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Students as Teachers: Computer Technology

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STUDENTS AS TEACHERS: COMPUTER TECHNOLOGY

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CHAPTER I

STATEMENT OF THE PROBLEM

As education moves into the twenty-first Century, it has become the responsibility of the public school teacher to educate students in the effective use of computer technology. The problem is that while teachers are expected to integrate computer technology into the curriculum as mandated by the Ohio Models of Competency-based Education and Graham Local Schools Course of Study, many teachers are unable to meet that expectation. The purpose of this study is to determine if a single training session will increase the teachers' comfort level of using computer technology and will increase the likelihood to be used as a part of the curriculum.

DEFINITION OF TERMS

The terms used throughout this study were defined as follows:

- Teacher: a man or woman teaching at Graham Middle School in one of the grades sixth through eighth.

- Internet: The World Wide Web of information and communication.

- Classroom: any room in grades six through eight, led by an individual teacher.

- Integrate: to tie the use of the Internet into everyday lessons that are meeting the requirements of the curriculum.

- Ability: the quality or state of being able to use the Internet.

- Students: a trained group of five sixth grade students at Graham Middle School who will assist the teachers in gaining strategies to help them feel more comfortable and competent when using the Internet.

SIGNIFICANCE OF THE STUDY

The vast majority of teachers are already well versed in teaching and learning skills, but when technology enters the classroom, many of those teachers feel unprepared. What happens to teachers when technology enters the classroom? Does it change what they do? While teachers can use technology to create new and powerful opportunities for teaching and learning, they must first feel confident in their computer knowledge.

Since technology will continue to develop, children need to be experienced in its use. They also need to have it available to them daily so they are prepared for the real world. Not all children have computers available to them at home. Since the schools are like a second home to many children, it makes sense that computers should be made available within the schools. Teachers are then expected to incorporate computers into their curriculum, not only because their districts have purchased the equipment, but also because it is required by most state and school curriculum models.

Many teachers are not familiar with developing technologies; but encroachment of technology on all aspects of life means that teachers need to learn what they can do to not only educate students but also further their own knowledge for their own personal benefits (O'Bannon, Matthew and Thomas 7). Many veteran teachers do not care for or are not interested in the use of technology within the curriculum. Some fear they cannot

effectively use computers and other technologies, let alone teach their students how to use them (Dyrli and Kinnaman 38). Many students know more about technological development than their teachers do.

Many students have become almost dependent upon the use of the Internet. They do not remember the world without it. Like anything, the Internet has evolved into something greater than ever expected. Its history has slowly evolved. Like anything else the Internet had to withstand a long period of time getting the "quirks" out. The Internet was developed during the Cold War of the 1960's, and it was designed as a military research network. Throughout the 70's some universities and research agencies joined the network, and they began taking advantage of electronic mail and other capabilities like FTP and telnet (Brodice 48). However, there were many problems with this new development.

Computers were not always compatible. When something was started on one computer then the user had to make sure he or she returned to that computer to finish the product. Computers were not networked, allowing a person to work on a different terminal with the same information. They also had no sound or visuals, only straight text. It was not until the development of the "World Wide Web" by the Swiss Particle Institute that the Internet, "had the capability to offer user-friendly access to thousands, soon to be millions, of computers worldwide" (Brodice 48). Finally, as stated by Angus Kennedy in 1996, the Internet had moved "out of the realm of luxury into an elite necessity, verging toward a commodity" (394).

The Internet grew, "by an estimated eight million new hosts during 1997" and continues to grow today (Baule and Thompson 28). The Internet provides the

opportunity to find any type of information desired from the fall of Ancient Greece to what causes marriages to fail in today's society. This wealth of information develops a new set of barriers for teachers. Teachers need to know the whole capability of the web. If the teachers have the time to learn and the instruction, they can master those skills. Teachers are expected to use technology in their classroom as a part of the curriculum, but the education enabling them to do this is not always available, leaving this strand unattainable.

