceased and create a flame war (DesRochers, 2006).

Denigration/Impersonation: Is information about another either posted on a Web page, e-mail or instant messaging that is derogatory and untrue. This form of cyberbullying includes posting or sending digitally altered photos of someone in a harmful or sexualized manner. Online “slam books,” which are created to make fun of students, represent a form of degeneration. Impersonation is when a perpetrator poses as the victim using the victim’s passwords and login details to gain access to his or her accounts and who then posts cruel, negative and inappropriate information with other users as if the target himself or herself were voicing those thoughts.

Outing/trickery/exclusion and ostracism: Outing refers to sharing personal, often embarrassing, information with others either by receiving e-mails or instant messaging from a target that contains private, embarrassing photos or information and then forwarding that information to others and trickery refers to tricking someone into revealing this said information and then sharing it with others deliberately. With social psychologists determining that people have a basic human need to be included by other people. Much of
our social behaviour is guided by our attempts to be included by others and to avoid being excluded, a situation referred to by some as “social death” (Sudnow, 1967; Williams, Cheung, & Choi, 2000). Online exclusion can occur in any type of online environment, (i.e) being defriended on Facebook or other related social networking sites, online exclusion or cyber-ostracism, can have a serious emotional impact on the target.

**Cyberstalking/Sexting and Happy slapping:** Black’s Law Dictionary (2009, p, 44) defines “cyberstalking” as: “the act of threatening, harassing, or annoying someone through multiple e-mail messages, as through the Internet, esp. with the intent of placing the recipient in fear that an illegal act or an injury will be inflicted on the recipient or a member of the recipient family or household.” Sexting refers to the sending or posting of nude or semi-nude pictures or videos via text messages or other electronic means (e.g.) following the break-up of a relationship, one member of the former couple may forward nude pictures or videos to their friends or social network sites as revenge for the break-up. (Kowalski, Limber, and Agatston, 2012).

In an effort to increase humiliation on targets by cyberbullies, perpetrators often digitally record assaults on the target and upload those recordings to the Internet via Youtube for hundreds of thousands to see and comment on, in a phenomenon known as **happy slapping**. The target could be known or unknown to the perpetrator. A variant of happy slapping, known as hopping, that typically involves direct assaults. Is showing up with increasing frequency in the United States and elsewhere (Kohler, 2007). In other incidents, children have died by suicide after being the victim of happy slapping. In one instance in April 2005, 2005, a 14-year-old named Shaun Noonan hanged himself after being physically bullied and happy slapped (“Bullycide memorial page,” 2006).
Empathy:

Empathy can be defined as the capacity to be able to experience other’s emotional states, feel sympathetic toward them, and take their perspective (e.g., Eisenberg, 2000; Hodges, Kiel, Kramer, Veach, & Villaneuva, 2010), therefore an empathic person has the ability to not only feel what another person is feeling, but also understands why the person is feeling this way (Azar, 1997; Darley, 1993; Duan, 2000). It is important, however, to note that empathy is considered to be a multi-dimensional construct with cognitive and emotional components (Davis, 1994; Jolliffe & Farrington, 2004). Fleshbach (1987) found that cognitive and affective empathy were important to consider in the prevention of physical aggression, and placed particular importance on effective empathy.

Although research specifically examining the relationship between empathy and cyberbullying is relatively new, some research has found that cyberbullying is associated with lower levels of both affective and cognitive empathy (Ang & Goh, 2010). Further research conducted by Steffgen, König, Pfetsch and Melzer (2011) found that lack of empathy assists cyberbullying behaviour. Empathy training and education has been shown to be effective in reducing traditional bullying behaviours (Bjorkqvist, K., Osterman, & Kaukiainen, 2000). Ang and Goh (2010) and Campbell (2005) have suggested that the incorporation of empathy training into the education system in order to improve cognitive and affective empathy skills can impact involvement in cyberbullying incidences. Campbell, Slee, Spears, Butler & Kift (2013) found that most of those who engaged in cyberbullying did not feel that their behaviour was harsh nor did they realise that their behaviour had an impact on their victims. In relation to gender, Jolliffe and Farrington (2006) found that females score significantly higher than boys in both cognitive and affective empathy with a greater difference to be found in relation to affective empathy. A recent study by Renati et al (2012)
found that cyberbullies displayed a lack of affective empathy and similarly, Steffgen, König, Pfetsch and Melzer (2011) found that lack of empathy assists cyberbullying behaviour.
**Self-Esteem:**

Individuals have a pervasive tendency to evaluate not only other people but also themselves. Rosenberg (1965) stated that such evaluations of the self, lead to a favourable or unfavourable attitude toward the self, called self-esteem. Self-esteem refers to an individual’s sense of self-worth, or the extent to which the individual appreciates, values or likes him or herself (Blascovich and Tomaka, 1991). Other researchers like Passer & Smith, 2011 defined self-esteem as (how positively or negatively an individual feels about themselves) is a very important aspect of happiness, personal well-being and adjustment. Consistent with this, Leary and colleagues (1995) suggest that self-esteem is a sociometer, or a so-called internal monitor of social acceptance and belonging.

Several researchers have outlined a list of damaging effects that each bullying role has on a victim, such as, loss of self confidence and self-esteem (Rigby & Slee, 1993; Wolke, Woods, Bloomfield & Karstadt, 2001). There is much research to suggest that traditional bullying is associated with lower levels of self-esteem amongst victims than non-victims (Wild, 2004; Salmivalli, Kaukiainen, Kaistaniemi, & Lagerspetz, 1999; Olweus, 1978). Sharp (1996) found that whilst high and low self-esteem scores were found in bullying victims, those with lower self-esteem scores had been bullied to a greater extent and experienced greater stress as a result. Although, it is unclear whether low self-esteem is a cause or a result of victimisation, research conducted by O’Moore and Kirkham (2001) indicated that traditional victims showed lower global self-esteem than non-victims. Hinduja & Patchin (2008) also support these findings and note that their research regarding bullying and self-esteem has consistency found lower self-esteem in victims than non-victims.

