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Internet Use Policies in the Public Schools of Nebraska: Implications for Health Education

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INTERNET USE POLICIES IN THE PUBLIC SCHOOLS OF NEBRASKA: IMPLICATIONS FOR HEALTH EDUCATION

A Thesis

Presented to the

School of Health, Physical Education and Recreation

And the

Faculty of the Graduate College

University of Nebraska

In Partial Fulfillment

Of the Requirements for the degree

Master of Science

University of Nebraska at Omaha

By

David A. Dennison

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INTERNET POLICIES IN THE PUBLIC SCHOOLS OF NEBRASKA: IMPLICATIONS FOR HEALTH EDUCATION

David A. Dennison, M.S.

University of Nebraska at Omaha, 2000

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Nebraska school board presidents (n=604) were asked to respond to a 36-item questionnaire that addressed the issues of health education and the Internet use policy regulating Internet use in the public schools. The response rate was 22.3 percent (n=135). Nebraska school board presidents reported that health education was not an important item to take into consideration when developing an Internet use policy, but reported that that sexual content, drug content, violence-related material and commercial content, respectively were very important items the Internet use policy should regulate. Thus, this study revealed that the school board presidents of Nebraska were not aware that sexual content, drug content, violence-related material and commercial content were components of health education. Nebraska school board presidents also reported that sexual content, drug content, violence-related material and commercial content were important issues that the Internet use policy should control and each were significantly different in the reported regulation importance. Chi-square analyses found that large school districts of Nebraska perceived importance of Internet regulation and a written Internet use policy significantly more than small school districts of Nebraska.

Acknowledgments

There are many individuals and groups that have helped throughout this thesis project. I would first like to thank and express gratitude to my wife and family. My wife, Kristy Leahy, has supported me in all my school endeavors, especially in writing this thesis. I know she is exhausted reading the many drafts and taking care of the children while I write. My children have been great to allow "Dad" to work in the office without many interruptions.

The Office of Internet Studies at the University of Nebraska at Omaha provided the funding for this research process to occur. Dr. Neal Grandgennett and the Office of Internet Studies were gracious enough to fund this project.

Lastly, I want to thank my thesis committee for their efforts and contributions. I particularly want to acknowledge and thank Dr. David Corbin for being the thesis chairperson and lending his time and expertise. Dr. Sharma greatly contributed with the statistical analyses. Drs. Janice Collins and Neal Grandgennett contributed their knowledge of the Internet and school health. All committee members were a great support and allowed and provided opportunities for me to grow both professionally and personally.

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Chapter 1

Introduction

The Internet will have a major impact on how health educators facilitate learning (Daniel and Balog, 1997). The Internet provides a vast amount of information that can be solicited with just a click of a button. The accessibility and ease of Internet use has encouraged a proliferation of resources related to health and the amount of information available has propelled the Internet as an information tool for health educators (Kotecki and Siegel, 1998).

Public schools utilize the Internet for health education mainly as an information retrieval tool (Kotecki and Siegel, 1998, Daniel and Balog, 1997). Estimations in 1997 revealed that the amount of health related web sites exceed 10,000 (Kotecki and Siegel, 1997) and the information is easily accessible, thus providing health educators and their students with quick information. This information may be utilized in the classroom in the form of graphics, web assignments, communication media, and distance learning (Daniel and Balog, 1997). Examples of how the Internet can be utilized in health education includes; visuals of blocked arteries, articles about AIDS and STDs, interactive dietary analyses, self-assessments on the risk of contracting skin cancer, health questionnaires and health subject searches using a search engine (i.e. Lycos, Altavista, etc.) (Daniel and Balog, 1997).

Many technological advances have changed society and caused a stir in the American population. The television has revolutionized the manner in which information is distributed to the general populace. The telephone allows for communication with one or more persons without the inconvenience of waiting for a return message (e.g., postal

service). Some individuals believe these societal interventions have demonstrated little impact on the instruction and procedures in school settings (Mike, 1996).

The Internet has caused society, as a whole, to take notice and to either be directly or indirectly affected by its influence and power. The Internet possesses many distinct characteristics that television and telephones do not. The Internet is both a communication tool and an information distributor. The majority of the information found on the Internet is textual and thus, requires literacy skills to decipher the information. Although most of the information is textual, graphics and interactive activities place it in a different position than other technologies. Visuals accompanied by text can add to the learning and retention of the subject matter. Health education can utilize the graphics and interactive capabilities to illustrate and add depth to the material. Imagine the impact of having a graphic of a clogged artery accompany a lecture, or even better, the ability to take a virtual voyage through the arteries and happen upon a clogged artery as opposed to basic text in a book. This type of usage can increase the students desire to learn and it captures the imagination and attention of the students.

Health educators can also utilize the Internet for preparation and information retrieval purposes as well. A health educator can seek advice or answers to questions via e-mail, perform literature searches through the various health databases, download health related software to be utilized in the classroom for instructional or preparation purposes, and exchange information and ideas with other health educators, locally or internationally (Stivers and Bentley, 1995).

This great information tool has been recognized by the public schools, especially in Nebraska, and has become an important part of public education over the past several years (Clyde, 1997). The Clinton administration proposed that all schools become connected to the Internet by the twenty-first century (Mike, 1996). Nebraska's attempt to meet Clinton's proposal has led the Nebraska Educational Service Units to contract a professional team to evaluate the statewide approach to public schools becoming connected and maintaining connection to the Internet. This led to a survey done by a University of Nebraska at Omaha team that reported that 99.7 percent of the schools in the state of Nebraska were connected to the Internet. In addition, the Internet would be an important learning tool in the classroom within the next five years (Topp, Grandgenett, Ostler, and Mortenson, 1998). With this influx of use in the schools there has arisen the misuse and abuse of the Internet. The same study indicated that school principals are concerned about students' access to inappropriate material found on the Internet (Topp, et al, 1998).

The vast amount of health information found via the Internet allows teachers and students to access virtually unlimited amounts of data, graphics, videos, audio and information about health topics and organizations. This information may prove unreliable (Daniel and Balog, 1997). "Anyone can, intentionally or unintentionally, publish biased and unscientific health information," (Kotecki and Siegel, 1998). Therefore, how does one minimize the retrieval of biased and unscientific health information? In the past decades, health professionals could rely on the editors and reviewers of scientific journals

and textbooks to verify the scientific health information to be read in school texts, videos, and classroom activities.

In addition to concerns about accuracy, there are concerns about abuse and misuse. The intentional solicitation of objectionable material is considered abuse, while the unintentional solicitation of objectionable material is considered misuse. For purposes of this project, abuse and misuse are treated synonymously. This is because whether the act of soliciting objectionable material is intentional or unintentional the avenue to combat the action is the same. Due to this increased concern about abuse, policies and procedures have been implemented to minimize the abuse of the Internet. Three main approaches have been identified and will be discussed.

One avenue that has been taken utilizes several components that make up an Acceptable Use Policy (AUP). This method places the majority of responsibility on the user of the Internet. The decision-makers are the ones responsible for the authorship of the AUP. Therefore, depending on the decision-makers and distinct characteristics of the school district, an AUP will have general and specific guidelines. All Acceptable Use Policies should include users' rights, privileges, penalties and repercussions for abuse.

A second approach is to have an individual act as a monitor. This individual would most likely be a teacher or an adult volunteer associated with the school district. This may be done in one of two ways. In the first, the individual browses the individual computer monitors as he or she moves around the computer areas. In the second way, a special network application program, allows any computer, connected to the network to

be viewed by another computer connected to the same network. Both ways have inherent limitations and issues to debate.

Another approach that may be utilized to minimize abuse is use of an Internet filter. This may be referred to as content identification, content analysis, or phrase blocking. These filters work by having predetermined word lists that are deemed objectionable to potential users. Many of the words are associated with sexuality and certain extremist jargon. So what occurs when a user attempts to view a web page with the predetermined objectionable terms? The filter, depending upon type, will do one of four things: stop the downloading procedure, display the page while obscuring the objectionable word(s) or term, download part of the file, or the browser or entire computer connection will collapse (Schneider, 1998).

The decision to become connected to the Internet often leads to the question of what type of Internet regulation should be employed? With this decision, it is important to know what different school districts have done to examine the effects that these approaches can have on the educational process, especially in health education. Were the decisions based on educational goals or was there pressure from parents and local leaders that caused their decision to use filters and Acceptable Use Policies, and at what level were these decisions made?

No matter what the rationale a certain school district utilizes, there lies certain and inherent problems with any approach taken. Whether it is a First Amendment debate or the prohibition of educational information from being viewed, the driving force that a certain school district utilizes becomes important in determining the best method for

Internet monitoring. The purpose of this study was to answer research questions dealing with Internet use policy selection and the potential impact it has on health education in Nebraska public schools. In addition, this study attempted to determine to what extent selected health education topics are the impetus for the selection of the Internet use policy. The research questions that were addressed were:

- Are selected health education topics a major concern in establishing an Internet Use Policy?
- Who are the decision-makers and authors of the Internet Use Policy?
- Was a policy template (i.e. National School Board Association recommendations) utilized in the construction or alteration of the Internet Use Policy?
- What differences exist between small and large school districts with reference to Internet Use Policy selection?
- Are Nebraska school board presidents aware of what constitutes health education?

Chapter 2

Problem

Purpose

The purpose of this study was to answer research questions dealing with Internet use policy selection and the potential impact it has on health education in Nebraska public schools. In addition, this study attempted to determine to what extent selected health education topics are the impetus for the selection of the Internet use policy. The research questions that were addressed were;

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Delimitations

There are 604 school districts in the state of Nebraska and each of these districts has an elected or appointed school board. The school board presidents were the target population. All 604 school board presidents received the measurement tool. The questionnaire (appendix A) was distributed to the target group via mail and the subjects were asked to respond to a 36-item questionnaire.

Limitations

Limitations in this study included the low response rate, possible response bias,

incorrect addresses, and postal errors. Six hundred and four Nebraska school board

presidents were asked to respond to the questionnaire. These school board presidents are

not representative of all school board presidents in the United States.

School board presidents were selected as the target population. Some presidents

may not have been the most knowledgeable individuals to ask regarding Internet policies

and health education.

Operative definitions for this study:

Internet: A network of millions of global servers electronically connected with
individual access via a designated server.

Internet filters: A program designed to block predetermined objectionable material. This
block may be of site, word, server, protocol, or a combination of these.

Objectionable Material: Any material deemed inappropriate, by teachers, parents,
principals and school board members, for the viewing students.

Internet Abuse: The intentional act of viewing and or downloading objectionable material
relating to human sexuality, violence, drug and commercialism.

School Board Members: The individuals elected or appointed to act as the decision
making body in the individual Nebraska school districts.

AUP: Acceptable Use Policies. A set of parameters and guidelines regarding the use of
the Internet and/or computer in the classroom.

First time responders: The Nebraska school board presidents who returned the
questionnaire before the reminder card was received (n=83).

Second time responders: The Nebraska school board presidents who did not return the
questionnaire before the reminder card was received (n=52).

Small school districts: A combined total of no more than 2 schools and 100 students.

Large school districts: A combined total of more than 2 schools and 100 students.

