Teens Teaching Internet Skills "Bridging the Generation Gap across the Digital Divide

Evaluation Report 1999-2000

Prepared by:

Jane Kolodinsky, Ph.D., Co-Director

Michele Cranwell Schmidt, MPA, Evaluation Coordinator

May 2001



Executive Summary

The Teens Teaching Internet Skills (TTIS) Project is a national initiative involving youth and adults from the 4-H Technology Teams in six states, including: Connecticut, Florida, Iowa, Maryland, Virginia, and Washington. This is a pilot project for a future, larger, national effort to engage youth in training individuals to navigate and obtain the needed information from the Medicare web site. The Center for Rural Studies (CRS) at the University of Vermont is the evaluator of the TTIS project. This evaluation report focuses on two distinct areas, including "best practice" of the process of the project and "learning outcomes" of the workshop participants, specifically whether or not the learner acquired computer and Internet skills to navigate and benefit from information on the Medicare website.

Based on qualitative data collected during the teen focus groups held at the National Training in Maryland in August 1999, the evaluators identified several initial expectations of the teens as well as ways to improve the training in the future. From the onset of their involvement, the teens felt there was a need for this program, as they felt that this project would serve to introduce or improve upon the computer and Internet skills of Seniors, allowing them to use and benefit from the information on the Internet. Initially, many of the teens did not have a definitive game plan, however, it was helpful for the teens to confer with one another, as they were able to gain a idea of how to initiate the project in their home state through this discussion. Many of the teens mentioned that it would be helpful in the future, to inform the teens prior to the training of the purpose of their involvement in the project and the focus of teaching Seniors Internet skills to search the Medicare website. The evaluators note that during future trainings, the participating Tech Teams should be informed of the importance of the workshop intake and evaluation forms, the need to use them, and how to use them correctly so representative data may be collected on the project's impact on the learner.

Following the training in August 1999, from September 1999 to April 2000, the Technology Teams held a total of fourteen TTIS workshops, training one hundred and nineteen participants, most of whom were Senior Citizens and a few Care Givers. Based on qualitative data from the teens and adults, via a focus group questionnaire and periodic team updates, as posted on the TTIS listserves, the evaluators have identified several successful techniques that the teams have implemented for workshop preparation. These include identifying appropriate teens and training them to hold a workshop for Senior Citizens; developing and modifying an agenda depending on skill level, special interests, and size of the group; methods to advertise workshops based on the characteristics of the community; and finding suitable locations for conducting workshops, such as local schools, Senior Centers, and libraries.

The evaluation also reports on successful techniques used by the teams for handling a variety of learning situations. The teams reported that having a one to one ratio of participants to learners, use of small groups at workshops, being flexible to modify the agenda, and advertising for an audience with basic computer skills, are successful techniques for dealing with differing technological skill levels among learners. The teams also identified the use of ice-breaker techniques, such as playing solitaire and other computer games, as a helpful method to increase the comfort and confidence level of the participants in using the technology. They also noted that it is

important to review with Seniors "next steps" at the end of the workshop, so the learners may continue to practice and benefit from their skills.

This report also includes a section on "lessons learned" from the pilot project for improvement of future workshops. The teams stressed the necessity of collaboration with local Senior Centers and schools for recruiting, advertising, and use of facilities for workshops. Further, it is important for teams to know the abilities and interests of their learners either before or at the beginning of workshops, in order to modify the agenda to meet the needs of the participants. The teams also mentioned that time commitment from both the adults and teens is a crucial element to the success of this project. This evaluation also reviews common problems encountered in conducting workshops and remedies for various situations, such as low attendance at workshops, technical problems, and other constraints such as time, travel, and the size of the technology team.

Further, this evaluation includes an analysis of the intake and evaluation forms that the learners completed before and immediately after the workshop, respectively. Although the use of the intake and evaluations were low among the teams, the results suggest that the target audience are primarily Senior Citizens who are eligible for Medicare (average age was 67), however Care Givers have expressed interest and attended a few workshops. Half of the respondents to the intake questionnaire have computer and Internet access in their homes, however few respondents reported using facilities that are open to the public. Further, approximately half report using computers on a daily basis and a third use the Internet daily. On the other hand, about a quarter of the respondents do not have access to a computer or the Internet, and the majority reported seldom or never using computers and the Internet. The respondents reported having minimal skills in using the computer, the Internet, and the Medicare website, however most people showed a desire to improve their skills, specifically searching on the Internet and using E-mail. About two-thirds of respondents were not aware of the tool "searching the Medicare website". The major goals of the respondents for attending the workshop were to increase their comfort and skill level in working with computers and using the Internet in general. Almost a third of the respondents indicated learning how to use and search the Medicare website and to better inform themselves about Medicare, was a goal for attending the workshop.

A positive response was received from the learners, as over 80% of respondents indicated their skills with using computers and the Internet have improved after the workshop, compared to before the workshop where almost three-quarters of respondents doubted their skills at using the computer and the Internet. After the workshop, sixty-five percent indicated they were comfortable searching the Medicare website and half indicated a desire to search the Medicare website for information in the future. The learners were also pleased with the teaching ability of the teens and adults. Over 80% of persons said they would recommend this workshop to their friends and family.

The six month follow up with seven of the Seniors who agreed to be contacted and were able to be reached, indicate that their perceived comfort and skill level with computers has remained high following a longer period of time after the workshop. However, the results were not as positive for the Internet. This suggests that the TTIS workshops had an immediate and positive effect on Seniors perceived comfort and skill level towards technology. However, after a longer period of time following the workshop, the comfort and skill level decreased for some of the seniors in using the Internet.

Results from the post test of the project administered to the teen trainers indicate that the teens perceive a positive change in all skill areas, specifically working with Senior Citizens, skills related to project management and teaching, public speaking, leadership, and knowledge and understanding of the Medicare website. Further, this intergenerational experience led to a positive change in attitude of the teens towards working with Senior Citizens and teaching them skills in technology. This change in attitude included an increased comfort level and belief that Seniors are willing, able, and open to learning new technology.

This intergenerational experience fostered a positive attitude among the Seniors, with regards to their comfort in working with teens and the teens' respect for, ability to teach, and patience with Senior Citizens. Overall, results suggest that intergenerational learning experiences benefit both parties in learning and skill development and led to a positive change in attitude towards the other generation.

Table of Contents

Introduction	8
Evaluation Procedures	9
Results ~ "Lessons Learned" for Successful Workshops	
Baseline Data ~ Initial perceptions of need, goals, objectives, and participants	10
Initial game plan	11
Successful Techniques for Workshop Preparation	
Identification of Teen Trainers	
Training of Teen Trainers	12
Development of an Agenda and Workshop Preparation	12
Advertising for Workshops	13
Locating Facilities for Workshops	14
Successful Techniques for a Variety of Learning Situations	16
Techniques to Deal with Differing Technological Skill Levels	16
One to one ratio of participants to trainers	16
Use of small groups	
Advertise for a "computer literate" audience	
Flexibility to work with workshop agenda and facilities	16
Use of "Ice-Breaker" Techniques	
Use of computer games	
Reflect and Review "Next Steps" for Seniors	18
"Lessons Learned" for Improvement of TTIS Workshops	19
Establishment of Community Partners	
Senior Centers	
Local Schools	
Know the Abilities and Interests of your Participants	
Time Commitment	
Problems and Solutions in Conducting Workshops	20
Attendance at workshops	
Follow-up with participants before workshops	
Advertise to a larger audience Seasonal workshops	
Flexible time for training session	20
Relate technology to participant's interests	21
Technical Problems and Solutions	21
Time, Travel, and Transportation Constraints	21
Size of the Technology Team	22

Use of Intake and Evaluation Forms	22
Workshop Participant Characteristics and Learning Objectives	23
Participant Demographics	23
Access and Use of Computer and Internet Facilities	23
Skill Level Assessment	
Learning Objectives of the Participants	25
Medicare Website Activities during the Workshop	
Evaluation of the Workshop Activities	
Impact of the Project on Senior Citizens	27
Impact on the Project on the Senior Citizens, Comfort and Skill Level with Technology	
Intake Analysis	28
Evaluation Analysis	
Comfort in Searching the Medicare Website	
Senior Citizens – Change in Attitudes towards Working with Teens	
Continued access for Seniors – Iowa and Washington	
Improvement in the lives of Senior citizens ~ A message from a Senior trainer/learner	
Impact of the Project on the Teen Trainers	
Changes in Attitudes of Teens towards Senior Citizens	
Awards and Recognition of the Teens	
Conclusions	
Youth Initial Expectations	
Training Approaches that Worked ~ Workshop Preparation	
Successful Techniques for a Variety of Learning Situations	
Problems and Solutions in Conducting Workshops	
"Learning Objectives" of Senior Citizens	
Demographics	40
Access and Use of Computer and Internet Facilities	
Skill Level Assessment	
Learning Objectives Immediate Impact of Workshops	
Workshop Evaluation	
Six Month Follow Up	
Positive Outcomes of the Project on Youth	
Use of Intake and Evaluation forms	42
Recommendations	43
National Training	43
Workshop Preparation	43

Techniques for Handling a Variety of Learning Situations	44
Techniques for dealing with low attendance at workshops	44
Techniques for dealing with technical problems	44
Evaluation Methods	44
References	46
Appendices	48

Introduction

The Teens Teaching Internet Skills (TTIS) Project is a national, intergenerational partnership sponsored by the U.S. Department of Agriculture 4-H Youth Technology Leadership Team and the Health Care Financing Administration. This is a pilot project for a future, larger, national effort to engage youth in training individuals to navigate and obtain the needed information from the Medicare web site. This pilot project involved youth and adults from the 4-H Technology Teams in six states, including: Connecticut, Florida, Iowa, Maryland, Virginia, and Washington. The Center for Rural Studies (CRS) at the University of Vermont is the evaluator of the TTIS project. This is the evaluation report for the pilot project during the grant period of August 1999 to August 2000. This evaluation report focuses on two distinct areas, including "best practice" of the process of the project and "learning outcomes" of the workshop participants, specifically whether or not the learner acquired computer and Internet skills to navigate and benefit from information on the Medicare website.