Self-Esteem is a well-documented emotional problem investigated while looking at younger victims and bullies of cyber-bullying. (Rigby & Slee, 1991; O’Moore, Kirkham,
Although there is limited research available regarding the perpetrators of cyberbullying, the Kowalski and Limber (2011) study suggests that students who cyberbully have slightly lower self-esteem than those not involved in cyberbullying at all (although cyber victims and bully/victims appear to have still lower self-esteem than cyberbullies. Again Hinduja & Patchin (2010) received similar results with their cross-sectional study were they found those involved in cyberbullying reported lower levels of self-esteem than those not involved in cyberbullying and that the relationship between cyberbullying victimization and self-esteem is stronger than that of cyberbullying offending and self-esteem. Significantly more research attention has examined characteristics associated with targets as opposed to perpetrators of cyberbullying (Wong-lo & Bullock, 2011). It is therefore evident that research regarding the relationship between offenders of cyberbullying and self-esteem is inconsistent and limited, the current study will attempt to build on same.
**Intervention programmes:**

It is evident that bullying is the concern of every school, as it, in many respects provides the location in which bullying takes place (Tattum, 1997). While it is not always possible to prevent cases of bullying, it is important to know what to do as a parent or teacher or other school official to do to stop bullying with various types of bullying interventions. The aim of the research is to determine the effects of a intervention program offered to students that will in turn be designed to reduce the number of reported cyberbullying incidents.

Intervention programmes with students need to work in conjunction with their parents/guardians in order for them to work effectually. Studies show that it is recommended that parents talk with their children regarding the dos and don’ts of each new piece of technology that enters the home (Franek, 2005/2006). Patchin and Hinduja (2008) also found that cyberbullies perceive their behaviour to be humorous rather than damaging to their victims. This indicates that cyberbullies, at least in some cases, do not fully comprehend the damaging consequences of their behaviour. Educators have a role to play in creating awareness amongst young people regarding the victim impact associated with cyberbullying. The purpose of the intervention programme in this study was not only to educate students in the effects and dangers of cyberbullying but also to educate them in the dangers of the internet and to create a discussion based education class to the many ways that cyberbullying was conducted by perpetrators.
**Aim of Current Research:**

The current study was chosen as there is limited research within interventions programmes with cyberbullying. Although there can be other types of predictors of cyberbullying like moral disengagement, inadequacy and optimism. The aim of this research is to examine the relationship between self-esteem and empathy levels on secondary school students. The current study is looking at how prevalent cyber-bullying is in secondary level schools in North Dublin, Ireland and the impact it has on self-esteem and empathy levels on secondary school students. A mixed design was used in this study; a correlation design to look at the relationship that cyberbullying had on levels of self-esteem and empathy.

**Hypothesis 1:**

There will be a significant difference between self-esteem levels among students from before and after the intervention.

**Hypothesis 2:**

There will be a significant difference between empathy levels among students from before and after the intervention.

**Hypothesis 3:**

There will be a significant difference between cyberbullies and cybervictims among students from before and after the intervention.

**Hypothesis 4:**

There will be a significant difference in all variables between the students in the three different schools before and after the intervention.
**Methodology**

**Participants:**

The participants in the current study are secondary school students attending 3 different schools from the North Dublin area which included, one mixed school (n=41), one all girl’s school (n=35), and one all-boy’s school (n=42). The total number of participants was (n=118), ranging in the age from 14 – 17 years old with a mean age of 15 years old. The gender split was (n=68) males and (n=50) females.

The sex of the participants was important for this study, with each secondary school categorised into school type, mixed, all girl’s only and all boy’s only. Upon speaking with each principal of the 3 schools, 3rd and predominately 4th year students were then selected based on their availability of their exam timetable.

**Design:**

The design is quantitative, non-repeated between groups design was used to compare self-esteem and empathy levels towards secondary level students. It was a quantitative correlational research design. The variables in this research were:

**Hypothesis 1:**

DU = Self-esteem  
IV = Time Points

**Hypothesis 2:**

DU = Empathy  
IV = Time points

**Hypothesis 3:**

DU = Cyberbully/victim  
IV = Time points

**Hypothesis 4:**

DU = Self-esteem  
IV = School

DU = Empathy  
IV = School

DU = Cyberbully/victim  
IV = School
**Materials:**

*Intervention Programme:* The programme consisted of a Microsoft Power-point presentation and short film, lasting approximately 40-60 minutes in duration. The programme was designed to change the attitude of the student bystanders, to make them more likely to intervene positively and effectively in online bullying situations by helping students to understand the impact that cyberbullying can have on different people therefore recognising that cyberbullying is not acceptable. The centre piece of the intervention programme is the *Let's fight it together* short film lasting approximately 6 minutes in duration. In order to facilitate this programme each school had to be equipped with a P.C, a projector and white screen which was organised in advance of each scheduled intervention.

*Cover letter:* A cover letter was attached to each questionnaire which informed the participants of who the author was and of the purpose of the current study (Appendix 1). It acknowledged that while a student’s participation in the study was greatly appreciated, it notified that they could withdraw at any time they wish. It also acknowledged that all questionnaires completed will be treated sensitively and in a confidential manner, maintaining that there will be no way of identifying any participant from any publication of the results, prompting participants to answer as honestly as they can.