Significance of Study

Nebraska ranks as one of the top states in Internet-connected schools and Internet use in the public schools (Education Week, 1999). Educators in the state of Nebraska pride themselves on striving to meet the technological needs of students in order for them to be contributing and healthy members of society. These are great goals, but the two main reasons that teachers do not use the Internet, according to Topp, et al (1998), are because students may retrieve inappropriate material and/or an incomplete or evolving school district policy on student Internet use.

The use of the Internet for health education purposes is vast and allows students to access almost limitless amounts of health information. This medium of health information retrieval can greatly be altered by the selection of an Internet use policy. Much of the material that decision-makers are looking to avoid or minimize relates to health education. Thus, it is important to understand the perceived negative consequences of the use of the Internet. Likewise, it is important to understand the rationale for which policies were selected. The Internet use policy may be for appearance rather than to truly address the actual problems. The Internet use policy may solely be used as a means to say that the issue of Internet regulation has been addressed in the school district, but in actuality it may serve no practical function.

Internet use policy adoption can impact health education in public school systems. The main use of the Internet for health education in public schools is information retrieval, and the policy regulating that use could have a profound effect on health education. Thus, it becomes imperative to establish and define the parameters under which a school district will allow their students to use the Internet in order to access information while at school. This study provides insight into answering the research questions outlined earlier.

Chapter 3
Review of Literature

The Internet is a network of millions of servers globally electronically connected with individual access via a designated server. Therefore, individuals (via a server) have access to information in the forms of databases, graphics, essays, photographs, communication tools (electronic mail, conferences, etc.), and individual opinions (Braun, 1997, Mike, 1996, Maker, 1996). The Internet possesses a vast amount of floating information that, in many cases, is disorganized. One of the main uses of the Internet in American society is for communication purposes. Communication among users exists in such forms as e-mail, news groups, list servers, and with direct audiovisual correspondence (Mike, 1996).

A national survey illustrated that Nebraska is above the national average regarding computers connected to the Internet in the public schools. Nebraska public schools on average have 7.2 students per Internet-connected computer and 98 percent of all the public schools have Internet access (Education Week, 1999).

Topp suggested that Nebraska public schools utilize the Internet in three main ways: as an information resource, for communication purposes, and for sharing information. Topp also stated that 80 percent of Internet use is for information retrieval (Flott, 1997). If this is true, it becomes imperative to establish whether or not information retrieval should be monitored in the public schools? In the past several years, public entities have considered that this issue may infringe upon first Amendment rights (Glick & Olson, 1998, Johnson, 1998). Likewise, if the monitoring technique is done correctly, it will provide a safe harbor for young students to utilize the Internet (Dorman, 1997).

The data cited previously illustrate that, indeed, Nebraska is utilizing the Internet in the classroom. Use of the Internet does not alarm the parents, teachers, and administrators but abuse does. As mentioned earlier, 41 percent of the principals in Nebraska expressed concern about student access (via the Internet) to inappropriate material in the classroom (Topp et al, 1998). Abuse of the Internet in public school settings includes such behaviors as intentional viewing and or downloading objectionable material relating to human sexuality, violence, drugs and an undue influence of commercialism.

Public libraries have been at the forefront in our society with respect to problems of Internet abuse and accessibility. Since many people do not have personal Internet access, the public library fills that void (Nelson, 1995). Because public libraries have a much broader user population, some issues that the public libraries have had to address, what the public school systems have only begun to address. One of these is graphical interfaces, which are graphic filtering tools that prohibit the user from viewing graphic images (i.e., jpeg, gif) without filtering text material (Schuyler, 1997). This allows textual material to be solicited without the visual components of graphics.

The next issue refers to built-in filtering systems in the web browser. The web page must have a special code in order to be viewed by the public. The individual responsible for web page construction voluntarily uses a formatted coding system that is read by the browser and given a rating similar to movies (e.g., PG, R, etc.). These filtering systems are only evaluated on appropriateness not quality. The library system administrator is responsible for determining appropriateness (Johnson, 1998).

The two issues facing public libraries and Internet accessibility have stirred debates that these devices are violating First Amendment rights and denying users of information that may be desired. The Library Bill of Rights challenges any form of censorship and they believe that they should not deny access because of age (Clyde, 1997). One argument projects that if the library does not enforce some sort of Internet monitoring, parents might not be willing to send their children to the library. If parents are dissatisfied with the manner in which a public library in their neighborhood is operating, they may vote to withdraw tax support for libraries. Policy debates such as these have only recently surfaced in the public schools because the majority of the energy has been spent on connecting the schools to the Internet and providing a good student-to-Internet connection ratios.

Each respective school district has the responsibility to define and make known the guidelines for grounds of abuse. Depending upon the individual school districts, some behaviors may not be viewed as abuse. (i.e., surfing the web for entertainment if the student has accomplished his/her task and no other student is waiting to use the computer.)

Schools have the responsibility to decree which form(s) of Internet monitoring they feel will most effectively fulfill their goals and concerns regarding the Internet. Regardless of the manner in which this is attempted, there is potential for abuse. If one looks at the three avenues mentioned earlier, there exists potential for abuse in all three.

The Acceptable Use Policies designates the majority of the responsibility to the user of the Internet. This may give unwarranted freedom to the user. The user viewing

objectionable material is a way to manifest this unwarranted freedom. Imagine the user

wanting information on breast cancer and soliciting a plethora of undesirable web sites.

Recently, the word search Bear moved from being a four-legged animal to a newer

definition-- large, hairy, gay man. Or imagine a young student wanting to find out how

beavers construct their dams and instead is directed to a pornography site. The list goes

on and on with examples of innocent users happening upon unwanted material

(Haychock, 1998).

Another manner of Internet abuse may not be so innocent. The user may

intentionally solicit objectionable material and breach the AUP. This places the policy

makers in the position of enforcing the policies written in the AUP. Policies that are not

enforced hold no weight for the students. Likewise, when punishment is not carried out,

students will most likely attempt to abuse the policy again. Like many other policy

guidelines there is much room for interpretation. This can lead into a battle of definitions

and interpretations. Due to potential confrontation, the school district may not attempt to

enforce the AUP.

The second avenue was to have some monitoring process in which the students

will be watched in one of two ways. The first was to have an actual person monitor the

computer use area. This individual will most likely be involved with the school system

either directly (teacher) or indirectly (PTA member, parent volunteers) and, thus, should

have knowledge of what is deemed objectionable material. This approach has two main

drawbacks: first, the individual must catch the student in the act. This may be difficult in

large computer use areas and computer literate students are able to manipulate the

computer in such a manner to minimize chances of being caught (i.e., program or page minimization, etc.). The second drawback lies in the individual interpretation of the monitor. This gives rise to varying definitions to objectionable material. One individual may view testicular cancer information to be objectionable, while another may view that same information as an educational tool. This may lead to student confusion on what is considered objectionable material.

The second way that monitoring may occur is through a network station, which allows all terminals to be viewed from a given station. This type of program is costly and usually requires a substantial amount of computer literacy to be effectively utilized. This type of monitoring is at the mercy of technology. What happens if the network program crashes? Either Internet use continues without monitoring, a backup plan is initialized, or Internet use discontinues.

The third mentioned approach to minimize abuse of the Internet is utilization of Internet filters. These work on the premise of blocking predefined words and phrases that are deemed objectionable for the target population. These programs possess significant limitations. Due to an enormous influx of web pages, it is virtually impossible to ban individual web pages. Therefore, filters tend to ban entire servers, which significantly limits search potential. One filter blocked a California web server based on the advertisement it carried. Another program blocked all sites containing a tilde (~) because these are often associated with personal web pages (Johnson, 1998). This has the potential to greatly limit the search ability of the student based solely on unrelated issues. This brings up the question of how do Internet filter programs determine objectionable

material? Many Internet filter programs are promoted and supported by fundamentalist family groups. Therefore, it may not be surprising that sites such as: The National Organization of Women, gay and lesbian support information, drug and alcohol groups, and animal rights groups were in the list of objectionable material (Johnson, 1998).

This type of information limitation posses a threat for health education. Much of the inappropriate material educators want to avoid deals with health education. The Internet is going to have a major impact on sexuality as we know it. But there is little empirical evidence on what is going on (Cooper, 1999). Human sexuality, drugs, commercial content and violence are all subjects that have potential to be considered inappropriate material. Likewise, the information found on the Internet with respect to human sexuality, drugs and violence can be utilized to enhance the learning of students in the classroom, and many of the existing Internet use policies minimize the retrieval potential of that information (Johnson, 1998). What would happen if a student wanted to learn the signs and risk factors associated with testicular cancer or breast cancer? If Internet filters have words like penis, breast, vagina, and sex in the predetermined list of objectionable terms, how is a student able to solicit educational material?

The Internet also allows students to acquire information via a non-threatening medium. Students may feel much more comfortable looking up information dealing with STDs, contraceptive methods, and the birthing process from a non-threatening source than from an adult in the classroom. The problem is that this type of information retrieval would be greatly limited by the Internet filter. Thus, if students are not able to acquire information from the Internet and they are not comfortable in asking a health educator,

what avenues are left? The problem becomes apparent that Internet filters can potentially

alter the facilitation of health education courses in the classroom.

Commercialism in the public schools has become a heated debate. The issues of

funding and advertising free environments have fueled the debate fire (Sandham, 1997,

Chester, 1999). The examples of commercialism, in the public schools, most likely to

have been mentioned in the public have been "Channel One," corporate sponsorships,

and in-school ads. "Channel One" is a 12-minute daily news show targeted for students in

grades 6-12 that includes two minutes of advertising for products such as jeans and soft

drinks. Therefore, the debate is whether or not public schools should allow the

advertising in the public school setting. In-schools ads are becoming more popular. These

include such forms as billboards, school bus banners, book covers and product coupons

distributed in schools (Aidman, 1995).

The nature of the Internet allows for product/service promotion to be viewed by

the students in the classroom. This is true no matter what web page is being viewed. The

public has pushed for school districts to become connected to the Internet in order to

provide the "needed" education to their students, but have they contemplated the

consequences of that change? Some advertisers have exploited the weaknesses of

children. "Advertising at its best is making people feel that without their product, you're

a loser. Kids are very sensitive to that. You open up emotional vulnerabilities" (Nader,

1999). Health education has a plethora of "reputable" sites that can be used in the

classroom. These sites also have advertisements from drug, fitness and medical

companies promoting their products. This may give the impression that these products are "better" or are being endorsed by the web site.

The Internet possesses the ability for the child to provide personal information and engage in one-on-one communication. This makes it different from other conventional forms of media and therefore, calls for specific policies and safeguards to protect the school children (Chester, 1999). The Internet use policies utilized by school districts will need to address the issues of commercialism and to what degree Internet advertising will affect the use of the Internet in the classroom.

In the following sections in this chapter the resources utilized in the review of literature can be divided into two categories defined by the manner in which the data were acquired. The first category is survey research and the second are opinion review summaries. Table 1 provides a summary based on the data retrieval methodology.

Table 1.

Summary of the authors, type of data, target population and method of the literature utilized for this study.