Research by SeniorNet, The U.S. Department of Commerce, and The American Association of Retired Persons (AARP) shows that although there is still a "digital divide" between older and younger adults, the gap has been narrowing over the past twenty years. Seniors are increasingly owning computers and accessing the Internet to obtain many benefits of the World Wide Web. A national survey conducted by SeniorNet (Adler, 1996) on Internet use by both computer and non-computer owners reports 30% of adults age 55 to 75 and 23% among seniors 75 years or older own a computer. Ownership of adults age 55 to 75 has increased 21% since the 1994 survey conducted by SeniorNet. Of computer owners, 28% reported "regular" use of the Internet. Among non-computer owners, 28% considered themselves "somewhat familiar" or "very familiar" with computers, while 71% of non-owners consider themselves "somewhat unfamiliar" with computers. AARP estimates that three million of their thirty-three million members own Personal Computers, an increase of one million from their 1994 survey (Prisuta and Sutterlin, 1995). Later research shows that 24% of AARP volunteers own a computer and 19% own both a computer and a modem (Marks, 1996). The U.S. Department of Commerce (1999) reports that Seniors (age 55 or over) trail all age groups with respect to computer ownership (26%) and Internet access (15%), however this up from 3% of seniors owning computers in 1984.

Research show that Senior Citizens are interested in learning and using computers for various benefits, including socialization, communication (intergenerational and personal), learning new skills, special interests/hobbies, staying informed of current events, personal financial management, and using technology as an information resource (Lensch, 1997; Thompson, 1995). Computer and internet use specifically benefit Seniors who are homebound or disabled. Several studies conducted by research teams at SeniorNet support these findings and add the Internet allows Seniors to develop online companionship or supportive relationships (Wright, 1998), shop, and keep in touch with family and friends, and research topics of interest (Dieter, 2000; Ito et al, 1998).

Several programs have been established where youth and young adults teach computer skills to older adults (Egan, 2000; Holmquist and Juricek, 1994; Lensch, 1997; Lundt and Vanderpan, 2000; Ogozalek et al, 1994; Owen, 1991). These programs have achieved positive results among both groups, including heightened learning of computer and interpersonal skills from interaction with

another generation, and improved attitude towards the other generation. Seniors who participate in these programs show positive change in attitudes towards computers and the Internet and gain more confidence in their own proficiency with technology. Youth who participate in these programs as the "teacher" show improved leadership skills and gain a sense of personal-worth based on their contributions to society. Research shows that intergenerational activity, where children and Seniors work together on various projects, offers heightened learning for both the youth and adults, increases self-confidence, increases cross-generational comfort levels, eliminating stereotypes that each generation may hold for the other (Bullock and Osborne, 1999; Chen, 1997; Pinquart et al, 2000; Shipman, 1999).

Teens involved in 4-H programs across the United States participate in many different types of leadership, teaching, and community service projects to enhance and build skills. Research on teens and skill building shows that after teens participate in workshops and programs that focus on areas of communication, leadership, decision making, and working with groups, there is a significant increase in their perceived leadership skills, self esteem (Groff, 1992; Kleon and Rinehart, 1998), life skills development (Boyd et al, 1992). Research also supports the empowerment of teens in 4-H programs as a way to enable youth to take on leadership positions, assume responsibility, and overall become more productive citizens (Huebner, 1998).

Evaluation Procedures

The evaluation of the TTIS project was based on the seven research objectives outlined in the original grant proposal (Appendix A). Evaluation methods were adjusted based on participant and learner response and constraints that arose as the project unfolded. The evaluation methods included a variety of quantitative and qualitative assessment tools, including focus group questionnaires and a pre and post test, that involved both the trainers and learners (Caudle, 1994; Dean, 1994; Fink and Kosecoff, 1985; Fitz-Gibbon and Morris, 1978; Miller, 1994; Scheirer, 1994). These tools were designed to inform "best practices" in conducting TTIS workshops and learning objective outcomes as stated in the grant proposal. Data collected was compiled in a manner to track both individual state team and group progress in conducting workshops and track the learning objectives of the learners. Quantitative data was compiled and aggregated in descriptive form using the SPSS statistical program. Qualitative data was analyzed using N-Vivo, a program designed to organize and analyze the content of qualitative material. Details of the evaluation procedures (Appendix B) and questionnaires used (Appendices C-J) are available in the appendix of this report.

Results ~ "Lessons Learned" for Successful Workshops

Baseline Data ~ Initial perceptions of need, goals, objectives, and participants

During the National Training Conference in Maryland in August 1999, the evaluators held a focus group with the youth to discuss their initial perceptions of the need for this project, their goals and objectives, who the learners would be, and the learners goals and objectives for attending the workshop. Their initial plan of action was also discussed. This qualitative data provided baseline information on the teens perception of their participation before the training. The youth were initially asked why they got involved in this program. They mentioned several reasons including interests in working with the elderly, working with computers, using public speaking skills, and volunteering. They also enjoyed traveling (to Maryland) and meeting their Tech. Corps peers from other states. Several teens mentioned that they did not know that this project had the focus of teaching seniors Internet skills to search the Medicare website and felt this should have been made clear. The teens seemed intimidated with the notion that they would be teaching seniors how to search the Medicare website.

All the teens felt that there is a need for this program. The teens felt that this project will serve to introduce or improve upon the computer and Internet skills of Seniors, as Seniors could use and benefit from the information on the Internet. One teen mentioned that this type of program would be extremely beneficial to Seniors and people of all ages in rural areas as they may be more isolated from sources of information and many are beginning to own their own computer. These skills may help connect people in rural areas to sources of information to which they otherwise might not. Several teens felt that perhaps seniors are afraid of computers and these workshops could help dissuade these fears.

Initially, only a few teens of the total group had definitive goals or objectives for this project as several state Technology Teams had previous experience in this type of project. However, after a group discussion, most of the teens had several goals for this project. One state group reported that their Tech Team wanted to establish a partnership with a Senior Center, increase youth involvement with Seniors, and improve youth leadership and teaching skills. These teens also mentioned that upon return to their state, they would formally establish a plan, develop a curriculum for their workshops, and improve upon it based on trial and error. Several persons felt that the focus of their workshops would be on the improvement of Seniors' computer and Internet skills and the benefits of the resources on the Internet; they wanted to make the learning experience fun.

The focus group also discussed the teens initial fears and expectations of participating in this program. Several of the teens mentioned that they were concerned about the amount of time commitment that would be required of them to reach all areas of their state. Many wondered whether or not it would be possible to teach Seniors computer skills in two and a half hours. A few teens noted that they expected to work with Seniors who are "set in their ways" and would have to work with them to help open their minds up to the use of technology. The youth also expected to be working with a variety of skill levels at the workshops, with the possibility that some people would not have any skills in using the computer or the Internet. The teens agreed that the learners would seek training at TTIS workshops in order to improve upon their computer and Internet skills and benefit from learning about the Medicare website.

Initial game plan

As the conference was held in the early stages of the project development, several teens were not sure how they were going to begin planning, setting up, and conducting workshops. Washington state seemed to be the most prepared for the beginning of the project as they had a "kick off" event planned for Grandparents Day. Many teens reported that they came to this conference with little understanding of their role aside from the fact that they would be working with Seniors to develop computer and Internet skills. Several teens reported that they would contact and work with a senior center in their community and hold workshops once a month, depending on the need and interest within the community. They mentioned that along with Senior Centers, local schools, Universities, and libraries would be necessary community partners in order to advertise and recruit participants and for the use of computer facilities. They would also advertise for workshops via the local newspaper or at senior centers in the community. The youth identified their intended audience as primarily senior citizens and perhaps people in their 50's.

The discussion continued around the topic of dealing with differing technological skill levels among participants and helping the learners overcome any "fear" of technology. The teens felt that a good way to break the ice about computer and Internet use, especially to a person who is not familiar with the technology, is to ask them about their hobbies or areas of interests and show how this hobby could relate to computer and Internet use. A few teens felt that it is important to help the seniors reach a point where they are able to perform a task on their own. Several mentioned that it is important to not be condescending with the seniors, recognizing that they are not from a generation where computers were widely used on a daily basis. One teen suggested that he initially dissuade the fears of seniors by telling them that they cannot break the equipment.

Successful Techniques for Workshop Preparation

Identification of Teen Trainers

The states identified and recruited teens, in addition to the ones who attended the National Conference in Maryland in August 1999, through their state 4-H Technology Team to work at TTIS workshops, as trainers, "helpers", and "Learning Partners", as called by their team leaders. The state teams approached peers within their state on whether or not they would be willing to participate in the project. Teens were also recruited through 4-H Newsletters. Teens were then identified to work as trainers based on their knowledge of computers and the Internet, ability to work with people, and interest in working with senior citizens. It was also important that the teens were willing to commit time to this project, required for training, traveling, and conducting workshops.

Training of Teen Trainers

Tech Corp leaders and teens who were trained at the National Conference in Maryland provided training for other teens within their state who participated in the project. The majority of training took place from a half an hour to three hours before the workshop, however one state held a six hour training session a few days in advance of the workshop. During this training, the teens were given the agenda and handouts describing the workshop curriculum and discussed techniques in working with senior citizens, and modified the curriculum based on the number and skill level of participants who would attend the workshop. Several state teams provided teens with an agenda/curriculum for the workshop before gathering for the workshop.