*Questionnaires:* Two paper questionnaires were distributed pre and post each intervention to each of the schools, both questionnaires were identical and consisted of a set of self composed demographic questions devised to obtain the participants gender, age range, internet use, ability to use computers (Appendix 2) and three scales.

*A Cyberbullying Scale developed by (Sticca, Ruggieri, Alsaker & Perren (2013)) -* (Appendix 3) which measures different aggressive behaviours used via electronic means was used for this study. 6 items where used to measure cyberbullying and 6 items were used to
measure victimisation whereby participants were asked to rate how often they engaged in cyberbullying behaviours and how often they had been a victim of cyberbullying behaviours. Questions were asked in relation to the types of cyberbullying and how often they occurred (e.g., “Have you ever sent/received mean or threatening messages to anyone (text messages, MSN, Facebook, etc.?”, “Have you posted mean or embarrassing messages or spread rumours about anyone on the Internet (Facebook, YouTube, etc.?). Responses ranged from 1(never) to 5 (almost daily). Participants who scored higher than one on at least one of the cyberbullying items were classified as cyberbullies while those who scored higher than one on at least one of the cybervictimisation items were classified as cybervictims.

The Self-Esteem Scale (Rosenberg, 1965) - (Appendix 4) which was originally designed to measure adolescents global feelings of self-worth and self-acceptance. The Rosenberg Scale is measured on a Likert scale using a four-point response format from – Strongly Agree, Agree, Disagree, and Strongly Disagree, resulting in a scale range of 10 to 50 with higher scores indicating higher self-esteem. The Rosenberg Scale is a 10 - item measure of how an individual feels about himself or herself. A representative item from this scale is; “At times I think I am no good at all” and “I wish I could have more respect for myself”.

The Toronto Empathy Scale (Spreng, McKinnon, Mar, Levine, 2009) – (Appendix 5) which was designed for a brief measure of empathy. The Toronto Empathy Scale is again measured on a Likert scale using a five-point response format from – Never, Rarely, Sometimes, Often and Always. The Toronto Scale is a 16 – item measure. A representative item from this scale is; “When someone else is feeling excited, I tend to get excited too” and “I am not really interested in how other people feel”.

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**Procedure:**

A research proposal was sent to the ethics board in Dublin Business School to obtain permission to carry out the study. Permission was granted. Whilst carrying out research in the current study one had to be very careful as to not upset any participant or parent of participant, be it in the questionnaires itself or the in-class intervention and again as stated parental consent was obtained. The topic of cyberbullying can be a sensitive subject to participants especially those that are experiencing or have experienced it, thus an information sheet was attached and distributed with each of the questionnaires for the participants to read before deciding to both complete the questionnaire and be part of the intervention or not (Appendix 6).

Before commencement of the current study, ethical approval (Appendix 7) was obtained from each of the three principals of the schools involved, as well as each student’s parental consent forms (Appendix 8). All participants were asked to volunteer to take part in the study guarantying their anonymity and no incentives were used to gain their participation. Each parental consent form was required signed and dated before any participant took part in the study. The researcher handed in the questionnaires to be filled out by the students and were collected on the same day. The following week the researcher conducted the intervention program using a PowerPoint presentation and a short video. Two weeks later the second questionnaires were handed out and collected by the researcher. All participants were informed that they could withdraw from the study at any time but not after the questionnaires had been returned. The data collected was held in complete confidence and were purely used for academic purposes. Results were monitored and the all questionnaires returned participated in the study. The results were then analysed using SPSS.
Statistics:

Spps 22 for windows was used to analysis the data. The descriptive statistics were gathered for all the variables and a paired sample t-test was used for hypothesis 1, 2 and 3 and a repeated measures ANOVA was used for hypothesis 4. The questionnaires reliability was also checked.
**Results:**

All statistics were computed on SPSS 22 for windows. Table 1 outlines the participants (N=118) were split into female students (N=50) and male students (N=68) with a mean of M=15.54 ranging from 14-17 and an SD of .636. The participants that took part in this study were 3rd year students (N=22) (M=14.91, SD= .691) and 4th year students (N=96) (M=15.69, SD=.549).

Table 2 shows the participants of this study were from 3 different schools, mixed school (N=41) (M=15.29, SD=.680), with a gender split of 63.5% boys and 36.5% girls, all-girls school (N=35) (M=15.51, SD=.658) and all-boys school (N=42) (M=15.81, SD=.455).

Table 1: descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
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<tbody>
<tr>
<td>Participants overall</td>
<td>118</td>
<td>14</td>
<td>17</td>
<td>15.54</td>
<td>.636</td>
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<tr>
<td>3rd year students</td>
<td>22</td>
<td>-</td>
<td>-</td>
<td>14.91</td>
<td>.691</td>
</tr>
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<td>4th year students</td>
<td>96</td>
<td>-</td>
<td>-</td>
<td>15.69</td>
<td>.549</td>
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</table>

Table 2: descriptive statistics

<table>
<thead>
<tr>
<th>School</th>
<th>Number</th>
<th>Boys</th>
<th>Girls</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed school</td>
<td>41</td>
<td>26</td>
<td>15</td>
<td>15.29</td>
<td>.680</td>
</tr>
<tr>
<td>All girls school</td>
<td>35</td>
<td>-</td>
<td>35</td>
<td>15.51</td>
<td>.658</td>
</tr>
<tr>
<td>All boys school</td>
<td>42</td>
<td>42</td>
<td>-</td>
<td>15.81</td>
<td>.455</td>
</tr>
</tbody>
</table>

The reliability of the questionnaires were checked using Cronbach’s Alpha. The Cyberbullying Questionnaire had a Cronbach’s Alpha .889, The Toronto Empathy Questionnaire had a value of .823 and finally the Rosenberg Self-esteem Questionnaire had a value of .79.
Hypothesis 1 - A Paired Sample t-test was conducted to examine if there was a significant difference between self-esteem before the intervention (M=26.29, SD=2.37) and self-esteem after the intervention (M=26.50, SD=1.94). Results showed no significant difference between the two. (t(117) = -.74, P = .45, CI (95%) -.77 – .34). Therefore the null hypothesis must be accepted.

