

HOW AWARE ARE PRIMARY SCHOOL CHILDREN TO THE DANGERS OF THE INTERNET?

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ABSTRACT

As technology becomes increasingly available and progressively more important in our daily lives, the internet is being increasingly adopted into primary schools. The internet can open up a whole new world for primary school children, giving them access to vast amounts of useful information at the touch of a button. However, primary school children can be targeted by a wide number of internet risks, such as exposure to illegal or harmful material, receiving unsolicited messages and being lured into a physical encounter. Yet primary school children do not appear to be well prepared to deal with the various dangers that their internet related activities can place them in.

This paper examines the various dangers that are associated with primary school children using the internet and it evaluates the level of understanding that primary school children have regarding these dangers.

KEYWORDS

internet online safety

1. INTRODUCTION

As technology is becoming increasingly available and progressively more important in our daily lives, the internet is being increasingly adopted into schools. Condie states that "*the evidence gathered has shown a steady increase in the number of computers and other technologies*" being used in schools (Condie 2007, p. 3). Reflecting upon the importance of computer and internet usage skills, Carrington states that the increased usage of computers and the internet requires "*a concerted effort to ensure that all children in our school systems are provided with opportunities to engage in these new forms of textual and social practice*" (Carrington 2008, p. 165). It is very important that children start to familiarize themselves

with the internet from a young age. Carrington states that *“because young people are born into a world saturated in digital technologies they require literacy practices and skills oriented to multimodality”* and *“to focus on print as an a priori requirement is increasingly a disservice, particularly to those students most at risk of poor outcomes from schooling”* (Carrington 2008, p. 165).

There are clear benefits to be had from children using the internet. *“The internet provides a powerful resource for learning as well as an efficient means of communication”* (NetAlert_A 2007, p. 2). The internet can open up a whole new world for children, giving them access to information at the touch of a button. NetAlert states that the benefits of having the availability of such a wide choice of subject material in schools can help develop a child’s independent learning and research skills. The ability to use new technologies to access resources, create resources and communicate with others can also help to develop a child’s communication and collaborative skills (NetAlert_A 2007). Venezky states that *“by giving all schools access to an expanding world of resources, both teaching and learning can be advanced to a new level of effectiveness and social importance”* (Venezky 2004, p. 3). Haugland, citing earlier research, suggests that introducing computers into the classroom can improve pupils’ motor skills, enhanced mathematical thinking, increase creativity, increase critical thinking and problem solving, improve language skills, enhance children’s self-confidence and communication skills (Haugland 1999). Haugland also states that children who use computers share leadership roles more frequently and develop positive attitudes toward learning. Whitehead agrees with this view, reporting that computer usage can lead to increased pupil writing, enhanced cooperative learning, enhanced integration of curriculum, greater application of learning style strategies, increased applications of cross-age tutoring, increased teacher communication, enhanced community relations and enhanced global learners (Whitehead 2002).

However, children are exposed to various dangers when they use the internet. Wishart states that there is *“worldwide concern for the safety of young Internet users”* (Wishart 2004, p. 193). Children can be targeted by a wide number of internet risks, such as exposure to illegal or harmful material, receiving unsolicited messages and being lured into a physical encounter (NCTE 2002).

The need for research into the risks that primary school children face while using the internet has been identified by other researchers. Hope states that there has only been *“some limited discussion of the issue of children and internet risks”* and that *“risk arising from school internet use is a largely neglected issue that needs urgent attention”* (Hope 2006, p. 312).

2. HOW CHILDREN USE THE INTERNET

Children use the internet in a variety of ways. Email is one of the most well-known and popular communication tools used by children on the internet. In an education environment, email can be very beneficial as it allows pupils to communicate and share ideas and resources with teachers and pupils from any location throughout the world. Pupils can engage in collaborative projects and improve writing and communication skills. Although email provides many benefits to children, it also provides a gateway for potential risks, such as spamming, cyber stalking, cyber bullying, viruses and inappropriate material (NCTE 2002).