Several topics mentioned at the training on how to conduct a successful workshop include:

- Strive to make learning fun for Seniors use humor.
- Ask learners about their skill level and special interests; modify the agenda based on this information.
- If there are enough trainers, it is important for teens to work one on one with Seniors to provide individual attention.
- Go slow in talking and showing! Start simple! Learning takes time.
- Each student should learn at their own pace.
- Speak loud and clear.
- You may need to repeat things a few times before the learner fully understands the message.
- Have patience with the learners.
- Make sure you listen as well as talk to the participants.
- Repeat questions Seniors ask to make sure you understand exactly what is being asked.
- Pretend you know nothing about computers.
- Do not move the mouse or touch the computer for the senior unless absolutely necessary. You may put your hand on theirs when moving the mouse if they do not mind.

Development of an Agenda and Workshop Preparation

Most of the states developed their workshop agenda based on the model provided at the National Conference in Maryland. One state modified their agenda with the use of a model provided by their Tech Team leader who had previous experience in working with Seniors on similar topics. Another state developed a two-session training session in order to cover more topics. For most

teams, the teens assisted in the development of the curriculum, handouts, and use of equipment. Before the workshops, the teens met beforehand to discuss and modify the agenda and inspect the computers and equipment to ensure they are working properly. The teens of one Tech team practiced their training skills through role-playing.

During the workshops, the teams used several techniques aside from verbal and use of individual computers to convey information. These include the use of a power point presentation to show parts of computer and the use of handouts, developed by both the teens and the team leaders based on the National Conference, previous Tech Team workshops, and WWW based). Many teams stressed that workshops should begin with basic introduction to the parts of the computer, allowing the learners to become familiar and comfortable with using the mouse, keyboard, monitor, etc. One team leader stressed that the workshop agenda pace of the lesson should be determined by the capabilities and interests of the students.

An example of topics covered in a workshop include:

- The Parts of the Computer getting comfortable with the mouse, keyboard, monitor, etc.
- Basic Computer Operations
- Desktop Functions
- Solitaire and other Games
- Basic Internet
- Medicare Web site

Advertising for Workshops

During the pilot project, the states used local and inexpensive resources for advertising workshops and recruiting participants. For several state teams, recruitment and advertising was facilitated by their partnership with a Senior Center. One team advertised for their workshops through the collaborating Senior Center's catalog of classes and events. However the team leader of this group noted that they would like to advertise for future workshops in the newspaper in order to reach the general senior population, as the catalog has a specific target group. One team leader who advertised for workshops in collaboration with a local Senior Center tried to keep the numbers of Seniors trained at the initial workshop on the low end so the teens could get practice in working with Seniors and conducting workshops. Another team recruited Seniors through County Extension agents who worked with Senior Citizens. Further, one state team advertised through their local chapter of the American Association of Retired Persons (AARP) and their University alumni association. A different avenue taken by a few teams to promote workshops and improve word of mouth advertising, in addition to use of methods mentioned below, was through the writing of press releases in the local newspapers or newsletters that are available in both hard copy and online. These press releases included positive quotes from participants who attended the workshops; this is a form of effective testimonial advertising.

One Tech Team member from a rural area noted that the type and scope of advertising techniques are dependent upon the size of town and whether the target area is urban or rural. For example, word of mouth and flyers in public buildings may be useful in a small town, however in a larger area, direct recruitment through collaboration with a Senior Center or advertising in a newspaper might be more appropriate.

Here are some examples of advertising techniques used by the states in the pilot project:

- Collaboration with a Senior Center
- Collaboration with AARP
- Advertising in Senior Center's catalog of classes and events
- Local senior citizens radio station
- Community calendar aired on local Cable channel
- Newspaper
- Newsletter
- Flyers in community places (post offices, bank, gas station, local café, churches, etc.)
- Word of mouth
- Personal contact with Senior Citizens
- Writing a press release or short article for a newspaper

Locating Facilities for Workshops

The TTIS teams were able to obtain use of a suitable location/computer facility with an adequate amount of computers with Internet access through resourceful and creative means. The majority of the teams gained the support of their local school in order to use their computer lab for the workshop. A few teams used their local County Extension computer labs for workshops. One team noted that they had difficulty finding centers with computers to reach Senior in other parts of their County, as some areas are more rural and lack adequate access to computer and Internet facilities.

Facilities for workshops held during the pilot project included:

- Local elementary/middle school computer lab
- Local High School computer lab
- State University computer lab
- Senior Center brought equipment from Tech Corp
- County Extension Office
- 4-H computer lab
- Library

Here are two different examples of how Tech Teams created a computer lab through creative and resourceful means.

One state team created a joint computer lab at no cost to the Extension office, through their collaboration with the Senior Center and the development of a youth/senior computer program in 1998. The team received a grant for their intergenerational component of the project called Computers for the Ages from Microsoft. The \$12,000 cash portion of the grant helped defray costs for the Grandparents Day TTIS event and purchased a new computer for four county 4H Tech Teams that agreed to create youth/senior education programs. The team also received \$95,000 in software through this grant. The computer labs established through this funding was used for TTIS workshops.

Another Tech Team held a workshop at their collaborating Senior Center as they felt the Seniors would be most comfortable learning in that setting. The team brought four laptops and one Mac that was being phased out at the Extension office. Internet connection was established through Webramp and the purchase of a single dial-up connection for one month from a local provider.

Successful Techniques for a Variety of Learning Situations

Techniques to Deal with Differing Technological Skill Levels

Throughout the pilot project, all of the state teams, at one time or another, faced the challenge of dealing with differing technological skill levels of the learners. This situation can hinder a workshop, however through the experience of this project, the teams discovered certain steps that can be taken to ensure that all level of learners receive the necessary attention to facilitate the learning for the group.

One to one ratio of participants to trainers

When possible, most of the teams had a **one to one ratio** of Seniors to trainer at their workshops. They found this to be a successful technique, especially if participants had different skill levels or interests. With individual attention, Seniors who were ready to move on to the next step could do so with the help of their trainer, while others could take their time in working on another step. If there are not enough teens available to work one on one with the learners, a Tech Team leader recommended that workshops have "**moving helpers**" who can assist people when needed and offer suggestions to faster students to keep them learning.

Use of small groups

Another team leader mentioned that use of **small groups**, when appropriate, to have the learners help each other. This team would often break the participants into small groups, allowing faster learners to assist slower ones.

Use of positive reinforcement

One state team used **positive reinforcement** and **verbal feedback** to help Seniors deal with frustrations and encourage them to move forward and take the next step.

Advertise for a "computer literate" audience

One state team took the strategy of advertising for Seniors who have **minimal computer skills** and placed emphasis on **learning about the Medicare website**. They advertised through their collaborating Senior Center who already had an existing senior computer education program. Using this technique ensured that their participants knew what to expect from the class, was interested in the topics, and had similar computer skills. Further, it allowed the teens to focus on the Internet and the Medicare web site rather than on introducing computers. The teen trainers noted that having participants with similar skill levels makes the workshop easier to teach. The team leader felt that Seniors get more out of the TTIS workshop if they are already familiar with the basic functions of the computer. The team reported that the learners were very interested and active in the presentation and learning and had a very successful workshop.

Flexibility to work with workshop agenda and facilities

The pilot states reported that it is also important that trainers are flexible to **modify their agenda** for the workshop based on the skill and comfort level of the participants. One state team modified their original outline before each class, to ensure that it was appropriate for the age, skill level, and the size of the group. Another team leader noted that the workshop should flow based on the capabilities of the student and readiness to move on to the next activity. This team spent two hours during a workshop working solely on computer skills, such as working with the mouse, before

attempting to allow participants to log on to the Internet for the last thirty minutes of the workshop. This team leader felt that it is important to remind the teens that they should not try to cover too much information in one session, as everyone will not accomplish the same amount during the time period. Further, another team leader noted that oftentimes, Seniors will get more out of learning one topic in depth, instead of many topics in general. The teens should teach the learners only information that they will be able to carry with them and use in the future.

One state also reported that it is necessary to be flexible with the computer facilities available as this can impose upon the workshop agenda. In one instance, the computer facilities at the school where a workshop was held, did not allow the computers to access email. Thus the participants were not able to get their own email addresses.

Use of "Ice-Breaker" Techniques

In conducting workshops, the teams of the pilot project came up with several creative techniques to help Seniors overcome their concerns, intimidations, or fears of working with technology.

Use of computer games

The majority of the states reported that they had the Seniors play **solitaire**, **bridge**, **chess**, and other computer games in order for participants to feel comfortable with the computer and using the mouse. Working with computer games, especially games in which the Seniors are familiar, helped to dissuade intimidation or fear of using the equipment. One state recommended that depending on the skills of the Seniors, it may be necessary for the Tech Corp. teams to allow the Seniors a lot of time playing games in order to ensure an initial comfort in using the computer and mouse.

One of the youths found a way to control the mouse with the keyboard through the Control Panel with a function called Accessibility Options that comes with Windows. The function is called MouseKeys, and it allows the user to carry out the function of the mouse - move, click, drag, and double-click- using the numeric keypad. This is an option for participants why find it difficult to maneuver the mouse.

Methods to help participants overcome intimidation of the Internet

In working with any age group, people can have intimidation about using the Internet. One state team reported that to help their participants overcome their fears about using the Internet they began their workshop by assuring them that the Internet is safe and sharing general policies about using the Internet, such as not downloading anything that the user did not initiate. In one instance, a youth of another state team reported that one couple in his workshop refuted the idea of accessing the Internet, as their home computer was not Internet capable and they did not want anything to do with the Internet. This is a situation to be expected on occasion as the audience of TTIS workshops includes people who may have never used this type of technology in their life.

Another team who worked with Seniors who were initially comfortable in using the computers allowed the Seniors time to explore the Internet on their own. The Seniors enjoyed practicing their Internet surfing skills with minimal guidance from their teen partner. Further, another state team noted that they encourage Seniors who learn the curriculum quickly to work more in depth with what they are doing or to surf the internet more and practice what we are learning on other websites.