Many cases show that students can effectively teach educators how to maximize Internet usage. Ft. Miami Elementary School is one school district that has decided to take advantage of their students' knowledge of computer use. They have developed a, "S.W.A.T. (Students Working to Assist with Technology) team" which has created vast improvements in their teachers' computer knowledge (Smith, Metzger, Judy and Pastorek 1). Other studies have also been developed using the same concept and have also shown a rise in the level of teachers' knowledge of computer skills. Once teachers have the skills, they can use the wide array of communication benefits and information collecting sources available on the Internet. This teacher skill can be an asset in any classroom.

QUESTIONS TO BE INVESTIGATED

This study focused on three main questions to guide this investigation:

1. Will teachers' understanding of computer technology increase during one training session in order for them to complete 8 out of 10 tasks?

2. Will teachers increase their comfort level in the use of computer technology after a three-hour training session led by students?

3. To what extent will an Internet training session led by students increase the likelihood of teachers incorporating computer technology in their daily lessons?

NULL HYPOTHESIS

HO: 1 No change in teachers will occur after one training session.

RESEARCH PROCEDURES AND METHODOLOGY

The methodology for this practicum was in the format of an Action Research study. It was done to help teachers become more knowledgeable and skillful about Internet usage required by state and local curriculum models.

Forty-two sixth grade students received applications concerning their interests and knowledge of searching the Internet as well as their reasons for wanting to participate as a trainer for teachers. Ten of these students were interviewed and five were selected to form the Internet Training Team. Thirty-one teachers in grades six through eight were asked to complete a survey ascertaining their present knowledge and fear of the Internet. Eleven teachers responded. After completion of the surveys the teachers involved were trained by the selected students. When the training session was complete, the teachers completed a second survey that ascertained what they had learned and how they felt about being taught by their own students.

Six weeks following the initial training the teachers were given a third survey ascertaining their use of Internet strategies within their individual classrooms as a part of the curriculum.

ASSUMPTIONS OF THE STUDY

1. All teachers participating in the study have computers available for their use and their students' use within their individual classrooms and have Internet access.

2. All teachers who volunteered are not meeting the expectations of the Ohio Curriculum Models.

3. Most teachers are willing to learn about the Internet if given the time and opportunity.

4. Teachers who are willing to learn from students chose to participate in the training.

LIMITATIONS OF THE STUDY

1. The study cannot validate that all teachers will meet the expectations set by the Ohio Competency-based Model or school curriculums.

2. The determination of the level of computer technological use in the six weeks following the training session is self-reported.

3. Only one three-hour training session was provided.

CHAPTER II

RELATED RESEARCH AND LITERATURE

The use of the Internet has moved from a luxury to a commodity. Those are the words that show the concept of what the Internet has become and the reason for the need to teach the functions of this within the classroom. This begins to become a necessity in the classroom. When something begins to affect the way we live and what we can do as individuals then it becomes a viable point to be taught in the classroom. It becomes something students will need to be successful when they enter the "real world". Al Rogers, an Internet Specialist, shares his thoughts about the necessity of teaching the Internet within the classroom:

> Today, we find ourselves in the best of times, and in the worst of times. The
> Convergence of several technologies...computers, multimedia,
> telecommunications on the Internet and the World Wide Web bring us quantum
> leaps closer to being able to deliver on the promise of technology to re-shape our
> entire culture. Never before have teachers had so much real potential to fully
> exploit the "tool" capabilities of the new technologies. We see real evidence
> around us every day that the World Wide Web is actually beginning to change our
> lives...
>
> Today, more than ever, we need teachers who are able and willing to become
> side-by-side learners with their students. Teachers who are not afraid to
> acknowledge, "I don't know," and then can turn around and say, "Let's find out
> together" (Von Blanckensee 81).

This begins to present challenges to society in general on, "how to improve certain unsatisfactory educational outcomes, extend access to an older and more diverse set of learners, and control of spiraling costs" (Ehrmann 1). Some of these challenges become aimed at the educator and others lie in the lap of the educator. Many of the educators are older and more diverse learners. They are not sure they want to learn to use any technology let alone teach it to their students and integrate it into their curriculum.