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Many teachers see publishing class webpages as a useful exercise. *"Many children learn the basics of creating webpages... as early as primary school"* (NetAlert 2008, p. 1). Having a school website gives schools the opportunity to publish globally. A website can help promote a school within the wider community by publishing information on school activities, policies and events (NCTE 2002). By publishing on the school website, pupils who have advanced technology skills can become project leaders. Their teachers can take on the role of facilitator (NCTE 2002). *"Publishing on the internet benefits both students and the audience who access the published information"* (Habib 1998, p. 7). Publishing on the internet gives children a global audience to view their material. Children who publish on the internet can learn and explore meaningful context and develop collaborative, creative and critical thinking skills (Habib 1998). There are also disadvantages associated with publishing webpages on the internet. Without proper supervision, children can become a target to the various risks that arise when they give out personal information, such as their name, address, phone number or a photograph of themselves.

Children are increasingly using blogging as a means of communication. Blogs are the first widely adopted easy-to-use publishing tool that allows people to read and write website content. People use blogs to create personal journals of their lives, build resource websites with colleagues and filter the news of the day. Blogs are ideally suited to usage by children, because blogs can be easily created by non-technical people who do not know how to code webpages and transfer files (Richardson 2006). In a classroom environment, blogs can encourage children to write down thoughts and ideas in relation to classroom activities and projects. *"Blogs engage readers with ideas and questions and links. They ask readers to think and to respond. They demand interaction"* (Richardson 2006, p. 18).

Children tend to become very quickly aware of the trends in internet communications. One such trend is instant messaging. *"Instant messaging is a form of online chat involving two or more individuals"* (NetAlert 2007, p. 6). In a survey carried out by WebWise, it was reported that half of the teenagers and a quarter of the pre-teens surveyed had chatted online and one in ten of those using the internet use instant messaging every day (WebWise 2006). Instant messaging allows a person to send and receive messages instantly, giving that person the ability to have a real time conversation. This means that children who are using instant messaging are exposed to a number of risks. *"Private conversations are easy to start with anybody, real time conversations can occur with strangers and personal information may be inadvertently released"* (NetAlert_A 2007, p. 7). WebWise reported that 19% of pupils who chat online have been harassed, upset, bothered, threatened or embarrassed by someone chatting online (WebWise 2006).

Chat rooms use instant messaging to connect people with similar interests to each other. Children love to use chat rooms because they can chat instantly to friends and meet new people. Chat rooms provide an anonymous environment where identities can be kept hidden. Unfortunately, children find the anonymous environment of chat rooms, where people are not talking face to face, to be very appealing. There is a serious danger that children will be placed at risk, as *"the anonymity of participants may lead children to engage in unsafe behavior, or in other cases become susceptible to online grooming"* (NetAlert_A 2007, p. 7).

Social Networking websites combine the features of blogs, instant messaging and chat rooms. Social Networking websites allow children to express themselves by sharing their likes and dislikes, opinions and expertise with friends and strangers (Bebo 2008). Social Networking websites allow children to create their own webpages, publish photographs,

publish blogs, submit comments, create online polls and upload videos. Social Networking websites make it extremely easy for children to share personal information (WiredSafety 2004).

3. ONLINE SAFETY

Privacy is a major issue when it comes to children publishing on the internet. Children must be protected from the risks associated with using the internet. In a survey carried out on behalf of the Irish Department of Education and Science, it was reported that, out of the 848 nine to 16 year old pupils surveyed, 70% of the pupils have used the internet (WebWise 2006). The results of this survey show us that children at a young age are using the internet. Although the internet offers many benefits, it also poses many serious risks for the young children who decide to use it. According to a paper published by the NCTE (NCTE 2002), there are three primary categories of risk associated with children using the internet.