Reflect and Review "Next Steps" for Seniors

One of the goals of the project is to for senior citizens to learn computer and Internet skills, in order to find and use information on the Medicare website that is useful to them. Thus, one team leader stressed that it is important at the end of the workshop for trainers to reflect and review with the learners what they have accomplished, what they are now able to do with their skills, and how to go about doing it. This will help the learners recognize their accomplishments as well as what "next steps" they can take to use their skills for their benefit. It may be helpful for the trainers to ask the learners "What are you going to do with what you have learned?", even if the answer is to attend another workshop and continue to improve their skills. If possible, trainers should research and discuss with the learners, local places that they can access computers and the Internet after the program is over. With regards to the Medicare website it is important that the learners can remember how to locate the Medicare website and conduct basic searches for relevant information. One team leader noted that follow-up with the students would be helpful for the trainers to find out if they are able to use the skills that they have learned.

"Lessons Learned" for Improvement of TTIS Workshops

Establishment of Community Partners

Senior Centers

Many of the state teams collaborated with a local Senior Center to recruit and advertise for workshops. One team leader stressed that collaboration with a Senior Center is essential to the success of the project. A TTIS team held a Grandparents Day "kick off" event in conjunction with the Senior Center's computer and Internet education event following a pancake breakfast. This was a successful strategy to promote TTIS workshops, as the event was widely publicized and approximately 100 Seniors attended primarily for the educational portion. In addition to collaborating with a Senior Center, one state team formed a partnership with AARP "New Dimensions" and Elderhostel.org in order to recruit and advertise for their workshops.

Local Schools

Most of the Tech Teams also made contact with and gained the support of local schools and Universities in order to use the school's computer lab for workshops free of charge. One school was so pleased with the workshops, that they offered to open the computer lab up to Seniors during certain daytime hours.

Know the Abilities and Interests of your Participants

Several state teams recommended that the trainers should be aware of who they are teaching and their interests and abilities. One team leader reported that trainers should ask the participants *before* coming to the workshop about their skill level with computers and the Internet and special interests/hobbies, as a way of getting to know workshop participants in order to plan the lesson accordingly. If it is not possible to gather this information beforehand, it is necessary to do so during the introduction of the workshop. By inquiring this information, trainers can understand the skill and comfort level and interests of the learners in relation to technology. Thus, the class can be tailored to meet the needs of the participants, facilitating the learning process. In several instances, workshops included people with a range computer skills, from none to basic. Thus it is important that the team takes the appropriate steps (discussed below) in order to work with varying technological skill levels.

Time Commitment

All of the Tech Teams noted that it is important that the teens and adults are willing to commit time to this project, required for training, travel, and conducting workshops. It is important for the teams to have a strong adult leader who can commit the time to provide structure and guidance for the teens throughout all stages of the project. It is also important to have committed teen leaders to support the adult leader and the workshops.

Problems and Solutions in Conducting Workshops

Attendance at workshops

For several teams, recruiting Seniors and attendance at their workshops was an obstacle they had to deal with, especially at the onset of the project. Attendance at workshops is an ongoing problem with the reasons, and thus remedies, often individual in nature. In working with any population, specifically senior citizens, illness, forgetfulness, and last minute conflicts., among other things, reflect a low attendance at a workshop. Following are several scenarios of poor attendance at workshop and steps the teams took or will take in the future to remedy this situation.

Follow-up with participants before workshops

One of the state teams decided to hold a three part workshop because their learners were so enthusiastic about learning and expressed a desire to continue the workshop at another time. There was a decent turnout at the first two workshops, however about a third of the original group attended to the third. The team leader felt that **following up with participants to remind them of the workshops** might have helped the situation. The leader recommended that Tech Teams follow-up before every workshop to interested people.

Advertise to a larger audience

One team leader mentioned that Seniors are interested in learning to use computers and the Internet, however the team felt that they needed to find more ways to reach them and let them know that the class is available in the area. One team found that their advertising techniques was possibly the cause of low attendance at some of their workshops. They felt the audience to which they were targeting was too small of a population, as they primarily advertised through their collaborating Senior Center's catalog of events. To remedy this situation, they decided that for future workshops they would **target a larger audience** through the **local newspaper**. They would also try the advertising technique of **word of mouth**, now that their workshops have a presence in their community. Word of mouth was a successful technique for several teams as both workshop participants and people who heard about the workshops followed up with the teen for information on more sessions, especially workshops that build on the skills learned at the previous. Further one youth reported that the adult children and caregivers of the senior citizens who attended the workshops asked if they could attend a future workshop as they felt the class might be something from which they would benefit.

Seasonal workshops

One Tech Team member mentioned that the **time of year that workshops are held** may affect attendance. This person noticed that many senior citizens in her area relocate to the south during the winter. Further weather conditions may prohibit people to travel to the workshop location. This team held successful workshops during the summer and fall and plans to hold another in the spring once the weather is nicer.

Flexible time for training session

Another strategy mentioned for increasing participation at workshops is to **vary the times of the day** that the workshop is held. One Tech Team that held their workshops at their collaborating Senior Center, held a session during the morning and the afternoon. They had a successful turnout at each session as these times were convenient for people who come to the Center at different times

of the day. Two of the teams held a two or three part series of workshops over a period of time. This offered the time needed to cover basic to more intermediate and advanced techniques as each successive workshop built on the skills of the previous workshop. The team who held a two part series mentioned that in the future, they would run a three part series, based on the interest of the learners who would commit to attend.

Relate technology to participant's interests

One Tech Team member mentioned that their team was having difficulty recruiting people in her area as most senior citizens have lived on farms all their lives and do not have a great interest in technology. Lack of interest in technology may be an issue for both rural and urban areas senior citizens have not grown up in the computer and Internet era and may not feel the need or have the interest to learn about it. However, in discussing this topic on the TTIS listserve, one Tech Team member wrote that in order to attract this group of people to workshops, advertisements and the topics of the workshop need include ways that technology can be used to help them, such as market information, weather, and financial analysis for a farmer. For this reason, it is helpful to ask the participants before or at the beginning of the workshop about their hobbies and interests so that **information can be presented in a way that will be most useful for the learners**.

Technical Problems and Solutions

Many of the states did not report having any major technical problems, possibly because workshops were typically held at a computer lab that is maintained on a regular basis. In one instance, the local school district provided a support person to be present at a workshop to provide assistance if needed. As previously mentioned, occasionally the Tech Teams needed to be creative in order to set up work stations with Internet access, through the use of laptops and Webramp, especially when a workshop was held at a Senior Center where there are no or limited facilities. One team needed to set up, move, and relocate computers due to spatial issues, in order to carry out their workshop.

One team leader stressed that it is important for all of the computers to look and act the same, so there will be minimal confusion among the learners and the trainers in working with different types of hardware. Further, comfort and ergonomics are important, such as adjustment of the monitor to reduce glare or adjustment of the font size of the on the Internet. There are some steps in preparing a computer lab that teens and adults can take to ensure this comfort. However, in using established computer labs, this may not be available. The Tech Teams reported having to deal with situations such as lack of access to email, hardware failures, and monitors being too small for comfort of a senior with a visual impairment. These types of problems are inevitable when working with technology and should be dealt with patience, humor, and creativity.

Time, Travel, and Transportation Constraints

Several state teams mentioned that time was a problem in several stages of the project. Many times, the teens and adults who were trained at the National Conference had to travel a long distance around their state in order to train other Tech Corp. teens and conduct workshops in other areas. One state also mentioned that transportation was an issue as parents were often not available to drive the teens and it was difficult to arrange for a car pool.

Size of the Technology Team

Size of the Technology Team and availability of both youth and adults was an issue for a few teams, which resulted in few workshops being held. This is an important factor especially as the majority of the Tech Teams recommended that workshops have a one to one ration of learners to trainers. The was the case for one Tech Team as the team leader mentioned that more teens than were available for their workshops were needed to work with the large, diverse groups of learners who attended. One team leader noted that it was difficult for their small Tech Corps to keep momentum to conduct more than one series of three workshops (a continuation series), especially since the teens needed to travel long distances and transportation was not available. There were also several incidences where either teens or adults were not able to attend the workshop due to illness or conflict in schedule.

Use of Intake and Evaluation Forms

Sixteen intake forms and seventeen evaluation forms were completed for the TTIS pilot project. Thirteen evaluation forms were completed on line. There are several reasons for why the intake and evaluations were not used properly to receive data representative of workshop participants. First, one of the teams conducted a workshop before the forms were available both in hard copy and online. In another instance, a team held a three part workshop and for several reasons, few of the original group attended the third, when the evaluations were completed. Another team did not use the forms as their TTIS workshops were included as a part of a larger workshop, thus the team did not feel it was appropriate to use the forms. For several reasons, communication was not clear on the importance of these forms to inform an "impact analysis" and the need to administer these forms in a systematic manner. Time at the end of workshops was also another issue, however, teams should be advised to have Seniors take home and mail back forms or complete the form online on their own time. As a solution to this problem, the Technology Teams need to be informed of their responsibility in cooperating with the requests of the evaluators. Training should also include a section on the importance of the intake and evaluation forms, the need to use them, and how to use them correctly.

Workshop Participant Characteristics and Learning Objectives

Participant Demographics

Sixteen intake forms and seventeen evaluation forms were completed for the TTIS pilot project. Thirteen evaluation forms were completed on line. The average age of respondents was 67 years old, with a range from 31 to 87 years old. There were two persons in their 50's, two persons in their 60's five person in their 70's and two persons in their 80's. Based on the results of this intake, the primary target group of people who attend TTIS workshops are over 50 and persons who are eligible for Medicare (age 63). All but one of the respondents have at least graduated from high school, with 33% (5) having some college education and 27% (4) having a graduate or professional degree. One respondent completed some high school but did not receive a diploma. Thus the population based on the respondents served by TTIS workshops are well-educated, with half of the group completing some higher education.

