USING WEB 2.0 TOOLS TO TEACH
ONLINE SAFETY EDUCATION IN THE INTERMEDIATE GRADES

by

Michael Moynihan

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We accept the Process Paper as conforming to the required standard.

__________________________
Peter Skipper, Major Project Faculty Supervisor  Date:
Faculty of Education,
Vancouver Island University

__________________________
Harry Janzen, Dean,  Date:
Faculty of Education,
Vancouver Island University

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Abstract

As more and more educators are using the Internet to enhance the potential learning of students, there are growing concerns over student safety on the Internet. This research project explores some of the risks associated with students going online and identifies effective ways to engage students in learning about online safety. The intention of this project was to create an interactive online unit of study to help young students learn how to stay safe while interacting and learning online. This integrated resource package was designed as an introductory online safety unit of study for grade four and grade five students. To ensure educators, parents and students have convenient access to this resource, a website was created that includes educational materials, parental resources and student lessons. In order to ensure student safety, only Web 2.0 tools were selected for this website that did not require students to create personal accounts or give out personal information. Feedback provided by other educational professionals suggested a need for a unit of study that teaches students about online risks and online safety. The Online Safety 101 website (http://cedarelementary.weebly.com/) will need to be maintained and updated so that students can continue to develop cyber-safe habits.

Keywords: Internet, Online Safety, Web 2.0 Tools
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Chapter One - Introduction

Critical Challenge

Technology has changed exponentially over the last decade and the use of technology has spread to all areas of the globe. So too has the Internet. The Internet has allowed students, parents and educators the ability to acquire and share documents and data from anywhere in the world at any time of the day. More importantly, the Internet has allowed educators greater access to an abundance of online technological tools and media that “have tremendous potential to transform students’ learning” (Light & Polin, 2010, p. 5). Light and Polin (2010) identified Web 2.0 tools as the large and shifting set of technological tools and the socially and technologically integrated use of the technology. With the growth of Web 2.0 tools and social media sites, there has been growing concern over students being exposed to negative online experiences. As educational systems across the country have slowly began to incorporate technology and the Internet into the curriculum, it is imperative that educators have an understanding of the dangers that exist online and how to deal with them.

While no online experience can ever be 100 percent risk-free, educators need to take every reasonable measure to manage expected risks. Davidson and Martellozzo (2013) suggested that Online Risks are the risks that may damage one’s mental and physical health as a result of online interactions. Because schools have a fundamental role in ensuring student safety while online, online safety practices should be taught in schools (Wishart, 2004). The goal of this major project was to create a unit of study for grade 4 and 5 students that used Web 2.0 tools and focused on online safety. Although there are many ways to protect students while online, this project uncovered some effective techniques for teaching students about online safety. As an educator working with elementary students, it was crucial to teach students the importance of
online safety, different safety concerns and how to use the Internet as a tool to enhance learning. The critical challenge for this project was to create an interactive online unit of study that used Web 2.0 tools to teach online safety education to students in the intermediate grades.

**Methodologies**

Today’s youth have become more reliant on digital information (data, communication, entertainment, etc) and the amount of time they are spending interacting with the digital information continues to go up (The Telnor Group, 2013). As youth have become more reliant on digital information, educators are beginning to integrate Web 2.0 tools with curriculum so they can extend and deepen the learning environments. As more opportunities for learning are being created with modern digital media, youth are experimenting with self-expression and developing the technical skills required for the 21st century (Ito M, Horst H, Bittani M, et al, 2008). These tools and technologies have become a great way for students to stay connected, make new friends, share information, exchange ideas and enhance learning opportunities (O'Keeffe and Clarke-Pearson, 2011).

Although the advantages of the Internet outweigh the disadvantages, the potential risks for the privacy and safety of today’s youth are real. O'Keeffe and Clarke-Pearson (2011) identified four categories of risks: peer-to-peer; inappropriate content; lack of understanding of online privacy issues; and outside influences of third-party advertising groups and sometimes the risks can lead to harm. Staksrud and Livingstone (2009) pointed out that the most common risk related to youth appears to be “content-related risks – especially exposure to unwelcome or inappropriate sexual or aggressive content” (p. 368). Educators cannot control all the content students are exposed to while using digital media, but they can teach them to stay safe.
When students are given unsupervised access to the Internet, they have the potential for something bad to happen. In order to maximize the significant contributions of the Internet while still keeping our children safe from harm, Taylor, Whang and Tettegah (2006) indicated the importance of Acceptable Use Policies (AUP’s) in education. Acceptable Use Policies are documents, as described by Conn (2002, as cited in Taylor, Whang and Tettegah 2006), that contain “strategies that allow school districts to notify technology users of expected behavior and set forth the consequences of misuse” (p. 116). Osborne (2011) also pointed out that the “policies must acknowledge both the risks and benefits” and that users “accept and understand the guidelines” (p. 6). Policies and guidelines need to be developed by educational professionals that will protect students from negative aspects of digital media and the Internet. Educators must establish policies and guidelines that ensure student safety and protect students from the many risks online. Once the policies are developed, then governments and school districts can implement the policies. But, in order to increase the effectiveness of these policies, Taylor, Whang and Tettegah (2006) recommended “combining an AUP with training, discussion, and awareness of who is monitoring the students” (p. 122).

Schools can better enable children’s safety by providing them with the knowledge and skills that allow them to deal safely with problem situations, rather than restricting access. In elementary school, van Hamel identified “that there are only specific curricular outcomes related to privacy in grade 5 - demonstrate an understanding of the need for the security and privacy of electronic information” (p. 19). Because students are not being adequately equipped to safely deal with the challenging circumstances they may encounter in an on-line environment, schools need to provide Internet safety education (Wishart, 2004). There is a need to teach students rules about cyber-safety and students are more apt to learn these lessons while using web 2.0 tools
(Barr and Masters, 2009). When enriching curriculum with interactive online tools, the content should be delivered as interactive tutorials and presented in an appealing, entertaining style with graphical flourishes to make them more like games than lessons (van Hamel, 2011). As teachers become more comfortable with technology, “they will find it easier to develop strategies to integrate Internet safety into the curriculum” (Melgosa and Scott, p. 29).

Although educators can help students develop an understanding of online privacy issues while online, Melgosa and Scott (2013) recommend that teachers be provided with the tools to effectively teach and integrate internet safety into the curriculum. Students could also benefit from supported programs that are about online-safety in an effort to shape their cyber-safe habits (Barr and Masters, 2009). The end goal would be for students to be able to make better decisions on how to protect themselves from online harm and deal with problem situations. The right way to balance student safety and student access to content on the Internet would be to develop curriculum that teaches students at an early age how to mitigate risks and stay safe while participating in online environments. The Telnor Group (2013) reported that risk mitigation is the act of reducing or lessening the likelihood of being exposed to harmful content.

As it is impossible to control the content of data and a user may discover controversial materials, Staksrud and Livingstone (2009) suggested that “[c]hildren must learn for themselves how to navigate the wider world, including learning from their mistakes and recovering from accidents, for ‘resilience can only develop through exposure to risk or to stress’” (p. 365). Children develop online resilience through exposure to risks and stressful events. When educators teach students to identify risky or stressful events and how to deal with the events, students would be less likely to participate in the events and more likely to put a stop to them. Online resilience, according to Staksrud and Livingstone (2009) referred to one’s ability to
recover quickly from a risky experience while using online digital media and the behaviours used to protect them from harm. The Telnor Group (2013) also suggested that risk mitigation measures can help lower the likelihood of children being exposed to harmful content, but “building resilience among young people – what might be termed “filters in the mind” - will ultimately be the more powerful strategy” (p. 9).

**Brief Overview of the Project**

This interactive online unit of study was designed to engage grade 4 and 5 students in a variety of online activities while learning about online safety. In the end, the intention was for students to build online skills and resilience. Because of the increasingly younger ages of children who go online, the outcomes needed to be taught in earlier grades (van Hamel, 2011). The first step for this project was to decide how to display the content for this unit of study. A tool for asynchronous learning that educators have used to deliver specific course content to their students, via the Internet, was a website. Students can access the online materials anytime and from anywhere in the world because asynchronous learning does not require users to be online at the same time. With a variety of options available for posting content online, it was decided that the primary content would be housed on a website. Because of previous experience with the Weebly brand of websites, it was decided to use a Weebly website as the platform to house the content on. No additional costs were incurred, as a Weebly account had already been created.

The second step for this project was to compile a list of easy to use interactive Web 2.0 tools that would engage grade 4 and 5 students and allow them to demonstrate their learning. According to Light and Polin (2011), when “blended with careful instructional design” (p.3) Web 2.0 tools enable “students themselves to create products that reflect what they are learning” (p.17). Although there was an abundance of Web 2.0 tools to choose from, it was important to
choose Web 2.0 tools that did not require students to create personal accounts or give out personal information such as last name or email address. Because digital footprints create “traces or records of a person’s online activities” (Hengstler, 2011, p. 130), they have the potential to damage a person’s reputation and future opportunities. Hengstler (2011) suggested that educators have a moral responsibility to teach students how to manage their digital footprints to protect their identities. Using only Web 2.0 tools that did not require students to provide personal information would be a good way to begin teaching student about managing digital footprints.

Although trying to find specific content related to online safety was a challenge, Net Safe Utah created a variety of Net Safe videos. Upon further investigation, using content from the Net Safe Utah website was permitted under a Creative Commons (Attribution-Non Commercial-Share Alike) license. This allowed the content to be legally shared and adapted as long as attribution was given, the content was not used for commercial purposes and the content was shared under the same license as the original. In the end, the Net Safe Utah videos provided the content for each of the lessons created. Teaching materials, according to Wishart (2004), should be “aimed at developing net literacy and safe surfing practices that enable [students] to use the Internet responsibly and usefully both in and outside school” (p. 11).

The primary goal of this website was to provide an integrated resource package on Internet safety to elementary educators whose technology proficiency levels varied. For educators, a page was created that outlined objectives for the unit of study. The objectives stated the knowledge, skills and attitudes that the students were expected to gain as they progressed through each lesson. A permission form was also created and posted on the website. This provided educators with an easily accessible permission form for students and parents to complete prior to participating in this online unit of study. According to Hengstler (2011) when
interacting and posting online, educators need to use an appropriate permission slip that defines the tools used, the activities anticipated, and the anticipated risks. As well, the posted permission form contained Acceptable Use Policies (AUP) that outlined expected behaviours for technology user and a list of inappropriate behaviours (Conn, 2002, as cited in Taylor, Whang and Tettegah, 2006). Furthermore, it was important to provide a rubric for each of the ten lessons so that educators could assess each assignment and provide students with specific feedback for each assignment they completed. Curriculum aimed at children should be delivered as interactive tutorials that contain feedback on performance (van Hamel, 2011). Furthermore, within each lesson, a video tutorial was provided for educators and students to learn the basic of how to use the Web 2.0 for each lesson.

For parents, an information page was created in order to communicate the key risks involved with students using the Internet. Also, parents were provided with an explanation of why consent was required and information regarding alternate assignments should parents not want to give consent. Additionally, it was determined that parents needed to be provided with a detailed list of additional resources so they could also help their children learn how to protect their identity and stay safe while using the Internet, Web 2.0 tools and social networking sites. Providing this information to parents will allow parents to be active participants in teaching their child(ren) about the risks of going online and how to stay safe while online.

As for creating a place to represent and showcase student learning, it was decided to leave that up to individual educators. Because the technical skills of teachers vary from classroom to classroom, how students presented their learning artifacts would be better left to individual educators. For example, an educator with limited technical skills could allow their students to download, save and print copies of their artifacts in order to create a poster
presentation of their learning. An educator with some technical skills could allow their students to download and save artifacts in order to create an offline digital presentation of their learning. An educator, on the other hand, with high degree of technical skills could allow students to post their artifacts onto a password protected online class blog. Regardless of the method chosen to showcase student learning, motivating and engaging students with the material and the tools was the primary objective.