It does become obvious that, "the schools of tomorrow-at least the successful ones- will bear little resemblance to the schools of today" (Dyrli and Kinnaman 92). Teachers are going to be forced to make the transition from a non-technological era to computers being a natural part of each day. The evolution of technology has brought about, "the convergence, of coming together, of television, telephone, and computer technologies" (Dyrli et al. 94). Most teachers have not been trained prior to receiving teacher certification. They graduate from college, "with limited knowledge of the ways technology can be used in their professional practice" (Bannon, Matthew, and Thomas 7). This causes many teachers to feel insecure about how to go about integrating technology into their classrooms.

Traditional schools will not be able to survive into the twenty-first century because of the need for technically proficient employees in the work force, and because many schools are currently under construction to design programs to incorporate technologies into the classroom setting (Fischer 65). Technology integration, "is using computers effectively and efficiently in the general content areas to allow students to learn how to apply computer skills in meaningful ways" (Dockstader 73). This does not mean using the computers for drills and tutorials which could easily be accomplished

using far less expensive machines (Dyrli et al. 38). This means making these machines available to teachers and showing a real life connection with them through the curriculum. The New York City Chancellor of Schools, Rudolph Crew, ED.D., stated that, "the real currency of the future for our children is going to be whether or not they can access information and use it to make a living. If they can't do that, they will be forever marginalized" (Shields 29). This learning and accessing of information must begin in the classroom. Most teachers know what they need to know about the curriculum to teach it effectively, but they are not as knowledgeable about the computer, creating a barrier for integrating computers into everyday learning. What most teachers are unaware of is that they have approximately fifteen knowledgeable computer users sitting in their classrooms.

State curriculum models and local school system curriculums have goals that they want their students to meet. The computer is a tool that can help accomplish those goals and expectations set by state and local curriculum models that teachers will integrate its use into their classroom (Orwig 40). However, many schools do not realize that the students are already comfortable enough in using the computer to accomplish these goals. Instead, the computer sits dormant because many teachers feel they must know how to use it before it can be incorporated into their classroom. What many need to realize is that the students could be teaching the teachers how to readily put the computers to work in the classroom allowing the teachers to expand their knowledge and the students to learn at the same time.

Kentucky has developed a program placing students in the teacher position when dealing with technology. Their program, Student Technology Leadership Program

(STLP), "harnesses student enthusiasm and technical expertise for K-12 technology training state-wide" (Holzberg 34). Grants were obtained which provided over $1000 to begin the program. Students began working as mentors to teachers if and when they had technological difficulty. The students also worked with the principals designing web pages so principals could distribute their information over the Internet. While the teachers learned about technology, "from savvy young people, the students found their expertise-and responsibilities-growing by leaps and bounds" (Holzberg 34).

Over 500 schools in Kentucky participate in this program. In some districts students are being hired to install Local and Wide Area Networks and solve virus problems, as well as, design an Internet training program (Holzberg 34). This shows that these students are not only providing knowledge needed, but they are gaining knowledge which they can take to the community and put to use. There are several key points to remember from this program: start small, don't jump in and have students taking over; always make sure there's a knowledgeable adult at a training session, just in case something doesn't work for the students; and always have debriefing sessions with the students where they can discuss what worked and what didn't (Holzberg 36).

The city schools in Maumee, Ohio have developed "tech teams" within each of their schools consisting of students (Smith, et al. 1). A fifth grade teacher, Maureen Judy, explains that a team of fifth grade students in each of their school district's four elementary schools was convened through an application and interview process. Each school chose between 8-13 students to be a part of the team. These teams were called S.W.A.T. (Students Working to Assist with Technology) and their focus was to spend at least one hour per week in an assigned K-4 grade classroom to perform these tasks: clean

the computers, teach word processing, graphics, and spreadsheet applications; create multimedia presentations using Kid Pix Studio and HyperStudio with the children; troubleshoot for the classroom teacher; assist in technology teacher trainings; and present computer applications to parents and community (Judy 1). It was found from this study that, "not only did the fifth graders teach teachers and K-4 grade students in the area of technology, but also realized the value of volunteerism and their value to their school as fifth graders" (Judy 1).