Hypothesis 2 – A Paired Sample t-test was conducted to examine if there was a significant difference after the intervention in empathy levels in students. Results showed that there was no significant difference between empathy levels before the intervention (M=44.63, SD=8.99) and empathy levels after intervention (M=45.25, SD=9.08). (t(117)= -.681, P=.497, CI(95%) -2.45 – 1.19) therefore the null hypothesis must be accepted.

Hypothesis 3 - A Paired Sample t-test was conducted to examine if there was a significant difference between cyberbullies before the intervention (M=8.15, SD=3.14) and cyberbullies after the intervention (M=7.79, SD=2.38). Results showed no significant difference between the two. (t (117) = 1.08, P = .28, CI (95%) -.30 – 1.03). Therefore the null hypothesis must be accepted.

A Paired Sample t-test was conducted to examine if there was a significant difference between cybervictims before the intervention (M=9.34, SD=3.49) and cybervictims after the intervention (M=9.02, SD=2.81). Results showed no significant difference between the two. (t (117) = .88, P = .37, CI (95%) -.39 – 1.04). Therefore the null hypothesis must be accepted.
Table 3: Paired t test for variables

<table>
<thead>
<tr>
<th>School</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-esteem</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pre</td>
<td>26.29</td>
<td>2.37</td>
<td>-.74</td>
<td>.45</td>
</tr>
<tr>
<td>post</td>
<td>26.50</td>
<td>1.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pre</td>
<td>44.63</td>
<td>8.99</td>
<td>-.681</td>
<td>.497</td>
</tr>
<tr>
<td>post</td>
<td>45.25</td>
<td>9.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyberbully</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pre</td>
<td>8.15</td>
<td>3.14</td>
<td>1.08</td>
<td>.28</td>
</tr>
<tr>
<td>post</td>
<td>7.79</td>
<td>2.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cybervictim</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pre</td>
<td>9.34</td>
<td>3.49</td>
<td>.88</td>
<td>.37</td>
</tr>
<tr>
<td>post</td>
<td>9.02</td>
<td>2.81</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hypothesis 4 – A Repeated Measures ANOVA, using Greenhouse-Geisser correction, showed that Empathy levels did not differ significantly between the three schools.  \( f (2,115) = .072, P=.931 \) with an effect size of .001.  (Figure 1 illustrates this).

*Figure 1: Mixed ANOVA - Change in empathy in the 3 schools*
A Repeated Measures ANOVA, using Greenhouse-Geisser correction, showed that the cyberbully variable did not differ significantly between the three schools. ($f(2,115) = 1.54, P=.21$) with an effect size of .026. (Figure 2 illustrates this).

Figure 2: Mixed ANOVA - Change in cyberbullies in the 3 schools
A Repeated Measures ANOVA, using Greenhouse-Geisser correction, showed that the cybervictims variable did not differ significantly between the three schools. \( f(2,115) = 1.74, P = .18 \) with an effect size of .029. (Figure 3 illustrates this).

*Figure 3: Mixed ANOVA – Change in cybervictims in 3 schools*
A Repeated Measures ANOVA, using Greenhouse-Geisser correction, showed that the self-esteem variable did not differ significantly between the three schools. \((F(2,115) = .793, P=.45)\) with an effect size of .014. (Figure 4 illustrates this).

![Estimated Marginal Means of MEASURE_1](image)

*Figure 4: Repeated Measures ANOVA of Self-Esteem*
Discussion

The purpose of this study was to investigate the prevalence of cyberbullying among Irish secondary school students and its relationship to the characteristics associated with cyberbullying, mainly self-esteem and empathy.

Traditional bullying is not a new phenomenon and has been well established as a serious problem not only in Irish society but in particular Irish schools. As a result, Irish research from O’Moore (2001) study into traditional bullying over the last two decades lead to the opening of The Anti-Bullying Centre in Trinity College Dublin who found that some 31% of primary students and 16% of secondary students have been bullied at some time. From 870,000 Irish students, approximately 23% or 200,000 children are at the risk of suffering from bullying behaviour. One of the aims of this research was to highlight the vast amount of academic research as stated above that has been conducted on the subject area of face-to-face bullying, therefore leading on to the drought of research that is cyberbullying, as stated by (Bamford, 2004). Although cyberbullying shares similarities with traditional bullying, a comparison was discussed to distinguish it from traditional bullying in order to show the relevance for this study.