Once the website had been constructed, grade 4 and 5 teachers within the district were contacted via email and asked if they would beta test the website. Teachers were asked to test the website to determine if all the links worked correctly, if the content of the website was appropriate, if the layout of the website was easy to follow and if there were any other topics or themes that should be included. For teacher feedback, a Google Form was linked to the Online Safety 101 website so that teachers could provide their feedback. Using a Google Form allowed the feedback to be collected and stored within a Google Drive folder so that the information can be easily retrieved. On the Google Form, teachers were not asked to provide their name, the names of any students or the name of the school they teach at.

As educators began to integrate Web 2.0 tools with education, teaching students about online-safety and protecting them from harmful situations while online became a primary concern. Because students were more apt to engage in lessons that used web 2.0 tools (Barr and Masters, 2009), online safety curriculum needed to be developed that incorporated Web 2.0 tools. When educators provided a valid educational context for the technologies that students already use and enjoy, Batchelor (2011) noted that student learning and performance improved because there was “a significant leap in student engagement” (p. 322). Additionally, when educators used a less restrictive approach to the Internet, students seemed to be more engaged in
their learning (d'Haenens, Vandoninck and Donoso, 2013). With a growing number of Web 2.0 tools being offered, how educators used the tools to support learning was the key. In an effort to mitigate the risks of online harm and develop online resilience, using Web 2.0 tools to teach internet safety education to students in the intermediate grades was the logical method.

“When we are young, we are taught to brush our teeth in order to develop healthy and preventative habits. Hopefully by the time we reach adulthood, the act of brushing every morning has become second nature. Yet, when we go online, we don’t always take the same preventative measure.... Perhaps it's because we haven’t placed enough importance on developing this healthy habit?” (Webber, 2013).
Chapter Two - Literature Review

Introduction

The Internet, because of its exponential growth over the past decade, has revolutionized the education system around the world. Technology has allowed educators and students to connect, communicate, acquire and share more information and resources. Technology has also enhanced the potential learning of students because technology has allowed greater access to information and resources. What’s more, it was essential for educational professionals to embrace technology and use it to its fullest potential as a tool to enhance learning while ensuring the safety of all students. Despite the fact that the Internet has been used as an educational tool, educational professionals need to understand that technology is continually changing and the way students are learning content is changing. Educators in a digital age needed to be “taking advantage of emerging media in ways that benefit learning” (Hrastinski, 2008, p.55). This literature review examined the use of the Internet in an educational context, specifically addressing five key claims: (1) the Internet has changed the educational system; (2) there were risks associated with students going online; (3) policies were required for when students went online; (4) online safety education needed to be developed and; (5) whether digital resilience could help mitigate the risks.

How has the internet changed the education system?

Ito, Horst, Bittani et al. (2008), suggested that as new opportunities for learning were created with modern digital media, youth are experimenting with self-expression and developing the technical skills required for the 21st century. Youth engage in peer-based, self-directed learning online and by exploring new interests and tinkering around with new forms of media,
they have acquired various forms of technical and media literacy. As educators tried to find ways to protect, monitor and control student learning, educators erected barriers that deprived students from access to the many forms of learning that digital media provided. However, when youth were given “a degree of freedom and autonomy” to use digital media, they were “often more motivated to learn” (p.6). Whether they were engaged in “online gaming, creative writing, video editing, or participating in any other artistic endeavor” (p.1), these friendship-driven practices had the potential for our youth to explore, learn, engage and acquire more skills.

By the same token, Light and Polin (2010) conducted research to find the most frequent Web 2.0 applications used by teachers and the different themes and issues concerning the use of Web 2.0 applications in the classroom. In their research, they grouped frequently used Web 2.0 resources into four different categories: tools that create and support learning environments (Blackboard and Edmodo); tools that support communication and cultivate relationships (blogs and social networking sites); resources to support teaching and learning (multimedia resources and simple games and skill building sites); and tools to enable students to create artifacts to represent their learning (Wordle and Prezi). Although privacy, anonymity, tolerance and ownership were some of the issues that Light and Polin encountered, they also discovered that usability and communication were two emerging themes. Nonetheless, teachers have used Web 2.0 applications to create virtual classrooms because it was easier for teachers and students to focus content, manage materials and track progress. In addition, they noted, that Web 2.0 applications could strengthen the educational community by increasing communication among students, between students and teachers, with parents and among educators. These researchers concluded that there was great potential for Web 2.0 applications in the classroom when teachers
aligned instructional activities with the applications and incorporated Web 2.0 communication tools.

**What risks were involved with students going online?**

The UK Council for Child Internet Safety (2012) stated that the Internet was a powerful tool that provided entertainment, education, self-expression, and a connection to friends and family. Nevertheless, with the wealth of opportunities the Internet provided, there were risks and sometimes the risks could lead to harm. According to the UK Council for Child Internet Safety, content, conduct and contact were the three types of risks that young people may be exposed to while online. Harm arose from exposure to age inappropriate, distasteful or illegal content; this occurred from the way young people behaved online and during their interactions with other individuals online. In addition, The UK Council for Child Internet Safety pointed out that there are six main online risks that children experienced: privacy, grooming, sexual images, cyber bullying, harmful content and fraud. Children can be exposed to these online risks through online chatting (e-mail or voicemail), sharing (pictures, videos, text, and location data), gaming (online ranking systems, team play), content providing (searching or browsing for content that can either be viewed online or downloaded), networking (friending and building communities) and online shopping (p. 4). With social networking and online chatting being two key online activities for children, The UK Council for Child Internet Safety recommended that educators include safe internet messaging on website pages specifically designed for teachers, children and parents.

Similarly, O'Keeffe and Clarke-Pearson (2011) suggested that social media became a great way for students to stay connected, make new friends, share information and exchange ideas. It was great way to enhance learning opportunities. With youth routinely engaged in a variety of social media sites, parents needed to be aware of the nature of the social media sites in
which their children were engaged in. With a rapid increase in the number of preadolescents and adolescents using cell phones to access such sites, the internet has affected the social and emotional development of this generation of young people. As there were many benefits to using social media, the authors identified four categories of risks: peer-to-peer; inappropriate content; lack of understanding of online privacy issues; and outside influences of third-party advertising groups. Additionally, O'Keeffe and Clarke-Pearson mentioned that youth were putting their privacy at risk and creating digital footprints that may impact future reputations. Educating parents and students about the social and emotional issues that arose from using this new technology helped develop responsible, sensible and respectful digital citizens.

After conducting research, Staksrud and Livingstone (2009) found that the coping strategies used for content risks depended on the gender of the user who encountered the material, the type of material they encountered and the country where they resided. As it was impossible to control the content of data, Staksrud and Livingstone suggested that, “[c]hildren must learn for themselves how to navigate the wider world, including learning from their mistakes and recovering from accidents, for resilience can only develop through exposure to risk or to stress” (p. 365). Although educators have often attempted to minimize risks by limiting students’ access to the internet or by controlling their activities, these solutions were not always ideal because restricting online risks may have limited online opportunities. Staksrud and Livingstone indicated that “while policy initiatives tend to be often directed at those relatively new to the internet, different initiatives are clearly required once the population becomes more experienced online” (p. 371). However, the most common risk related to youth appeared to be “content-related risks – especially exposure to unwelcome or inappropriate sexual or aggressive
content” (p. 368). It was necessary for educators to focus more attention on risk avoidance and strategies for coping with risk.

Alternatively, Davidson and Martellozzo (2013) explored young people’s use of digital media and social networking sites (SNS) as a means of networking and communication in the context of internet safety. The results of a survey of school-aged children conducted in the UK revealed that girls are more likely than boys to use mobile phones and digital cameras, with boys being more likely than girls to play computer and console games. Additionally, Davidson and Martellozzo (2013) discovered that there was a complete lack of awareness among the respondents about potential online risks. Furthermore, their research showed that young people engaged in a wide variety risk-taking behaviours online. Davidson and Martellozzo (2013) also recommend that “educational awareness programs should be culturally sensitive or should at least address cultural issues in the geographical context” (p. 1472).

On the other hand, Hengstler (2011) was concerned with the digital footprints students are creating of themselves while online and the impact it would have on their future. Hengstler defined digital footprints as the “traces or records of a person’s online activities” (p. 130) and proceeded to identify three types of digital footprints: (1) Active footprints are the data created by a person’s voluntary contributions to the web like blogs and comments; (2) Passive footprint are the data that is collected about a person like cookies or the browsing history on a computer; (3) Second-hand digital footprints may be consensual or non-consensual content that others share about you like articles posted to a blog or videos posted on social media. Because digital footprints have the potential to damage a person’s reputation and future opportunities, Hengstler suggested that educators have a moral responsibility to teach students how to manage their digital footprints in order to protect their identities. In early primary, students should interact
and post content through a teacher account. As students mature and develop the capacity to
manage their own accounts, educators can then allow students to interact and post in closed
educational social networks or secure online sites with restricted access. Additionally, Hengstler
recommended that when educators allow their students to interact and post online, they need to
use an appropriate permission slip that defines the tools used, the activities anticipated, and the
anticipated risks.

**Why was it important to create policies for when students went online?**

Osborne (2011) suggested that social media was a collaborative tool that required user
generated content and some form of social interactions. Using social media, allowed students to
construct meaning by connecting, communicating, sharing and interacting with their peers.
Blogs, according to Osborne, became an effective online environment for teaching and learning
over the past 7 years because they provided a great space for reflection as well as sharing,
developing and discussing ideas. Osborne pointed out that there were many risks to address in
terms of privacy and access to resources, but there was also huge potential for innovation.
Policies needed to be developed by educational professionals that would protect students from
negative aspects of digital media and the Internet. Osborne suggested that the best way to
establish policies and guidelines is to look at “your organization's existing institutional policies
related to Internet use” and “look at others’ existing guidelines” (p. 6). He also indicated that by
creating clear guidelines, providing disclaimers and raising awareness of the legal issues,
educators could reduce the likelihood of inappropriate behavior when colleagues and students
were using social media. Once the policies were developed, then governments and school
districts could implement the policies. As social media was always in a state of change, policies
would also need to be updated and the process for communicating the changes would need to be implemented.

At any rate, Taylor, Whang and Tettegah (2006) indicated the importance of Acceptable Use Policies (AUP’s) in education in order to maximize the significant contributions of the Internet while still keeping our children safe from harm. Although Taylor et al. advised that the definition of AUPs can vary, AUPs should clearly define how staff and students are expected to make use of school-provided Internet access and outline the consequences for violations. They asked the question “who gets to decide what is acceptable and what is not?” (p. 121). Flowers and Rakes (2000, as cited in Taylor et al., 2006) identified that “out of 85 respondents from different school districts across the United States, 73% indicated that committees wrote their school AUP, yet 16.5% indicated that individuals wrote theirs” (p. 121). Furthermore, the authors pointed out that an AUP alone may not be enough to lower the rate of computer misuse. In order to increase the effectiveness of these policies, they recommended “combining an AUP with training, discussion, and awareness of who is monitoring the students” (p. 122).

Incidentally, Krueger (2013) suggested that schools move away from using Acceptable Use Policies and start using Responsible Use Policies. The difference being that Acceptable Use Policies typically banned the use of certain technologies at school, while Responsible Use Policies focused on behavior. According to Krueger, Responsible Use Policies informed students of the ways that they can use devices at school. Moreover, Responsible Use Policies included the expected positive behaviors and the behaviors that were considered negative and potentially dangerous. Krueger also mentioned that “when something bad happens (and it will), remember to take a deep breath and think of it as a teachable moment” (p. 3). Educators cannot get too
wrapped up in creating policies that could potentially limit the effectiveness of the Web 2.0 applications and the internet as learning tools.