- Exposure to illegal or harmful material
- Receiving unsolicited messages
- Being lured into a physical encounter

3.1 Exposure to Illegal or Harmful Material

Children using the internet face the risk of exposure to *“hate, violence, misinformation, consumer exploitation and sexual predators”* (Berson 2003, p. 10). Berson states that *“without much effort, a child may inadvertently or deliberately be exposed to on-line content that is obscene, pornographic, violent, racist, or otherwise offensive”* (Berson 2003, p. 10). Others agree with Berson’s argument that the relatively unregulated nature of cyberspace means that sexually explicit discussions, pornography, racial and ethnic hatred, Neo-Nazi groups, and pedophiles can all be found on the internet (Squire 1996; Whine 1997; Britton 1998; Hope 2006; NCH 2006). Exposure to such material can occur unintentionally when searching for educational content about people or places. Wolak found that 42% of adolescents surveyed had been exposed to online pornography in the past year. Of those, 66% reported unwanted exposure (Wolak 2007). Exposure to illegal or harmful website content can have a serious negative effect on a child’s behavior or attitude (Alert 2003). Ybarra states that *“unwanted online sexual solicitation is one such online experience that may affect the health and functioning of a young person”* (Ybarra 2004, p. 1).

Violent content includes racist material and extremely violent internet based games (Alert 2003). A child can inadvertently stumble onto a website that contains violent text or images. *“The internet is increasingly being compared as having the same characteristics as the television medium”* (Alert 2003, p. 10), except that television has a watershed stopping children from viewing violent or sexual material. The internet allows children to view and download various images, videos and games without any age restrictions.

Pornographic material is classified as *“images involving explicit sexual content”* (Alert 2003, p. 10). In a survey conducted by WebWise, it is reported that 35% of the 848 children surveyed had visited pornographic websites (WebWise 2006).

3.2 Receiving Unsolicited Messages

Unsolicited messages are “*messages that are demeaning, threatening or contain illegal or harmful content*” (NCTE 2002, p. 10). As the internet provides a source of communication through the use of email, instant messaging, chat rooms, blogs and social networking websites, users can encounter harmful or illegal content. Some of this content, such as cyber bullying and hate speech, can be of a direct attack against the individual. Other content, such as spam, may be directed to the individual as a form of advertisement.

“*Cyber bullying involves the use of information and communication technologies to support deliberate, repeated and hostile behavior by an individual or group that is intended to harm others*” (Besley 2005, p. 8). Because of the widespread use of the internet, cyber bullying has increased dramatically in recent years (Li 2005). Cyber bullying is bringing bullying to a new extreme. It can involve an individual receiving threatening messages or copying and pasting an image of an individual onto an offensive image such as an pornographic image. Although this type of bullying may not be of the physical kind, it is an extreme form of mental bullying, which could lead to the physical harm of an individual. Willard outlines the different ways cyber bullying can take place: **flaming**, online fights through the use of harsh messages; **harassment**, repeatedly sending offensive messages to an individual; **cyber stalking**, sending threats of harm to an individual; **denigration**, posting cruel gossip or rumors about a person to damage a person’s reputation; **impersonation**, posing as another person and sending messages to make that person look bad; **outing**, sharing a person’s secrets; **trickery**, tricking someone into revealing secrets; and **exclusion**, intentionally excluding an individual from a group (Willard 2005). Besley states that cyber bullying can happen through the use of email, mobile phone text messages, multimedia messages, instant messages, blogs, personal websites and online personal polling websites (Besley 2005).

Cyber bullying can happen through the use of email, text messages, chat rooms, mobile phones, mobile phone cameras and websites (Campbell 2005). Although cyber bullying may not be of the physical kind, it is an extreme form of mental bullying that can lead to the physical harm of an individual. Willard reports that cyber bullying can cause devastating effects to young children (Willard 2006). Willard reports that the effects of cyber bullying include low self-esteem, poor academic performance, depression, and, in some cases, violence or even suicide. Hinduja agrees with Willard, stating that “*this negative experience not only undermines a youth's freedom to use and explore valuable on-line resources, but also can result in severe functional and physical ramifications*”(Hinduja 2008, p. 129).