Results showed that after the intervention programme, self-esteem levels in the all-boys and all-girls school went up slightly were as results went down slightly for self-esteem in the mixed school. The results were just under the significant level therefore no significant levels were recorded. Results again showed no significant levels for empathy levels but interestingly all empathy levels did in fact go up slightly for each of the schools after intervention. Cyberbullying levels although no significant did go down in the all-boys and mixed school and went up slightly for the all-girls school. Also levels of cybervictims did go down for both the all-boys and mixed school but went up slightly for the all-girls school.
Findings of Self-esteem and Cyberbullying:

Hypothesis 1 - It was hypothesised that there will be a significant difference between self-esteem levels among students from before and after the intervention but results showed that there was no significant difference between the two. Although there was little evidence of cyberbullying causing low levels of self-esteem in this study, previous research conducted on the relationship between traditional and cyberbullying by (Rigby & Slee, 1991; O’Moore, Kirkham, 2001; Hoff, Mitchell, 2009) found that cyberbullying does lead to low self-esteem levels. Specifically findings from previous research found low levels of self-esteem in cybervictims (Spade, 2007; Willard, 2006; Patchin & Hinduja, 2010; Katzer et al, 2009; Didden et al, 2009). Although there was no significant results, the results showed after the intervention programme, self-esteem levels in the all-boys and all-girls schools went up slightly, were as results went down slightly for self-esteem levels in the mixed school. Therefore two out of the three schools showed positive results as they increased their levels of self-esteem which was intended in the hypothesis. The results in the present study does support previous research therefore proving that in fact more research is much needed to support intervention programmes in Irish schools in order to reduce the incidents of cyberbullying. Results may be reflective of the sample and the fact that self-esteem scores were quite high among the participants overall.
Findings of Empathy and Cyberbullying:

Hypothesis 2 – It was hypothesised that there will be a significant difference between empathy levels among students from before and after the intervention but results showed that there was no significant difference between the two. Results showed after the intervention, there was a big increase in empathy levels in all three schools. Although there is limited research conducted on the causes of cyberbullying, Steffgen, König, Pfetsch and Melzer (2011) who found that lack of empathy assists cyberbullying behaviour. Hence one reason for researching empathy as a predictor, in order to further expand on this research. Statistically significant results were found in relation to the influence of empathy. Again these results have practical implications for interventions and preventions of cyberbullying. Previous research involving empathy training and education has been shown to be effective in reducing traditional bullying behaviours (Bjorkqvist, K., Osterman, & Kaukiainen, 2000). Similar research conducted by Ang and Goh (2010) and Campbell (2005) have also suggested that the incorporation of empathy training into the education system in order to improve cognitive and affective empathy skills can impact involvement in cyberbullying incidences. Furthermore, awareness of the impact of cyberbullying upon victims should be promoted among adolescents which was conducted in the intervention programme in this study.
**Findings between Cyberbullies/victims and all variables between schools:**

**Hypothesis 3 and 4** – It was hypothesised that there will be a significant difference between cyberbullies and cybervictims among students from before and after the intervention. Results in the current study showed that the cybervictims and cyberbullies variable did not differ significantly between the three schools. Although not significant, results in this study did show that the cyberbullying levels did go down in the all-boys and mixed school, and went up slightly for the all-girls school after the intervention. Therefore two out of the three schools showed positive results as they decreased their levels of cyberbullying which was intended in the hypothesis. One of the main aims in the intervention programme was to highlight to students the impact that cyberbullying can have on different people. These results can be therefore seen in a positive light. Research on the perpetrators of cyberbullying share feelings of enjoyment, power and/or revenge as motivations for their actions (Kowalski & Witte, 2006) such motives are obvious for concern and again need further study.

Also levels of cybervictims did go down for both the all-boys and mixed school but went up slightly for the all-girls school. The results are very interesting and similar to previous research by (Smith, 2012) who stated that there may be relatively greater involvement of girls in cyberbullying, when compared to traditional physical or verbal bullying. These studies suggest that females are more likely to become the victim of online bullying than males which was reflective in this study. Upon speaking with each principal before the commencement of the intervention programme it was very evident from each of the School’s anti-bullying policies that they had incorporated cyberbullying material into their anti-bullying policy. This may have attributed to the low rate of cyberbullying due to the fact that the three schools involved are very proactive in dealing with the issue of cyberbullying. Ybarra and Mitchell (2004) found that cyberbullying was more prevalent among 15 to 17 year olds. It has been posited that this age group would have less access to
electronic communication and this may contribute to lower levels of cyberbullying (Lenhart, 2009; Lenhart et al, 2005). Further research as a result is also needed.
**Gender and Cyberbullying:**

The findings of this study reported that males had higher involvement in cyberbullying. This conflicts previous research by (Smith et al, 2012) who stated that females were more likely to be involved in cyberbullying than males but more interestingly previous research found that females were more likely to be a victim of cyberbullying (Dehue et al, 2008; Ybarra & Mitchell, 2008). A qualitative analysis of why girls are more likely than boys to engage in indirect aggression revealed some interesting insights. Owens, Shute, and Slee (2000) conducted focus groups with 54 teenager girls in Australia. The researchers concluded that girls engage in indirect aggression to eliminate boredom and because of friendship processes, including attention seeking, assuring that they are a member of the in-group as opposed to the out-group, belonging to the right group, self-protection, jealousy, and revenge. The results in the current study in relation to gender maybe reflective of the sample used, female students (n=50) and male students (n=68) whereby the majority of participants were male. Further research with a more even distribution of gender may be needed to produce different results.
**Interventions Programmes:**