**Why was it important to develop online safety education?**

van Hamel (2011), examined the digital literacy efforts across Canada and discovered that they were not consistent towards educating people about online privacy risks and the efforts tended to be brief. In order to participate and make informed decisions in today’s world, students required technological and information literacy skills that included the ability to gather, process, and manipulate data. In elementary school, van Hamel identified “that there are only specific curricular outcomes related to privacy in grade 5 - demonstrate an understanding of the need for the security and privacy of electronic information” (p. 19). For high school, van Hamel identified outcomes suited for digital literacy/privacy education. But, because of the increasingly younger ages of children who go online, the outcomes needed to be taught in earlier grades. Curriculum aimed at children should be delivered as interactive tutorials which require feedback and performance to complete. In addition, van Hamel recommended that the content be presented in an appealing, entertaining style with graphical flourishes to make them more like games than lessons. The intent, according to van Hamel, when enriching curriculum with interactive online tools was to engage the audience in a self-directed fashion.

Similarly, Wishart (2004) suggested that schools have a fundamental role in ensuring student safety while online and teaching internet safety practices. In a Canadian survey conducted by the Media Awareness Network (as cited in Wishart, 2004), 86% of parents thought it “very important that schools improve the online safety of children using school computers” (p. 194). One of the key problems with children engaging in online activities, according to Wishart, was they started giving personal information such as first name, last name, e-mail
address, photograph, phone number or home address. Teachers were most concerned about students viewing something that was out of their control and the major concerns of the Internet Safety organizations was inappropriate access to chat or instant messaging, bullying via e-mail and receiving inappropriate e-mail. She also recommended that materials needed to be created that allowed students to develop “net literacy and safe surfing practices that enable pupils to use the Internet responsibly and usefully both in and outside school” (p. 203). Schools could better enable children’s safety if the schools provided them with the knowledge and skills that would allow them to deal safely with problem situations rather than by restricting access.

Equally as important, Melgosa and Scott (2013) suggested that schools need to have an internet safety plan that included an internet safety policy (rules – student contract – clear consequences), filters and a school-wide Internet safety curriculum. As most schools had internet safety policy and filters, it was important for educators to focus on developing and teaching internet safety education. The primary goal, according to Melgosa and Scott, was to “help children learn to make wise choices while engaging with the internet in everyday, practical ways” (p. 29) and “prepare them to be thoughtful, ethical cyber citizens” (p. 31). However, in order to teach internet safety, Melgosa and Scott recommended that teachers be provided with the tools to effectively teach and integrate internet safety into the curriculum to ensure that students were not exposed to harmful content. As teachers became more comfortable with technology, they would “find it easier to develop strategies to integrate Internet safety into the curriculum” (p. 29).

Likewise, The Virginia Department of Education (2007) recommended that school districts should be integrating internet safety into the curriculum because acceptable use policies and filtering software are not fail proof and cannot protect students from the many risks. Because
learners were spending more time online learning, researching, communicating, playing, exploring and accessing resources, The Virginia Department of Education suggested that students learn about personal information and what was appropriate to share with others. In addition, they proposed that educators provide an academic purpose before allowing students to go online, acquaint themselves with new tools and keep up-to-date on Internet safety issues. The Virginia Department of Education also recommended that educators post online rules, review them regularly and remind students that rules were intended to ensure their safety. Furthermore, educators and administrators needed to understand the potential risk when using the internet for instruction, data collection, storage and communication.

Barr and Masters (2009) conducted research to find out if it would be beneficial to have younger students go through cyber-safety training prior to joining less secure social networking sites. For their research, they created an online learning community using SuperClubsPLUS. This site provided students with an opportunity to: communicate with teachers, peers and mediators using a secure internal e-mail; create websites around their favorite topics; contribute to discussion forums; develop web safety skills; participate in online polls, quizzes and surveys; talk with experts and guests; and play collaborative games. From their study, Barr and Masters discovered that it was advantageous for students to have a wide range of activities to choose from and that online forums where usually popular among older students. Although it was beneficial to allow students to participate in an online learning community, they recommended that educators establish rules, monitor student activity and deal with situations via e-mails that point out the problem and remind students of the rules. Students have benefited from supported programs that are about cyber-safety in an effort to shape their cyber-safe habits. When students
were exposed to social networking, they enjoyed participating in social networking and they became increasingly confident in their environments.

**Could digital resilience help mitigate the risks?**

Considering the rapid growth of the Internet over the last decade, The Telnor Group (2013) speculated that by 2017, it is expected that “176 million children will be online and approximately 85 million of those children will be using a mobile device when going online” (p. 4). As the use of mobile internet devices has risen, the potential risks continued to escalate. Technology itself, has enabled young people to engage in risky or undesirable behavior. In particular, children using personal or mobile devices were at greater risk since these personal devices were less easy to control than a home or school-based computer shared by others. Children were either passive victims or active participants in risky or undesirable behavior. This could have resulted in—social, financial, legal, physical or psychological harm and could have been inflicted through content, contact, commercial transactions or security breaches. Risk-mitigation measures such as legislation, monitoring, moderating, installing applications and website filtering software and building resilience among young people helped lower the likelihood of children being exposed to harmful content. “Building resilience among young people – what might be termed ‘filters in the mind’ - will ultimately be the more powerful strategy” (p. 9).

Moreover, d'Haenens, Vandoninck and Donoso (2013) identified online resilience as a child’s ability to deal with negative online and offline experiences. Children developed online resilience through exposure to risks and stressful events. When bothered by an online risk, d'Haenens et al. identified six coping strategies that children used: stop using the internet, hope the problem goes away, talk to somebody, try to fix the problem, delete messages and block the
sender. Additionally, they pointed out that children tend to employ a variety of coping strategies when faced with online risks. Based on their research, they concluded that children higher in self-efficacy employed more proactive coping strategies when they are confronted with online bullying or sexting. As adults who frequently use the Internet were more confident in advising children about online safety, it was important to promote adult use of the internet so they can guide children on the internet. Additionally, d’Haenens et al recommended that adults needed to be promoting a positive attitude towards online safety among peer groups. Whether at home or at school, adults needed to demonstrate and promote proactive coping strategies and encourage children to talk about the problems they encounter while online. The authors proposed that a “monitoring or mediating approach seems to be more beneficial for children’s online resilience than a restrictive one” (p. 1).

Conclusion

Today, with the continued growth of technology, the educational landscape has also continued to undergo major changes. As technology has changed, so too is the way students are learning content. The internet has provided greater access to educational opportunities and Web 2.0 tools have provided educators with tools to instruct, engage and inspire their students. Many educational professionals believed that Web 2.0 applications are a great way enhance the potential learning of all students. All students have the capacity to learn, grow and mature intellectually and socially using Web 2.0 tools if they were given opportunities to develop and practice the skills. In order to take advantage of the media, educators needed to understand how the Internet has changed the educational system, the risks involved with students going online, the policies required for when students go online, the importance of internet safety education and how to develop digital resilience within their students. Web 2.0 tools have had a significant
impact on the lives of millions of people around the world and will continue to have an impact as they will help shape the way people share, communicate and learn in the future. Educators can mitigate the risk of online harm by using Web 2.0 tools to teach online safety education and develop online resilience in the intermediate grades.
Chapter 3 - Procedures and Methods

Major Project Design

As the Internet and Web 2.0 tools are being used in a variety of learning environments, it was important that educators teach students about Online Safety. Barr and Masters (2009) pointed out that students have benefited from supported programs that are about online safety in an effort to shape their online habits. But, in order to effectively teach and integrate internet safety into the curriculum, teachers needed to be provided with the tools (Melgosa and Scott, 2013). With a limited amount of educational materials related to teaching online safety in the intermediate grades, it became apparent that materials needed to be created. Because students are not being adequately equipped to deal safely with the challenging circumstances they may encounter in an on-line environment, schools need to provide Internet safety education (Wishart, 2004). The critical challenge behind this project was to design an online unit of study that would allow educators to use Web 2.0 tools to teach intermediate students how to mitigate risks and stay safe while participating in online environments.

Although this was only a starting point for teaching online safety in schools, the hope was to make other educators aware of the need for online safety curriculum. Additionally, it was hoped that other educators would build upon this work and create other units of study around online safety. The right way to balance student safety and student access to content on the Internet would be to develop curriculum that teaches students at an early age how to mitigate risks and stay safe while participating in online environments (The Telnor Group, 2013). There was certainly room for educators to development additional online safety curriculum and there was an abundance Web 2.0 tools available to engage the students. When educators teach students
to identify risky or stressful online events and how to deal with the events, it was expected that students would be less likely to participate in the events and more likely to put a stop to them.

It was decided that a website would be a logical place to house the primary content. This would allow educators from around the province and across the country to access the content whenever they needed to. Because of previous experience with the Weebly brand of websites, it was decided to use a Weebly website as the platform to house the content on. No additional costs were incurred, as a Weebly account had already been created. A Creative Commons License was applied to the website that allowed educators to share and adapt the material as long as they gave attribution, did not use the material for commercial purposes and distributed the materials under the same license. Creative Commons is a nonprofit organization that enables the sharing and use of creativity and knowledge through free legal tools. The theme for the Online Safety 101 website was selected from the wide range of themes available on the Weebly site and the banner image at the top of each page of the website was part of the theme selected. Even though the original plan was to spend eight weeks building the website, the website was completed in six weeks.

**Major Project Development**

The first stage of this Major Project was to find short online videos that were designed to support teaching online safety to children in the intermediate grades. Although there were many online resources available for parents and teachers, it was difficult to find online safety videos that were geared towards children. Eventually, after some searching, several online safety videos were discovered on the Net Safe Utah website (http://www.netsafeutah.org/). These videos proved to be appropriate material because they were short animated videos that were designed to teach specific aspects of online safety to children. After reviewing the Creative Commons
License that was applied to the Net Safe Utah animated videos, it was determined that the videos could be downloaded from the original website and uploaded onto the Online Safety 101 website. Because Net Safe Utah used a Creative Commons (Attribution, Non-Commercial, Share-Alike) 3.0 License for their Online Safety videos, the Net Safe Utah videos were allowed to be on the Online Safety 101 website. Under the Creative Commons License applied to their videos, a link needed to be provided to the original video, attribution needed to be given, and the videos could only be shared under the same license as the original.

The next stage was to find a variety of interactive Web 2.0 tools that would allow students to create artifacts that represented their learning from each video. As there are literally thousands of interactive Web 2.0 tools available on the internet, the challenge became finding Web 2.0 tools that did not require students to provide personal information such as last name or email address. Moreover, it was important to find Web 2.0 tools that would be engaging for Grade Four and Grade Five students. Because students have been brought up in a technology rich society, how educators used technology to engage the students was seen as key to student success (Taylor and Parsons, 2011). McDowell (2013) defined student engagement “as how involved or interested students appear to be in their learning” (p. 11). After researching and testing several Web 2.0 tools, ten specific tools were selected. The Web 2.0 tools that were selected to be used for the Online Safety 101 website were: Word Search Maker, Artisian Cam Picture Book Maker, Wordle, Vacaroo Voice Recording Service, Softprint Poster Maker, Make Beliefs Comix, Tagxedo, Flock Draw, Build Your Wild Self and Jeopardy Labs. See Appendix A to Appendix J for the specific Web 2.0 tool used for each lesson and their specific url (uniform resource locator) address. Hyperlinks were used to link students to external websites that contained the Web 2.0 tools. A hyperlink could be a word or group of words that the students
could click on to jump to another document, image or webpage. Throughout the website, red text was used to identify hyperlinks.