The article, "When Students Lead the Way" focuses on Perry Middle School in Miramai, Florida, which has adopted the use of student technology mentors. This program was begun by the school's technology coordinator, Judy Shasek. She obtained information on such projects from the Olympia, Washington based "Generation Why" which is a Technology Innovation Challenge Grant project.

During the developmental stages of the program, the students had some difficulty producing results, and teachers did not like the amount of time the group of mentors were missing from classes. The students who mentored in the invenTeam program developed rubrics called "SP" sheets to monitor the progress of both teachers and students. Mentors specialize in areas such as 3-D graphics and database management. The students have also posted these rubrics at the district's mentoring website at www.esmartmentor.com.

The program is apparently very popular and productive for all involved. Shasek was awarded with a grant to take the invenTeam program to eight county schools. The school is also using video conferencing to connect to other schools in Broward, County. The program has been a success for the students, teachers, and school district (Cooper, Poftak and Salpeter 36).

Peggy Ertmer and Carole Hruskocy state that, "the Office of Technology Assessment (OTA 1995) recently reported that United States schools have more than 5.8 million computers available for instruction. Over the past decade the number of students per computer has gone from 125 to fewer than 10 (81). Their study discusses the lack of training for teachers and teachers' resistance of many veteran teachers to change their pedagogical beliefs about what should and should not be taught. Ertmer and Hruskocy offer several remedies for these situations. They suggest hiring technology coordinators, establishing peer mentor teams, creating university-school partnerships, and training student experts (Ertmer and Hruskocy 82).

Ertmer and Hruskocy's study was done between a mid-western university and a local elementary school called Midland Elementary. Students from the university were brought in to the school for the purpose of facilitating technology integration, and students from grades 1-5 received a half an hour of training one day a week from university representatives and the library media specialist. Teachers were also encouraged to enroll in an introductory computer course at the university to receive further training and information, and ten of the thirteen teachers completed the course. The university also offered an after school training session in the spring where 24 of the 25 staff members attended.

The university collected data over the year, using surveys and interviews from five sources: a.) teacher interviews, b.) student interviews, c.) teacher surveys, d.) student surveys, and e.) open-ended teacher questionnaires, in the fall and spring (Ertmer & Hruskocy, 86). The results were that as teachers became more familiar with the technology, they became more willing to use it in their classrooms. Students also felt

more confidence in using the technology, and it helped improve their self-confidence, and self-esteem. The students who were not successful with the regular curricula could become successful with the use of technology.

The suggestions from the authors can greatly increase the use of technology in a school district, but the commitment and desire to use the technologies must be attained for the programs to succeed. By using the schools' inside and outside resources, schools can be ready for the technology explosion that is already here and that will continue in years to come.

Teachers are creating the future and it is important for them to realize that they can learn to integrate computer usage in the classroom. The first step is to realize they already have student knowledge and compassion for the computer within each of their classrooms. They need to see that this is no longer something they use only for enjoyment, it is expected by the curriculum. Specifically realizing that they are blessed to have Internet access which could enhance their classroom will come as teachers learn more about the Internet process. Teachers should not be afraid to admit they need help in learning about the Internet. Let the computer literate child provide that help. The characteristic of the best teachers is that everyday is not only a teaching experience, but also a learning experience.

CHAPTER III

THE PROCEDURES FOR THE STUDY

This study was performed at Graham Middle School. This school was one of four schools in the Graham Local School District located in Champaign County, Ohio. This was a large rural district located in a small town.

An application was given to forty-two sixth grade Graham Middle School students. They were asked to complete the application if interested in becoming an Internet Trainer. Only the students who consistently remained current in their daily assignments were considered. Ten students returned the applications, completed and signed by themselves and their parents. The applications were reviewed and all ten students were interviewed. The interview consisted of two questions:

- What do you feel teachers need to learn about the Internet?