Author(s)	Data Type	Target Population	Method
Topp N., Grandgenett N., Ostler E., Mortenson R. (1998)	Descriptive	Nebraska Public Schools	Survey
Education Week (1999)	Descriptive	U.S. Public Schools	Survey
Menzel, D. (1998)	Opinion	Public Agencies	Lit. Review
Mike, D. (1996)	Opinion	Public Schools	Lit. Review
Johnson, D (1998)	Opinion	Public Libraries	Lit. Review
Haycock, K. (1998)	Opinion	Public Schools	Lit. Review

Survey Research

The Nebraska Education Service Units, in conjunction with a research team from

the University of Nebraska at Omaha, set out to answer a list of research questions

dealing with Internet connectivity in the public schools of Nebraska (Topp et al, 1998).

This project was structured to evaluate the progression of Internet use and connectivity in

the public schools over a five-year period. The subjects are school educators responding

to surveys and observed in the classroom of the Internet projects that they are integrating

in the classroom. The research team found that all of the state districts have direct

Internet connection in at least one building. They also reported that more than 60 percent

of the educators used the Internet at least weekly for classroom instruction.

The overwhelming belief of the research team from the University of Nebraska at

Omaha is that Nebraska, as a whole, has made excellent progress in the goals set for

connectivity and Internet use in the public schools. The progress should continue and

with technological advancements changes will need to be made to ensure a high

percentage of Internet use in the schools. Nebraska is well ahead of the majority of other

states regarding Internet access and use in the public schools (Education Week, 1999).

A national data retrieval study performed by Education Week collected data from

schoolteachers throughout the U.S. on Internet accessibility and use in the classroom

(1999). The subjects were randomly selected from Market Data Retrieval's database of

U.S. public schools. The six-page questionnaire was mailed to the sample group of

15,000 and the response rate was 9.5 percent. The survey attempted to collect data

regarding the use of computers, software, and the Internet in the classroom. The results

suggested that Nebraska ranks in the top 5 percent regarding Internet and computer

access. The national state average of students per Internet-connected computer is 13.6

and Nebraska has 7.2 students per Internet-connected computer (Education Week, 1999).

Opinion Research

Menzel (1998) examined the challenges that public managers are facing regarding

connecting to the Internet. Abuse of the Internet appears to be a major issue for

governmental agencies, and two main avenues are being investigated to combat abuse.

The first is an Acceptable Use Policy and the second is use of an Internet filter. Abuse of

the Internet includes viewing sexually oriented material, advertising for personal gain,

web surfing for entertainment, betting or selling, and posting derogatory racial, ethical, or

religious material. To minimize the abuse, as stated above, this article suggested use of an

AUP. Along with the most common components of an AUP, governmental agencies need

to specify what constitutes personal use and who has access to the Internet. There was not

an experimental design utilized to gather the data. Rather, they used a review of

professional literature addressing public Internet challenges.

Mike (1996) investigated the potential use of the Internet in the public school

setting. These uses included the Internet as a literacy tool to educate students. The

Internet requires students to read, write, and decipher much of the information. This

provides the students with a great literacy tool. The majority of information found in the

review of literature consists of professional opinions of those teachers and administrators

directly involved with Internet use in the public school. The Internet appears to provide

students with a literacy perspective, but undesirable information presented on the Internet posses a major concern for many teachers and administrators. According to Mike (1996) the use of an Internet filter along with student use policies would greatly minimize the retrieval of unwanted Internet material.

Johnson (1998) addressed some issues that dealt with censorship and limitations of Internet filter programs. He suggested that Internet filters are a form of censorship, which deny human rights to users. An Internet filter blocks information that the user may want to view, therefore, denying that user of his/her right to view the material. According to Johnson (1998) these filter programs possess significant limitations and maybe the focus should not be on how to filter the Internet but how to teach users the responsible and ethical manner to navigate the web and not impose user limitations. If schools adopt filters or other mechanical means of limiting access, they place themselves at a greater risk than by not doing so. This gives a false sense of security to the parents and schoolteachers and minimizes the responsibility that parents have to teach and monitor their children responsible use of the Internet.

Haycock (1998) addressed the need for Internet filters with regards to Internet use among children. Children need the protection from unwanted objectionable material that the Internet provides. There also needs to be more education on the responsible and effective use of the Internet and a need to develop a better navigational system for information retrieval.

The National School Board Association has issued a twelve-step process for policy development (National, 1999). The steps range from defining the issue of problem

to evaluating the policy. This document explains each of the twelve steps and provides a
checklist for completing each of them.

Summary

This review of literature produced two types of research that have been done on
the topic of the Internet and public schools. The first type gathered data via surveys and
presented the information in a descriptive analysis format. The second type was the
gathering of opinions with respect to the issue at hand. All the articles focused on
education and how the Internet and components of the Internet have changed or have
potential to change the facilitation of information in the public schools.

The objective of all school districts is to provide education to all students, which
will prepare them to be contributing members of society and relate to the demands of the
twenty-first century (Willard, 1996). The umbrella of education has many questions and
loopholes with reference to the most effective manner to facilitate such learning. The
literature has provided information on the use of Internet in the public schools and the
pros and cons of that use. The Internet can clearly be used to increase the effectiveness of
learning in the public schools, but it also possesses a negative component if used
unwisely. This especially becomes relevant when dealing with health education. As
mentioned earlier, health education topics have a great potential to be deemed
objectionable material and the retrieval of that material is one of the reasons use of the
Internet in Nebraska schools is limited (Topp et al, 1998). The central idea from the
review of the literature is to have the Internet available to all students but with some sort

of monitoring procedure. Each school has the responsibility to decide the specific monitoring procedure and make that clear to the students. This gives rise to the research questions of this thesis project: The purpose of this study was to answer research questions dealing with Internet use policy selection and the potential impact it has on health education in the public schools. In addition, this study attempted to determine to what extent selected health education topics are the impetus for the selection of the Internet use policy. The research questions that were addressed were:

- Are selected health education topics a major concern in establishing an Internet Use Policy?
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Chapter 4

Method

Introduction

Nebraska serves as an ideal forum for Internet policy and health education research because of the percentage of Internet use and the percentage of public schools connected to the Internet. The defined sample population was asked to respond to a 36-item questionnaire (Appendix A) dealing with Internet use policies and health education. The questionnaire was mailed to the target population with a cover page (Appendix B) briefly explaining the study rationale and manner in which to complete the questionnaire. A letter of introduction (Appendix C) from U.S. Senator Robert Kerrey (NE) also accompanied the questionnaire to provide support to this study and increase the response rate. The data collected was analyzed using both descriptive statistical and non-parametric chi-square analyses.

Research Design

The research utilized in this study was a non-experimental research design. The research design allowed the researcher to make logical deductions with references to the relationships of the dependent variables with the independent variable (Berg and Latin, 1994). The dependent variables measured were Internet drug content, sexual content, violence-related material, and commercial content. The proposed research project looked at the relationship the variables have with the Internet use policies in public schools. This relationship was measured in two ways. First, is determining the perceptions of the target

population with reference to the dependent variables. The perceptions specific to the dependent variables were measured by subjective responses given by the target population. This was accomplished by asking the respondents whether the specific dependent variables were adequately discussed in the decision-making process of determining the independent variable (Internet use policy) by the decision-making body. The survey also gathered data regarding the opinions, practices and driving force for decisions made with reference to the Internet use policy in the respective school districts and the impact that selected health education topics had on those decisions.

Rationale

A survey allowed the researcher to gather broad-based information and opinions of the target population (Berg & Latin, 1994). This study describes the current practice of Internet use policy development as well as whether selected health education topics are the impetus for that practice. The survey allowed the researcher to gather the opinions of these school board presidents and to determine whether they were involved in the development process of Internet use policies in their school districts. The survey also provided descriptive data about the target population and their relationship to Internet use policy construction.

Population

The target population was defined by their role in the public school system. Each of the 604 school districts in the state of Nebraska has an elected or appointed school board. All the appointed and elected school board members in the state of Nebraska served as the population. A list of the presidents, secretaries, and treasurers of the respective districts was acquired through the Nebraska Department of Education from the secretary of the executive director. A complete list of all the school board members with addresses, phone numbers, and districts was not available.

Sample and sampling procedure

A sample of the population was selected to receive the questionnaire by selecting the president of each of the respective school districts. The presidents were selected as the recipients of the questionnaire due to their position. This researcher believes that the president had a more comprehensive knowledge base of the questions asked than the other board members. There are 604 school board presidents in the state of Nebraska and all them were sent a questionnaire. A chi-square analysis was performed on those respondents who returned the questionnaire before the reminder cards were sent (n=83) categorized as first time responders and those who returned the questionnaire after the reminder cards were received (n=52) categorized as second time responders. Eighteen of the 20 variables showed no significant difference between the two groups. Table 2 illustrates the chi-square analysis that did not differ.

Table 2.

Summary of the chi-square analysis of the perceived Internet importance among first responders (n=83) and second responders (n=52).

Variable	First Responders (n=83)	Second Responders (n=52)	df	X^2	p-value
Internet Access	83	52	4	7.85	0.09
Internet as an Education Tool	83	52	4	3.01	0.55
Internet Regulation	83	52	4	4.34	0.36
Internet Policy Making	83	52	4	1.80	0.77
Principal Involvement	83	52	4	7.15	0.13
Teacher Involvement	83	52	4	2.85	0.58

Table 3 illustrates the two variables that were significantly different between the first and second time responders. Total responses may not equal 135 due to non-responders. The extent of the type of information the Internet use policy should control and the extent to which National School Board Association guidelines were followed were significantly different. First time responders reported a more extensive discussion of the two variables. This may be due to first time responders being more familiar with the Internet use policy and the issues that were discussed in the development process and therefore may have been more enthusiastic to share that information.

Table 4 is a summary of the chi-square analysis of the extent to which the items were discussed or utilized in the policy making process among first responders and

second responders. Two items were significantly different. The "type of information the

policy attempts to control" and use of the National School Board Association's guidelines

for policy development were significantly different. The first time responders reported

that "type of information the policy attempts to control" was discussed to a greater extent

and the National School Board Association's guidelines for policy development was used

to a greater extent as well.

Table 3.
Summary of the descriptive statistics of the two variables that were significantly different between first responders (n=83) and second responders (n=52).

Variable	Category	First Responders (n=83)	%	Second Responders (n=52)	%	Total
Type of information policy attempts to control						
	Great Extent	16	19.2	1	1.9	
	Considerable Extent	28	33.7	14	26.9	
	Somewhat	23	27.7	22	42.3	
	Very Little	6	7.2	7	13.5	
	Not at all	10	12.0	7	13.5	134
NSBA guidelines followed						
	Great Extent	2	2.4	1	1.9	
	Considerable Extent	21	25.3	7	13.5	
	Somewhat	25	30.1	17	32.7	
	Very Little	16	19.3	22	42.3	
	Not at all	17	20.4	4	7.7	132

Note: Actual responses may not equal total sample responses (n) due to non-responders.

Table 4.
Summary of the chi-square analysis of the extent to which the items were discussed or utilized in the policy making process among first responders (n=83) and second responders (n=52).

