

Handouts for

If You Think You Can Do a Thing: Measuring and Improving Teacher Attitudes

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Activity	p. 2
Faith Based Computing	p. 3
Staff Technology Satisfaction Survey	p. 5
Teachers' Guide to Computer Security	p. 8

**If you think you can do a thing or think you
can't do a thing, you're right. Henry Ford**

If You Think You Can Do a Thing: Measuring and Improving Teacher Attitudes toward Technology Use

Most schools survey their teachers to find out how skilled they are in computer use. But here's the thing. We need to measure not just skills, but attitudes as well. If it seems our teachers are making only minimal progress toward using and integrating technology, it may well be that negative attitudes are getting in the way. This presentation is a guide to a simple survey included in the handout that can help you determine how to improve technology use by improving teacher attitudes toward it.

Activity

List seven ways your district could improve staff morale concerning technology use.

Problem		Means to address problem
1		
2		
3		
4		
5		
6		
7		

Notes:

Faith Based Computing

If you think you can do a thing or think you can't do a thing, you're right. Henry Ford

Knock on wood, but I have been pretty darned lucky with the personal computers I have owned and used. For some years I've not experienced any of the catastrophic hard drive crashes, regular freezes, or major data losses about which one commonly hears. And my computers get pretty hard use. I use the same personally owned (actually finance-company-owned) laptop for both my workstation at school as well as for my private business and personal work. It goes home with me every night and travels with me in airplanes and in the toolbox of my pickup to conferences and even on the occasional vacation.

Sure, I make backups. Yes, I run a systems diagnostic tool once in a blue moon. Of course, I keep my virus protection program up-to-date. And especially, I don't let my teenage son within 15 feet of this computer. Some technologies, like some people, are just plain high maintenance. But many computer users take these precautions, but still experience trouble. So why am I so "lucky?"

The techies and I have discussed at length what seems to be a district-wide phenomenon we call "Faith Based Computing." The basic tenet of this theory is that the more positive the user's attitude toward technology, the better the technology works for that user. Simple as that.

So how do these supposedly non-sentient boxes of plastic, glass and metal pick up on our human vibes? Maybe there is something operating on a quantum level as electricity passes through computer chips and networks much as it passes through our human nervous system. As silly as it sounds, we are careful not to say negative things about any computer when another networked computer is in the room. They listen and talk to each other, you know. (Remember Hal in *2001*?) We are careful to make sure in offices with two computers that both of them get attention so neither gets jealous. We've even discussed the theory that computers, like cats, are often happier when there are two together, or at least when there is a digital clock or framed picture of the user nearby.

I know. This is beginning to sound like a *Weekly World News* article or conspiracy babble, but there is definitely a connection between user attitude and user success in most endeavors. We've had the concept of "self-fulfilling prophecy" in education for years. Why should technology use be any different?

Most schools survey their teachers occasionally to find out how skilled they are in computer use. It's an effective means of determining where staff development opportunities are needed. "Yup, looks like quite a few folks could use an advanced web-page creation class," we may determine.

But here's the thing, we need to measure not just skills, but attitudes as well. If it seems our teachers are making only minimal progress toward using and integrating technology, it may well be that negative attitudes are getting in the way. (And probably making the machinery obstreperous as well.) Teacher reactions to statements like the ones below can give a glimpse of where there might be attitude problems in your school:

On a scale of 1 to 4, with 1 being strongly disagree and 4 being strongly agree, please respond to these statements:

1. Using technology makes me a more effective teacher.
2. Technology helps me organize my work.
3. I find the use of technology to be motivating to students.
4. I am comfortable learning about and using technology.
5. I would like to integrate more technology into my work.
6. I would like to integrate more technology into my classroom units.
7. The building administration encourages the use of technology.
8. The district administration encourages the use of technology.
9. I feel comfortable helping others in the school with technology.
10. I feel comfortable asking for help with technology from others.
11. The district provides me a variety of opportunities to learn technology skills.
12. I take personal time to learn and practice technology skills.