Further, the majority of the respondents were female (80%; 12). It is interesting to note that within this generation of people, mostly women worked in the clerical field and have had experience in typing and using a typewriter. A little over half of the respondents (53%; 8) reported that they live in a rural community, 33% (5) live in a suburban area, and 13% (2) live in an urban community. Results show that TTIS workshops are targeting or being held more often in rural communities, which is important as these areas may be more isolated than rural and suburban areas and lack convenient access to computer and Internet facilities and workshops to enhance these skills. The majority of respondents (75%; 12) indicated that they came to this workshop to benefit themselves, while a quarter said they came to benefit someone else (25%; 4).

Access and Use of Computer and Internet Facilities

Participants were asked where they have access to a computer and the Internet, if at all, in order to determine the level of access they have before attending the workshop. The results are depicted in Table 1. Half of respondents reported that they have computer and Internet access in their homes. A few people reported having access at a Senior Center, a family members house, and at the public library. A quarter of respondents said they do not have access to a computer and 19% said they do not have access to the Internet.

Table 1. Computer Access of Workshop Participants (n=16)

	Home	Family Member	Neighbor/ friend	Public library	Senior Center	No access
Computer	56%	13%	0%	6%	19%	25%
Access	(9)	(2)	(0)	(1)	(3)	(4)
Internet	50%	6%	0%	6%	13%	19%
Access	(8)	(1)	(0)	(1)	(2)	(3)

Note: participants could give more than one response

Participants were then asked how often they use a computer and the Internet to measure their level of use before the workshop. Results are depicted in Figures 1 and 2. There is a split in the amount of time respondents use a computer as almost half of the respondents reported having daily access

to a computer (47%; 7), while the other half reported using a computer once a month or less (20%; 3) or never (33%; 5). Use of the Internet is dichotomized in a similar fashion, however fewer people are using the Internet on a daily basis. Of the seven people who reported using a computer daily, five reported using the Internet daily and two use it once a week. Of the three people who use a computer once a month or less, two use the Internet once a month or less and one never uses the Internet. Likewise, the people who reported never using computers also do not use the Internet. Thus, responses suggest that persons who attend TTIS workshops have varying levels of experience in using computers and the Internet, thus workshops should be planned accordingly.

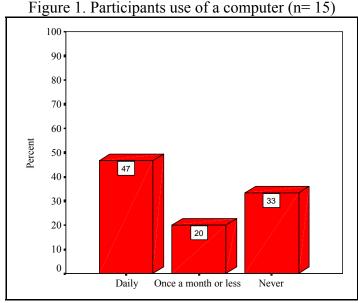


Figure 1. Participants use of a computer (n=15)

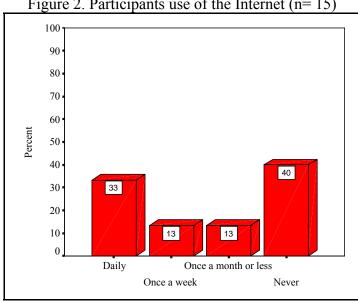


Figure 2. Participants use of the Internet (n=15)

Skill Level Assessment

The intake also addressed the participants skill level in using various aspects of technology to assess the skill level of persons who attend TTIS workshops and ensure that curriculums are covering appropriate topics based on the needs of participants. Participants were presented a list of skills (including the option for a "fill in" response) and were asked to indicate whether they currently use the skill, would like to improve their skills, are not aware of this tool, or are not interested in this tool. The results are presented in Table 2.

Table 2. Computer and Internet skill level of respondents

Skill	Currently use	Would like to improve my skills	Not aware of this tool	Not interested
Searching on the Internet (n=13)	8% (1)	54% (7)	39% (5)	0%
Searching the Medicare website (n=11)	0%	37% (4)	64% (7)	0%
E-mail (n=13)	23% (3)	62% (8)	15% (2)	0%
Word processing (e.g. writing letters, journals, etc.) (n=13)	23% (3)	46% (6)	31% (4)	0%
Spreadsheets (e.g. making a database or a budget) (n=13)	8% (1)	46% (6)	39% (5)	8% (1)

Note: the n value is given in () as several people did not respond to this question.

Few people currently use any of the tools given, while the majority of people indicated a desire to improve their skills at using the tools, specifically searching on the Internet and using E-mail. Results also show that upon the intake of these respondents, many people were not aware of the tools, especially the Medicare website, the Internet, spreadsheets and word processing. Thus, the trainers are presented with a unique opportunity to broaden the horizons of the learners by introducing these tools and their benefits. Interestingly, the option of "searching the Medicare website", was the only option where more people were not aware of this tool, as 64% indicated this response compared to 37% who reported they would like to improve their skills. Thus, these workshops attracted people who were not already familiar with the Medicare website.

Learning Objectives of the Participants

On the intake questionnaire, participants were asked to indicate what their goals are for attending the workshop, given a list of options relating to computers, the Internet, and the Medicare website, and the choice of "other", where they could fill in the blank. This information also informs trainers as to general goals of participants and how to best meet the goals by adjusting their workshop curriculum. The goals of the respondents are presented in Table 3. The top goals for attending workshops are to increase one's comfort and skill level in working with computers, followed by learning to use the Internet in general. Almost a third of the respondents indicated learning how to use and search the Medicare website and to better inform themselves about Medicare, as a goal for attending the workshop.

The fact that many respondents did not indicate the Medicare website as a major goal for attending the workshop has several implications. First, this could suggest that either workshops were not advertised as focusing on the Medicare website, the Seniors did not recognize this as a focus of the workshop, or this was not a main goal of many learners. The third option may be explained by the respondents answers to other questions previously mentioned regarding the Medicare website, as seven out of the eleven people who responded to question 12 on the intake reported that they were not aware of being able to search the Medicare website. Further, the goals of the respondents may be explained, given their initial doubts in their abilities and possibly their desire to become better acquainted with the technology before diving into the Medicare website.

Table 3. Goals of respondents for attending the TTIS workshop

Goal	Percent (number)
To increase my comfort level with computers	63% (10)
To increase my skill level with computers	63% (10)
Use the Internet in general	56% (9)
E-mail	38% (6)
Search the Medicare website	31% (5)
To learn how to use the Medicare website	31% (5)
To better inform myself about Medicare	31% (5)
Word processing	31% (5)
Create spreadsheets	13% (2)
To meet new people	6% (1)

Note: respondents were allowed to check more than one answer

Medicare Website Activities during the Workshop

On the evaluation questionnaire, participants were asked if they found the workshop helpful in that they were able to complete a series of tasks relating to the Medicare website. The results are presented in Table 4. All but one person reported that they were able to conduct a search on the Medicare website. Further, more than half of respondents said they were able to find how many Medicare HMOs are available in their area and that they were able to compare the benefits of two or more Medicare HMO programs available in their area. Exactly half of the respondents indicated that they planned to search the Medicare website for information in the future.

Table 4. Medicare website activities carried out during the workshop

	Yes	No	Workshop did not go over this
Conduct a search on the Medicare website	94%	6%	0%
(n=17)	(16)	(1)	070
Find how many Medicare HMO's are available	56%	25%	19%
in your area (n=16)	(9)	(4)	(3)
Compare the benefits of two or more Medicare	56%	31%	13%
HMO programs available in your area (n=16)	(9)	(5)	(2)
Plan to search the Medicare website for	50%	50%	*
information in the future (n=16)	(8)	(8)	·

^{*}This response was not offered for this question.

Note: the n value is given in ().

Evaluation of the Workshop Activities

On the evaluation questionnaire, the participants were asked two open-ended questions to evaluate their experience at the workshop. They were first asked to describe "what was the most helpful part of the workshop". Fifteen people responded to this question with the main responses including the use of the Internet, the Medicare website, and the instructors. Specifically, four people mentioned that the most helpful part was learning about the Internet, with two people specifying learning about the Medicare website and discovering how easily information can be obtained. Three people noted that they found the one on one training helpful, with two people specifying that the instructors were very helpful. Two people enjoyed learning about basic computer information and one person found it helpful to establish an email address. One person mentioned that all of the information presented at the workshop was helpful. Participants were also asked if there was anything that they expected that was not presented at the workshop. No one responded to this question, suggesting that there were no other topics that respondents expected to be covered at the workshop that was not discussed.

At the end of the evaluation questionnaire, the participants were asked to indicate their level of agreement with a series of statements relating to the technicalities of the workshop, using the same scale of 1 to 5 where 1 is strongly disagree and 5 is strongly agree. Overwhelmingly positive responses regarding the workshop were given by the respondents. Eighty-eight percent of respondents (15) agreed that the trainer proceeded at an acceptable pace, with two persons indicating they were not sure. A little over a quarter of respondents (76%; 13) agreed that the trainer spoke loud and clear, with two persons holding a neutral opinion and two persons indicating they were not sure. The majority of persons (82%; 14) agreed that they were able to understand the language that the trainer used, with two person holding a neutral opinion and one person indicating they were not sure. Likewise, 82% (14) agreed that they received enough individual attention to meet their specific computer training needs. Again, one person held a neutral opinion and two people indicated they were not sure. Finally, 82% (14) also agreed that they would recommend this workshop to their friends and family with one person indicating a neutral opinion and two people reporting that they were not sure.

Impact of the Project on Senior Citizens

Impact on the Project on the Senior Citizens, Comfort and Skill Level with Technology

On the intake, workshop evaluation forms, and the Senior follow-up questionnaire six months after the workshop, workshop participants were asked a series of questions relating to their comfort and skill level at using computers and the Internet. This "pre test, post test, and post-post test" technique allowed for a comparison of responses given before and after the workshop, to measure short term impact of the workshop on participants comfort and skill level with technology. This also measures longer term impact of the workshop on participants whether or not comfort and skill levels are maintained. Responses to the intake form also inform the average comfort and skill level of learners who attend TTIS workshops, thus trainers can adjust their curriculum based on this information. Participants were asked to indicate their level of agreement to a statement on a five point scale from strongly disagree to strongly agree, with neutral in the middle. They were also given the option of "not sure".