Variable	First Responders (n=83)	Second Responders (n=52)	df	X^2	p-value
Teacher Involvement	82	52	4	2.43	0.66
Specific Internet Policy Selection	82	51	4	6.08	0.19
Examples from Other districts	82	51	4	5.36	0.25
Type of information Policy attempts to Control	83	51	4	13.63	0.009
Superintendent Involvement	82	51	4	2.62	0.62
NSBA guidelines Followed	81	51	4	11.93	0.02
Health education Issues discussed	82	51	4	0.58	0.90
Health Limitation	82	51	4	0.47	0.93

Note: Actual responses may not equal total sample responses (n) due to non-responders.

Table 5 is a summary of the chi-square analysis of the health education components among first responders and second responders. Total responses may not equal 135 due to non-responders. No significant differences were found among the health education components and first responders and second responders. This researcher suggests that the first and second time responders are essentially the same. Only two of

the twenty variables were different and chance suggests that one in twenty would be different at the 0.05 level. Thus, this researcher makes the assumption that both first and second time responders are the same.

Table 5.
Summary of the chi-square analysis of the health education components among first responders (n=83) and second responders (n=52).

Variable	First Responders (n=83)	Second Responders (n=52)	df	X^2	p-value
Policy complements Health education	82	50	4	6.43	0.17
Regulation of Sexual content	83	52	4	6.27	0.18
Regulation of Commercial content	83	52	4	3.76	0.44
Regulation of Drug content	83	52	4	2.40	0.66
Regulation of Violence content	83	52	4	0.48	0.98
Internet policy not Limit health Information	83	51	4	5.08	0.28

Note: Actual responses may not equal total sample responses (n) due to non-responders.

Of the 604 questionnaires that were mailed, one was returned due to an incorrect address. An individual not acting as the school board president may have received others. The reminder card sent produced one individual who had not received the questionnaire but received the reminder card. Ten days following the initial questionnaire mailing a

reminder card was sent. In three of the questionnaires that were returned, the respondents indicated that the questionnaire and reminder card was received within 2 days of each other.

Instrument

The questionnaire (Appendix A) consisted of 36 items, which were broken down into four sections. The first three sections (items 1-21) were variables relating to the Internet and health education. The respondents were asked to select their responses on a five-point Likert scale. The first six are general Internet and Internet policy questions. The Likert scale ranged from "extremely important" to "unimportant". An example question is: "How important is Internet access for students in your classroom?" The second section (items 7-15) related to the discussion and decision making process for determining the Internet use policy. These questions also used a Likert scale from a "great extent" to "not at all". An example is: "To what extent were teachers involved in the development of the Internet use policy?" The third section focused on health education components and the Internet use policy. The Likert scale ranged from "extremely important" to "unimportant." An example is: "How important is it that sexual content should be regulated by the Internet use policy?" The fourth section (items 22-36) asked the respondent to provide demographic information. These data were reported categorically.

The instrument was circulated among the thesis committee with the recommended changes and suggestions incorporated. The thesis committee acted as a panel of judges to

deem whether an indicator solicited that which it is supposed to solicit (Maxim, 1999). This, three round, process was done throughout the writing of the instrument. The instrument was also piloted. A pilot test was conducted to aid in the refinement (face and content validity) of the instrument. Each questionnaire was sent with a cover page (Appendix E) explaining that the individual had been selected for a pilot test and the purpose for the pilot test. Along with the pilot test cover page, Senator Kerrey's support letter (Appendix C), questionnaire, answer sheet (bubble sheet) and a sheet for comments and suggestions were also sent. Forty questionnaires were mailed to every fifteenth board secretary from the list of 604 Nebraska school board secretaries. Five returned the questionnaire for a response rate of 12.5 percent.

Due to the pilot test and committee review the instrument was revised in several ways. An additional two questions were added to extract more demographic data and one question was added to eliminate a compound question. The two demographic questions that were added are; "Do you have a written Internet use policy for your district" and "What education level did you complete?" The overall appearance of the instrument was altered for readability and understandability.

The five responses provided insight into ways to improve the questionnaire and cover page. One of the respondents indicated that he/she was not part of the school board when the Internet policies were developed. Thus, it was decided to utilize the 1999-00 master list versus the 2000-01 list. This would allow for those individuals who were involved in the decision making process to complete the questionnaire rather than a newly elected/appointed individual who may not be familiar with the decision making

process. The cover page was changed to include a few more detailed instructions such as, use a #2 pencil, do not bend the scan sheet, return the 3x5 card to have the results sent to you and put all answers on the scan sheet.

Cover Letter and Letter of Introduction

Both a cover letter (Appendix B) and a letter of introduction (Appendix C) accompanied all the questionnaires. The cover letter briefly explained the purpose and rationale of the study. It also explained how the questionnaire was set-up and it gave instructions for completing the questionnaire. The instructions included an explanation that participation was voluntary, all data are kept confidential and no specific individual will be identified in the study. All data were reported in an aggregate format. Single school districts were not identified.

U.S. Senator Robert Kerrey of Nebraska provided the letter of introduction (Appendix C). This letter promoted the need for this study in the state of Nebraska and asked the subjects to respond to the questionnaire. It is believed that this increased the response rate and, with an increased response rate, an increase of statistical power of the study occurred. Senator Kerrey is a strong promoter of increased technology in the public schools and the subjects of this study, in the capacity that they hold, have most likely been exposed to Senator Kerrey either directly or indirectly. Senator Kerrey's letter of support reinforced the need for the study and the subject's role in the study.

Data Analyses

The types of data analyses were descriptive and non-parametric in design. Percentages and cross tabulations were used to summarize the results. Chi-square analyses were performed between the first and second responders to determine if the responses of the two groups were similar as previously discussed. Chi-square analyses were performed on the four (sexual content, drug content, violence-related material and commercial content) health education variables compared to the perceived importance of not limiting health education content, in general, on the Internet. Chi-square analyses were also performed to determine if the selected health education variables were significantly different in the perception to control that variable with an Internet use policy. In addition, chi-square analyses were also done on small and large school districts to determine if there were significant differences between the perceived importance of Internet in the schools, extent to which items were discussed or utilized in the Internet policy development stages and perceived importance of specific health content regulation.

Statistical Hypotheses:

1. H_o: There is no significant difference in the distribution of responses between the first and second responders.

   H_a: There is a significant difference in the distribution of responses between the first and second responders.

2. H_o: There is no significant difference in the distribution of responses between the four (sexual content, drug content, violence related material

and commercial content) health education variables and the perceived importance of not limiting health education content on the Internet.

H_a: There is a significant difference in the distribution of responses between the four (sexual content, drug content, violence related material and commercial content) health education variables and the perceived importance of not limiting health education content on the Internet.

3. H_o: There is no significant difference in the distribution of responses of the perceived importance of Internet in the schools, extent to which items were discussed or utilized in the Internet policy development stages and perceived importance of specific health content regulation between small and large school districts.

H_a: There is a significant difference in the distribution of responses of the perceived importance of Internet in the schools, extent to which items were discussed or utilized in the Internet policy development stages and perceived importance of specific health content regulation between small and large school districts.

Chapter 5

Results

The target population consisted of 604 public school board presidents in the state of Nebraska. Six hundred and four questionnaires (Appendix A) were sent to the defined target population with a response rate of 22.3 percent (n=135). Descriptive statistics were utilized to describe the demographic variables. Chi-square analyses described the difference of the perceived importance of the Internet policy to regulate selected health education components and the differences that existed between small and large school districts as they related to Internet policy development and the impact on health education.

The demographic characteristics of the school board presidents are summarized in Table 6. Total responders may not equal 135 due to non-responders. Fifty-six and seven-tenths (56.7) percent of the population reported being between the age of 40 and 49 years, while, 85.8 percent reported being over age 40 years. Thus, less than 15 percent of the population was under age 40 years. Females accounted for 33.1 percent of the respondents while males accounted for 66.9 percent of the target population. Over 65 percent reported having acquired a college degree with 23 percent completing some college. Less than 1 percent reported not completing high school. Twenty-four and eight-tenths (24.8) percent reported not having a written Internet policy for their district. Seventy-five and two-tenths (75.2) percent reported having a written Internet policy. Ninety-one and one-tenths (91.1) percent of the target population reported that they were elected into the position as school board president. The other 8.9 percent reported being

appointed into the position. Three percent have been the school board president for one

year or less. Twelve and seven-tenths (12.7) percent had been president between 2 and 3

years and 84.3 percent had been president for 4 years or more.

Table 6.

Summary of the demographic variables as reported by Nebraska school board presidents (n = 135).

Demographic variable	Total respondents (n)	Category	Respondents with completed data (Valid n)	Percent	% total
Age	134	20-29 years	2	1.5	
		30-39 years	17	12.7	
		40-49 years	76	56.7	
		50-59 years	32	23.9	
		60-or more	7	5.2	
					100
Gender	133	Male	89	66.9	
		Female	44	33.1	
					100
Education level	135	Less than High School	1	0.7	
		High School	14	10.4	
		Some College	31	23.0	
		College Degree	56	41.5	
		Graduate School	33	24.4	
					100
Position	135	Elected	123	91.1	
		Appointed	12	8.9	
					100
Written Internet Policy	133	Yes	100	75.2	
		No	33	24.8	
					100
Time as school board member	134	0-1 years	4	3.0	
		2-3 years	17	12.7	
		4-5 years	113	84.3	
					100

Note: Actual responses may not equal total sample responses (n) due to non-responders.

The first six variables assessed are summarized in Table 7. All six variables, relating to perceived importance of the Internet and public schools of Nebraska, reported greater than 67 percent of the responses in the "extremely" or "very important" category. Although, 9.7 percent reported the importance of making (developing) an Internet use policy as of little or no importance. Additionally, 81.4 reported that teachers should be involved in the policy making process.

The next nine variables, summarized in Table 8, were assessed to determine the extent to which the variables were involved or discussed in the policy development stages. The total number of responders may not equal 135 due to non-responders. Of the 135 school board presidents, 63.2 percent reported that the extent to which health education issues were discussed as "very little" or "not at all". None (0 percent) of the respondents reported having discussed health education issues to a "great extent". Only nine percent of the respondents discussed health education issues to a "considerable extent". In addition, 66.9 percent reported having discussed the potential affect the Internet use policy could have on health information retrieval "very little" or "not at all". Only 2.3 percent report following the National School Board Association's guidelines for policy development to a "great extent" while 15.9 percent reported not following the guidelines at all. Sixty and four-tenths (60.4) percent of the school board members reported that teachers were involved in the policy-making process at least "considerably". Sixty-five and four-tenths (65.4) percent reported that superintendents were involved "considerably".

Table 7.
Summary of the perceived importance relating to the Internet and public schools of Nebraska as reported by Nebraska school board presidents (n = 135).