If one finds that there are definitely negative attitudes toward technology use by a significant number of teachers in your school, here are few things that can improve technology morale.

- Stress the WIIFM (What's In It For Me) reasons for computer use. Any inservice or new project should have at its heart the clear goal of making a teacher's job easier or providing the kind of exciting learning opportunities that make teaching more enjoyable. (This concept was examined at length in an earlier column available at www.doug-johnson.com/dougwri/wiifm.htm).
- Give the end user (teacher) a voice in deciding equipment platforms, software adopted, and timelines for implementation. Everybody hates top-down edicts. Make them as seldom as possible.
- Take a hard look at your inservice times to make sure they are as convenient as possible for teachers. Consider a range of training options that suit individual *teacher* learning styles. While many people learn well in hands-on, face-to-face training sessions, others may prefer online or video instruction, well-written tutorials, or simply the time and peace needed to learn through experimentation.
- Adjust the attitude of the technology support staff. As all of us help teachers with computer hardware and use problems, are we doing our best in making sure they are respected for the intelligent, loveable people they really are?

It's important to remember that teacher attitudes don't just affect technology, but students as well. As staff developers, we have an obligation to help maintain not just a skilled staff, but also a happy one.

Now please excuse me while I dust my computer's keyboard with that soft cloth she likes so much. Got to keep her purring.

Staff Technology Satisfaction Survey

A summary of this survey's results for the Mankato Area Public Schools can be found at:
<http://www.isd77.k12.mn.us/district/media/satsurvey02.pdf>

Over the past few years, our district has increasingly and continuously asked all staff members to use computer technologies as a part of their daily job performance. Our department has been working diligently to make sure everyone has the skills, equipment and support needed to do this. We would like to ask you to take a few moments to let us know not just how we can help increase your ability to use these new information technologies, but how we can help make the use less stressful.

Please fill out this survey and return it to District Technology Services attn: _____ by school mail. You do not need to give your name,.

Thanks. Additional comments are welcome.

Director of Media and Technology

Schools

PART ONE – GENERAL INFORMATION

Please check:

1. _____ Elementary _____ Secondary _____ District

Please specify the building in which you work: _____

2. _____ Classroom teacher _____ Special area teacher _____ Secretary _____ Principal
_____ District administrator _____ Other _____

3. I would rate my general satisfaction with the computer and network systems I use to complete my job as:
_____ Very high _____ High _____ Low _____ Very low

4. I would rate my own ability to take advantage of the computer and network system as:
_____ Very high _____ High _____ Low _____ Very low

5. I would rate the general concern District Media Services and the administration have for my success with the computer and network system as:
_____ Very high _____ High _____ Low _____ Very low

Please return this completed form no later than _____.

PART TWO -SPECIFICS

Please check:

6. Using technology makes me more effective in my work.
_____ Strongly agree _____ Agree _____ Disagree _____ Strongly disagree _____ N/A
7. Technology helps me organize my work.
_____ Strongly agree _____ Agree _____ Disagree _____ Strongly disagree _____ N/A
8. I find the use of technology to be motivating to students.
_____ Strongly agree _____ Agree _____ Disagree _____ Strongly disagree _____ N/A
9. I am comfortable learning about and using technology.
_____ Strongly agree _____ Agree _____ Disagree _____ Strongly disagree _____ N/A
10. I would like to integrate more technology into my work.
_____ Strongly agree _____ Agree _____ Disagree _____ Strongly disagree _____ N/A
11. I would like to integrate more technology into my classroom units.
_____ Strongly agree _____ Agree _____ Disagree _____ Strongly disagree _____ N/A
12. The building administration encourages the use of technology.
_____ Strongly agree _____ Agree _____ Disagree _____ Strongly disagree _____ N/A
13. The district administration encourages the use of technology.
_____ Strongly agree _____ Agree _____ Disagree _____ Strongly disagree _____ N/A
14. I feel comfortable helping others in my school or office with technology.
_____ Strongly agree _____ Agree _____ Disagree _____ Strongly disagree _____ N/A
15. I feel comfortable asking for help with technology from others.
_____ Strongly agree _____ Agree _____ Disagree _____ Strongly disagree _____ N/A
16. The district provides me a variety of opportunities to learn technology skills.
_____ Strongly agree _____ Agree _____ Disagree _____ Strongly disagree _____ N/A
17. I take personal time to learn and practice technology skills.
_____ Strongly agree _____ Agree _____ Disagree _____ Strongly disagree _____ N/A
18. I have adequate software to meet my needs and the needs of my students and do not need to break copyright policies.
_____ Strongly agree _____ Agree _____ Disagree _____ Strongly disagree _____ N/A