Intake Analysis

Overall, the majority of respondents to the intake form either disagreed or held a neutral opinion when asked if they are comfortable or skilled at using computers or the Internet. Responses are presented in Figures 3a-3d. Specifically, when asked whether or not they are comfortable using computers, 40% (6) disagreed, 20% (3) agreed, and 27% (4) held a neutral opinion (3a). With respect to skill level in working with computers, no one agreed with this statement, 63% (9) disagreed, 14% (2) were not sure, and 21% (3) held a neutral opinion (3b). Looking at comfort level in using the Internet, 43% (6) disagreed, while 21% (3) agreed, and 29% (4) were neutral (3c). More than three quarters of the respondents (79%; 11) disagreed they are skilled at using the Internet, while only one person agreed (7%), and two people (14%) held a neutral opinion (3d). Thus, results indicate that although most people disagree that they are comfortable or skilled at using computers and the Internet, more people doubt their skill level, especially at using the Internet.

The results indicate that although some people who attend the TTIS workshops are comfortable or feel they are skilled upon intake of the program, many participants do not feel comfortable or that they are skilled. This is an important indication of the range of audience that trainers can expect to attend their workshops.

Evaluation Analysis

Based on the results of the workshop evaluation, which was administered either online or in hard copy immediately following the workshop, the majority of persons agreed that they feel more comfortable and their skills have improved with using computers and the Internet after the workshop. The following results are also depicted in Figures 3a-3c. Almost three quarters of the respondents (70%; 12) agreed that they are more comfortable with using computers after the workshop, while only one person disagreed. Twenty-four percent (4) had a neutral opinion (3a). Further, 88% (15) of respondents agreed that they their skills with using computers improved after the workshop; only one person was neutral and the other person indicated they were "not sure" (3b). Responses relating to the Internet are also overwhelmingly positive as 70% (12) agreed that they are more comfortable with using the Internet, however three people reported they were not sure and two people were neutral (3c). Eighty-two percent (15) of respondents felt their skills with using the Internet have improved, while two were not sure and one had a neutral opinion (3d).

The results indicate that TTIS workshops have a positive impact on the learners' perception of their comfort and skill level, as the majority of respondents indicated they were more comfortable and felt their skills had improved in using technology after the workshop. Over 80% of respondents indicated their skills with using computers and the Internet have improved after the workshop, compared to results of the intake where almost three–quarters of respondents doubted their skills at using the computer and the Internet. The data shows that TTIS workshops have a positive impact on the comfort and skill level of the learners and perhaps the learners leave the workshop with more self-confidence to use their skills. Even though a few people continued to doubt their comfort and skill after the workshop, this may be due to the fact that learners with little to no experience in using technology attend TTIS workshops. However these figures are relatively low considering that 33% of respondents reported never having access to a computer and 40% reported never having access to the Internet.

Six Month Follow-up Analysis

The six month follow up with seven of the Seniors who agreed to be contacted and were able to be reached, show that the comfort and skills level of those who have continued to use computers and the Internet after the workshop, remains high. However, there are a few exceptions for use of the Internet, as doubt continues to exist among a few follow-up respondents regarding their comfort and skill level in using the Internet.

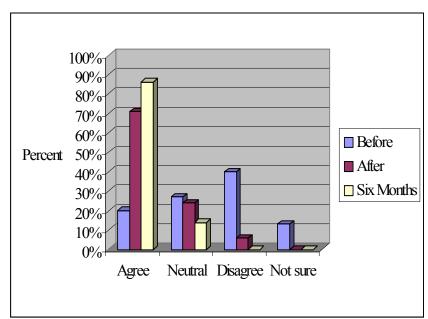
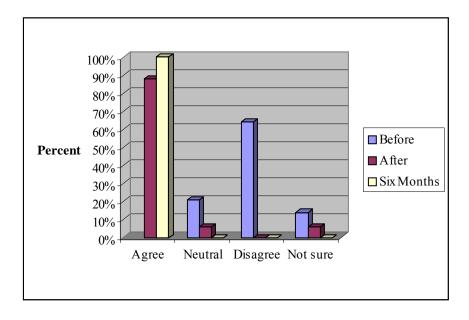


Figure 3a. Comfort Level with using Computer, before, after, and six months after workshop

Figure 3b. Skill Level at Using Computers, before, after, and six months after workshop



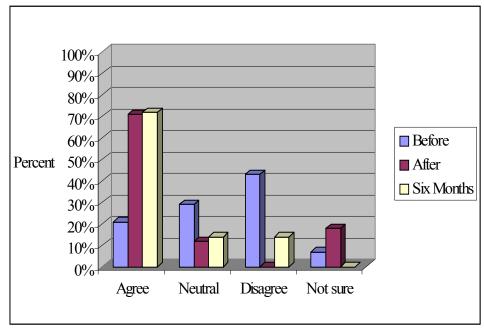
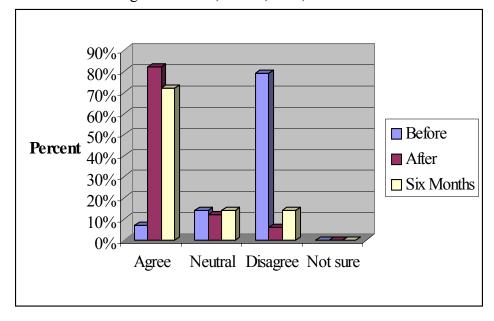


Figure 3c. Comfort Level with Using the Internet, before, after, and six months after workshop

Figure 3d. Skill Level at using the Internet, before, after, and six months after workshop



Comfort in Searching the Medicare Website

Using the same lichert scale as on the previous questions, respondents were asked about their agreement with the statement "I am comfortable searching the Medicare website" on both the workshop evaluation and the six month follow-up. Figure 4 presents the following results. On the evaluation 65% indicated that they are comfortable searching the Medicare website, which is a major goal of the project. Four people (24%) were neutral and two people (12%) were not sure. However, a little more than half of the seven respondents to the six month follow-up responded that

they disagreed that they were comfortable in searching the Medicare website. Only one person agreed with this statement, one was neutral and one was unsure.

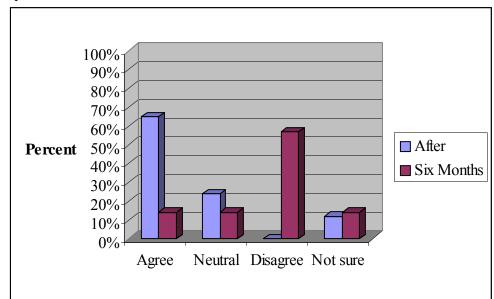


Figure 4. Comfort Level in Searching the Medicare Website, after and six months after the workshop

Senior Citizens – Change in Attitudes towards Working with Teens

Quantitative data was collected six months following the workshops to measure change in the attitude of Senior Citizens towards working with teens, after having attended the workshop (Figures 5a-5d). Seven Seniors responded to the follow-up questionnaire, based on their willingness to participate in a follow-up interview and ability to be reached (41% of original sample). Two trends were seen in the responses. The first trend is that some of the Seniors initially had a positive attitude towards the teens and continued to have a positive attitude after attending a workshop. The second is that the Seniors showed a positive change in attitude from before the workshop to after. Thus, participating in this workshop led all seniors to hold a positive attitude towards working with teens. Although the sample size is small, a paired sample t-test was run to test responses for significance. All four of the pairs were statistically significant ($p \le .01$)

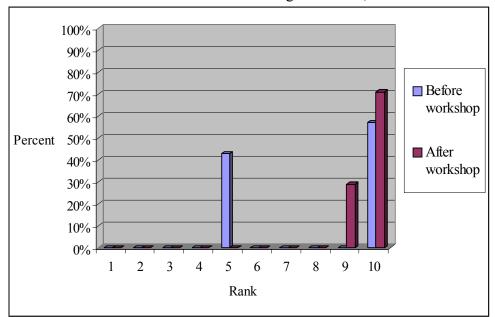
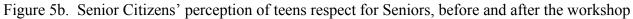
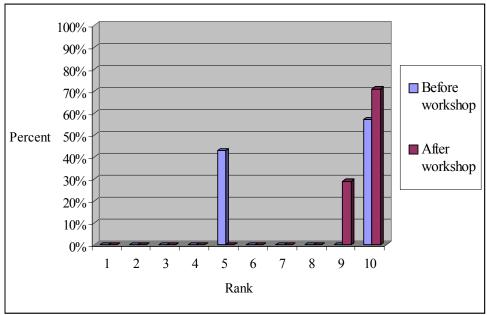


Figure 5a. Senior Citizens' Comfort level in working with teens, before and after the workshop





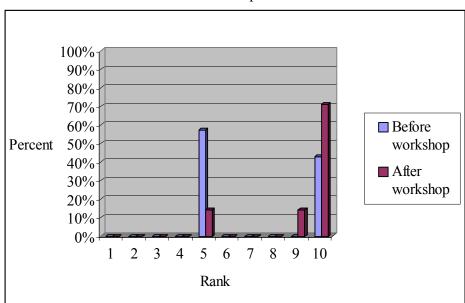
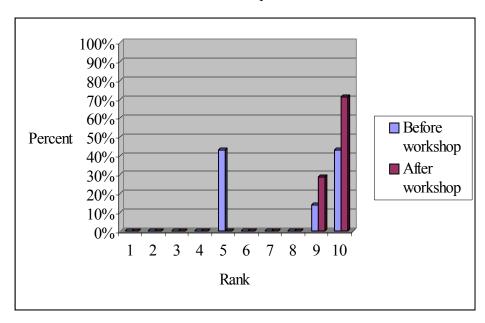


Figure 5c. Senior Citizens' perception of teens ability to teach Senior Citizens, before and after the workshop

Figure 5d. Senior Citizens' perception of teens patience with Seniors, before and after the workshop



Continued access for Seniors - Iowa and Washington

One positive outcome of a few workshops was the continued computer and Internet access for the Seniors. In many cases, the Seniors learn new skills, however they do not have the access to the technology to practice and benefit from these skills. Data from the intake forms show that about a

quarter of participants reported having access to a computer outside of their home and a quarter do not have access to a computer. Further, approximately 30% have access to the Internet outside of their home and 20% reported having no access to the Internet. Two examples were provided by the teens of how the workshops led to continued access to computers and the Internet for Senior Citizens. In Iowa, the Tech Team left a Mac computer that was being phased out of the Extension office at the Senior Center where they held their workshop for two months. The team had also purchased a one month network connection from a local service provider for use at the workshop, which allowed the Seniors to practice and benefit from the skills that they had learned. At another workshop in Iowa, the elementary/middle school where the workshop was held was so pleased as to how the computer class went that they offered to open the lab to Seniors from 2:30-4:30, as long as they inform the media coordination before doing so.