Very little research is conducted on cyberbullying interventions, therefore the research is very limited and hence the reason for conducting this study, as further research is needed to observe intervention benefits resulting in reducing cyberbullying incidents in schools. Patchin and Hinduja (2008) found that cyberbullies perceive their behaviour to be humorous rather than damaging to their victims. This indicates that cyberbullies, at least in some cases, do not fully comprehend the damaging consequences of their behaviour. Educators have a role to play in creating awareness amongst young people regarding the victim impact associated with cyberbullying. Although cyberbullying is more likely to happen out of school than in school (Smith et al, 2008), schools are in appropriate environment to develop and apply interventions due to the school having access to the population at large which is mainly involved in cyberbullying. However, a holistic approach must be taken in employing strategies to deal with cyberbullying which involve educators, parents, legislators, policy makers and social media stakeholders. It is of particular importance that parents are aware of their children’s activities online. Prenksy (2001) has stated that the advancement of technology has created a disconnect and a generational divide between adolescents and parents. Parents in some cases do not have the technological skills or knowledge to comprehend the online world and how its negative aspects may affect young people. This study found that upon speaking with students, their parents or guardians do not have the sufficient knowledge to comprehend the online world, hence the reason for interventions to be rolled out to not only students but parents and guardians. Previous research has indicated that students are more inclined to report instances of cyberbullying to parents than teachers (Cassidy et al, 2011) and so parents need to be equipped to respond in the appropriate manner should their child confide in them regarding cyber victimisation.
The intervention programme that was conducted in this study aimed to change the attitude of the student bystanders, to make them more likely to intervene positively and effectively in online bullying situations. It also aimed to help students to understand the impact that cyberbullying can have on different people, and to recognise that cyberbullying, is not acceptable. It aims to prevent this behaviour from occurring, and to enable people to respond effectively if it does occur.
Limitations:

One of the limitations in this study is its small (n=118) sample of participants. To address this limitation, a study within Ireland with a larger, more representative sample should be carried out to further examine the effects of empathy and self-esteem on cyberbullying in Irish Secondary Schools. The vast majority of the research to date has been conducted outside of Ireland and given that Genta et al (2011) has identified cultural difference in respect of cyberbullying, a national study within Ireland would be of interest given the recent suicides as a result of cyberbullying.

Further study limitations relate to the honesty of the students when completing each of the questionnaires. Although students completed the questionnaires on an anonymous basis, adolescents in school tend to discuss their answers with one another no matter how many times you instruct them not to. This was very evident when conducting this research. Underreporting of cyberbullying may have occurred due to the influence of social desirability and the participants being reluctant to label themselves as cyberbullies especially as students were monitoring one another’s answers. Victims of bullying can be seen to experience embarrassment and shame due to victimisation by bullies (Lewis, 2004). One of the strengths of this study is the use of a multiple scale questionnaire used to measure cyberbullying (i.e., text messages, picture messages, and videos, spreading of rumours). Multiple-item measures are arguably more reliable as it is unlikely that a single-item questionnaire can fully capture the complexity of a construct such as cyberbullying (Nunnally, 1978).
Future Research/Studies:

Cyberbullying can be a sensitive issue for students, especially those that have been or is currently a victim of cyberbullying. In order to create a more accurate account of questionnaires, perhaps future research would benefit from each student completing questionnaires in the privacy of their own homes, either through an online questionnaire or the researcher creating a drop box for students to hand their completed questionnaires in class the following day. Although this study focussed mainly on self-esteem and empathy levels towards cyberbullying among Irish secondary school students. Future research is needed in the predictors of cyberbullying therefore future studies could measure moral disengagement, inadequacy and optimism levels amongst adolescents. Limited research has been carried out in relation to cyberbullying and moral disengagement however it has been posited that moral disengagement is a positive predictor of cyberbullying (Pornari & Wood, 2010; Bauman & Pero, 2011; Hymel, Rocke-Henderson, & Bonanno, 2005). Giddens (2008) showed that feelings of hopelessness and pessimism resulting from bullying can lead to the worst consequence of all suicide; therefore the need for more awareness on the effects of optimism levels of college students is essential. Breguet (2007) examined bullying through electronic means and found a strong relationship between cyberbullying and insecurity in oneself following been subjected to electronic bullying. It can be viewed that bullies tended to be compensating for their own high feelings of inadequacy when they feel the need to bully others and target vulnerable victims (Stephenson, Smith, Tatum, 1989).

Furthermore following victimization in adolescents leads to this low self-esteem and negative feelings continuing on into adulthood (Oliveus, 1993; Batsche & Knoff, 1994). From these findings there is huge evidence here to support that an intervention programme is needed to try and eliminate such feeling continuing on into adulthood. Further research is therefore needed in the roll out of intervention programmes in all Irish secondary schools.
More studies such as Eksi’s (2012) research should be conducted to better understand the role that personality plays and to better understand the likelihood that someone will become a cyberbully or victim. As discussed significantly more research attention has examined the characteristics associated with targets as opposed to the perpetrators of cyberbullying (Wong-lo & Bullock, 2011). It is therefore evident that research regarding the relationship between offenders of cyberbullying and self-esteem is inconsistent and limited, therefore with the results of this current study further research in this area is essential to look at perpetrators. Although there may be difficulties in relation to the definition of cyberbullying with various definitions discussed in this study. Previous researchers have posited in respect of repetition and power imbalance as concepts within the definition of cyberbullying and Slonje et al (2012) calls for clarification of these issues. Tokunaga (2010) posits that an overall theoretical approach with consistent conceptual and operational definitions used will significantly enhance the body of research encompassing cyberbullying. Future research should address these issues.

As stated by (Beard, 2008; Block, 2008) that we are all becoming dependent on the Internet, possibly to the extent of it becoming an ‘addiction’. It is also possible that our online lives may aid our mental health. There has been a growing interest in the provision of online psychological therapy (Suler, 2004; Bell, 2007; Jones and stokes, 2009). Further research into the area of online therapy for students who have been or are currently being cyberbullied may be an excellent solution for those students who feel they cannot tell their parents/guardians or school teachers that they are experiencing cyberbullying.
Conclusion:

This study was designed to investigate how prevalent cyberbullying is in secondary level schools in the North Dublin area and the impact it has on self-esteem and empathy levels on secondary school students. Although no significant results were recorded, results in this study were found to be very positive and accurate to the hypothesis. It is hoped that future research will continue to advance in order to gain a better understanding of the causes of cyberbullying, therefore enabling an effective intervention programme so that the cyberbullying incidents can be reduced.