Because of the widespread use of the internet, cyber bullying has increased dramatically in recent years. The NCH reports that one in every five school children is the victim of cyber bullying (NCH 2005). Li reports similar findings, with one in four school pupils saying they are the victim of cyber bullying (Li 2006). A study by Sharriff found even more worrying results, with 60% of pupils reporting they had been ignored by peers online, 50% saying they had been disrespected, 30% saying they had been called names, and 21% saying they had been threatened (Sharriff 2007). Sharriff states that “*cyber bullying is especially insidious because of its anonymous nature*” and “*it is dangerous because it most often takes place outside school hours on home computers, making it difficult, if not impossible, to supervise*” (Sharriff 2007, p. 77).

3.3 Being Lured Into a Physical Encounter

The anonymity of the internet makes it easy for an adult to impersonate a child and lure children into a physical encounter. The most serious risk of internet usage “*involves the possibility of a child being lured into a physical encounter with someone they’ve met online*” (NCTE 2002, p. 10). In a survey conducted by WebWise into children’s use on the internet 7% of the surveyed pupils aged between nine and 16 years old had met someone in real life that they first met on the internet. Of the children who had met an online contact in real life, 24% said that the person they met had introduced themselves as being a child on the internet, but had turned out to be an adult in real life (WebWise 2006).

Pedophiles use the internet because it provides them with an anonymous environment where they can create communication structures with children, collect and distribute child pornography and also archive their collections (Forde 1998). Berson agrees with Forde, stating that “*the perceived anonymity of the internet has benefited pedophiles and provided an environment conducive to the exchange of pornography, identification of children to molest, sexual interactions with youth, and support and validation from other adults who share their sexual preferences*” (Berson 2003, p. 11). Pedophiles find security by operating within the confines of their own homes, from where they can groom children with the intention of meeting them in real life (Davidson 2005).

Internet grooming can take place over email, chat rooms, social networking websites and other sources of communication through the internet. Internet grooming “*involves a clever process of manipulation, typically initiated through a nonsexual approach, which is designed to entice a victim into a sexual encounter*” with an adult (Brown 2001, p. 11). Davidson reports that sex offenders will often socialize and groom children over long periods of time. Davidson states that grooming “*involves a process of socialisation during which an offender seeks to interact with the victim (and sometimes the victims family), to share their hobbies and interests and to become a part of their life, in order to prepare them for abuse*” (Davidson 2005, p. 4). Davidson also reports that the “*grooming of a child is often a slow process and certainly a deliberate process, it is much easier to abuse a child when trust is established*” (Davidson 2005, p. 4-5). The NCH agree with Davidson, stating that “*generally they [sexual predators] will seek to develop a relationship with the child or young person with a view to meeting up with them in real life*” (NCH 2006, p. 3).

Not all researchers agree that children are at imminent risk of sexual predators when using the internet. Carrington, quoting Bob Sullivan, a technology correspondent at MSNBC, states that “*experts could not cite a single case of a child predator hunting for and finding a child through a blog*” (Carrington 2008, p. 155).

4. SURVEY

The principal research aim of this paper is to quantify the level of awareness that primary school children have regarding the dangers of the internet. The instrument used to gather data was a quantitative survey. 645 children from six primary schools in County Louth, Ireland,

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took part in the survey. The surveyed children ranged in age from nine to 13 years old. Data for this survey was collected in February 2007.

The results from this survey show that internet usage increases as pupils progress through the class stages. Internet usage ranges from a low of 42% in 3rd class and 39% in 4th class up to a high of 62% in both 5th and 6th classes. Boys and girls are as likely as each other to use the internet in any year.

Three questions were asked of the surveyed children as a means of discovering the internet usage behavioral patterns that might result in them being exposed to personal safety risks while using the internet.

Firstly, what do primary school children use the internet for? Answering this question should allow us to better understand the types of activities that primary school children engage in on the internet and therefore help us to identify the level of risk that children face when using the internet.