- How would you handle a teacher who gets very frustrated with a concept and can't seem to grasp it?

They were also asked to elaborate on their background with the computer. Five students were chosen after the interview to become a part of the training team. The team consisted of five boys between the ages of 11 and 12.

A letter and a survey was then given to thirty-one Graham Middle School teachers. The letter briefly explained the study and asked the teachers to participate in the study. The teachers completed the survey ascertaining self-reported comfort and ability of Internet use. The teachers who felt they were not adequately prepared to use the Internet as a part of their curriculum chose to participate. Some teachers who would have liked to participate were unable to because of prior engagements. The surveys were

gathered and used to form objectives for the actual training session. Eleven teachers chose to participate.

After determining the objectives and outcomes desired by the teachers, a three-hour training session was held with the students. This session included guidelines on how to present information thoroughly and clearly. It also focused on the exact design the teacher training session would follow. The students were given a step-by-step plan to guide them through the session. They role-played some scenarios that might occur during the training session. They were asked to review and decide what suited them the best on how to present the information. They were also given the list of tasks they would want the teachers to perform at the end of the training.

Two weeks following the distribution of the surveys, a three-hour training session was held for the teachers. The students led the training session. There was a knowledgeable adult present in case a student would run into a situation they could not handle. The training session was held in the computer lab at Graham Middle School. Eleven teachers participated in the training session on a volunteer basis.

The students began the session by introducing themselves and stating what the objectives were for the session. The objectives for the training session were as follows:

- Teachers will be able to use search engines to find information.

- Teachers will be able to access websites.

- Teachers will be able to set-up an e-mail address.

They also explained that the teachers would be expected to complete ten tasks at the end of the session and complete a follow-up survey.

The first two hours the students spent explaining how to search for desired information, using websites, and how to set-up their own e-mail address. They walked through the process, modeled, and gave examples. The students determined who would teach what based on comfort level and knowledge of the topic. They then put in writing the process of what they would teach. This had to be approved before they were allowed to present. When they finished teaching the objectives, they gave the teachers ten tasks to complete. The following is a table showing the concepts that the required tasks were based on. The ten tasks can be found in more detail in Appendix E.

Table I

Conceptual Tasks
Teachers will go directly to a site by using the address box.
Teachers will follow steps correctly to reach an Internet site.
Teachers will access ERIC, an educational research library, using the Internet.
Teachers will use bookmark icon to locate information.
Teachers will use the search engines to locate selected information.
Teachers will successfully use Internet icons to locate and overview information.
Teachers will locate an on-line educational store.
Teachers will set-up an e-mail account.
Teachers will locate a lesson plan representing their subject matter.
Teachers will send a message using their new e-mail account.

The students circulated the room while the teachers worked on their list of tasks. As a teacher completed a task, the student would check for correctness and then the teacher was allowed to move to the next task.

When the two and a half hour session was complete, the teachers were given a follow-up survey asking about their feelings of competence and comfort of the Internet as compared to before the session. The survey asked questions about specific tasks and the feelings of students serving as their teachers. Those surveys were then compared to the first surveys to see how many teachers felt they had learned from being trained by the students.

Approximately thirty days following the training session the teachers were presented with a third survey. This survey was given to assess the use of what was taught at the training session within the classroom.

CHAPTER IV

ANALYSIS OF THE DATA

The training led by students consisted of eleven teachers. This was slightly over one-third of the teachers at Graham Middle School. Five male sixth-grade students led the training session.

73% of the teachers who chose to participate in the study stated that they were not comfortable enough to use the computer in their classroom. This information was gained from a pre-survey. Following the training session 82% of the teachers felt that they had gained enough knowledge to use the computer as a part of their classroom curriculum. 73% of them stated that they would be comfortable in assisting someone with a computer question. 100% of the teachers said that they would now be more comfortable calling upon students for questions concerning the computer. Prior to the training 50% of them said that they utilize student knowledge. This information was ascertained by a post-survey.