Item	(n)	Extremely Important (n)	Percent	Very Important (n)	Percent	Moderately Important (n)	Percent	Of little Importance (n)	Percent	Unimportant (n)	Percent
Internet Access	135	45	33.3	57	42.2	30	22.2	2	1.5	1	0.7
Internet as an Educational tool	135	42	31.1	58	43.0	31	23.0	3	2.2	1	0.7
Internet regulation	135	59	43.7	36	26.7	30	22.2	7	5.2	3	2.2
Internet Policy Making	135	47	34.8	44	32.6	31	23.0	9	6.7	4	3.0
Principal Involvement	135	54	40.0	56	41.5	20	14.8	2	1.5	3	2.2
Teacher Involvement	135	45	33.3	65	48.1	21	15.6	2	1.5	9	6.7

The perceived importance of the Internet use policy as it relates to health education and specific health education component regulations were the next six variables summarized in Table 9. The total responses may not equal 135 due to non-responders. Ninety-one and one-tenths (91.1) percent reported that it was "very" or "extremely important" for the Internet policy to regulate sexual content. Eighty-eight and nine-tenths (88.9) percent reported that it is "very" or "extremely important" for the Internet policy to regulate violence related content. Drug and commercial content were also perceived as important variables to regulate with 75.5 and 60 percent reporting "extremely" and "very important" respectively. Only 2.3 percent reported that it is extremely important for the Internet use policy to complement health education

The four specific health education components assessed in this study were sexual content, violence-related material, drug content and commercial content. Table 10 illustrates the variables and the respective responses. Ninety-one and one-tenths (91.1) percent reported that it is "very" or "extremely important" for the Internet policy to regulate sexual content, while 88.9 percent reported that it was "very or "extremely important" for the Internet policy to regulate violence related content. Drug and commercial content were also perceived as important variables to regulate with 75.5 and 60 percent reporting "extremely" and "very important" respectively.

Table 8.

Summary of the extent to which the items were involved and/or discussed in the Internet policy development stage as reported by the Nebraska school board presidents (n = 135).

Item	(n)	Great Extent		Considerable Extent		Somewhat		Very Little		Not at All	
		(n)	Percent	(n)	Percent	(n)	Percent	(n)	Percent	(n)	Percent
Teacher Involvement	134	18	13.4	63	47.0	36	26.9	6	4.5	11	8.1
Specific Internet policy selection	133	14	10.5	50	37.6	36	27.1	20	15.0	13	9.8
Examples from Other districts	133	11	8.3	38	28.6	43	32.3	20	15.0	21	15.8
Type of information Policy attempts to Control	134	17	12.7	42	31.3	45	33.6	13	9.7	17	12.7
Superintendent Involvement	133	43	32.3	44	33.1	22	16.5	8	6.0	16	12.0
NSBA guidelines Followed	132	3	2.3	28	21.2	42	31.8	38	28.8	21	15.9
Health education Issues discussed	133	0	0.0	12	9.0	37	27.8	44	33.1	40	30.1
Health limitation	133	0	0.0	10	7.5	34	25.6	38	28.6	51	38.3

Note: Actual responses may not equal total sample responses (n) due to non-responders.

Table 9.

Summary of the perceived importance of health education items as it relates to the Internet and policies regulating the Internet as reported by Nebraska school board presidents (n = 135).

Variable	(n)	Extremely Important		Very Important		Moderately Important		Of little Importance		Unimportant	
		(n)	Percent	(n)	Percent	(n)	Percent	(n)	Percent	(n)	Percent
Policy complements Health education	132	3	2.3	37	28.0	71	53.8	14	10.6	7	5.3
Regulation of Sexual content	135	86	63.7	37	27.4	7	5.2	2	1.5	3	2.2
Regulation of Commercial content	135	35	25.9	46	34.1	43	31.9	8	5.9	3	2.2
Regulation of Drug content	135	55	40.7	47	34.8	27	20.0	2	1.5	4	3.0
Regulation of Violence content	135	72	53.3	48	35.6	9	6.7	2	1.5	4	3.0
Internet policy not Limit health Information	134	14	10.4	38	28.4	58	43.3	14	10.4	10	7.5

Note: Actual responses may not equal total sample responses (n) due to non-responders.

Table 10.

Summary table of the perceived importance for regulation of the selected health education variables as reported by Nebraska school board presidents (n=135).

Variable	(n)	Extremely Important (Percent)	Very Important (Percent)	Moderately Important (Percent)	Of little Importance (Percent)	Unimportant (Percent)
Sexual Content	135	63.7	27.4	5.2	1.5	2.2
Violence Material	135	53.3	35.6	6.7	1.5	3.0
Drug material	135	40.7	34.8	20.0	1.5	3.0
Commercial Content	135	25.9	34.1	31.9	5.9	2.2

The mean, range and standard deviation of the four selected health education components and the perceived importance of not limiting health education content on the Internet are summarized in Table 11. The total responses may not equal 135 due to non-responders. The range for each of the health education variables was 0-4. The mean reported by school board presidents for sexual content was 3.49 with a standard deviation of 0.85. The mean and standard deviation for violence was 3.35 and 0.90 respectively. The mean for drugs was 3.09 with a standard deviation of 0.97. Commercial content had a mean of 2.76 and a standard deviation of 0.98. The mean reported by school board presidents for the perceived importance of not limiting health education content on the Internet was 2.24 and the standard deviation was 1.03.

Chi-square analyses were performed on the four (sexual content, drug content, violence related material and commercial content) selected health education variables

compared to the perceived importance of not limiting health education content on the Internet. Three of the four variables are significantly different from the perceived importance of not limiting health education content on the Internet. Table 12 summarizes the results of the chi-square test on the four health education variables. The total number or responses do not equal 135 due to one non-responder. The chi-square for sexual content was 26.45 with a p-value of 0.04. Violence material had a chi-square of 36.78 with a p-value of 0.002. The drug content chi-square was 23.75 with a p-value of 0.09 and commercial content chi-square was 26.91 with a p-value of 0.04.

Table 11.

A summary table of the range, mean and standard deviation of the perceived importance for regulation of the selected health education variables and perceived importance of not limiting health education content on the Internet as reported by Nebraska school board presidents (n=135)

Health Variable	(N)	Range	Mean	Standard Deviation
Sexual content	135	0-4	3.49	0.85
Violence-related material	135	0-4	3.35	0.90
Drug content	135	0-4	3.09	0.97
Commercial content	135	0-4	2.76	0.98
Internet policy not Limit health Ed. Info	134	0-4	2.24	1.03

Note: Total responses may not equal total sample responses (n) due to non-responders.

Table 13 illustrates the chi-square analyses that were performed on the four selected health education variables. All four variables, six relationships, were significantly different from the other with a p-value < 0.001. Table 13 summarizes the chi-square values of the four health education components. Sexual content was

Table 12.

A chi-square analyses summary of the health education variables compared to the perceived importance of not limiting health education content on the Internet as reported by the Nebraska school board presidents (n=134).

Variable	(n)	df	X^2	p-value
Sexual content	134	16	26.45	0.04
Violence material	134	16	36.78	0.002
Drug material	134	16	23.75	0.09
Commercial content	134	16	26.91	0.04

Note: Actual responses may not equal total sample responses (n) due to non-responders.

significantly different in the reported perceived importance for Internet regulation than the other three variables. Likewise, drug content was significantly different than the other three health education components. In addition violence-related material and commercial content were also significantly different than the other three health education variables with p-values < 0.001.

Table 13.

Chi-square analyses of the selected health education components compared to each other with 16 df and a p-value < 0.001, as reported by the Nebraska school board presidents (n=134).

Selected health education variables	Sexual content	Drug content (X^2)	Violence-related material (X^2)	Commercial content (X^2)
Sexual content		80.40	80.41	73.96
Drug content			115.61	123.55
Violence-related Material				66.93
Commercial content				

Chi-square analyses were performed on all twenty variables among small and

large school districts as defined in chapter two. Seven of the twenty variables showed a

Table 14.
Summary of the perceived importance of the Internet in the public schools among small
and large school districts of Nebraska as reported by school board presidents(n=134).

Item	Category	Small District (n=69)	Large District (n=65)	Total
Internet Access				
	Extremely Important	24	21	
	Very Important	28	28	
	Moderately Important	16	14	
	Of little Importance	1	1	
	Unimportant	0	1	134
Internet as an educational tool				
	Extremely Important	19	23	
	Very Important	31	26	
	Moderately Important	16	15	
	Of little Importance	3	0	
	Unimportant	0	1	134
Internet regulation				
	Extremely Important	26	32	
	Very Important	17	19	
	Moderately Important	18	12	
	Of little Importance	6	1	
	Unimportant	2	1	134
Internet policy making				
	Extremely Important	17	30	
	Very Important	22	31	
	Moderately Important	20	11	
	Of little Importance	8	1	
	Unimportant	2	2	134
Principal involvement				
	Extremely Important	17	37	
	Very Important	34	21	
	Moderately Important	15	5	
	Of little Importance	1	1	
	Unimportant	2	1	134
Teacher involvement				
	Extremely Important	22	23	
	Very Important	35	29	
	Moderately Important	10	11	
	Of little Importance	2	0	
	Unimportant	0	2	134

significant difference between the small and large school districts. Table 14 summarizes the descriptive statistics of the first six variables.

Table 15 summarizes the chi-square results of the reported perceived importance of the Internet in the public schools between small and large school districts of Nebraska. Two variables revealed a significant differences: importance of Internet policy making, chi-square of 12.40 and a p-value of 0.02 and importance of involving the principal in the policy development, chi-square 16.14 and a p-value of 0.003.

Table 15.
Summary of the chi-square analyses of the perceived Internet importance among small and large schools of Nebraska as reported by the Nebraska school board presidents (n = 135).

Item	(n)	df	X^2	p-value
Internet Access	135	4	1.60	0.81
Internet as an Educational tool	135	4	6.23	0.18
Internet regulation	135	4	6.12	0.19
Internet policy Making	135	4	12.40	0.02
Principal Involvement	135	4	16.14	0.003
Teacher Involvement	135	4	6.06	0.19

The eight variables in Table 16 relate to the extent of which the items were involved or discussed in the Internet policy development stages. Table 16 summarizes the descriptive statistics of those variables. Total responses may not equal 135 due to non-responders.

Table 16.

Summary of the perceived importance of the Internet in the public schools among small and large school districts of Nebraska as reported by Nebraska school board presidents.