In Washington, the Tech Team created a joint computer lab at no cost to the Extension office, through their collaboration with the Senior Center. The team received a grant for their intergenerational component of the project called Computers for the Ages from Microsoft. The \$12,000 cash portion of the grant helped defray costs for the Grandparents Day TTIS event and purchased a new computer for four county 4H Tech Teams that agreed to create youth/senior education programs. The team also received \$95,000 in software through this grant. The computer labs established through this funding was used for TTIS workshops and Seniors are allowed to access this lab for their personal use.

Improvement in the lives of Senior citizens ~ A message from a Senior trainer/learnerOne senior member of the Washington Tech Corp team who attended the National Conference in Maryland wrote how the TTIS program brought many gifts and additional value to the lives of his fellow Seniors who participated in workshops.

- One woman is employed as an assistant manager of a good company, because she obtained computer training from TTIS. The job required it and she was qualified. She is much happier to be employed. She learned of the classes from the Senior Center mailing.
- Another stalwart person has now taken Introduction to Computers three times. "I didn't have a
 computer when I took the course before and I forget easily". She came back because of friends,
 and she liked the teachers. What a market we Seniors are!
- The retired married couples also enjoy the courses. The wife usually is by far the typist, while the husband is trying desperately to keep up. We teach with side by side computers so there is continuous conversations between the two. Some good, some not so good. She wants to communicate with her family. He wants to play solitaire. They are adding value to their days. And paying an average \$28 for the course, which is taught in the local Community College for \$128.

Our program has recently won the Human Resources Award from Snohomish County and the Educational award for best booth at the County fair. In no way do I diminish the contributions of the youth. But partnership with us old guys and girls has certainly helped. Seek out your Senior Centers for your student body.

Don Venables, Washington

Impact of the Project on the Teen Trainers

At the end of this pilot project, the teens were asked to assess changes in their skills because of their participation in the TTIS project. The teens were asked to indicate the extent they felt the following skills had improved on a scale from 1 to 10, where 1 equals "not at all improved", 5 equals "moderately improved", and 10 equals "extremely improved". Table 5 presents the number of respondents, the range, mean, median, and modal responses to the given skill areas. The results show that, on average, the teens experienced positive change in all skill areas, specifically working with Senior Citizens, skills related to project management and teaching, public speaking, leadership, and knowledge and understanding of the Medicare website. The average score of these skill ranged from 6.45 to 8.45, indicating that the teens felt these skills had moderately to greatly improved.

Table 5. Descriptive statistics - changes in skill areas after teens' participation in TTIS (N=11)

Skill Area	Mean	Median	Mode	Min	Max
Working with Senior Citizens	8.45	10	10	4	10
Knowledge of the Medicare website	8.36	10	10	4	10
Understanding information on the Medicare website	7.73	10	10	4	10
Teaching skills	7.64	8	5, 8*	5	10
Preparing for a workshop	7.27	8	5, 9*	2	10
Developing a curriculum	7.27	8	5, 10*	2	10
Training teens	6.90	8	8	3	10
Working with other 4-H teens	6.81	8	8, 10*	1	10
Public speaking skills	6.64	6	8	4	10
Leadership skills	6.45	6	8	2	10
Self-confidence	5.73	5	5	1	10
Recruiting teens	5.64	6	7	2	7
Recruiting Seniors	4.45	4	3	1	8

^{*} Multiple modes exist as indicated

According to qualitative data that followed this question, several teens noted that they indicated "1" that there has been no change in their skills, however they felt that their skills were already strong in the given area.

Changes in Attitudes of Teens towards Senior Citizens

As previously discussed, the focus group at the beginning of the project assessed the teens initial attitudes towards working with Senior Citizens. Although several noted that they felt some Seniors might be resistant to work with the new technology, most recognized that learners would seek

training at TTIS workshops in order to improve upon their computer and Internet skills and benefit from learning about the Medicare website. The youth also expected to work with a variety of skill levels at the workshops, with the possibility that some people would not have any skills in using the computer or the Internet. Overall, the teens felt that this project would serve to introduce or improve upon the computer and Internet skills of Seniors, as Seniors could use and benefit from the information on the Internet, specifically those in more rural areas.

Quantitative data was collected after the teens participation in the project to measure change in their attitudes towards working with another generation. Paired sample t-tests compared the teen's responses to the questions regarding their perceptions and attitude towards working with Senior Citizens, before and after the teens' participation as workshop trainers in the TTIS project. As depicted in Table 6, although the total number of respondents in the sample is small, the differences in the mean responses indicates a positive change in attitude towards working with Senior Citizens. Further, results from the Paired sample t-test were significant in three of the four pairs of variables. A significant increase was seen in teens' comfort level in working with Senior Citizens (p=.007), teens perception of Senior Citizens' willingness to try new things (p=.009), and the ability of Seniors to learn new things (p=.000). An increase in comfort level also corresponds to the teens perceived improvement in working with Senior Citizens. Interestingly, teens perception of Seniors' openness to new technology before and after their participation in the project was not significant, although the mean response did increase after their participation. Furthermore, the range of responses shifted from 1 to 10, before participation, to 5 to 10 after participation. This is possibly because at the onset of this project, most of the teens felt that persons who would attend the workshops would be open to the new technology, even though they might not be willing or able to learn new things.

Table 6. Paired T-Test of Teens Attitudes Towards working with Senior Citizens, before and after

participation in the Teens Teaching Internet Skills Project. (N=11)

Pair #	Variable	Mean	St. Dev.	T	P
1	Comfort level in working with Senior Citizens – before TTIS	7.45	1.75	-3.39	.007
	Comfort level in working with Senior Citizens – after TTIS	9.27	.90	-3.39	.007
2	Senior Citizens' willingness to try new things – before TTIS	5.18	2.82	-3.22	.009
	Senior Citizens' willingness to try new things – after TTIS	7.72	1.68	-3.22	.009
3	Senior Citizens' openness to new technology – before TTIS	6.18	2.96	1 74	.112
	Senior Citizens' openness to new technology – after TTIS	7.64	1.50	-1.74	.112
4	Senior Citizens' ability to learn new things - before TTIS	4.82	2.60	-5.22	.000
	Senior Citizens' ability to learn new things - before TTIS	8.36	1.50	-3.22	.000

Results from the paired t-test show that the teens had a positive change in attitude towards working with Senior Citizens after their participation in the TTIS project.

Awards and Recognition of the Teens

The Washington State Technology Team received the 1999 Human Service Council of Snohomish County Youth Collaboration Award.

Conclusions

The data within this report is to inform the "best practices" of conducting TTIS workshops, with regards to the planning and implementing process and facilitating the learning process of workshop participants, so they are able to benefit from the skills they acquire or improve. All of the teams successfully pulled together the resources necessary to conduct a total of fourteen TTIS workshops between September 1999 and April 2000, training one hundred and nineteen participants, most of whom were Senior Citizens and a few Care Givers. A positive response was received from the learners, suggesting that these workshops had a positive impact on the learners' comfort and skill level in working with Technology and the Medicare website. The contents of this report is based on the experiences of the teams and the learners of the pilot project and provides a guideline for future teams who take part in the larger initiative.

This intergenerational experience fostered a positive attitude among the Seniors, with regards to their comfort in working with teens and the teens' respect for, ability to teach, and patience with Senior Citizens. Overall, results suggest that intergenerational learning experiences benefit both parties in learning and skill development and led to a positive change in attitude towards the other generation.

Youth Initial Expectations

One of the five objectives of this evaluation report is to identify whether trainer expectations and perceptions were met or confirmed. Initially, the teens felt there was a need for the program. They felt that this project will serve to introduce or improve upon the computer and Internet skills of Seniors, as Seniors could use and benefit from the information on the Internet, especially Seniors who live in rural areas. Many of the initially teens did not have a definitive game plan, however, it was helpful for the teens to confer with one another, as they were able to gain a idea of how to initiate the project in their home state by this discussion. In this discussion, the teens were also able to identify their fears and expectations of working with Senior Citizens, such as Seniors' willingness to learn new skills, working with different skill levels, and how to make workshops a fun, learning experience.

Training Approaches that Worked ~ Workshop Preparation

Teens were then identified to work as trainers based on their knowledge of computers and the Internet, ability to work with people, and interest in working with senior citizens. It was also important that the teens were willing to commit time to this project, required for training, traveling, and conducting workshops. The majority of training took place from a half an hour to an hour before the workshop. During this training, the teens were given the agenda and handouts describing the workshop curriculum and discussed techniques in working with senior citizens, and modified the curriculum based on the number and skill level of participants who would attend the workshop. Several state teams provided teens with an agenda/curriculum for the workshop before gathering for the workshop. The teens also met before the workshop to check out the computers and equipment to ensure they are working properly. Many teams stressed that workshops should begin with basic introduction to the parts of the computer, allowing the learners to become familiar and comfortable with using the mouse, keyboard, monitor, etc. One state team developed a power point presentation to show parts of computer, while other teams used handouts, developed by both the teens and the team leaders.