Once the videos and Web 2.0 tools were chosen for ten lessons, the next stage was to create the lessons for students. The intent was to enrich the curriculum with interactive Web 2.0 tools in order to engage the students in a self-directed fashion. To facilitate access to the ten lessons, a dropdown menu was created. The lessons were divided into smaller, more manageable steps so that students would not be overwhelmed with too much information. The first nine lessons were designed to have students watch a short Net Safe Utah video about online safety and then use a predetermined Web2.0 tool to create an artifact that represented what they learned from the videos. McDowell (2013) reported that Engagement Theory “supports the use of digital media to enhance the instructional environment by appealing to multiple modalities of learning for students” (p. 77). The tenth lesson was designed for students to use a Web 2.0 tool to show what they learned throughout the entire unit. Because the tenth lesson was designed as a summary of learning for the entire unit, a Net Safe Utah video was not required.

The directions for each lesson were provided in print form but, an audio file of the printed text was also provided for each step in the event a student was unable to read the text. This proved to be a very tedious task, but it would be beneficial for many students. The students could benefit because the presentation provided them “with multiple means of interacting with the content” (Livingstone Inquiry Group, 2011, p. 51). In order to create audio files, AudioPal was selected to convert the text-to-speech. AudioPal is a Web 2.0 tool that allows user to convert their text to speech and then embed the audio onto any website. AudioPal is a free online tool with no requirements to create an account. Because each audio file could only have a maximum
of five hundred characters, creating an audio file for each step within a lesson proved to be more viable way to convert the text-to-speech.

Each lesson also contained an interactive Web 2.0 tool that allowed students to create an artifact that represented their learning. Because students were often more motivated to participate and engage in their learning when they were given more freedom and autonomy to use digital media in an educational environment (Ito et al., 2008), educators must apply “strategies that support student engagement in learning” (Taylor and Parsons, 2011, p. 5). With an abundance of Web 2.0 tools available on the internet, only Web 2.0 tools were chosen that did not require students to create personal accounts or give out personal information such as last name or email address. Hengstler, (2011) pointed out that because digital footprints can create “traces or records of a person’s online activities” (p. 130), educators have a moral responsibility to teach students how to manage their digital footprints to protect their identities. After creating learning artifacts, students were instructed to create screen captures of their completed tasks and then save them into a file that they would be able to retrieve later. A video was provided within each lesson to demonstrate how to create a screen capture for Windows Seven and for Mac users.

A video tutorial was created for each lesson so that students and educators could learn the basics of how to use the Web 2.0 tool that would be used to create learning artifacts for each lesson. McDowell (2013) indicated that “technology influences student engagement by giving teachers additional options when explaining challenging concepts” (p. 76). The tutorial videos for each of the lessons was created using a free online screen recorder called Screencast-O-Matic (http://www.screencast-o-matic.com/). This free online screen recorder allowed screen capture recordings to be created and then uploaded to the Online Safety 101 website. Because of previous experience using Screencast-O-Matic, it only took two days to create ten tutorial
videos. Within the write up of each lesson, a large red button was used to create a link to the tutorial video that showed students and educators how to use the interactive online tool for that lesson. The button was placed under the step number two heading, on the right hand side of the page. By using a variety of media to present content to students, the ten lessons within the Online Safety 101 website incorporated one of the basic concepts of the Universal Design for Learning framework; multiple means of representation (Livingstone Inquiry Group, 2011).

Within each lesson, it was important to provide rubrics for each activity so that educators could provide expectations, focused feedback and grades for each learning artifact produced. See Appendix A to Appendix J for assessment rubrics associated with each lesson. Curriculum aimed at children should be delivered as interactive tutorials that contain feedback on performance (van Hamel, 2011). A hyperlink to the lesson rubric was placed at the top of the each lesson page under the lesson title, so that students could view the rubric and get an understanding of the requirements prior to starting each lesson. On each of the lesson pages, a link to lesson rubrics was provided that allowed educators to download a .pdf (Adobe Portable Document Format) version of each lesson rubric in order to assess completed assignments.

After creating and posting the ten lessons for students, the next stage was to create a “Welcome” page for the Online Safety 101 website. An introductory statement was added to inform viewers that it was important to teach students about online safety because of the increased use of technology in education. Additionally, an image was added below the introductory statement that defined Cyber Safety: “Cyber Safety is the safe and responsible practice regarding the use of the internet and all information/communication technology devices including mobile phones, digital cameras and webcams” (Bernard, 2012). Although the website name referred to online safety and the definition referred to cyber safety, online safety and cyber
safety are often used synonymously. The creator of the cyber safety image used a Creative Commons Attribution Share-Alike 3.0 License with her Cyber Safety image which permitted the image to be used on the Online Safety 101 website. Below the Creative Commons License that was applied to her image a link to the original image was added and attribution was given.

The next stage was to create a “Teacher Contact” page for the Online Safety 101 website. Because a similar page was created in a previous course, the content was transferred to the Online Safety 101 “Teacher Contact” page. This page was set up to communicate who the Online Safety 101 website developer was and provide contact information should he need to be contacted. Information about the developer’s teaching experience and educational training was also provided on the Teacher Contact page. Hyperlinks were included that would direct users to the homepage of the school district where the website developer taught and to the University where the Graduate Diploma was obtained. Additionally, a brief description of the website developer’s teaching career was included. A statement was also added about the website developer’s opinions and attitudes about student safety while using technology in education.

Creating pages for “Educators” was the next stage in developing this Online Safety 101 website. A permission form was created and posted that provided educators with an easily accessible permission form for students and parents to complete prior to participating in this online unit of study. See Appendix A for the permission form. Only minor adjustments were required to a permission form that was created in a previous course. According to Hengstler (2011) when interacting and posting online, educators needed to use an appropriate permission form that defined the tools used, the activities anticipated and the anticipated risks. The permission form posted on the Online Safety 101 website contained Acceptable Use Policies (AUP) that outlined expected behaviours for technology users, a list of inappropriate behaviours
and the anticipated risks. Although Hengstler (2011) suggested that the anticipated activities be defined on a permission form, because of the number of anticipated activities, a separate page was created to define the anticipated activities. For each online tool, an image of the tool, a brief description of the tool and a hyperlink to the tool website was provided.

A page was also created for educators that outlined the objectives for the unit of study on online safety. See Appendix B to Appendix K for the Learning Objectives of each lesson. The objectives stated the knowledge, skills and attitudes that the student would gain as they progressed through the online safety unit. Although many attempts were made to coordinate the Net Safe Utah videos with the Web 2.0 tools, it became clear that the content of the videos did not coordinate with the Web 2.0 tools. Instead, it was decided that the primary focus should be on encouraging students to explore, learn and acquire the knowledge and skills required to stay safe while online. The intent was to engage students by balancing stimulation and information.

A final page was created for educators that provided ideas of how they could represent and showcase student learning. Because the technical skills of teachers vary from classroom to classroom, how students presented their learning artifacts would be better left to individual educators. For example, an educator with limited technical skills could allow their students to download, save and print copies of their artifacts in order to create a poster presentation of their learning. An educator with some technical skills could allow their students to download and save artifacts in order to create an offline digital presentation of their learning. An educator with a high degree of technical skills could allow students to post their artifacts onto a password protected online class blog. Regardless of the method chosen to showcase student learning, motivating and engaging students with the material and the tools was the primary objective.
Because of the number of additional pages that were required for educators, a dropdown menu was added to the navigation bar to make it easier for educators to navigate the pages.

It was also decided that a page would need to be created for “Parents”. A dropdown menu was added to this navigation bar to make it easier for parents to navigate the pages. For parents, an information page was created in order to communicate the key risks involved with students using the Internet. Some of the key risks with using the internet included posting personal pictures, posting identifying details, cyber bullying, encountering inappropriate material and posting links to inappropriate material. Additionally, a page was created for parents that provided links to materials created by The Office of the Privacy Commissioner of Canada to help parents and youth better understand how to navigate privacy and safety issues in the online world.

Providing this information to parents allowed parents to be active participants in teaching their child(ren) about the risks of going online and how to stay safe while online. Further, it was determined that a page should be included that provided parents with an explanation of why consent was required. While no internet-based experience can ever be 100% risk-free, it was important to convey to parents that every reasonable measure to manage expected risks would be taken. Should parents not want to give consent, a brief description of alternate assignments was provided. As the content for the parent pages had already been created in a previous course, the content was easily transferred to the Online Safety website.

In an effort to gather information from educators regarding Beta-Testing of the Online Safety 101 website, an online form was created using Google Form. See Appendix L for the Beta-Testing feedback form. Although the feedback page was created for the Online Safety 101 website, the feedback page was not housed on the Online Safety 101 website. Instead, a hyperlink was added to the navigation bar that directed educators to an external site that housed the
feedback page. By creating a feedback page using Google Form, responses were automatically collected and presented in a Google Docs spreadsheet. In addition, a folder was automatically generated within Google Drive for the responses to be stored. Educators were not required to provide personal information such as name, school or grade. Educators who spent time Beta-Testing the website were asked on the feedback page to “[p]lease provide feedback on your experiences using the Online Safety 101 website.” Once responses were added to the text window, feedback could be submitted by clicking on the blue “submit” button at the bottom of the page. See Appendix M for the Beta-Testing feedback responses.

**Major Project Delivery**

In an effort to have educators Beta-Test the Online Safety 101 website and provide anecdotal feedback, the website was shared with educators from across the school district through personal email addresses. The original email was sent out on September 9th, 2014. Because permission was not granted from the Superintendent of the school district, emails were not sent out using school district email addresses. In the emails, a link was provided to the Online Safety 101 website and to the Beta-Testing feedback page. An invitation to Beta-Test the website and provide feedback was shared in two Google + communities (Teachers helping Teachers and Elementary School Teachers). Additionally, a post was placed on the OLTD@VIU Facebook page in an effort to solicit feedback from a broader audience. The message posted on the OLTD@VIU Facebook page asked “[i]f anyone [wa]s interested in checking out the Online Safety 101 website and provide some Beta-Testing feedback, I would greatly appreciate it.”

It was requested that Beta-Testing feedback be completed by September 28th, 2014. Once feedback was collected from people who chose to Beta-Test the website, modification were then made to the website content. The informal feedback for this project was qualitative in nature
from the lens of educational professionals trying to determine if there were problems that required user participation. The qualitative findings were presented as a narrative from selected feedback in chapter four.

Educators will continue to have access to the Online Safety 101 website and share the website with colleagues throughout the province and across the country. Using the Online Safety 101 website would be a great starting point for educators to teach intermediate students about online dangers and ways to protect themselves and their identities while online. Because there was a need to educate educators about the potential dangers of having their students going online, presenting a workshop on online safety during professional development days throughout the year was considered. As teachers became more comfortable with technology, they would “find it easier to develop strategies to integrate Internet safety into the curriculum” (Melgosa and Scott, 2013, p. 29). Additionally, this project may encourage others to develop a similar unit, possibly geared towards older students and focusing on online communication and social media.
Chapter 4: Field and Beta Testing

Methods and Process

The goal of this master’s degree project was to create a unit of study that would assist educators in teaching online safety to grade 4 and 5 students using Web 2.0 tools. For this project, online risks, digital footprints, acceptable use policies and online safety education for children were researched. Once the research was conducted, the next logical step was to create an online unit of study geared towards grade four and five students. First, short animated videos were chosen to teach specific aspects of online safety and age appropriate Web 2.0 tools were selected for students to create artifacts that represented their learning. Nine lessons were then developed that included a video and a Web 2.0 tool. A tenth lesson was designed for students to use a Web 2.0 tool to summarize learning through the entire online safety unit. Resources were also provided for educators that included a student permission form, a summary of the online tools to be used and the intended learning objectives. Furthermore, parents were provided with a description of the key risks, a list of additional resources and explanation of why consent was required.