The teachers were also asked to complete ten tasks following the training session. This was done to ascertain their actual comprehension of the computer. This was not based on their opinions or feelings. The average time taken to complete the ten tasks was an hour. Student trainers moved about the room to answer questions as needed. 9 of the 11 teachers completed the ten tasks with 100% accuracy. The two teachers who did not complete all tasks with 100% accuracy completed 8 of the 10 tasks with 100% accuracy. When the teachers had completed their tasks they were dismissed. They were not told or asked to put what they had learned to use in their classrooms.

Six weeks following the training session the teachers were given a third survey to complete. This survey consisted of six response questions about use of the Internet in the classroom since the session. Three of the eleven teachers responded that they had not used the Internet at all as a part of their curriculum since the training session. The reasons for this varied from not trusting the students to lack of number of computers available to them. The survey did not specify how a teacher was to use the computer in the classroom. The teachers were allowed to interpret their use and the survey from their own perspective.

It was found that some of them interpreted the survey as use with the students. Although these teachers use the computer all of the time to find information for their classroom they did not consider that as use.

73% of the teachers said that they used the computer for different types of research depending on their subject area. They considered this as a part of their curriculum because they were using it to enhance their teaching and make the experience better for their students. 36% of the teachers said that they did activities with the computer and the students. They were having the students use it for research and other activities within their classroom. 50% of the teachers stated that they had discovered websites that had helped them develop lessons and gain knowledge that they had not previously discovered. They were not scared to search for this information since they had a basic knowledge and now say that they will continue to use the computer as a personal asset. One teacher shared that he shares these websites with the students to help them. 45% of the teacher participants felt that their teaching had changed since the training. They said that because of the increase in their comfort level they were able to

search the Internet more readily for information. These teachers felt that their teaching and classroom had changed because they can access creative lesson plans, find more detailed information on subject matter, and have higher expectation of student work because they know what is available. They also stated they felt more comfortable sharing this information with the students. They want to actually do hands-on activities with the students in the classroom, but say that it will take more computers and continued growth on their part.

From the pre-survey to the final survey, the majority of the teachers improved their knowledge of the Internet and are gradually feeling more secure at using it as a part of their curriculum. They are more effectively responding to the expectations set upon them by the Ohio Models of Competency-based Education and the Graham Local Schools Course of Study.

CHAPTER V

SUMMARY AND CONCLUSIONS

Conclusions

Many students have the time and lack of fear to work with the computer when it is made accessible to them. Many of them have computers in their homes and spend hours working on them to see what they can do. These students could be putting their knowledge to use by helping those who are incompetent. The most obvious place for this to occur is within the classroom.

Many teachers do not have access to computers other than at school. Their time at school is spent making sure the curriculum is covered and their students are receiving a good education. The computer does not fit into this plan because many teachers are not comfortable with it. This may be caused from a fear they have or simple lack of knowledge. Students can be used to help bridge this gap for teachers.

Students can focus teachers on what they need to know. The teachers can then take this knowledge back to the classroom and incorporate it into their curriculum. Most teachers want to learn more and be able to meet educational expectations at all levels. However, not all of them will take the opportunities offered and use them to better themselves.

When teachers are comfortable enough to allow a student to become the trainer and open their minds to the opportunity of the computer they can learn as much or as little as they choose. Students are an asset to teachers and can help them to become more competent and comfortable when dealing with any aspect of the computer.

Implications

There are a few implications concerning the study. Not enough time was given for the training session and there was a lack of follow-up. The time constraints kept many teachers from participating. The allotted time also limited a comprehensive coverage during the session. Time was not allotted to have a second session to review what was taught to the teachers. This time constraint leads me to believe that teachers may have learned for the moment, but when given a task two weeks later, they would not have been able to complete it. The accuracy of the teachers' procedures when using the Internet is not known, but they say throughout the final survey they are using it to the optimum level.

Another implication of the training session was in regards to the number of participants for the study. A larger number of participants would have shown a greater diversity in ability levels when using the Internet and how the session could have been used more efficiently. The study could have been more reliable if a larger number of teachers had participated.