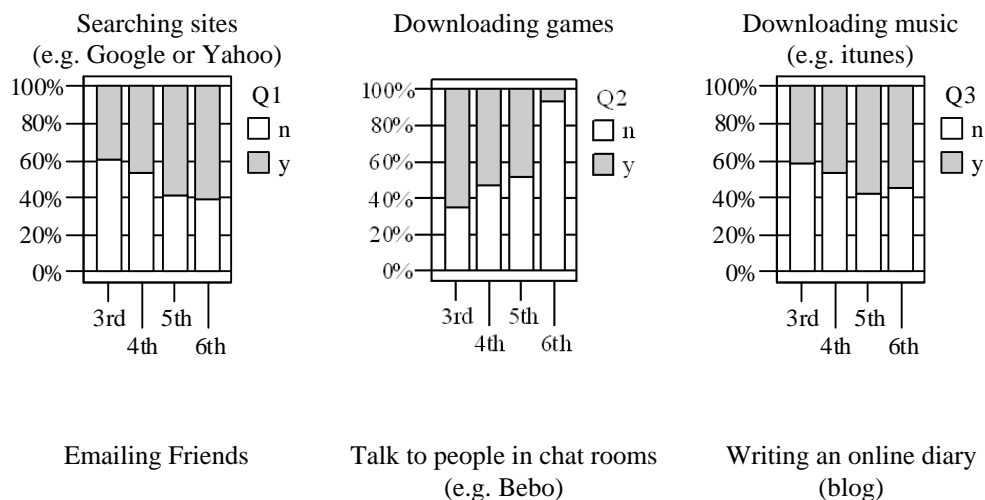
Secondly, what information do primary school children believe is safe to put online? Answering this question should help to identify the level of knowledge that children have regarding placing personal information online and consequently, it should help to identify the level of risk that children face while using the internet.

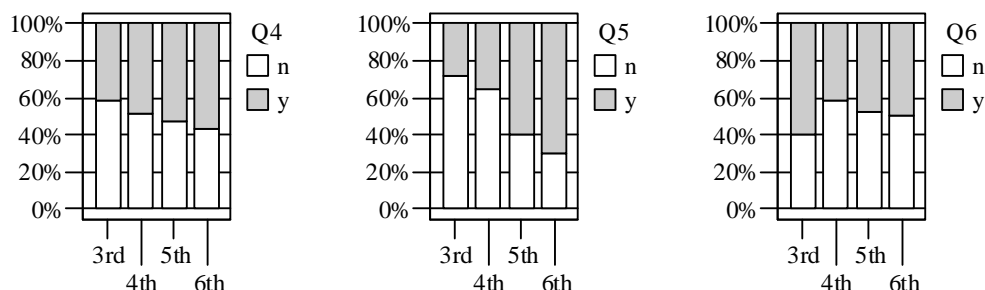
Finally, do young people know whom it is safe to talk to online? Answering this question should help to identify any vulnerability that exists due to children being trusting and naïve.

4.1 Pupil Online Activities

Pupils were asked to identify which activities they used the internet for. Pupils were allowed to select zero or more of the six activities listed in Table 1. Pupil responses are shown in Table 1.

Table 1. Pupil online activities





As they get older, children tend to move away from passive internet activities toward more interactive internet activities. As they get older, fewer children partake in the passive activity of downloading games. There is also not a significant difference in the number of pupils who participate in the passive activity of downloading music. On the other hand, interactive activities, such as searching the internet and emailing friends, all show a gradual increase as children get older.

Chat rooms, which are the most interactive activity listed, show the most dramatic increase in rate of usage as children get older. Chat rooms usage rates change from 24% of pupils in 3rd class up to 65% of pupils in 6th class.

Based on the other graphs in Table 1, one would expect that the use of blogs would increase as pupils became older. The 4th, 5th and 6th year classes all follow the predicted curve of increasing year on year usage. However, the greatest number of online bloggers are the 3rd class pupils.