After the Online Safety 101 website was created, it was important to solicit feedback from educators to determine the strengths of the website and to garner constructive feedback to improve the usefulness of the website. Soliciting feedback from educators who have had experience with technology use in education was the best way to determine if there were any problems that required user participation. In an effort to gather feedback, a basic feedback form was created using Google Form. Responses that were submitted through the Google Form, were automatically collected and presented in a Google Docs spreadsheet. The Google Docs
Feedback was requested through personal email correspondence, by posting requests in two Google+ communities and by posting on the OLTD@VIU Facebook page. The original email, which included a link to the Online Safety 101 website and to the Beta-Testing feedback page, was sent out on September 9th, 2014. An invitation to Beta-Test the website and provide feedback was also shared in two Google + communities and on the OLTD@VIU Facebook the same day. It was requested that Beta-Testing feedback be completed by September 28th, 2014. Although there was a delay to the start of the school year due to a strike, the hope was that professional colleagues would take the time to beta test the website and provide constructive feedback within the three week time frame. As beta testing feedback was submitted, modifications were promptly made to the website.

In the end, nine colleagues submitted feedback within the three week timeframe and two colleagues submitted feedback shortly after. The feedback that was submitted after the three week time frame was included as it provided additional constructive feedback. Although beta testers were not required to identify themselves, five of the eleven beta testers chose to provide their name with the feedback they submitted. For confidentiality purposes, pseudonyms (a fictitious name used to conceal someone’s real name) where created and used in this chapter to protect and conceal the true identities of the beta testers. Five other beta testers chose to send a personal email or post a comment on the OLTD@VIU Facebook page identifying that they had submitted feedback regarding the Online Safety 101 webpage. A link to the Google Form feedback page was left on the website should users wish to provide additional recommendations.
at a later date. After all responses were reviewed, the responses were compiled into a single
document attached as Appendix L.

**Findings of Beta Testing - Strengths**

With a three week window of opportunity, beta testers were able to test links, review
lessons, analyze resources and experiment with the many Web 2.0 tools. Some of the feedback
that was provided acknowledged the hard work that went into developing this resource. For
example, Tracy commented that “[y]ou have clearly put a lot of time, effort and thought into
your website (see Appendix M). Tracy also commented that “(t)his tool is going to not only
serve you well, but many other educators as well.” In addition, another beta tester commented
“[y]ou have also developed a very professional looking website with lots of information and
resources for parents and teachers alike” (Kris, as cited in Moynihan, 2014). Further, it appears
that five respondents would use this resource with their students in order to teach them about
online safety. Overall, the feedback suggested that the content of the website was well laid out
and navigating around the website was easy. “Another strength of the site is that it does not
assume a high level of fluency and technological skills on the part of the teacher(s). This makes
it inviting to neophytes to jump on board and try out this important aspect of 21st century
teaching and learning” (Gregg, as cited in Moynihan, 2014).

When developing the website and selecting the activities, it was important to provide
activities that would be engaging for Grade Four and Grade Five students. A comment was made
by Tracy suggesting that “[t]he lessons are created in such a way that they are engaging to
students by providing them a multitude of ways to learn.” Gregg also commented that “[t]he
potential for 9 and 10 years olds to imagine, create, engage and demonstrate their learning in
terms of LO's is clearly evident.” A further comment made by Margo pointed out that the
“lessons are clear, logical and engaging.” When students have been brought up in a technology rich society, how educators use technology to engage the students was seen as key to student success (Taylor and Parsons, 2011). Having three educational professionals recognize how engaging they thought this interactive unit of study would be for students also reinforced the hard work that went into developing this resource.

Providing information for parents that would allow them to be active participants in teaching their child(ren) about the risks of going online and how to stay safe while online was also seen as a strength of the website. One beta tester acknowledged that the information provided for parents was valuable and that the “links to various sites gives them many options for their own education as well as ideas for discussions with their kids (Hiede, as cited in Moynihan, 2014). Gregg further commented that he “particularly like[d] the clarity of information for parents and students in terms of safety and inherent risks involved with online activities and the dangers of sharing personal information. This is extremely important in educational settings as well as home environments.”

Another strength of the website was the selection of Web 2.0 tools for students in each of the ten lessons. In order to find ten appropriate age appropriate Web 2.0 tool, a lot of time was spent researching and testing Web 2.0 tools. “The use of web tools is great as well - all very user friendly and no data collection - perfect for young students” (Blancher, as cited in Moynihan, 2014). Another reviewer commented that “[t]here are some great videos and cool activities that will help kids develop the skills they need to use the internet in a safe and effective way” (Kris, as cited in Moynihan, 2014).

Even though the Net Safe Utah videos used in the student lessons were not created by the website developer, the videos were seen as a valuable component of the website. The videos
were permitted to be uploaded onto the Online Safety 101 website. With the Creative Commons Creative Commons (Attribution-Non Commercial-Share Alike) license, the Net Safe Utah videos were legally allowed to be shared and adapted as long as attribution was given, the content was not used for commercial purposes and the content was shared under the same license as the original. “I especially like the series of videos that are kid friendly, yet not too corny, and could be used with multiple age groups (Kris, as cited in Moynihan, 2014).

**Findings of Beta Testing - Constructive Feedback**

Constructive feedback was provided that served to improve the usefulness of the website. Several beta testers made recommendations regarding the presentation of the content on the website. A good suggestion was brought up around putting one more space between the paragraphs in the parent information sections and also between the different steps in the activities. Another colleague also suggested that the permission form should open in a new window so that users do not have to navigate backwards when finished. A reviewer suggested that the banner image that was used on every page be removed from most of the content pages because “it’s more of a distraction after the first few times. These were quick and easy fixes to the website that helped improve the presentation of the content.

Another recommendation was raised that Web 2.0 tools should not be used that contained third party advertising. A concern was raised by an unknown beta tester regarding the use of advertising on the makebeliefscomix.com website. The beta tester felt that Web 2.0 tools should “not contain any advertisements - makebeliefscomix.com contained advertising and this stood out to me” (Moynihan, 2014). This was one on the challenges faced with choosing “free” Web 2.0 tools that did not require students to create personal accounts or give out personal information. In the end, it was determined that the advertising that was used on the
The makebeliefscomix.com website was relatively harmless to students. It was also determined that students should be reminded about the dangers of clicking on advertising banners; they may direct users to websites that contain inappropriate content.

Providing a permission form for the Online Safety 101 that was succinct and clear was an important recommendation. Providing a permission form that was too long and wordy may have deterred many parents from reading and potentially giving consent for their child to participate in the Online Safety unit. One reviewer suggested that “The consent forms [were] lengthy, although the information is critical for informed consent to occur for students and parents” (Gregg, as cited in Moynihan, 2014). Even though the permission form defined the activities anticipated, the acceptable behaviours and the anticipated risks, the permission form was indeed very long and wordy. Eventually, the “Permission Form” was revised and shortened so that all of the content could be presented on one side of “legal size” sheet of paper.

Using only Web 2.0 tools that did not require users to provide personal information would be a good way to begin teaching students about managing digital footprints. One beta tester identified that the second “Brain Pop” video on the “Additional Resources for Parent” page required users to subscribe to the website and provide a user name and password (Hiede, as cited in Moynihan, 2014). After revisiting and testing the link, it was determined that users were in fact required to provide personal information in order to set up an account and view the content on the website. In the end, this link was removed from the website because one of the goals of the integrated resources packages was to provide links to Web 2.0 tools that did not require students to create personal accounts or give out personal information such as last name or email address.
Having a website that did not contain any spelling or grammatical errors would also improve the usefulness of the website. Several beta testers provided some valuable feedback regarding spelling and grammatical errors. In particular, one beta tester identified that the word “Internet” was not always spelled with a capital on the permission form. According to most style guides, the word “Internet” is a proper noun and should always be capitalized. Another beta tester made a comment around inconsistent shifts in voice on the “Permission Form” and on the “Teacher Contact” page. Additionally, there was an incorrect comma used on the “Permission Form”. Missing words were also identified in objective number six and objective number eight. Despite the additional time I took to fix many of the spelling and grammatical errors, these corrections made improvements to the readability of the content on the website.

**Summary of Findings**

As most of the feedback was provided by fellow OLTD cohort members and colleagues that are highly proficient with technology in education, it would have been advantageous to have feedback from educators who were less proficient with technology. This project was designed for elementary educators to use as a resource to teach and integrate internet safety into the curriculum regardless of their technology proficiency level. For students, the hope was that they would acquire more technological skills, become better digital citizens and learn to use the internet to enhance learning. Getting feedback from grade four and grade five students about the lessons and activities would have also been advantageous. Feedback was not collected from students because there was a delay to the start of the school year due to a strike and permission was not granted from the Superintendent of the school district to solicit feedback from students.

Based on the feedback gathered from beta testers, the Online Safety 101 website was affirmed as a valid and effective way to teach online safety to grade four and grade five students.
The resources provided for educators were clearly laid out and provided educators with a valuable resource to use as part of their technology curriculum. Regardless of the technology proficiency level of individual educators, all educators would be able to use this resource. In addition, the content and information provided for parents were clearly laid out and provided valuable resources for parents to reinforce the importance of online safety at home. Further, the lessons provided for students were clearly laid out, were engaging for students and provided students with a variety of ways to represent their learning. In order to teach online safety, several beta testers commented that they would use this resource with their students.

Constructive feedback was also provided by beta testers in order to improve the usefulness of the Online Safety 101 website. Firstly, it was recommended that the content should be presented in a way that is not distracting to the users. Secondly, only Web 2.0 tools should be used that do not include third party advertising. Additionally, resources should only be provided that do not require users to provide personal information. Finally, it was recommended that the content on the website should be succinct, clear and free from any spelling or grammar errors. These constructive feedback provided by the many professionals during the beta testing phase has improved the usefulness of the website and created a better end product.
Chapter 5 - Conclusions and Recommendations

Conclusions

<table>
<thead>
<tr>
<th>Benefits of the Project</th>
<th>Limitations of the Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Content</td>
<td>- Using the Web 2.0 tools on personal devices.</td>
</tr>
<tr>
<td>- A resource package for educators to teach online safety education.</td>
<td>- The operating system used on individual computers.</td>
</tr>
<tr>
<td>- A variety of educators can use this online resource package.</td>
<td>- School bandwidth or data transfer rates.</td>
</tr>
<tr>
<td>- Web 2.0 tools used that did not compromise student safety.</td>
<td>- Maintaining and updating the website.</td>
</tr>
</tbody>
</table>

Benefits

There is no doubt that technology has altered the educational system in British Columbia and the way educators teach their students. Technology has enhanced the potential learning of students because technology has allowed greater access to information and resources. Educators have taken advantage of technology in ways that benefit learning, by aligning instructional activities with the Web 2.0 applications (Light and Polin, 2010). Batchelor (2011) pointed out that when students are given opportunities to use technology for a valid educational purpose, student learning and performance improved because they were more engaged in the activities. As students were more apt to engage in lessons that used web 2.0 tools (Barr and Masters, 2009), the lessons for this online unit of study were designed to present the content in an entertaining style that would allow students to represent their learning using a variety of interactive web 2.0 tools.
The intent was to enrich the lessons with interactive Web 2.0 tools in an effort to engage the students in a self-directed fashion (van Hamel 2011). Thus, there is a need for educators to allow their students to use the Internet as a learning tool and use Web 2.0 tools to engage students in their learning about online safety.

As educators began to incorporate technology and the Internet into the curriculum, it was imperative that educators teach their students about the risks that exist online and how to deal with them. But, in order to teach online safety, educators needed to be provided with the tools to effectively teach and integrate internet safety into the curriculum (Melogsa and Scott, 2013). With a limited amount of educational materials related to teaching online safety in the intermediate grades, it became apparent that materials needed to be created. This interactive unit of study was designed as a tool that educators could use to effectively teach and to integrate internet safety into the curriculum. In addition, it was designed to provide students with the knowledge and skills that would allow them to deal safely with problem situations. By including materials for educators, lessons for students and resources for parents, this integrated resource package was designed to be an effective way to teach online safety education to students in the intermediate grades and help shape their cyber-safe habits.