Recommendations

It is recommended that a Student Internet Team be formed and utilized throughout the school year. Being able to use a set group of computer literate students as a resource would have a greater influence upon teachers. This would help teachers gain knowledge and continue to use the computer because they would know that help is there. They would be more likely to use the computer because they know there is immediate feedback

when needed. There would not be such a fear of failure. This Internet Team could offer

assistance during the school hours and random classes after school.

Future Research

Future research should be considered in this study. The study of students taking

the role of teachers and how that affects the student should be researched further.

Educators need to know that this practice is beneficial to the student and the teacher.

Further research should also be done about how teachers are affected by students

teaching them. Teachers need to know if they are willing to learn to accept students and

their knowledge more readily and cause a more positive teacher/student relationship in

and out of the classroom. They also need to know if there will be a greater amount of

respect gained from both parties. Finally, there should be further research completed on

the amount of training it would take to actually get teachers to use the Internet as a part of

their curriculum.

APPENDIX A

INTERNET TEAM APPLICATION

INTERNET TEAM APPLICATION

Name_____Teacher_____

Address_____Phone_____

1. Why do you want to join the Internet Team?

_____

_____

_____

_____

2. In your own words can you explain how to get into the Internet?

_____

_____

3. In your own words explain how you would go about getting information from the Internet?

_____

_____

_____

_____

4. Do you enjoy working with other students and assisting adults with technological questions? _____

Why?_____

5. How will you get to school on the two hour delay on February 29, 2000 at 7:30AM?

_____

Student: I understand that by becoming a member of the Student Internet Team I am committing myself to assisting any staff or students who need help with the Internet. I understand that I will be properly trained before I assist anyone and that I will only attempt those things which I am trained to do. I further agree that I will be present on February 29 to work as a facilitator for the teachers. If I have any grade or behavior problems, I understand it could be immediate cause for dismissal from the team.

_____

Student Signature   Date

Parent: I understand that my child will have responsibilities when joining the Student Internet Team that will cause him/her to need to occasionally be brought to school early or picked up after school. I also understand that this is being done as a research study to see the effectiveness of providing student help on the Internet for teachers.

_____

Parent Signature   Date

APPENDIX B

TEACHER LETTER

Thursday, February 17, 2000

Dear Teachers:

I am working on a study for graduate school to see if students can be successful at training teachers about the use of the Internet. Many teachers seem uncomfortable or not competent enough to use the Internet in their classrooms. Many times students have the knowledge that we don't realize and we could actually be putting that knowledge to use in the classroom. Please complete the attached survey and return it to me by Tuesday. The training session will consist of either one day for two/three hours after school or two days, one/two hours after school. I would be very grateful for your help. Please sign up on the sheet beside the mailboxes if you want to participate. Thanks for your time and help.

Sincerely,

Amy S. Hall

APPENDIX C

TEACHER SURVEY

TEACHER SURVEY

**PLEASE COMPLETE THE FOLLOWING SURVEY DEALING WITH USE OF THE
INTERNET IN YOUR CLASSROOM AND RETURN IT TO THE OFFICE BY FRIDAY
AND YOU WILL RECEIVE A TREAT!! THANKS FOR YOUR HELP! Amy Hall*

NAME			GRADE		GENDER	M / F
I have been teaching for:	0-5yr.	6-10yr.	11-20yr.	21-30yr.		30+yr.
Level of Education:	Bachelor		BA +	Master	MS +	

1. I understand how to log onto the computer and get into the Internet.   Y   N

2. I know what the term "search" means.   Y   N

3. I use the Internet often for personal use.   Y   N

4. I use the Internet often as a part of my teaching.   Y   N

5. When I want information on a topic I go to the Internet first.   Y   N

6. I am fearful of obtaining inappropriate material on the Internet.   Y   N

7. I feel the Internet is an asset in my classroom, but I am unsure of how to
use it correctly.   Y   N

8. My students seem to know more about the Internet than I do.   Y   N

9. I would like some more training on the Internet, but do not have time.   Y   N

10. If I felt more comfortable with the computer, I would use it in my class.   Y   N

11. I would feel comfortable with a student helping me learn to use the Internet   Y   N

12. I feel that I could use students as peer tutors when using the Internet in the
classroom.   Y   N

13. If I were familiar with what web sites to search I would be more comfortable
using the Internet.   Y   N

14. I would like to know which students are knowledgeable about the computer
so that when I have a technological question I can ask them.   Y   N

APPENDIX D

TEACHER TASKS

*Please complete the following tasks. Follow the directions carefully!