Item	Category	Small District (n=69)	Large District (n=65)	Total
Teacher involvement	Great Extent	9	9	
	Considerable Extent	32	31	
	Somewhat	14	22	
	Very Little	5	1	
	Not at all	9	2	134
Specific Internet policy selection				
	Great Extent	6	8	
	Considerable Extent	23	27	
	Somewhat	13	23	
	Very Little	15	5	
	Not at all	11	2	133
Examples from other disrticts				
	Great Extent	3	8	
	Considerable Extent	15	23	
	Somewhat	18	25	
	Very Little	16	4	
	Not at all	16	5	133
Type of information policy attempts to control				
	Great Extent	8	9	
	Considerable Extent	13	29	
	Somewhat	25	20	
	Very Little	10	3	
	Not at all	12	4	133
Superintendent involvement				
	Great Extent	17	26	
	Considerable Extent	16	28	
	Somewhat	15	7	
	Very Little	5	3	
	Not at all	15	1	133
NSBA guidelines followed				
	Great Extent	3	0	
	Considerable Extent	13	15	
	Somewhat	17	25	
	Very Little	22	16	
	Not at all	12	9	132
Health education issues discussed				
	Great Extent	0	0	
	Considerable Extent	6	6	
	Somewhat	20	17	
	Very Little	19	25	
	Not at all	23	17	133
Health limitation				
	Great Extent	0	0	
	Considerable Extent	6	4	
	Somewhat	15	19	
	Very Little	18	20	
	Not at all	29	22	133

Five of the eight variables demonstrated significant differences in the chi-square analysis as summarized in Table 17. The total number of responses did not always equal 135 due to non-responders. All responses were utilized in the chi-square analyses to compare small and large school districts regardless whether or not they reported a "written Internet use policy". The extent to which teachers were involved in the Internet policy development process was significantly more in the large school districts than small school districts. The chi-square is 9.42 with a p-value of 0.05. The discussion to select the specific Internet policy was significantly more in large districts than the small school districts. The chi-square was 15.45 with a p-value of 0.004. Large school districts' use of examples from other districts in drafting an Internet use policy was significantly more than small school districts. The chi-square was 18.9 with a p-value of 0.001. The type of information the policy attempts to control was discussed significantly more in the large school districts than the small school districts. The chi-square was 14.96 with a p-value of 0.005. The extent to which the superintendent was involved in making recommendations regarding the Internet use policy was significantly different more in the larger school districts versus the small school districts. The chi-square was 23.33 with a p-value of 0.0001.

Table 18 summarizes the descriptive statistics of the final six variables. These variables relate to the perceived importance of health education items and the Internet and policies regulating the Internet among small and large school districts of Nebraska. The total number responses do not equal 135 due to some non-responders.

Table 19 is a summary of the results of the chi-square analysis performed on the

final six health education variables. No significant differences were found among small

and large school districts in the specific health education components. The total number

of responses does not equal 135 (n) due to some non-responders.

Table 17.
Summary of the chi-square analysis of the extent the items were discussed or utilized in the policy making process among small and large school districts of Nebraska as reported by the Nebraska school board presidents (n = 135).

Item	(n)	df	X^2	p-value
Teacher Involvement	134	4	9.42	0.05
Specific Internet Policy selection	133	4	15.45	0.004
Examples from Other districts	133	4	18.9	0.001
Type of information Policy attempts to Control	134	4	14.96	0.005
Superintendent Involvement	133	4	23.33	0.0001
NSBA guidelines Followed	132	4	7.19	0.13
Health education Issues discussed	133	4	1.9	0.59
Health limitation	133	4	1.88	0.60

Note: Actual responses may not equal total sample responses (n) due to non-responders.

Table 18.

Summary of the perceived importance of health education items as it relates to the Internet and policies regulating the Internet among small and large school districts of Nebraska as reported by school board presidents.

Item	Category	Small District (n=69)	Large District (n=65)	Total
Policy complements health education				
	Extremely Important	1	2	
	Very Important	19	18	
	Moderately Important	37	33	
	Of little Importance	5	9	
	Unimportant	6	1	131
Regulation of sexual content				
	Extremely Important	47	38	
	Very Important	18	19	
	Moderately Important	1	6	
	Of little Importance	1	1	
	Unimportant	2	2	134
Regulation of commercial content				
	Extremely Important	20	15	
	Very Important	21	25	
	Moderately Important	21	21	
	Of little Importance	5	3	
	Unimportant	2	1	134
Regulation of drug content				
	Extremely Important	26	28	
	Very Important	23	24	
	Moderately Important	17	10	
	Of little Importance	0	2	
	Unimportant	3	1	134
Regulation of violence content				
	Extremely Important	33	38	
	Very Important	30	18	
	Moderately Important	4	5	
	Of little Importance	0	2	
	Unimportant	2	2	134
Internet policy not limit health information				
	Extremely Important	7	7	
	Very Important	22	16	
	Moderately Important	27	30	
	Of little Importance	9	5	
	Unimportant	3	7	133

Note: Actual responses may not equal total sample responses (n) due to non-responders.

Table 19.
Summary of the chi-square analysis of the health education components among small and large school districts of Nebraska as reported by the Nebraska school board presidents (n = 135).

Variable	(n)	df	X^2	p-value
Policy complements Health education	131	4	5.53	0.24
Regulation of Sexual content	134	4	5.16	0.27
Regulation of Commercialism content	134	4	1.79	0.77
Regulation of Drug content	134	4	5.63	0.29
Regulation of Violence content	134	4	6.15	0.19
Internet policy not Limit health Information	133	4	3.85	0.43

Note: Actual responses may not equal total sample responses (n) due to non-responders.

In addition to the previously mentioned twenty variables compared between the large and small school districts six demographic items were compared as well. The descriptive statistics are summarized in Table 20. The total number of responses does not equal 135 (n) due to a few non-responders. Chi-square analyses were done to compare the small and large school districts and the demographic items. Table 21 is a summary of those chi-square analyses. The total number of responses (small + large school districts) does not equal 135 (n) due to some non-responders.

Three of the six demographic variables demonstrated significant differences between small and large school districts. Small and large districts were significantly different in reporting a written Internet use policy. They reported a chi-square of 25.59 and a p-value of 0.0001.

Table 20.
Descriptive summary of the demographic variables as reported by the school board presidents of small and large school districts of Nebraska (n=135)

Demographic Item	Small Districts	Large Districts	Total
Gender			
Male	45	45	
Female	24	20	134
Written Policy			
Yes	40	60	
No	28	4	132
Time as school board member			
0-1 years	2	2	
2-3 years	12	4	
4 or more years	54	59	133
Position			
Elected	60	62	
Appointed	9	3	134
Age			
20-29	1	1	
30-39	14	3	
40-49	37	39	
50-59	11	21	
60 or more	6	1	134
Education Level			
Less than High School	1	0	
High School	10	4	
Some College	14	17	
College Degree	34	21	
Graduate School	10	23	134

Note: Actual responses may not equal total sample responses (n) due to non-responders.

Table 21.

Summary table of the chi-square analysis of the demographic items and size
of the school district (n=135).

Demographic Item	Small Districts (n)	Large Districts (n)	df	X^2	p-value
Gender	69	65	1	0.25	0.62
Written Policy	68	64	1	25.59	0.0001
Time as school Board member	68	65	2	4.34	0.11
Position	69	65	1	3.05	0.08
Age	69	65	4	14.79	0.05
Education Level	69	65	4	12.58	0.01

Note: Actual responses may not equal total sample responses (n) due to non-responders.

The large districts reported a greater percentage of written Internet use policies compared to the smaller districts. Age and education levels are also significantly different reporting chi-squares of 14.79 and 12.58 and p-values of 0.05 and 0.01 respectively. Smaller districts reported significantly younger school board presidents and more that had not completed higher education.

Chapter 6

Discussion and Implications for Health Education

Introduction

The purpose of this study was to answer research questions dealing with Internet

use policy selection and the potential impact it has on health education in the public

schools. In addition, this study attempted to determine to what extent selected health

education topics are the impetus for the selection of the Internet use policy. The research

questions that were addressed were:

- Are selected health education topics a major concern in establishing an Internet Use Policy?

- Who are the decision-makers and authors of the Internet Use Policy?

- Was a policy template (i.e. National School Board Association recommendations) utilized in the construction or alteration of the Internet Use Policy?

- What differences exist between small and large school districts with reference to Internet Use Policy selection?

- Are Nebraska school board presidents aware of what constitutes health education?

Discussion

The data clearly indicates that school board presidents are concerned about

specific health education topics such as sexual content, drug content, violence related

material, and commercial content and they reported that they should be regulated by an

Internet use policy (see Table 10). Each of the four specific health education questions

asked has a range of 0-4. Zero indicating that the importance of regulating that specific

health education component is unimportant. A four means an extreme importance for the

Internet use policy to regulate that health education component. All four mean scores are

greater than 2.76, which is a reported "important" to "extremely important" perception to

regulate health education components (see Table 11). Sexual content was the highest

reported mean, 3.49. Thus, demonstrating that sexual content was the most important

health education component to control via an Internet use policy. This may be explained

by the perceived threat that may exist of sexual content found on the Internet. Many of

the Internet regulation debates studied in the review of literature cited sexual content as

examples of abuse, and parents, teachers and public librarians expressed concern relating

to sexual content. In addition, sexual material may be viewed as more graphic or visual

that the other three selected health education components, thus posing more of a threat to

students in the classroom.

The four selected health education variables were analyzed, via chi-square, to

determine if the selected health education components were significantly different in

importance relative to Internet control. Table 13 demonstrates that all four selected health

education components differed significantly than the other three. The school board

presidents perceived the selected health education components as major issues to control

via the Internet use policy. Thus, it is clear that selected health education topics are the

impetus in the Internet policy development stages.

Commercial content was perceived, of the four selected, as the least important to

control. Commercial content in the public schools has been a topic of major debate in the

past several years (Aidman, 1995). This finding was alarming due to the many efforts to

eliminate commercialism in the public schools. Many web sites have advertisements that are sponsored by large corporate entities that are promoting a certain product and directly aimed at school aged children (Aidman, 1995). These types of advertisements would not be allowed in the hallways or on the side of a school bus, but they do exist on web sites. Again, school board presidents perceived it the least important to regulate on the Internet in their school district (Table 7). They may lack awareness of the commercialism that exists on the Internet that is targeted to school aged children.

Ironically, only 9 percent of the school board presidents reported that health education issues were discussed, to a "considerable extent", in the policy development stages and zero percent reported discussing health education issues to a "great extent" and 30.1 percent report that it was not discussed at all. When asked, how important is it that the Internet policy complements health education, only 30.3 report "very" or "extremely important" (see Table 9). But when specific health education components (i.e. sexual content, drug content, etc.) were given an importance rating, it was "extremely important" (see Table 9). In addition, when the specific health education components were compared, via chi-square analyses, to the importance that the Internet policy not limit health information found on the Internet, three of the four variables were significantly different (see Table 12). The present study suggests that the school board presidents are not clear of what constitutes health education. Sexual content, drug content, violence related material and commercial content are perceived as "extremely important" issues to control in the public schools, but "health education" is not as

important. These four components constitute important aspect of health education in the public schools.

Nebraska school board presidents are not alone in this misconception of health. Morbidity Mortality Weekly Reports published two separate studies that addressed the publics' misconception of public health. In these two separate studies, the majority of people were not able to give corresponding answers to the general concept of public health (MMWR, 1998, 2000). The 1998 study found that only four percent of the respondents were able to give a general definition of public health (MMWR). The more recent study gave a choice of four definitions of public health and still 57 percent were unable to choose the correct one (MMWR, 2000). Nonetheless, food and water safety, along with protecting the public from toxic chemicals were reported as the top priority for public health services.

Nebraska school board presidents failed to adequately discuss the selected health education components in their school board meetings. Consequently, the potential consequences that the Internet use policy could have on health education was not taken into consideration. Only 7.5 percent of the school board presidents reported having discussed, to a considerable extent, the potential impact the Internet policy could have on information retrieval. While 38.3 percent reported that it was not discussed at all (see Table 8). The potential threat that exists due to the school board presidents' not being clear of what constitutes health education is the potential limitation of health information on the Internet. Much of the "inappropriate" material that Internet policies attempt to control deals with health education. Sexual content, drug content, commercial content

and violence-related material are all subjects that have potential to be considered

inappropriate material. Likewise, the information found on the Internet with respect to

human sexuality, drug content, commercial content and violence-related material can be

utilized to enhance the learning of students in the classroom, while many of the existing

Internet use policies minimize the retrieval potential of that information (Johnson, 1998).