By integrating all the resources required for this unit of study to one website, this project could be used by a variety of educational professions. For example, this project could also be used a resource by educational professions regardless of their level of proficiency with technology. In addition, because all of the content for this unit of study was entirely online, educators who teach in a face to face classroom, a blended classroom or an online classroom could use this resource to teach their students about online safety. Ultimately, this project
demonstrated that an interactive online unit of study could be created that included all the necessary resources to teach online safety education to students in the intermediate grades.

The internet has provided access to much valuable information and content for educational purposes. However, there are risks for students who go online. Although many children grew up in a digital age, they were unaware of potential online risks and engaged in a wide variety of risk-taking behaviours. One of the key problems with children engaging in online activities, according to Wishart (2004), was they started giving personal information such as first name, last name, e-mail address, photograph, phone number or home address. One of the challenges for this project was to find Web 2.0 tools that would be engaging for grade four and grade five students that did not require them to provide personal information. In the end, all of the Web 2.0 tools used in the ten lessons were selected so that students did not have to provide any personal information or set up user accounts.

Limitations

One of the limitations of this major project was that several of the Web 2.0 tools on external websites could not be used on an iPad, tablet or other mobile device without installing an Adobe Flash Player app. When attempting to install Adobe Flash Player onto an Android tablet, it was discovered that Adobe has stopped the development of their Flash Player for iPads, tablets and other mobile devices. As of August 15th, 2012, Adobe stopped all development of Flash Players for all iPads, tablets and mobile devices. Although there were similar browser apps, they did not work on all sites. As many students began to bring their own personal devices to school, not being able to use their personal devices to complete the lessons may have discouraged students from using the Online Safety 101 website.
Another limitation was discovered regarding the version of the Windows operating system used on individual computers. If students were using a computer with Windows XP or an older operating systems, they would need to find an alternate way to create a screen capture of their completed assignments. As some schools within British Columbia are still using an older Windows operating system, additional instructions would need to be included in each lesson to show students how to create screen captures of their work.

School bandwidth or data transfer rates was also a limitation. When Web 2.0 tools were being used on multiple computers, high bandwidth was required. If several students attempted to watch a videos or use one of the Web 2.0 tools at the same time, without sufficient bandwidth, their work would take a very long time to complete and students would potentially get frustrated. Without sufficient bandwidth, the amount of data that could be transferred would be limited. In order for students to participate in the lessons and complete the activities, schools would need to have sufficient bandwidth to support the data transfer rates required for many students to interact with the Web 2.0 tools at the same time.

A further limitation for this resource was the time required to maintain and update the website. Constantly checking all of the links to make sure they remained free and did not require accounts to be set up or personal information to be provided would be time consuming. If links became inactive or the Web2.0 tools started requiring user to set up an account and provide personal information, then alternate Web 2.0 tools would need to be used. And, if the web 2.0 tool were changed for a lesson, then the audio file for the printed text would also need to be updated. Additionally, a new video tutorial would need to be created and uploaded to show how to use the new Web 2.0 tool.

Project Summary
Based on the positive feedback communicated by seven out of the eleven beta testers, this project would be a great resource to teach students about online safety in an effort to shape their cyber-safe habits. In the end, five out of eleven educational professionals have commented that they would use the Online Safety 101 website as a resource to teach online safety to their students. Despite the fact that this project was designed as an introductory online safety course for grade four and grade five students, there was the potential for other educators to build upon this work and create other units of study around online safety regarding social media and social networking sites. The right way to balance student safety and student access to content on the Internet was to develop curriculum to teach students at an early age how to mitigate risks and stay safe while participating in online environments (The Telnor Group, 2013).

**Recommendations**

The focus of this project was to develop the Online Safety 101 website. Additionally, this project was designed as a starting point for teaching online safety in schools and to help other educators become aware of the need for online safety curriculum. In order to take advantage of the Internet and Web 2.0 tools in ways that can enhance student learning, educators need to first teach their students about the dangers involved with going online and how to deal with them. As technology is continually changing and developing, it was hoped that other educators would build upon this work and create other units of study around online safety. After completing the beta testing phase for this project, further recommendations were considered:

- **Student Feedback:** implementation of this project would have benefited from student feedback.
ONLINE SAFETY EDUCATION IN THE INTERMEDIATE GRADES

- Ministry of Education Technology Standards: setting a minimum standard of technology and establishing learning outcome for students regarding online safety.
- Parental Involvement: an online safety workshop for parents to coincide with this unit so that parents can support student learning about appropriate Internet use.
- Professional Development: an online safety workshop for educators to help them prepare and teach this Online Safety unit.

As this website was designed to provide curriculum to enhance student safety on the Internet, it would have been useful to solicit student feedback regarding the lessons. Student feedback might have provided information as to whether the lessons motivated and engaged the students with the material and the tools. If students were not engaged in the lessons and the activities, students would be less likely to achieve the learning outcomes of the lessons. Direct feedback from students would have also been useful in evaluating the Web 2.0 tools used in the ten lessons. In addition, student feedback might have also provided information about improving the effectiveness of this website and identify other online safety issues that needed to be incorporated into the Online Safety 101 website.

It is also recommended that the British Columbia Ministry of Education set a minimum standard for technology and ensure that all schools were equipped with a minimum standard of technology. Educators may be more likely to use technology if the technology is well supported. In addition, the British Columbia Ministry of Education would need to set learning standards for the provincial education system regarding online safety. Educators could use the Online Safety 101 website as starting point to teach their students how to use the Internet safely. And, as educators became more comfortable with technology, they could develop additional resources to
teach online safety. The more comfortable educators become with technology, the easier they will find it to integrate online safety into the curriculum (Melgosa and Scott, 2013). Educators also need to understand that online safety resources would need to be updated and developed to meet the ever changing demands of the online world.

Although the Online Safety 101 website included information for parents regarding key risks and additional resources, an online safety workshop for parents may further benefit parent understanding online safety issues. If parents are made aware of the key risks involved with students going online, parents may become more active in protecting their children by talking with them and modeling safe online behaviours. Having parents become active participants in teaching their children about the risks of going online and how to stay safe while online, would be invaluable. Additionally, if online safety becomes part of the provincial education system, then parents might become more active in ensuring that their children use the Internet safely.

Even though this website was developed as a resource for educators to use regardless of their technology proficiency level, an online safety workshop may benefit educational professionals who were less proficient with technology. In an effort to share this resource with educators, a professional development workshop has been considered. A professional development workshop would allow educators to develop an understanding of the dangers that exist online and how to deal with them. As today’s youth are being faced with a variety of online safety issues, educators need to be educated about the online safety issues and trained to teach their students to stay safe while online. Schools have a fundamental role in ensuring student safety while online and students need to be taught how to stay safe while using the Internet as a tool to enhance their learning.
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Districts: Myth or Reality? Technology and Education: Issues in Administration, Policy, and Applications in K12 Schools: Advances in Educational Administration. Amsterdam: Elsevier JAI. 8, 115-123 DOI: 10.1016/S1479-3660(05)08009-1


Webber, Desiree. Personal communication, October 08, 2013

Appendix A – Permission Form

Permission Form for Online Safety 101

Student Name: ________________________________  Date: ______________________

Teacher Name: ________________________________  Class Division: __________

REASON FOR USE

This interactive online unit of study has been designed to teach grade 4 and grade 5 students about online safety and how to use a variety of interactive online tools. As there is an abundance of interactive online tools to choose from, only tools were selected for this Online Safety 101 website that did not require students to create personal accounts or give out personal information such as last name or email address. In the end, the intention is for students to learn how to protect themselves while online and build online skills.

ETTIQUETTE

All communications and information posted should be assumed to be the private property of those who posted it. All users are expected to abide by the generally accepted rules of network etiquette. All users are expected to behave as they would in any other environment where they represent their school. It is important that users conduct themselves in a responsible, ethical, and polite manner in accordance with the standards of propriety in the District. Users may not use abusive, vulgar, profane, obscene, harassing, or other inappropriate language.

What are some Key Risks?

Students Posting Personal Pictures

Refrain from posting a picture. Photos can invite trouble or unwanted attention. Students should not use personal pictures on any website or social media site. As some websites and social media sites allow students to create their own Avatar, it is important that parents and teachers ensure that avatars are age appropriate and non-descriptive. Recognize that avatars don't have to represent a person.

Personal or Identifying Details

Avoid any personal or identifying details when posting in a blog, on a website or on a social media site. Do not post in advance about locations that you will be or about areas that you live near.

Content is Timeless
Internet content is timeless, and keep in mind that even if you remove content, it might be archived or syndicated. If you do not want something read, do not post it to the Internet. Take a second to think about what you're posting about yourself and your friends. Is it something you would post if your teacher, boss, kid sister or arch rival was standing right behind you? Even though we tend to think about our personal sites as private, in reality, many can be seen by just about anyone. Is there information about you that is embarrassing or that fraudsters could use?

Remember that what you post could be online forever.

Cyberbullying

Bullying takes place every day on the playgrounds and in the classrooms of thousands of schools worldwide. Using Web 2.0 tools like the ones used in this unit does not keep students free from Cyberbullying. If students feel they are being harmed or harassed in a deliberate, repeated, and hostile manner, they need to inform their teacher or other school personnel.

Encountering Controversial Material

Users may encounter material, which is controversial, and which users, parents, teachers or administrators may consider inappropriate or offensive. However, on the Internet it is impossible to control the content of data and a user may discover controversial materials. It is the user's responsibility not to initiate access to such material.

Please Fill Out One Section Below and Return It to the Teacher

I, ____________________________, agree to allow my child, _____________________________’s, to use a variety of Web 2.0 tools for the purposes of engaging in classroom activities. I have informed my child about the etiquette that should be used will using the Online Safety 101 website. I am aware of, and understand the risks described above.

OR

I, ____________________________, do not give consent for my child, _____________________________, to participate in any activities on the Online Safety 101 website. I understand that my child will be given alternate assignments similar to those used on the Online Safety 101 website.

Parent Signature: _____________________________ Date: ___________________________
Appendix B – Lesson One

Overview

For lesson number one, students were instructed to watch a short animated video from Net Safe Utah about the Internet and make a list of twenty key words about the Internet. Next, students were instructed to go to Word Search Maker (http://tools.atozteacherstuff.com/word-search-maker/wordsearch.php) and create a word search using the twenty key words about the Internet. After they created a word search, students were instructed to take a screen capture of their word search and save the screen capture into a file they could retrieve later.

Learning Objectives

1) Students will develop an understanding of what the internet is and some of the good and bad things about the internet.

2) Students will develop an understanding of Web 2.0 tools and that Web 2.0 tools can be used as a fun and interactive way to represent learning.

Rubric

<table>
<thead>
<tr>
<th>Word Search</th>
<th>1 Novice</th>
<th>2 Emergent</th>
<th>3 Skilled</th>
<th>4 Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>The Word Search uses less than 8 words related to the topic.</td>
<td>The Word Search uses 8 - 13 words related to the topic.</td>
<td>The Word Search uses 14 - 19 words related to the topic.</td>
<td>The Word Search uses 20 words related to the topic.</td>
</tr>
<tr>
<td>Title</td>
<td>The Word Search has no title.</td>
<td>The Word Search has a title that is not related to the topic.</td>
<td>The Word Search has a title that is related to the topic.</td>
<td>The Word Search has a title that creates an impact.</td>
</tr>
<tr>
<td>Spelling</td>
<td>There are several spelling errors.</td>
<td>There are some spelling errors.</td>
<td>There are a few spelling errors.</td>
<td>There are no spelling errors.</td>
</tr>
</tbody>
</table>
Appendix C – Lesson Two

Overview

For lesson number two, students were instructed to watch a short animated video from Net Safe Utah about Personal Information and answer the four questions. Next, students were instructed to go to Artisian Cam Picture Book Maker (http://www.culturestreet.org.uk/activities/picturebookmaker/) and create a picture book. Within their picture book, students were asked to create a story that represented two or more characters having a discussion about personal information. After creating a picture book, students were instructed to take screen captures of all the pages from their picture book and save the screen captures into a file they could retrieve later.