It is noted in this study that students spend significant amounts of time online, and that the overwhelming majority have Internet access. For this very reason it was found in this study that cyberbullying is active in Irish schools and therefore intervention programmes are paramount when educating children and adolescents in the dangers and methods of cyberbullying.

This study revealed the many ways that young people bully others online, whether through instant messaging, e-mail, mobile phones/smart phones, or posting on social networking sites such as Facebook, Snapchat etc. and to be fair to school staff, it can be extremely difficult for adults to identify bullying, particularly when the bullying is subtle unreported or denied by students. Therefore it is hoped in the future that more training will be given to teachers, parents, educators in the interventions methods of preventing cyberbullying.
References


Lenhart, A., Maddenn, M., & Hitlin, P. (2005). Teens and technology: *Youth are deading the transition to a fully wired and mobile nation*.


**Websites**


Appendix

Appendix 1

Cyberbullying Questionnaire

Dear Participant,

My name is Colm Tracey and I am a final year BA (Hons) Psychology Student at Dublin Business School. As part of my final year thesis I am conducting an investigation into The Effects of an Intervention Program on Cyberbullying on Secondary School Students. Intervention programs are as a result essential in offering a range of suggestions to parents and students regarding being safe online and the use of mobile phones.

You do not have to complete this questionnaire, but I would be very grateful if you could take the time to take part. The items in this questionnaire will relate to your use of the internet and any experience of Cyberbullying you may have had or are currently experiencing. Please read each question carefully and answer each question as honest as you can. If you feel that you are unable to answer a question please skip it and move on to the next question or alternatively you can withdraw at any time you may wish.

The questionnaire is completely anonymous and the data collected will be treated sensitively and in a confidential manner and will take approximately 10 – 12 minutes to complete. This data will be submitted as part of my final year project and may be used in other research projects, publications or at conference presentations; however there will be no way of identifying any participant from any publication of the results, therefore please do not write your name on the questionnaire.

As the questionnaire asks some questions that might cause some minor negative feelings I have attached a sheet of contact details of organisations to help should those feelings arise- please feel free to detach this.

If you require any more information about the study you can contact me by emailing 1704169@mydbs.ie or alternatively my supervisor Dr. Rosie Reid at rosie.reid@dbs.ie. Thank you for taking the time to complete this Questionnaire, your participation is greatly appreciated.

Sincerely,
Appendix 2

Demographic Questions

Class/Year: ________________
Age: ________________

(Please tick the response appropriate to you)

Gender: Male ☐ Female ☐

General information about Internet use:

Q1. Have you ever used a computer? Yes ☐ No ☐
Q2. Have you ever been online? Yes ☐ No ☐
Q3. How often do you use the internet?
   Do not use the internet ☐ Once a day ☐
   Several times a day ☐ Once a week ☐
   Several times a week ☐ Once a month ☐
   Other (Please state) _________________________________

Q4. On average, how long do you spend on the internet per week?
   0-5 Hours ☐ 5-10 Hours ☐
   10-15 Hours ☐ 20/More Hours ☐

Q5. Where are you most likely to use the internet? (Tick all responses that apply)
   I do not use the internet ☐ In my bedroom ☐
   At home (Not in bedroom) ☐ At school ☐
   At a friend’s House ☐ At the Library ☐
   Relative’s House ☐ Internet café ☐
   Other (Please state) _________________________________

Q6. What activities do you use the internet for? (Tick all responses that apply)
   I do not use the internet ☐ Surfing the net ☐
   Send/Receive emails ☐ Chat rooms ☐
   Downloading music/films ☐ School work ☐
   Online shopping ☐ Online gaming ☐
   Instant messaging ☐
   Other (Please state) _________________________________

Q7. How would you rate your ability to use computers?
   I have never used a computer ☐ Not very good ☐
Appendix 3

Instructions

Please circle the best answer to each question below that is most relevant to you. There are no right or wrong answers. Please note, this is not a test.

<table>
<thead>
<tr>
<th>Question</th>
<th>Never</th>
<th>1-2 Times</th>
<th>1xMonth</th>
<th>1xWeek</th>
<th>Almost Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you sent mean or threatening messages to anyone? (Messenger, Facebook, Instagram etc.).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Have you sent mean or threatening pictures or videos to anyone? (Messenger, Facebook, Instagram, etc.)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Have you sent mean or embarrassing messages or spread rumours about anyone to your friends? (Messenger, Facebook, Instagram, etc.)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Have you sent mean or embarrassing pictures or videos of anyone to your friends? (Messenger, Facebook, Instagram, etc.)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Have you posted mean or embarrassing messages or spread rumours about anyone on the internet? (Facebook, YouTube, etc.)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Have you posted mean or embarrassing pictures or videos of anyone on the internet? (Facebook, YouTube, etc.)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Have you received mean or threatening messages from anyone? (Facebook, YouTube, etc.)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Have you received mean or threatening pictures or videos from anyone? (Picture messages, Facebook etc)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. Have you received mean or embarrassing messages or had rumours spread about you to your friends? (Messenger, Facebook, YouTube, etc.)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. Have you received mean or embarrassing pictures or videos of you? (Picture messages, Facebook, etc.)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. Have you received mean or embarrassing messages or had rumours spread about you on the internet? (Messenger, Facebook, YouTube, etc.)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. Have you had mean or embarrassing pictures or videos of you posted on the internet (messenger, Facebook, YouTube, etc.)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix 4

