Can the Virginia Internet Safety Program Improve Fourth Graders’ Internet Safety Knowledge?

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ABSTRACT

The Virginia Internet safety program is the first statewide educational strategy to improve children’s Internet safety. It aims to improve children’s Internet safety knowledge through a developmentally appropriate and highly interactive online program. To assess the initial effect of this program, 1,379 fourth graders were assessed with a questionnaire covering ten aspects of Internet safety knowledge before and after they participated in the program. Before completing the program, a majority of students were found to have a substantial knowledge of Internet safety in eight of the ten aspects; however, less than half of the students chose the safe responses to two aspects and a noticeable number chose the “unsafe” answers, including 50 students who planned to meet strangers in person. After completing the program, students were found to improve their Internet safety knowledge significantly in nine of the ten aspects. However, 34 students still held the most risky attitude, planning to meet strangers in person.

Keywords: Internet, Internet Safety, Internet Safety Education, Pokémon Learning League, Virginia Department of Education

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INTRODUCTION

Children’s Internet safety has become a serious societal concern in the United States. In a national poll on children’s health, it ranked fifth among the top concerns (C. S. Mott Children’s Hospital, 2009). At the federal level alone, there are at least six major regulations concerning children’s Internet safety: Child Online Protection Act of 1998, Neighborhood Children’s Internet Protection Act of 1999, Children’s Online Privacy Protection Act of 2000, Children’s Internet Protection Act of 2000, Deleting Online Predators Act of 2006, and Protecting Children in the 21st Century Act of 2008. This is unprecedented in our national history.

Consequently, various legal, technological, and social strategies have been implemented to protect children online (Willard, 2006; Jaeger, Bertot, & McClure, 2004; Jaeger, McClure, Bertot, & Langa, 2005; Jaeger & Yan, 2009; Yan, 2009). It is increasingly understood that direct and indirect educational components must be an integral part of a multiple-strategy interdisciplinary package to help students become safe and responsible Internet users (Thornburgh & Lin, 2002; Ybarra, Mitchell, Finkelhor, & Wolak, 2007). In developing effective educational components, it is critical to consider developmental levels of students and their understanding of the risks involved (Greenfield & Yan, 2006). Additionally, a student who is at risk in real-life settings is more likely than his or her counterparts to be at risk in the virtual world. These students are often not receptive to the guidance of their parents or other authority figures, so it is important that students are exposed to Internet safety education efforts (Wolak, Finkelhor, Mitchell, & Ybarra, 2008).

The Protecting Children in the 21st Century Act of 2008 requires elementary and secondary schools with Internet access to provide education about appropriate online behavior. The educational effort should focus on online interactions (such as social networking sites) as well as cyberbullying awareness and response. The Commonwealth of Virginia became the first state in the nation to require the integration of Internet safety education into all instructional programs. Specifically, Virginia enacted legislation requiring the superintendent of public instruction to issue Internet safety guidelines to school divisions. In response to this statewide regulation, the Virginia Department of Education’s Office of Educational Technology (OET) developed a guidance document to help educators integrate Internet safety into instruction (Virginia Department of Education, 2007). The document’s overall approach is one of balance, recognizing the need to address the risks as well as highlighting the benefits of Internet use in schools. This method acknowledges the Internet’s unprecedented access to resources for enhancing learning, researching myriad topics, communicating, exploring new ideas, and expressing creativity. At the same time, it underscores that educators and students must understand the real, significant, and constantly changing dangers associated with the Internet.

Under these guidelines, OET developed the Virginia Internet safety education program, Internet Safety and You, to provide younger students with age-appropriate Internet safety education.

This article presents an assessment of the initial effect of the Internet Safety and You program. It is a developmentally appropriate and highly interactive online program to improve elementary school students’ Internet safety knowledge. It was based on an online, animated, interactive unit that featured Pokémon characters in response to school divisions’ interest in good materials for upper elementary classrooms. The research objectives were to determine (1) fourth graders’ knowledge of Internet safety before completing the program and (2) changes of these students’ knowledge of Internet safety after completing the program. To achieve the first objective, 1,379 fourth graders were assessed with 10 Internet safety scenarios that might occur during their typical online experience based on their responses on a Likert scale (1 = unsafe, 2 = neutral, and 3 = safe),