Teacher Guide to Computer Security

Mankato Area Public Schools

Fall 2004



Recommended security manuals for school districts are about 200 pages long. Here are the most critical things, as a teacher in Mankato Area Public Schools, you need to know and practice – in two pages. Please read them carefully.

An increasing amount of critical, confidential data is transmitted and stored electronically in our district. Despite its intangible nature, digital records, communications, and intellectual property, whether owned by the school or you as a professional, is as valuable and important as physical property. Safeguards to protect it are essential and using them is a professional obligation.

High security and high convenience are incompatible. Our district attempts to achieve a sensible balance, placing a high degree of faith in the professionalism of our staff, rather than technological fixes to insure data security. So far, this has worked well.

Passwords

As a teacher in ISD77, you have the responsibility of a variety of passwords including those for SASIxp, Classxp, the Novell network, your e-mail/YODA accounts, progress reports, grade book programs, your screensaver, and your voice mail. All passwords, except for those that are intentionally shared by all staff (Novell, Accelerated Reader, SPED, etc.), should:

- Be unique for each application.
- Be changed on a regular, frequent basis.
- Be composed of both letters and numbers for highest security.
- Be composed of a string of characters not found in a dictionary.
- Be kept in a secure place if written down.
- Never be given to anyone else, especially students
- Never be given to a tech support person who is unknown to you.

Treat passwords with the same care you would a paper grade book, the key to your classroom, or code to your ATM card.

Back-ups

It is *your* responsibility to maintain at least one back-up copy of your grade book data and your self-created school documents (word processing files, presentations, etc.) You should also regularly create a back-up copy of your stored e-mail messages, e-mail address book, calendar, and to-do list.

The district provides online file space on the YODA server for you to do this. You may also choose to use writeable CD-ROM or DVD disks to create copies of your files if your computer is equipped with a writeable CD or DVD drive. These back-up disks should be kept in a secure place, preferably not in your school building.

The district is responsible of creating back-ups of data from district-wide applications (SASIxp, YODA folders, e-mail stored on the server, etc.) but you must create back-ups of your own files. We recommend backing up all files on at least a monthly basis; more often if you are working on a critical project. You need to ask yourself, “What would I lose if my computer’s hard drive were to die right now?”

Viruses

Computer viruses (as well as worms and Trojan horses) are small pieces of computer code that may have the ability to destroy data on your computer or on computer networks. Needless to say, our district takes extreme precautions to protect our computer users from these programs that are spread as e-mail attachments, hidden in programs downloaded from Internet websites, and as macros in word processing and other documents. While our firewall (a computerized filter that screens all data coming into the district) and our spam filter catches many of viruses, new ones are being constantly created and no filter is perfect. Our district to date has been less susceptible to viruses since the majority are written to hurt Windows computers, but viruses also are written for the Macintosh operating system with OSX becoming an increasingly popular target.

As a teacher, you can minimize your exposure to viruses by:

- Never opening an attachment you were not expecting, even from someone known to you. (E-mail addresses can be spoofed.)
- Never download programs from unknown sources on the Internet (or let your children download them).
- Turn the “macro” feature off or turn “macro security” on in word processing and spreadsheet programs.
- Scan your computer regularly using a virus protection program, especially if you have a laptop or desktop computer you use both at home and at school.