The graphs in Table 1 show that there is significant usage of the internet by all age groups. The internet plays a part in the life of a large number of children. Society needs to ensure that children are properly educated in the various areas of internet usage.

4.2 Placing Personal Information Online

Pupils were asked to identify the personal information they believed it was okay to put online. Pupils were allowed to select zero or more of the nine items listed in Table 2. Pupil responses are shown in Table 2.

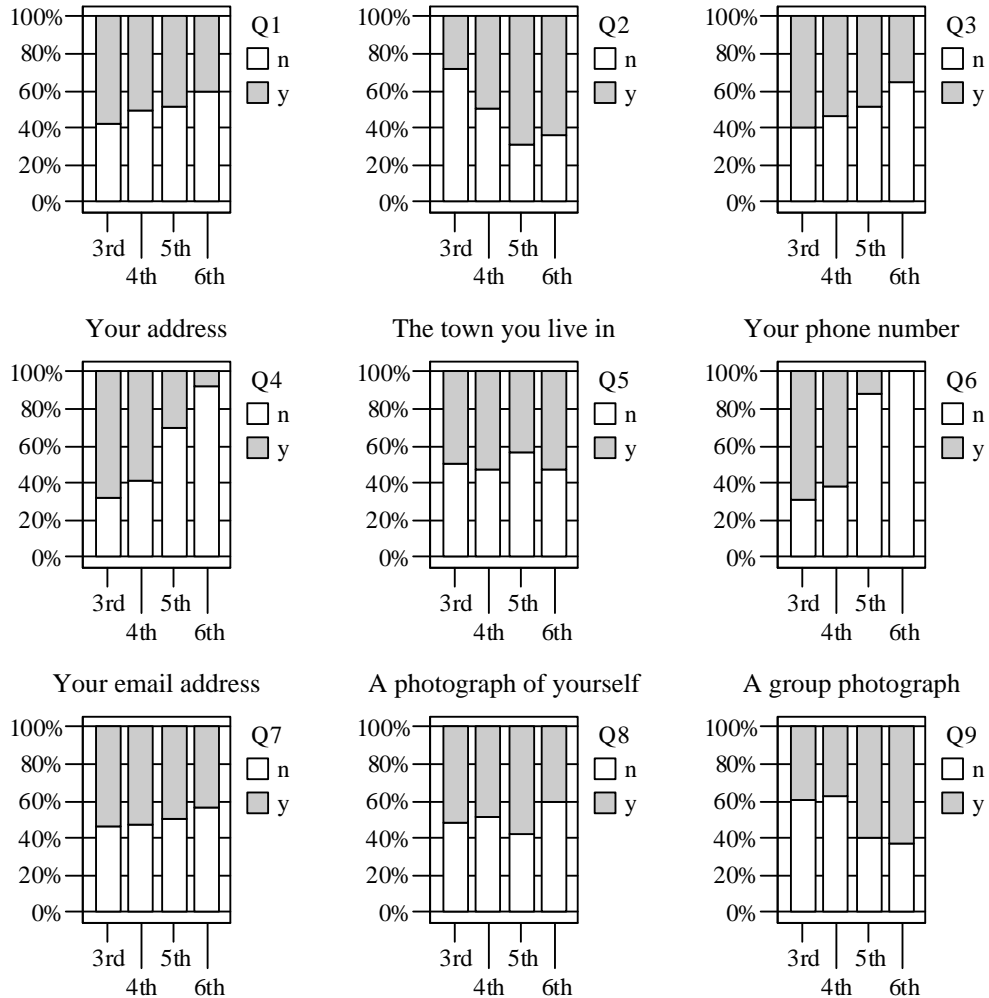
Table 2. Placing personal information online