NAME_____DATE_____

1. Go to www.art.net and then click on studios.
   At the next screen: Visual Artists
   At the next screen: Alisa Lowden

*What does her picture look like to you?

2. Go to http://encarta.msn.com/schoolhouse
   Browse your area of interest.
   Choose one of the search results and click on it.

*Write down two interesting facts from your chosen results.

3. Go to www.eric.org
   Choose News Releases
   Scroll through the choices and open the one that interests you.
   Print that page.

4. Go to bookmarks>Computers and Internet
   Click on Free Software
   Go to Education under categories to teaching tools
   Choose Accu-reading
*What does this program feature?
*What determines students skills?

5. Click on search
    Type in Bill Clinton and click "go get it" or "search"
    Scroll and read the websites.

*Why would you want to check sites before allowing students to check them?

6. Go Bookmarks to Search

*What are two main web sites that provide information here?

*Click into them and see which one you prefer and explain why.

7. Find an on-line store dealing with education.

*Write down the name of the store, what you would like to buy and its cost.

8. Teach a student how to set-up e-mail. The student must initial that you have taught them. Initials _____

9. Find a lesson plan emphasizing your area of expertise or interest and print it.

10. Send a message to Amy at her e-mail address teach1@voyager.net. Tell her what you thought about the training.

*Hand these completed tasks to a student, get a survey and please complete it.
Thank you for your time and we hope you learned!!

APPENDIX E

POST-TRAINING SURVEY

POST-TRAINING TEACHER SURVEY

NAME_____**DATE**_____

1. I understand how to log onto the computer and get into the Internet.   Y   N

2. I understand what the term "search" means.   Y   N

3. I feel comfortable to sit down and access information using the Internet   Y   N

4. I completed each task successfully given by the students   Y   N

5. When I want information on a topic I will use the Internet.   Y   N

6. I understand how to search and retrieve appropriate information.   Y   N

7. I plan on using the Internet in my classroom.   Y   N

8. I felt comfortable having students teach me.   Y   N

9. I will ask students to serve as peer tutors in my classroom when other students are having difficulty.   Y   N

10. I will ask students to help me when I am having difficulty with the Internet.   Y   N

11. I would like to have more training sessions led by students.   Y   N

12. I would like there to be a set group of students who I can call upon when I have questions about the Internet or the computer in general.   Y   N

13. I feel that the students enhanced my knowledge of the Internet.   Y   N

14. I feel more comfortable now that I know of specific web sites to search for information.   Y   N

15. If someone asked me to help them use the Internet I feel I could be of some assistance.   Y   N

APPENDIX F

FOLLOW-UP SURVEY

Teachers,

Thank you for participating in the Internet training session with students in March. Please take a moment to complete the following survey. Return this to me by Friday and you will receive a treat. Thanks for your time and cooperation.
Amy

1. Describe how you have used search engines as a part of your curriculum since the training session.

   _____

   _____

   _____

   _____

2. List what websites you have used as a part of your teaching and how they have helped you as a teacher.

   _____

   _____

   _____

   _____

3. Describe how you have used the bookmark icon and how it has been helpful on keeping tabs of sites you use frequently.

   _____

   _____

   _____

   _____

4. Describe how you have used your e-mail account.

_____

_____

_____

_____

5. Describe how much time you use or allow your students to use the Internet for classroom use and how that enhances the subject matter.

_____

_____

_____

_____

6. Describe how your classroom or teaching has changed since the training session because of incorporating the Internet as a part of your curriculum.

_____

_____

_____

_____

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