Data Privacy

The protection of the privacy of our students is a professional responsibility. This means knowing the laws, district policies and building guidelines about what student information can be shared and with whom. Increasingly this also means indirectly protecting student records and personal information by following the password guidelines listed above. Under no circumstances should library records be displayed that link the student name to specific titles that the student may have used.

We recommend that you use a screen-saver that automatically starts after a short period of inactivity on the computer in your classroom so that screen contents are not easily viewed when you are away from your desk. For added security, a password to quit the screen saver should be set.

Parental permission forms need to be completed prior to posting photographs or student work on the school's website. No students' last names, e-mail addresses, or other identifying information should appear on the school website. Readers wishing to comment on student work that may appear on the district website should do so through a teacher and his/her e-mail account.

Student need to recognize that school provided e-mail accounts, file storage space (YODA, Profile), and login and usage logs may be viewed if necessary. Our district Internet Acceptable Use Policy (524) <www.isd77.k12.mn.us/district/isd77policies/524.pdf> VIII.A states: "Users should expect only limited privacy in the contents of personal files on the school district system." To date, we have only had to exercise the right to view student files when there has been suspicion of wrong doing, rather than employing a continuously running monitoring program. We hope to continue the "only as needed" approach.

Personal Privacy

As e-mail and Internet users, teachers also need to follow guidelines to protect their personal data and privacy. As district employees, we are subject to the same Acceptable Use Policy as are our students, including the "limited privacy" rule. As with students, we only use the "only as needed" approach to viewing staff e-mail and files.

- If you use the Internet to purchase goods, sign-up for newsletters, or complete forms or surveys, you will be asked for personal information. Do so at your own risk. Some guidelines:
- Never give your social security number over the Internet. Be very careful to whom you supply your telephone number, e-mail address, mailing address, and other personal information.
- When making a purchase using a credit card on the Internet, make sure the site is reputable and "secure." A secure site's address will begin with *https* rather than simply *http*.
- Limit the "cookies" your Internet browser will accept.
- Maintain two e-mail addresses: one that is used only for business or with those people you know; one for commercial transactions, surveys, etc. The second e-mail address can be a free account from a provider such as Yahoo and can be easily changed if too much spam is being sent to your account.
- When using a Windows computer, regularly run a "spyware" detection program such as the free SpyBot to detect and eliminate hidden programs on your computer.

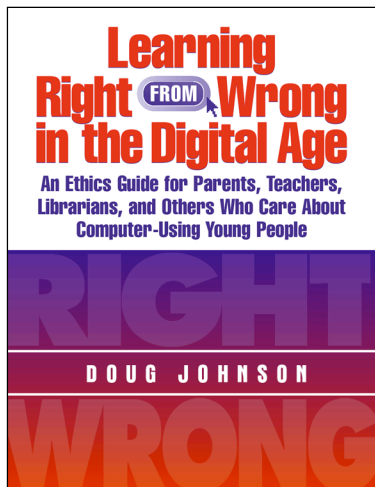
Hardware Security

Computers and other hardware can also be stolen and damaged through both carelessness and maliciousness.

- Computers should be on a firm surface, well away from desk and table edges to prevent them from being accidentally pushed off.
- Computer cords and cables should be in molding, raceways or cable trays to prevent damage both to the computer and anyone who might trip over them.
- If your computer is a laptop, use a security cable to lock it to your desk if it is left unattended.
- All hardware needs to be purchased through District Media and Technology Services so it can be inventoried and engraved with a school ID.

If you use your school computer at home or take it to meetings or conferences, be sure your homeowners' insurance covers it if lost or damaged. Take special precautions at airports (especially at security), hotels and in meetings to make sure your computer is not left unattended. Most hotels will provide an in-room safe or a secure area at the desk where you can safely store a laptop computer.

Under no circumstances should you open (or attempt to open) your computer's case. Touching the wrong gizmo may not only hurt the computer, it may seriously damage you. Let a district technician handle any repairs that require the case to be opened.



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By Doug Johnson

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page 10