Learning Objectives

1) Students will develop an understanding of what personal information is, and how they can protect their personal information while online.

2) Students will develop an understanding of Web 2.0 tools and that Web 2.0 tools can be used as a fun and interactive way to represent learning.

Rubric

<table>
<thead>
<tr>
<th>Picture Book</th>
<th>1 Novice</th>
<th>2 Emergent</th>
<th>3 Skilled</th>
<th>4 Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Picture book has not addressed any of the four questions.</td>
<td>Picture book has addressed one of the four questions.</td>
<td>Picture book has addressed two of the four questions.</td>
<td>Picture book has addressed three of the four questions.</td>
</tr>
<tr>
<td>Layout</td>
<td>The layout of the background and characters shows little effort in the design.</td>
<td>The layout of the background and characters shows some effort in the design.</td>
<td>The layout of the background and characters shows evidence of thought in the design.</td>
<td>The layout of the background and characters has an impact on the reader.</td>
</tr>
<tr>
<td>Spelling</td>
<td>There are several spelling errors.</td>
<td>There are some spelling errors.</td>
<td>There are a few spelling errors.</td>
<td>There are no spelling errors.</td>
</tr>
</tbody>
</table>
Appendix D – Lesson Three

Overview

For lesson number three, students were instructed to watch a short animated video from Net Safe Utah about Being Kind Online. Students were asked to pay attention to why it was important to be kind online and how they can be kind online. Next, students were instructed to write a six to seven sentence paragraph about being kind online. Students were then instructed to go to Wordle (http://www.wordle.net/) and create a word cloud using all the text from their paragraph. After they created a word cloud, students were instructed to take a screen capture of the word cloud and save the screen capture into a file they could retrieve later.

Learning Objectives

1) Students will develop an understanding of why it is important to be helpful and kind to others online and how they can be helpful and kind to others while online.

2) Students will develop an understanding of Web 2.0 tools and that Web 2.0 tools can be used as a fun and interactive way to represent learning.

Rubric

<table>
<thead>
<tr>
<th>Word Cloud (Wordle)</th>
<th>1 Novice</th>
<th>2 Emergent</th>
<th>3 Skilled</th>
<th>4 Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Wordle word cloud does not use very many words related to the topic.</td>
<td>Wordle word cloud uses a variety of words related to the topic.</td>
<td>Wordle word cloud uses a lot of words related to the topic.</td>
<td>Wordle word cloud uses a large number of words related to the topic.</td>
</tr>
<tr>
<td>Layout</td>
<td>Little or no attention has been paid to design and colour.</td>
<td>The colour scheme and layout shows evidence of thought in the designed and colour scheme.</td>
<td>The colour scheme and layout is appropriate for the theme.</td>
<td>The layout of the background and characters has an impact on the reader.</td>
</tr>
<tr>
<td>Spelling</td>
<td>There are several spelling errors.</td>
<td>There are some spelling errors.</td>
<td>There are a few spelling errors.</td>
<td>There are no spelling errors</td>
</tr>
</tbody>
</table>
Appendix E – Lesson Four

Overview

For lesson number four, students were instructed to watch a short animated video from Net Safe Utah about Telling Someone You Trust. Students were asked to answer two questions about how to deal with situations that makes them feel uncomfortable while online. Next, students were instructed to use a word processing program to type their responses to the two questions. Students were then instructed to go to Voice Recording Service (http://vocaroo.com/) and create an audio recording of their answers to the two questions. After creating an audio recording, students were instructed to download and save their audio recording.

Learning Objectives

1) Students will develop an understanding of what to do when someone feels uncomfortable while online and how they can deal with an uncomfortable online situation.

2) Students will develop an understanding of Web 2.0 tools and that Web 2.0 tools can be used as a fun and interactive way to represent learning.

Rubric

<table>
<thead>
<tr>
<th>Audio Recording</th>
<th>1 Novice</th>
<th>2 Emergent</th>
<th>3 Skilled</th>
<th>4 Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>None of the questions are addressed in the Audio Recording</td>
<td>One of the questions is addressed in the Audio Recording.</td>
<td>Two of the questions are addressed in the Audio Recording.</td>
<td>The student elaborates on the two questions addressed in the Audio Recording.</td>
</tr>
<tr>
<td>Voice</td>
<td>The student does not use a clear voice throughout entire recording.</td>
<td>The student does not use a clear voice throughout most of the recording.</td>
<td>The student uses a clear voice throughout most of the recording.</td>
<td>The student uses a clear voice throughout the entire recording.</td>
</tr>
<tr>
<td>Pace</td>
<td>Hard to understand the recording.</td>
<td>The student does not demonstrate a good pace throughout the entire recording.</td>
<td>The student demonstrates a good pace throughout most of the recording.</td>
<td>The student demonstrates a good pace throughout the entire recording.</td>
</tr>
</tbody>
</table>
Appendix F– Lesson Five

Overview

For lesson number five, students were instructed to watch a short animated video from Net Safe Utah about Cyber Bullying. Students were asked to pay attention to the ways cyber bullies can harm them and what they could do if they experience Cyber Bullying. Students were then instructed to go to Softprint Poster Maker - http://www.softprint.net/poster_small.html and create an online poster about Cyber Bullying. Students were required to fill in the fields for lines one to eight with short sentences about Cyber Bullying. After students created an online poster, they were instructed to take a screen capture of their online poster and save the screen capture into a file they could retrieve later.

Learning Objectives

1) Students will develop an understanding of online bullying and strategies to deal with online bullies.

2) Students will develop an understanding of Web 2.0 tools and that Web 2.0 tools can be used as a fun and interactive way to represent learning.

Rubric

<table>
<thead>
<tr>
<th>Poster (Softprint)</th>
<th>1 Novice</th>
<th>2 Emergent</th>
<th>3 Skilled</th>
<th>4 Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>The Poster includes less than 4 sentences related to the topic.</td>
<td>The Poster includes 4-5 sentences related to the topic.</td>
<td>The Poster includes 6-7 sentences related to the topic.</td>
<td>The Poster includes 8 sentences related to the topic.</td>
</tr>
<tr>
<td>Title</td>
<td>The Poster has no title.</td>
<td>The Poster has a title that is not related to the topic.</td>
<td>The Poster has a title that is related to the topic.</td>
<td>The Poster has a title that creates an impact on the reader.</td>
</tr>
<tr>
<td>Spelling</td>
<td>There are several spelling errors.</td>
<td>There are some spelling errors.</td>
<td>There are a few spelling errors.</td>
<td>There are no spelling errors.</td>
</tr>
</tbody>
</table>
Appendix G – Lesson Six

Overview

For lesson number six, students were instructed to watch a short animated video from Net Safe Utah about Personal Information and think about why it was important to keep personal information private. Next, students were instructed to go to Make Beliefs Comix (http://www.makebeliefscomix.com/Comix/) and create a three frame comic strip. Within their comic strip, students were asked to create a story that represented two or more characters having a discussion about personal information. After creating a three frame comic strip, students were instructed to take a screen capture of their comic strip and save the screen capture into a file they could retrieve later.

Learning Objectives

1) Students will develop an understanding of what personal information is, and how they can protect their personal information while online.

2) Students will develop an understanding of Web 2.0 tools and that Web 2.0 tools can be used as a fun and interactive way to represent learning.

Rubric

<table>
<thead>
<tr>
<th>Comic Strip</th>
<th>1 Novice</th>
<th>2 Emergent</th>
<th>3 Skilled</th>
<th>4 Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Comic Strip contains inappropriate content.</td>
<td>Comic Strip does not relate to the video and does not answer the question.</td>
<td>Comic Strip attempts to answer the question.</td>
<td>Comic Strip includes 1 question related to the video. Comic Strip fully answers the question.</td>
</tr>
<tr>
<td>Title</td>
<td>The Comic has no title.</td>
<td>Comic Strip has a title but, does relate to the topic.</td>
<td>Comic Strip has a good title that relates to the topic.</td>
<td>Comic Strip has a good title that creates an impact on the reader</td>
</tr>
<tr>
<td>Spelling</td>
<td>There are several spelling errors.</td>
<td>There are some spelling errors.</td>
<td>There are a few spelling errors.</td>
<td>There are no spelling errors.</td>
</tr>
</tbody>
</table>
Appendix H – Lesson Seven

Overview

For lesson number seven, students were instructed to watch a short animated video from Net Safe Utah about Online Friends. Students were asked to pay attention to some of the possible dangers while chatting online. Next, students were instructed to write a seven to eight sentence paragraph about possible dangers of chatting online using a word processing program. Students were then instructed to go to Tagxedo (http://www.tagxedo.com/app.html) and create a word cloud using all the text from their paragraph. After they created a word cloud, students were instructed to take a screen capture of the word cloud and save the screen capture into a file they could retrieve later.

Learning Objectives

1) Students will develop an understanding online friends and how to choose who to be online friends with.

2) Students will develop an understanding of Web 2.0 tools and that Web 2.0 tools can be used as a fun and interactive way to represent learning.

Rubric

<table>
<thead>
<tr>
<th>Word Cloud (Tagxedo)</th>
<th>1 Novice</th>
<th>2 Emergent</th>
<th>3 Skilled</th>
<th>4 Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Tagxedo word cloud does not use very many words related to the topic.</td>
<td>Tagxedo word cloud uses a variety of words related to the topic.</td>
<td>Tagxedo word cloud uses a lot of words related to the topic.</td>
<td>Tagxedo word cloud uses a large number of words related to the topic.</td>
</tr>
<tr>
<td>Design/Layout</td>
<td>Little or no attention has been paid to design.</td>
<td>The colour scheme and layout shows evidence of thought in the designed.</td>
<td>The colour scheme and layout is appropriate for the theme.</td>
<td>The colour scheme and layout has an impact on the reader.</td>
</tr>
<tr>
<td>Spelling</td>
<td>There are several spelling errors.</td>
<td>There are some spelling errors.</td>
<td>There are a few spelling errors.</td>
<td>There are no spelling errors.</td>
</tr>
</tbody>
</table>
Appendix I – Lesson Eight

Overview

For lesson number eight, students were instructed to watch a short animated video from Net Safe Utah about Talking to an Adult You Trust. Next, students were instructed to go to Flock Draw (http://flockdraw.com/) and create a poster that communicates what kids could do if they felt uncomfortable while they were online. After creating a poster, students were instructed to take a screen capture of their poster and save the screen capture into a file they could retrieve later.

Learning Objectives

1) Students will develop an understanding of what to do when someone feels uncomfortable while online and how they can deal with an uncomfortable online situation.

2) Students will develop an understanding of Web 2.0 tools and that Web 2.0 tools can be used as a fun and interactive way to represent learning.

Rubric

<table>
<thead>
<tr>
<th>Poster (Flock Draw)</th>
<th>1 Novice</th>
<th>2 Emergent</th>
<th>3 Skilled</th>
<th>4 Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Poster uses inappropriate pictures or words and does not communicate ideas related to the topic.</td>
<td>Poster uses a few pictures and/or words to communicate ideas related to the topic.</td>
<td>Poster uses some pictures and/or words to communicate ideas related to the topic.</td>
<td>Poster uses several pictures and/or words to clearly communicate ideas related to the topic and creates an impact on the reader.</td>
</tr>
<tr>
<td>Title</td>
<td>The Poster has no title.</td>
<td>The Poster has a title that is not related to the topic.</td>
<td>The Poster has a title that is related to the topic.</td>
<td>The Poster has a title that creates an impact.</td>
</tr>
<tr>
<td>Design/Layout</td>
<td>Little or no attention has been paid to design and layout.</td>
<td>The colour scheme shows evidence of thought in the design and layout.</td>
<td>The design and layout is appropriate for the theme.</td>
<td>The colour scheme, design and layout create an impact on the reader.</td>
</tr>
</tbody>
</table>
Appendix J – Lesson Nine

Overview

For lesson number nine, students were instructed to watch a short animated video from Net Safe Utah about Posting Pictures Online. Next, students were instructed to go to Build Your Wild Self (http://www.buildyourwildself.com/) and create an Avatar that represented them. After creating an Avatar, students were instructed to take a screen capture of their Avatar and save the screen capture into a file they could retrieve later.