Your name

Your nickname

Your age

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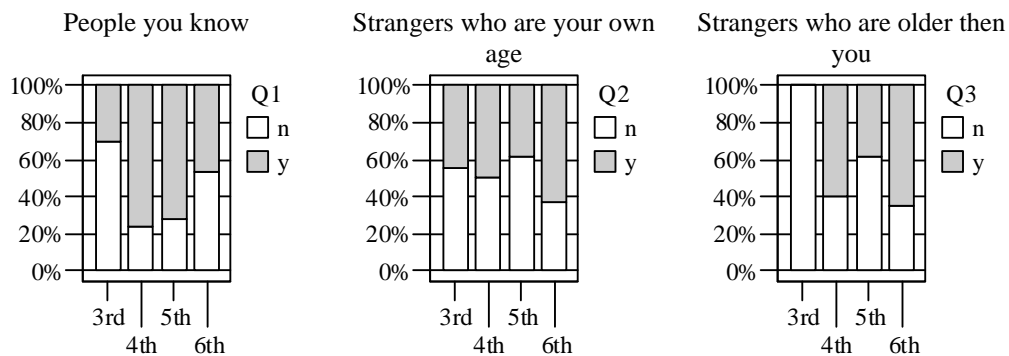


As they get older, children tend to be more aware of the type of information that they should not put online. As they get older, there is a gradual decline in the number of children who think that it is correct to put their name, age, address, phone number or email address online. The biggest declines occur in the willingness of older children to place either their address or their phone number online. One must question if this reflects the lessons that children of a very young age receive from their parents and teachers about talking to strangers? Perhaps the figures reflect the fact that very young children are not also told that it is bad to tell strangers their age or email address. This might well be the case, as both parents and teachers are not of the internet generation. Parents and teachers might not realize how literally children take their advice.

4.3 Online Conversations

Pupils were asked to identify the categories of people that they believed it was okay to talk to online. Pupils were allowed to select zero or more of the three items listed in Table 3. Pupil responses are shown in Table 3.

Table 3. Online conversations



The graphs in Table 3 show that children of all ages are not at all clear whom it is okay to talk to online. Pupils tend to be too cautious while talking online to people that they know. This is not necessarily a bad thing. However, 4th, 5th and 6th class pupils are too open to communicating with strangers online. 60% of 4th class, 39% of 5th class and 62% of 6th class pupils believe that it is safe to talk online to strangers who the pupils know to be older than themselves. Interestingly, all of the 3rd class pupils said it was not safe to talk to strangers online. The majority of 6th class pupils also believe that it is okay to talk online to strangers who are their own age.

The 6th class pupils feel most safe when talking online to strangers. Over 60% of 6th class pupils feel safe when talking to strangers who were either their own age or are older. Perhaps it is as a result of them having more exposure to online chatting with people their own age that 6th class children feel more comfortable talking online to strangers of all ages. The false sense of security brought on by a familiarity of using the internet might be the greatest danger that older children face when using the internet. It only takes one horrible experience to destroy a child's life. Children simply do not understand the very real dangers that are present in the internet.

5. CONCLUSION

It is a fact of life that primary school children use the internet. This paper confirms that, as they get older, children are engaging in increasingly interactive activities. This leaves them exposed to greater risks. Children do not appear to be well equipped for dealing with the potential danger that their internet related activities place them in.

Children are not knowledgeable enough to be able to safely use the internet. They are not taught which information is safe and which information is dangerous to put online. It is the

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role of schools to educate pupils properly about internet safety. Internet safety should be given as high a profile as education about dangers in the physical world is. There is no alternative to education. Just as they are thought about the dangers that exist in the real world, children need to be taught about the dangers on the internet. Society has a duty to educate children about the risks that exist on the internet. Failure to educate our children will potentially result in many young lives being destroyed.

Adults cannot continue to ignore the fact that this generation of children uses the internet. Indeed, we should encourage them to use of the internet, so that they can avail of all of the benefits that the internet offers. However, society must also ensure that children are properly prepared when they venture online. It is the duty of government to ensure that all children grow up in a safe environment. That includes the virtual environment of the internet. Governments must adopt policies that ensure that children are properly educated about the dangers of the internet.

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