The school board president's lack of knowledge regarding health education may lead to

the selection and development of an Internet use policy that does not complement health

education and limits the reputable health information retrieval potential. Again, when the

school board presidents were asked how important it was that the Internet policy

complements health education, only 30.3 reported "very" or "extremely important" (see

Table 9). This strengthens this researchers belief that the school board presidents were

not clear what constitutes health education.

Small and large school districts of Nebraska were compared utilizing chi-square

analyses. This resulted in seven of the twenty variables (see Tables 15,17,19) and three of

the six demographic items being significantly different (< 0.05). Sixty-nine (69) school

districts are considered small while 65 districts were considered large. The demographic

item relating to whether or not a district reported having a written Internet use policy was

significantly different between small and large schools. Forty small districts reported

having a written Internet policy while 28 of the 68 (41%) do not have a written district

Internet use policy. The large districts report only 4 (16%) as not having a written

Internet use policy (see Table 20). The difference may be explained by different

ambiance that exists in the small and large districts. Smaller districts may not experience

the buracracy that larger districts experience thus, problems or threats may be solved more internally versus being addressed at the school board level. The perceived importance of making an Internet use policy in the public schools was also significantly different between the small and large districts as reported in Table 17. Seventy-eight and four-tenths (78.4) percent of the large schools reported that it was "extremely" or "very important" for a district to make an Internet policy, while 56.5 percent of the small schools reported that it was "extremely" or "very important". Perceived importance gives rise to action and it is clear that larger districts in Nebraska perceived Internet policy making as more important and thus were more likely to have written Internet use policies. Smaller districts did not perceive the making of Internet use policies as important as the large districts thus, 41 percent did not have written Internet use policies. This difference may also exist due to the smaller numbers of students in the classrooms. School officials may have perceived that the teachers would catch any objectionable material without the need for a written Internet use policy.

The demographics variables of age and education level, as Table 21 states, were also significantly different between small and large school districts in Nebraska. Fifteen (15) of the 69 presidents (21.7%) from small school districts of Nebraska were between the age of 20 and 39, compared to 4 (6%) individuals representing the large districts. Age may play a role in the perception of the Internet in the public schools. The small district presidents may not perceive an Internet use policy as important as the large districts that have older presidents. Completed education level may also play a role in the concept as well. Fifteen and nine-tenths (15.9) percent of the school board presidents in the small

districts only completed high school compared to 6.1 percent representing the large

school districts.

One research question posed by this study was to determine who are the authors

of Internet use policies in the public schools of Nebraska. The National School Board

Association states that one of the tasks of the school board is to make and develop

technology policies for school districts (National School Board Association, 1999). That

process includes working with principals, teachers and superintendents. All responses

were utilized in the descriptive statistics to determine authorship regardless of a reported

written Internet use policy or not. Thus, districts with no written Internet use policy

would most likely have reported "little" to "no" involvement/use of examples of teachers,

superintendents, other districts and National School Board Associations guidelines

followed.

Eighty-one and five-tenths (81.5) percent of the presidents reported that they

perceived it "very" and "extremely important" for principals and teachers to be involved

in the Internet policy-making process. It is clear that school board presidents perceived

principal and teacher involvement as a "very" or "extremely" important factor in the

Internet policy-making process. The National School Board Association also has

published guidelines for policy development at the school board level. Forty-four and

seven-tenths (44.7) percent of the respondents stated that these guidelines were followed

"very little" or "not at all". While only 23.5 percent reported following the guidelines to a

"great" or "considerable" extent. Despite the lack of following the National School Board

Association's guidelines, 60.4 percent of the school board presidents involved the

teachers to a "great" or "considerable" extent. In addition, it was reported that 65.4 percent of the superintendents were involved to a "great" or "considerable" extent. The researcher draws the conclusion that the majority of the Internet use policies were written by the school boards with marginal involvement from other individuals and groups.

Implications for Health Education

This study illustrates that Internet policy makers are clearly concerned about the potential retrieval of sexual, drug, violence and commercial related material. Only 7.4 percent of the respondents indicated that the Internet need not be regulated. Thus, one can draw the conclusion that health topics are important for board members to control. This poses a threat to seeking health education information. This study demonstrated that policy makers did not take into consideration the impact that the policy may have on health education and further more did not perceive that the Internet policy needs to complement health education. It would be beneficial to have knowledgeable and *certified* health educators in the public school systems to help combat this misconception that policy makers have regarding health education. Establishing health education lesson plans that incorporate the Internet, that can serve as examples and enhance the students learning, would have a positive impact.

The data clearly indicates that specific health education components are a major concern of the presidents of Nebraska's school boards. Of concern is that the health education components were not discussed in the policy making process. This is reason to believe that this was done due to a lack of knowledge regarding health education. This

study suggests that the school board presidents are not clear what constitutes health education. Again, it becomes imperative to have an involved and *certified* health educator in the public school system to aid in the policy making process and provide insight into the potential negative consequences that exist with an Internet policy that has not taken health education into consideration. Policies are essential in impacting the school health environment (Grebow, Greene, Harvey, Head, 2000). The health educators involved in the public schools need to voice their concerns regarding the Internet policy and get involved in the policy making process. The National School Board Association suggests teacher involvement. The health educator should be able to provide "real life" examples of the limitations the Internet policy places of health topics in the classroom and be able to demonstrate that to the school board.

Conclusions

Are selected health education topics a major concern in establishing an Internet Use Policy?

The general concept of health education was not considered an important issue for the policy makers to consider, but the separate health education issues, i.e. sexual content, drug content, violence related material and commercial content, are issues that the policy makers felt needed to be regulated by the Internet use policy.

Who are the authors of the Internet Use Policy?

> The primary authors are school board officers with marginal involvement from
>
> teacher, principals and superintendents.

Was a policy template (i.e. National School Board Association recommendations) utilized in the construction or alteration of the Internet Use Policy?

> Overwhelmingly, neither a template, suggestions from the National School Board
>
> Association or examples from other districts were utilized in the Internet policy
>
> development.

What differences exist between small and large school districts with reference to Internet Use Policy selection?

> There were significant differences that existed among the small and large schools
>
> of Nebraska relative to perceived importance of Internet regulation and Internet
>
> policy development. Large school districts of Nebraska perceived importance of
>
> Internet regulation and a written Internet use policy significantly more important
>
> than small school districts of Nebraska.

Are Nebraska school board presidents aware of what constitutes health education?

> The perceived importance of regulating specific components of health education
>
> (i.e. sexual content, etc.) was significantly more than the reported perceived
>
> importance of not limiting the health education information on the Internet.
>
> Indicating that school board presidents were not aware what constitutes health
>
> education.

Summary

Health education does have an impact on the policy making process of an Internet use policy in the school boards of Nebraska. The general concept of health education was not considered an important issue for the policy makers to consider, but the separate health education issues, i.e. sexual content, drug content, violence related material and commercial content, are issues that the policy makers felt needed to be regulated by the Internet use policy. The perceived need for regulation was not balanced with discussion of how the regulation may affect health education information retrieval. Sexual content was perceived as the most important health education component to control. In addition, all the selected health education components (i.e. sexual content, drug content, violence related material and commercial content) were significantly different from each other in the perceived importance to control by the Internet use policy in the following order: sexual content, drug material, violence-related material and commercial content. The primary authors of the Internet use policies of Nebraska are the school boards with marginal input from the teachers and principals and superintendents. There are significant differences that exist among the small and large schools of Nebraska. Large school districts of Nebraska perceived importance of Internet regulation and a written Internet use policy significantly more important than small school districts of Nebraska.

.Future Research

There exists a need for additional studies done on Internet policies and health education in the public schools. This study focused on policy development. A policy is

only effective if the target audience understands it and all involved strive to implement that policy. Thus, research on Internet policy compliance and disciplinary action to enforce that compliance is needed.

This study demonstrated a lack of understanding by the school board presidents regarding health education and the selected health education components. Future research that addresses the selected health education components individually and perceived need for regulation by the Internet use policy would provide valuable information into the insight of the Internet policy development and potential impact on health education.

The target population of this study was the policy makers. There is a need to study the perceived impact that the Internet policy has on health education from the perspective of the health educators and their students in the classroom.

This study demonstrated a perceived need for the Nebraska public schools Internet policies to regulate selected health education components while the concept of health education was misunderstood. Additional studies that address the Internet policy makers' perceptions of the potential impact that an Internet use policy can have on health education and more specifically selected health education components would help clarify this misunderstanding.

Bibliography

Aidman, A. (1995). Advertising in the Schools. <u>Eric Digest online report</u> [Online]:
    http://www.ericps.ed.uiuc.edu/eece/pubs/digests/1995/aidman95.html

Berg, K., Latin, R. (1994). <u>Essentials of Modern Research Methods in Health, Physical
    Education and Recreation.</u> Englewood Cliffs, NJ. Prentice Hall.

Braun, J. (1997). Past, Possibilities, and Potholes on the Information Superhighway.
    <u>Social Education. 61.</u> 149.

Chester, J. (1999). Center for Media Education. Available:
    http://tap.epn.org/cme/990722.html

Clyde, A. (1997). Censorship or protection? Children and access to the Internet.
    <u>Emergency Librarian. 24.</u> 48.

Copper, A. (1999). Sex and the Internet: The Triple A Effect. <u>Contemporary Sexuality.
    33.</u> 5.

Daniel E., Balog J. (1997). Utilization of the World Wide Web In Health Education.
    <u>Journal of Health Education. 28.</u> 260.

Dorman S. (1997). Internet Safety For Schools, Teachers and Parents. <u>Journal of
    School Health. 67.</u> 355.

Education Week. (1999). Technology Counts [Online Report], Available:
    http://www.edweek.org

Flott, A. (1997). Integrating the Internet. How Omaha and Nebraska schools are setting
    the pace. <u>Family - Omahas Parent and Family Magazine 10.</u> 31.

Glick A., Olson R. (1998). Judge says Web filters might violate First Amendment.
    <u>School Library Journal. 44.</u> 22.

Grewbow P., Greene B., Harvey J., Head C. (2000). Shaping Health Policies. <u>Educational
    Leadership. 1.</u> 63.

Haycock, K. (1998). Appropriate use and Internet filters. Emergency Librarian. 25. 7.

Johnson, D. (1998). Internet filters: Censorship by another name? Emergency Librarian. 25.11.

Kotecki J., Siegel D. (1997). Finding Health Information Via the World Wide Web: An Essential Resource for The Community Health Practitioner. Journal of Health Education. 28. 117.

Kotecki J., Siegel D. (1998). Use of Critical Thinking/Questioning Approach to Evaluating WWW Information. American Journal of Health Behavior. 22. 75.

Maker, G. (1996). Social studies and the Internet: Developing a school policy. Social Studies. 87. 244.