Instructions

Below is a list of statements dealing with your general feelings about yourself. Please circle the answer which best applies to you.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. On the whole, I am satisfied with myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. At times I think I am no good at all.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I feel that I have a number of good qualities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. I am able to do things as well as most other people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. I feel I do not have much to be proud of.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. I certainly feel useless at times.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. I feel that I’m a person of worth, at least on an equal plane with others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. I wish I could have more respect for myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. All in all, I am inclined to feel that I am a failure.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. I take a positive attitude toward myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
**Appendix 5**

**Instructions**

Below is a list of statements. Please read each statement carefully and rate how frequently you feel or act in the manner described. Circle your answer on the response form. There are no right or wrong answers or trick questions. Please answer each question as honestly as you can.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>When someone else is feeling excited, I tend to get excited too</td>
<td>Never</td>
<td>Rarely</td>
<td>Sometimes</td>
</tr>
<tr>
<td>2.</td>
<td>Other people's misfortunes do not disturb me a great deal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>It upsets me to see someone being treated disrespectfully</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>I remain unaffected when someone close to me is happy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>I enjoy making other people feel better</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>I have tender, concerned feelings for people less fortunate than me</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>When a friend starts to talk about his/her problems, I try to steer the conversation towards something else</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>I can tell when others are sad even when they do not say anything</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>I find that I am &quot;in tune&quot; with other people's moods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>I do not feel sympathy for people who cause their own serious illnesses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>I become irritated when someone cries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>I am not really interested in how other people feel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>I get a strong urge to help when I see someone who is upset</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>When I see someone being treated unfairly, I do not feel very much pity for them</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>I find it silly for people to cry out of happiness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>When I see someone being taken advantage of, I feel kind of protective towards him/her</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Appendix 6

Please detach these contact details for support services

Should you require assistance or support, the following organisations can be of help.

- **Contact Childline anytime** - Calls are free and confidential, 24 hours a day
  
  Telephone: 1800 66 66 66
  
  [www.childline.ie](http://www.childline.ie)

- **ISPCC child safety issues.**
  
  Or Text Talk to: 50101

- **An Garda Siochana.**
  
  [www.garda.ie](http://www.garda.ie)

- **Confidential service for reporting suspected illegal content in the internet.**
  
  [www.hotline.ie](http://www.hotline.ie)

- **Your supporting life through depression.**
  
  [www.aware.ie](http://www.aware.ie)

- **Provides young people with educational resources, advice and information about potential dangers on-line.**
  
  [www.webwise.ie](http://www.webwise.ie)
Appendix 7

The Effects of an Intervention Program on Secondary School Students measuring Self-Esteem and Empathy towards Cyberbullying

Dear Principal,

My name is Colm Tracey, I am currently a final year student in Dublin Business School and I am conducting research in the Department of Psychology that explores Cyberbullying. This research is being conducted as part of my studies and will be submitted for examination. For my research project I am interested in the effects of an intervention program across both mixed and single sex schools within the North Dublin area, identifying the relationship Cyberbullying has on self-esteem and empathy, among students.

Your students are invited to be part of this study and I would therefore like to seek your consent. Participation is completely voluntary and your students may withdraw at any time. The data collected will be stored safely as nobody will have access to it other than myself. I would stress that at no point will any Student or Secondary School be identifiable in any publication in this or any other thesis. While the questionnaires asks some questions that might cause some minor negative feelings, it has been used widely in research and students will be provided with contact information for support services such as Childline or Aware upon completion.

This research has been approved by the Ethics Committee in Dublin Business School and aims to build on the current research on Cyberbullying in Ireland. I would like to thank you for taking the time to look at the questionnaires and allowing your students to take part.

Consent

I declare that I have read and understood the above information sheet. I hereby give my permission for my students to participate in this research project.

Principal’s Name: ______________________________________________________

Signature: ___________________________ Date: ____________________________
Appendix 8

The Effects of an Intervention Program on Secondary School Students measuring Self-Esteem and Empathy towards Cyberbullying

Dear Parent/Guardian,

My name is Colm Tracey, I am currently a final year student in Dublin Business School and I am conducting research in the Department of Psychology that explores Cyberbullying. This research is being conducted as part of my studies and will be submitted for examination. For my research project I am interested in the effects of an intervention program across both mixed and single sex secondary schools within the North Dublin area, identifying the relationship Cyberbullying has on self-esteem and empathy, among students.

The students are invited to be part of this study and I would therefore like to seek your consent. Participation is completely voluntary and students may withdraw at any time. The data collected will be stored safely as nobody will have access to it other than myself. I would stress that at no point will any student or secondary school be identifiable in any publication in this or any other thesis. While the questionnaires asks some questions that might cause some minor negative feelings, it has been used widely in Psychology research and students will be provided with contact information for support services such as Childline or Aware upon completion.

This research has been approved by the Ethics Committee in Dublin Business School and aims to build on the current research on Cyberbullying in Ireland. I would like to thank you for taking the time to read over this consent form. If you require any more information about this study please do not hesitate to contact me by emailing XXXX@mydbs.ie or alternatively my supervisor Dr. Rosie Reid at XXXX@dbs.ie

Sincerely,
Colm Tracey

Consent:

I declare that I have read and understood the above information sheet. I hereby give my permission for my child to participate in this research project.

Parents/Guardian’s Name: __________________________________________________

Signature: ___________________________ Date: ____________________