Learning Objectives

1) Students will develop an understanding of the dangers of posting personal pictures online and how to create an online presence without compromising safety or privacy.

2) Students will develop an understanding of Web 2.0 tools and that Web 2.0 tools can be used as a fun and interactive way to represent learning.

Rubric

<table>
<thead>
<tr>
<th>Avatar</th>
<th>1 Novice</th>
<th>2 Emergent</th>
<th>3 Skilled</th>
<th>4 Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>The student has modified 1-2 components for their Avatar.</td>
<td>The student has modified 3-5 components for their Avatar.</td>
<td>The student has modified 6-8 components for their Avatar.</td>
<td>The student has modified 9 or more components for their Avatar.</td>
</tr>
<tr>
<td>Design</td>
<td>Little or no attention has been paid to design.</td>
<td>The design shows some evidence of thought.</td>
<td>The design is appropriate for the theme.</td>
<td>The design has an impact on the viewer.</td>
</tr>
<tr>
<td>Personal Information</td>
<td>The student has included a first and last name on their Avatar.</td>
<td>The student has included a first name and last initial on their Avatar.</td>
<td>The student has included their initials on their Avatar.</td>
<td>The student has only included a first name or used a nickname on their Avatar.</td>
</tr>
</tbody>
</table>
Appendix K – Lesson Ten

Overview

For lesson number ten, students were not required to watch a short animated video from Net Safe Utah. This lesson was designed for students to summarize their learning from the first nine lessons. Students were instructed to go to Jeopardy Labs (https://jeopardylabs.com/) and create an online Jeopardy game. After creating an online Jeopardy game, students were instructed to take screen captures of their Jeopardy game board and save the screen captures into a file they could retrieve later.

Learning Objective

1) Students will develop an understanding of Web 2.0 tools and that Web 2.0 tools can be used as a fun and interactive way to represent learning.

Rubric

<table>
<thead>
<tr>
<th>Jeopardy Game</th>
<th>1 Novice</th>
<th>2 Emergent</th>
<th>3 Skilled</th>
<th>4 Expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>The student has included less than ten answers and questions that relate to the topic.</td>
<td>The student has included ten to fifteen answers and questions that relate to the topic.</td>
<td>The student has included sixteen to twenty answers and questions that relate to the topic.</td>
<td>The student has included twenty-one or more answers and questions that relate to the topic.</td>
</tr>
<tr>
<td>Title/Category Headings</td>
<td>The student has created a title for their Jeopardy game that uses inappropriate content. The student has created less than three appropriate category headings.</td>
<td>The student has created a title for their Jeopardy game, but the title does not relate to the topic. The student has created three appropriate category headings.</td>
<td>The student has created an appropriate title for their Jeopardy game. The student has created four appropriate category headings.</td>
<td>The student has created a title for their Jeopardy game that creates an impact. The student has created five appropriate category headings.</td>
</tr>
<tr>
<td>Spelling</td>
<td>There are more than 7 spelling errors.</td>
<td>There are no more than 7 spelling errors.</td>
<td>There are no more than 4 spelling errors.</td>
<td>There are no spelling errors.</td>
</tr>
</tbody>
</table>
Appendix L – Beta-Testing Feedback Form

After Beta Testing the Online Safety 101 website, please feel free to provide feedback...
Thank You... for your time and feedback)

Please provide feedback on your experiences using the Online Safety 101 website

Submit

Never submit passwords through Google Forms.

Powered by

This content is neither created nor endorsed by Google.

Report Abuse - Terms of Service - Additional Terms
Appendix M – Beta-Testing Feedback Responses

An online form was created using Google Form to collect feedback from Beta-Testers.

Responses were automatically collected and presented in a Google Docs spreadsheet. The following is a complete list of feedback for the Online Safety 101 website.

**Feedback Response #1:**

Submitted 9/10/2014

This is a great resource!

My suggestion would be to watch the spacing around the site. I would be tempted to put one more space between the paragraphs in the parent information sections and also between the different steps in the activities. I love that you have the rubrics all attached to the different activities as well.

I noticed that you have the outcomes listed for the teachers, have you thought about linking them to the lessons so it is clear if certain lessons focus on specific outcomes?

**Feedback Response #2:**

Submitted 9/10/2014

I have spent the past 35 minutes perusing your website, Online Safety 101 using web 2.0 tools for the 10 lessons. Here is some feedback on my reflections of the website.

As an intermediate teacher I would certainly use this resource as a component of my technology curriculum and instruction. I particularly like the clarity of information for parents and students in terms of safety and inherent risks involved with online activities and the dangers of sharing personal information. This is extremely important in educational settings as well as home environments. This is a lesson in itself.

Another strength of the site is that it does not assume a high level of fluency and technological skills on the part of the teacher(s). This makes it inviting to neophytes to jump on board and try out this important aspect of 21st century teaching and learning. For the highly competent digital instructors, the site provides another electronic file and method of creating e-artifacts and products from students who are increasingly knowledgeable of media and the internet. Providing options for presentation formats reflects the UDL philosophy.

The consent forms are lengthy, although the information is critical for informed consent to occur for students and parents. This provides clarity since my belief is that most students and many parents do not fully comprehend the dangers online.
Finally, and perhaps most significantly, the tools are great fun. I knew of a few of these tools but not most of them. The potential for 9 and 10 years olds to imagine, create, engage and demonstrate their learning in terms of LO's is clearly evident.

With the proper guidance, content knowledge, and effective instruction, I can see this website being a valuable resource in ours and other districts.

**Feedback Response #3:**

Submitted 9/10/2014

I have looked at your site and it is awesome. Very comprehensive and very easy to follow.

The use of web tools is great as well - all very user friendly and no data collection - perfect for young students.

I think some improvement could be made in word choice. For example: the "good and bad things" and some sentences a bit wordy.

These are just minor grammatical issues. The overall content and website is fantastic!

Way to go.

**Feedback Response #4:**

Submitted 9/10/2014

Absolutely wonderful! Very easy to navigate and is very clearly set up. I would soooo use this program. I love how you have the rubrics embedded for each lesson. I also love how you incorporated different examples of showcasing what the students have learned according to the comfort levels of the individual teacher. Adding a resource section for parents is a great idea.

Very good resources for them to use. Empowers them. I also love how you have the "how to" video at the end of each lesson for how to screen capture.

Just a few questions/comments. Is there a reason you have the permission slip in three different places? Maybe you could put an alternative file sharing idea, such as if the teacher has Weebly Pro they could utilize the "students" section and assign each student a Weebly site of their own, which is also password protected.

Overall, I was very impressed and absolutely love how easy your site is to use. Thank you for sharing this with me.

**Feedback Response #5:**

Submitted 9/14/2014
I thought it was good that there was additional information for parents. I also thought the reminders about not sharing personal info and examples of personal info where repeated throughout the lessons.

I would have preferred to have all tools used that did not contain any advertisements - maebeliefscomix.com contained advertising and this stood out to me.

I thought that the tools used would be interesting for students and may be able to be used for other lessons on different topics.

Feedback Response #6:

Submitted 9/14/2014

Hey Michael

Loved the audio pal! And lessons are clear, logical and engaging. Also like the creative commons licensing all over the work.

Have a few observations -- In the 'about me' section, the voice changes--you switch from third person to first and the quotation marks in the first-person section are inconsistent

Be careful with plurals (saw learners' (possessive) where learners was plural and not possessive and Subject/verb and antecedent/verb agreement is inconsistent

The permission page is inconsistent as it shifts voice
The REASON FOR USE is odd (to me). It launches straight into all the 'evils' of the internet and would make me not want to give my child permission. As well, there is incorrect comma use in this section. (sorry--it's the English teacher in me)

As well, on the landing page there is a sentence that strikes me as odd--it talks about platforms being in their infancy in supporting technology... what do you mean by that? What does it have to do with cyber safety?

And who would know what FIPPA stands for...? ;-

And with web design, less is better. Bolded words underlined are really distracting as are # signs. Decreases readability.

Such are my thoughts. All the best in your work.

Feedback Response #7:

Submitted 9/15/2014
Loves:
1. The layout and theme is very suitable and not busy - great choice!
2. I like that you have listed the objectives for the lessons.
3. Everything is well organized and visually appealing.
4. Lessons have dimension and variety.
5. 'Key Risks' give a great reminder to educators and parents of what to be aware of and watch for when online with students.
6. The lessons are created in such a way that they are engaging to students by providing them a multitude of ways to learn. There are videos, book creations, audio creations, etc. Having multiple ways in which students can express their learning allows them to stay engaged with the topic. You have clearly thought about engaging students in this topic as it shows in your lessons.

Suggestions:
1. On your permission form I see "Internet" isn't always spelled with a capital "i" - it should be capitalized.
2. If you could get your permission form to open in a new window this is always appreciated by the user as then they don't have to navigate backwards when finished ;-) 

Great job, Michael! You have clearly put a lot of time, effort and thought into your website. This tool is going to not only serve you well, but many other educators as well. I know I would be happy to use this site in my teaching!

Good luck finishing up the homestretch!

Feedback Response #8:
Submitted 9/15/2014

What a great resource you have compiled here, Michael! There are some great videos and cool activities that will help kids develop the skills they need to use the internet in a safe and effective way. I especially like the series of videos that are kid friendly, yet not too corny, and could be used with multiple age groups. You have also developed a very professional looking website with lots of information and resources for parents and teachers alike. I'll admit I've bookmarked it so that I can come back to it again and perhaps use some of it in my own classroom. Thanks for this excellent resource!

Feedback Response #9:
Submitted 9/14/2014

I like it and would use this with my class. The students learn about internet safety and a variety of different applications.

Feedback Response #10:
Submitted 10/03/2014 by Hiede via Google Form
Editing needed:
- welcome page - the word technology is in almost every line.......  
- objectives 6 & 8  
- on line tools to be used - intro very wordy.... try to be more succinct.... eg. Students will be using a variety of online tools as they learn about online safety. The tools are described below and require only a mouse, etc 
- lesson 1- tool - capitalized Their- Word Search Maker allows students to make.... Customization is possible with the use of options such as....
- again........ try to be more succinct in all paragraphs 
- internet is "timeless" - I feel there is a better word than timeless... just can't think of it at the moment 
- Parents additional resources - 2nd brainpop video requires log in/ subscription?? Valuable info for parents... links to various sites gives them many options for their own education as well as ideas for discussions with their kids 
Will get to student stuff next time :)  

Feedback Response #11:  
Submitted 10/07/2014  

Under Parenting Pull Down menu - Key Risks would be better retitled to What are the risks for my child on the Internet or Why I should be concerned about Internet safety. The way its phrased now it sounds like the risks of your program.  

same picture appears on every page at the top and you have to scroll past it to see the content. its more of a distraction after the first few times. I'd suggest making it smaller or off to the side or just remove it from most content pages.  

there are a few editorial changes I would suggest on the Why consent is required parent page. I have no comment on the student pages - I assume you know what you are doing.  

Overall, it looks great. Wish my kids had this when they were in your class. Let me know if you want me to tell you what the editorial changes are. al changes are.