Maxim, P. (1999). Quantitative Research Methods in the Social Sciences (1st ed.). New York: Oxford University Press, Inc.

Menzel, D. (1998). www.ethics.gov: Issues and challenges facing public managers. Public Administrative Review. 58. 445.

Mike, D. (1996). Internet in schools: A literacy perspective. Journal of Adolescent and Adult Literacy. 40. 4.

Morbidity Mortality Weekly Reports. (1998). Public Opinion About Public Health— California and the United States, 1996. 47. 69-73.

Morbidity Mortality Weekly Reports. (2000). Public Opinion About Public Health— United States, 1999. 49. 258-60.

Nader, R. (1999). Commercial Education. [Online newsletter] Available at: http://www.sfbg.com/nader/54.html

National School Board Association. (1999). [Online data]. Available at: http://www.nsba.org/sbot/toolkit/PolDev.html

Nelson, C. (1995) Libraries facing challenges of providing computer access. Journal of the National Cancer Institute. 87. 410.

Sandham, J. (1997). From Walls to Roofs, Schools Sell Ad Space. [Online article], Available at: http://www.edweek.org/ew/vol-16/36ads.h16

Schneider, K. (1998). Figuring out filters. School Library Journal. 44. 36.

Schuyler, M. (1997). When does filtering turn into censorship. Computers in Libraries 17. 34.

Stivers C., Bentley M., Meccouri L. (1995). Internet: The Contemporary Health Educator's Most Versatile Tool. Journal of Health Education. 26. 196.

Topp N., Grandgenett N., Ostler E., Mortenson R. (1998). Nebraska Internet Evaluation Report Year 5 [Online Report], Available: http://www.unomaha.edu/esu98/ESU98paper.htm

Willard, N. (1996). A Legal and Educational Analysis of K-12 Internet Acceptable Use Policies. [Online Report], Available: http://www.erehwon.com/k12aup/legal_analysis.html

Appendix A

University of Nebraska at Omaha

Internet Policies and Health Education in the Public Schools of Nebraska

The questions below have been formulated to gather information about health education factors that influence the Internet use policy in the public schools of Nebraska. From the following questions please mark your answer on the scan sheet provided. Kindly answer all questions. Select just one response for each question asked. The first 6 questions are your general opinions regarding the Internet and policies regulating Internet use in your school district.

A = Extremely Important   B = Very Important   C = Moderately Important   D = Of Little Importance   E = Unimportant

How important is...

1. ...Internet access for students in your classroom?   A ☐ B ☐ C ☐ D ☐ E ☐
2. ...the Internet as an educational tool in your school?   A ☐ B ☐ C ☐ D ☐ E ☐
3. ...the need for Internet regulation in your school district?   A ☐ B ☐ C ☐ D ☐ E ☐
4. ...it that the school board makes policies regarding Internet
   use in your school district?   A ☐ B ☐ C ☐ D ☐ E ☐
5. ...it that principals of the schools be involved in making policies
   regarding Internet use in schools?   A ☐ B ☐ C ☐ D ☐ E ☐
6. ...it that teachers of the schools be involved in making policies
   regarding Internet use in schools?   A ☐ B ☐ C ☐ D ☐ E ☐

The following 9 questions (7-14) refer to the discussion and decision making process that led to the construction or alteration of the Internet use policy in your district.

A - Great Extent   B = Considerable Extent   C = Somewhat   D = Very Little   E = Not at All

To what extent was/were...

7. ...the decision to have a district (or individual) Internet policy
   discussed in your board meetings?   A ☐ B ☐ C ☐ D ☐ E ☐
8. ...teachers involved in the development of the Internet use policy?   A ☐ B ☐ C ☐ D ☐ E ☐
9. ...the selection of the specific Internet use policy discussed in
   your board meetings?   A ☐ B ☐ C ☐ D ☐ E ☐
10. ...examples (and/or suggestions) from other districts utilized in
    drafting the Internet use policy?   A ☐ B ☐ C ☐ D ☐ E ☐
11. ...the type of information/material that the Internet use policy is attempting
    to minimize or control discussed in your board meetings?   A ☐ B ☐ C ☐ D ☐ E ☐
12. ...the superintendent involved in making recommendations regarding
    the Internet use policy?   A ☐ B ☐ C ☐ D ☐ E ☐
13. ...the guidelines established by the National School Board Association for
    policy development followed in the Internet use policy development?   A ☐ B ☐ C ☐ D ☐ E ☐
14. ...health education issues discussed during the Internet policy
    development stages?   A ☐ B ☐ C ☐ D ☐ E ☐
15. ...it discussed how your Internet policy could limit health information
    retrieval?   A ☐ B ☐ C ☐ D ☐ E ☐

. Appendix A

The following 6 questions (16-21) focus on the content as it relates to health education and the Internet Use Policy in your school district.

I = Extremely Important   B = Very Important   C = Moderately Important   D = Of Little Importance   E = Unimportant

How important is it that..

16. ...the Internet policy complements health education?   A ☐ B ☐ C ☐ D ☐ E ☐
17. ...sexual content should be regulated by the Internet use policy?   A ☐ B ☐ C ☐ D ☐ E ☐
18. ...commercialism should be regulated by the Internet use policy?   A ☐ B ☐ C ☐ D ☐ E ☐
19. ...drug information should be regulated by the Internet use policy?   A ☐ B ☐ C ☐ D ☐ E ☐
20. ...violence-related material should be regulated by the Internet use policy?   A ☐ B ☐ C ☐ D ☐ E ☐
21. ...health education information found on the Internet not be limited by
    the Internet policy?   A ☐ B ☐ C ☐ D ☐ E ☐

The next 15 questions pertain to demographics.

22.   Do you have a written Internet use policy for your district?   A= Yes   B= No
23.   Is the position you hold an elected or appointed position?   A = Elected   B = Appointed

Questions 24 - 26:   A=0   B=1-2   C=3-4   D=5-6   E=7 or more
24.   How many elementary schools are in the district that you serve?
25.   How many Middle schools are in the district that you serve?
26.   How many High schools are in the district that you serve?

Questions 27 - 29:   A= 0-50   B= 51-100   C= 101-150   D= 151-200   E= 201 or more
27.   Total number of elementary students?
28.   Total number of middle school students?
29.   Total number of high school students?

Questions 30 - 32:   A = 0   B = 1-2   C = 3-4   D = 5-6   E = 7 or more
How many of the schools in your district utilize a(n):
30.   Internet filter:
31.   Acceptable Use Policy:
32.   Teacher or Network monitoring:

33.   Gender: A = Male   B = Female
34.   Age: A=20-29   B=30-39   C=4 0-49   D=50-59   E=60 or more
35.   Education Level completed: A = Less than High School   B = High School   C = Some College
                                     D = College degree   E = Graduate School

36.   How long have you been a school   A = 0-1 year   B= 2-3 years   C = 4 or more years
       board member for this district?

Thank you for completing the questionnaire

Appendix B

University of Nebraska at Omaha

David Dennison
HPER Department 207
University of Nebraska at Omaha
Omaha, NE 68182

May 9, 2000

Dear current or past school board president:

You are invited to participate in a voluntary statewide study regarding Internet policy construction and implementation in your school district. The Internet has become an integral part of the educational process and Nebraska leads most other states in that integration. As the current or past president of your school district, you can provide an invaluable and unique insight into Internet policy development in your school district. Several studies have been conducted regarding the use of the Internet in the schools, but few have determined how and why policies effect specific areas of education. Therefore, we ask that you complete the enclosed questionnaire.

The purpose of the study is to gain a greater understanding of how Internet policies effect health education in the public schools. All information collected will be confidential and no individual or district will be identified throughout the course of the study.

Please respond to the questionnaire and return it in the self-addressed stamped envelope by May 18, 2000. Please use a number 2 pencil and avoid folding the scan sheet. Only fill in the information on the scan sheet being solicited from the questionnaire. The total time to complete the questionnaire is approximately 12 minutes. Be assured that neither you nor your district will be identified with the completed questionnaire. If you desire the results of this study, send a 3x5 index card with your printed name and address along with the completed questionnaire and the results will be sent to you.

Sincerely,

David Dennison
Graduate Assistant

David E. Corbin Ph.D.
Health Education Professor

J. ROBERT KERREY
NEBRASKA

United States Senate
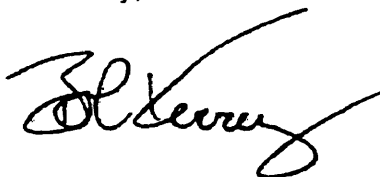### WASHINGTON, DC 20510

Dear School Board member:

As a staunch supporter of schools using internet research capabilities to teach children and prepare them for the future I have worked diligently to obtain affordable connections for school. Nebraska is, in fact, a leading state in making internet usage part of the educational process.

Because computers skills are so necessary for students, I encourage every school in Nebraska to provide students an opportunity in this area.

Along with students use of the internet come school policies on how and when students may use their access. David Dennison, a graduate student at UNO, is conducting a survey on those policies. I encourage you to participate in the enclosed survey. Mr. Dennison will be providing a copy of his findings to me at the end of the project.

Thank you in advance for your participation in this project.

Sincerely,

Senator J. Robert Kerrey

Appendix D

University of Nebraska

March 15, 2000

David Dennison
HPER
UNO - VIA COURIER

IRB#: 118-00-EX

TITLE OF PROTOCOL: Internet Use Policies in the Public Schools of Nebraska: Implications for Health Education

Dear Mr. Dennison:

The IRB has reviewed your Exemption Form for the above-titled research project. According to the information provided, this project is exempt under 45 CFR 46:101b, category 2. You are therefore authorized to begin the research.

It is understood this project will be conducted in full accordance with all applicable sections of the IRB Guidelines. It is also understood that the IRB will be immediately notified of any proposed changes that may affect the exempt status of your research project.

Please be advised that the IRB has a maximum protocol approval period of five years from the original date of approval and release. If this study continues beyond the five year approval period, the project must be resubmitted in order to maintain an active approval status.

Sincerely,

Ernest D. Prentice, Ph.D.
Co-Chair, IRB

lw

Appendix E

University of Nebraska at Omaha

School of Health, Physical
Education and Recreation
Omaha, Nebraska 68182-0216
(402) 554-2670
FAX (402) 554-3693

You have been selected to participate in a pilot study for a larger study entitled Internet policies and health education. The pilot study will serve to gather your feedback about the instrument. Your cooperation and response will be greatly appreciated.

The following support letter, cover page and questionnaire is what will be sent to Nebraska school board presidents. Realize that as a pilot study, none of your data will be utilized in the study. Rather your information will be used to construct a better questionnaire.
Please make any suggestions about the questionnaire regarding wording, length, questions asked, any need for additional questions, format, time needed to fill out questionnaire, unclear items or any additional comments.

Please feel free to write directly on the questionnaire any changes that you feel need to be made. There is also a sheet of paper for your comments and suggestions. Please return the questionnaire and your comments by April 21st in the self-addressed envelope. Your support is greatly appreciated and will provide vital information to make this a better study. Thanks for your support.

Sincerely,

David A. Dennison
(402) 554-2670
david_dennison@mailexcite.com
Graduate Student, UNO