The teams stressed that it is important to establish community partners with Senior Centers, local schools, Universities, libraries, etc. in order to advertise and recruit participants and to use local computer facilities free of charge. Other advertising techniques included collaboration with AARP, use of Senior Center's catalog of classes and events, local Senior Citizen's radio station, newspaper (both advertisements and press releases), flyers in community places, and word of mouth.

Successful Techniques for a Variety of Learning Situations

Based on the experience of the pilot project, the teams also provide several techniques to successfully handle a variety of learning situations. Most of the teams stress that one to one ratio of participants to learners is essential to accommodate the individual learning needs of the participants. If this is not possible, the teams suggest that teams should have moving Learning Partners or persons stationed at each row of the facilities. It is also crucial that teams are flexible to modify their workshop agenda, based on these individual learning needs. The teams should ask the participants *before* coming to the workshop about their skill level with computers and the Internet and special interests/hobbies, as a way of getting to know workshop participants in order to plan the lesson accordingly. One team leader stressed that the workshop agenda pace of the lesson should be determined by the capabilities and interests of the students. When appropriate, a few teams recommend the use of small groups at workshops. This allows participants to work with their peers, ensuring a level of comfort among the learners, and allows them to learn together from the knowledge of other group members, as teaching others is an effective way to learn. One of the teams suggested that teams advertise for an audience with basic computer skills, thus the learners are able to review the basics and move onto learning about the Medicare website.

The teams also identified the use of ice-breaker techniques, such as the use of solitaire and other computer games with which the participants are familiar, as a way of "warming up" the participants and dealing with different comfort levels in a non-degrading manner. This technique taps into the long term memory of Seniors, helping them to become comfortable with using equipment that may be new to them. Another important technique to ensure that learners take something away from the workshop and can practice and benefit from their skills outside of the workshop, is to review with the learners "next steps" they could take to locate and use a computer and the Internet and access websites with useful information. This is important as the results of intake indicate that the respondents are either not be aware of or are not accessing local computer facilities that are open to the public. As the result of several workshops, local schools offered to provide access to Senior Citizens to their computer facilities during specific hours of the day.

Problems and Solutions in Conducting Workshops

Another objective was to identify the steps that were taken by the teams to remedy problems encountered and ideas generated to improve the training program in the future. Several problems were periodically encountered by the teams, including attendance at workshops, technical problems, time, travel, and transportation constraints, and the size of the technology team.

Through the experience of the pilot project, the teams identified several different steps that can be taken to remedy the problem if low attendance in the future. These include following up with people who express interest or commit to attend the workshop, expanding the scope of advertising to include a larger population of seniors, relating technology to participant's interests, and being

flexible with workshop schedules, including time of day and time of year, to accommodate for the times that Seniors are available and able to attend.

Many of the states did not report having any major technical problems, possibly because workshops were typically held at a computer lab that is maintained on a regular basis. At times the teams needed to be creative to establish Internet connection to computers when workshops were not held at a traditional computer lab. However, one team leader stressed that, if possible, all computers should look and act the same and that comfort/ergonomics for participants is important.

Furthermore, time, travel, and transportation issues are constraints that most of the teams encountered at one time or another during the pilot project, as only a few representatives from each state were trained at the National Conference and had the responsibility to disseminate this information to other teens and adults in their state. A possible solution to these issues is for teams to organize carpools and reimburse drivers for mileage. The teams also stress that teens and adults are able to commit a certain amount of time required for the success of the project during the recruiting process of trainers. For a few teams, the small size of the Technology Team was a hindrance to conducting many workshops as oftentimes, either teens and/or adults are not available for workshops. This problem can be dealt with by holding smaller workshops and recruiting more teens and adults to participate in the project.

"Learning Objectives" of Senior Citizens

The following conclusions are based on participant responses to the intake and evaluation forms administered at the beginning and end of the workshops, respectively, and a telephone interview conducted six months after workshops with seniors willing and able to be reached. Unfortunately, a low number of intake and evaluations were completed, thus the conclusions are not representative of the total number of participants who attended TTIS workshops during the pilot project. This issue will be addressed in the Recommendations section of this report. However, this information is useful as it provides a baseline of data for future workshops and provides a generalization of participant demographics, goals for attending, and the impact the workshops had on the learners.

Demographics

The average age of respondents was 67 years old, with a range from 31 to 87 years old. The majority of respondents are well-educated, with half completing some higher education. Further, the majority were female and a little over half of respondents were from a rural area. Most persons attended a TTIS workshop to benefit themselves, however, a quarter of respondents came to benefit someone else.

Access and Use of Computer and Internet Facilities

Approximately half of the respondents have computer and Internet access in their homes, however few respondents reported using facilities that are open to the public. About a quarter of the respondents do not have access to a computer or the Internet. Further, respondents have varying levels of experience in using computers and the Internet as 47% use a computer daily, while 53% use a computer once a month or less or never. Thirty-three percent of respondents reported daily use of the Internet, while the majority of respondents also use the Internet once a month or less or never.

Skill Level Assessment

Few respondents reported currently using skills relating to the Internet, the Medicare website, email, word processing, and creating spreadsheets. However the majority of people showed a desire to improve their skills, specifically searching on the Internet and using E-mail. Upon the intake of these respondents, many people were not aware of the tools, especially the Medicare website, the Internet, spreadsheets and word processing.

Learning Objectives

The top goals of respondents for attending a TTIS workshop are to increase one's comfort and skill level in working with computers, followed by learning to use the Internet in general. Almost a third of the respondents indicated learning how to use and search the Medicare website and to better inform themselves about Medicare, was a goal for attending the workshop.

Immediate Impact of Workshops

Overall, the majority of Senior Citizens who responded to the intake form either disagreed or held a neutral opinion when asked if they are comfortable or skilled at using computers or the Internet (Figures 1a, 1b, 2a, 2b). Thus, results indicate that although most people disagree that they are comfortable or skilled at using computers and the Internet, more people doubt their skill level, especially at using the Internet. The results of the online workshop evaluation show that the majority of Senior Citizens felt more comfortable and their skills had improved with using computers and the Internet after the workshop. Responses relating to the Internet are also overwhelmingly positive as the majority agreed that they are more comfortable with using the Internet, however three people reported they were not sure and two people were neutral. The six month follow up with seven of the Seniors who agreed to be contacted and were able to be reached, show that the comfort and skills level of those who have continued to use computers and the Internet after the workshop, remains high. However, there are a few exceptions for use of the Internet, as doubt continues to exist among a few follow-up respondents regarding their comfort and skill level in using the Internet.

Over 80% of respondents indicated their skills with using computers and the Internet have improved after the workshop, compared to results of the intake where almost three–quarters of respondents doubted their skills at using the computer and the Internet. Sixty-five percent indicated they were comfortable searching the Medicare website, which is a major goal of the project.

Almost 95% of respondents were able to conduct a search on the Medicare website and a little over half of respondents were able to find Medicare HMO's in their area and compare the benefits of two or more Medicare HMO programs. Half of the respondents indicated a desire to search the Medicare website for information in the future.

Workshop Evaluation

The main responses given when participants were asked "what was the most helpful part of the workshop" included the use of the Internet, the Medicare website, the instructors, and one on one facilitation. Further, the majority of respondents agreed that the trainer proceeded at an acceptable pace and spoke loud and clear, that they were able to understand the language used by the trainer

and received enough individual attention. Further, over 80% of persons said they would recommend this workshop to their friends and family.

Six Month Follow Up

The six month follow up with seven of the Seniors who agreed to be contacted and were able to be reached, indicate that their perceived comfort and skill level with computers has remained high following a longer period of time after the workshop. However, the results were not as positive for the Internet. This suggests that the TTIS workshops had an immediate and positive effect on Seniors perceived comfort and skill level towards technology. However, after a longer period of time following the workshop, the comfort and skill level decreased for some of the seniors in using the Internet.

Positive Outcomes of the Project on Youth

Results from the post test of the project indicate that the teens perceive a positive change in all skill areas, specifically working with Senior Citizens, skills related to project management and teaching, public speaking, leadership, and knowledge and understanding of the Medicare website. Further, this intergenerational experience led to a positive change in attitude of the teens towards working with Senior Citizens and teaching them skills in technology. This change in attitude included an increased comfort level and belief that Seniors are willing, able, and open to learning new technology.

Use of Intake and Evaluation forms

Sixteen intake forms and seventeen evaluation forms were completed for the TTIS pilot project. Thirteen evaluation forms were completed on line. There are several reasons for why a low number of intake and evaluations were completed. First, one of the teams conducted a workshop before the final version of the forms were available. There was also the misunderstanding of which version of the questionnaires were drafts and which were the final ones to be used at the workshop. In another instance, a team held a three part workshop and few people showed up for the third session when the evaluations were completed. Another team did not use the forms as their TTIS workshops were included as a part of a larger workshop, thus the team did not feel it was appropriate to use the forms. For several reasons, communication was not clear on the importance of these forms to inform an "impact analysis" and the need to administer these forms in a systematic manner. Recommendations will be made in the following section to correct this situation in the future.

Although few evaluations were completed online, the trainers and learners of the workshops that used the online forms offered both positive feedback and suggestions for improvement based on their experience. One team reported that workshop participants were eager to fill the evaluation out online, however, several teams mentioned that many participants needed some assistance to make sure they filled out the form correctly, such as checking the boxes or using a drop down menu. One team mentioned that at one workshop, time and weather was a constraint, so the teams opted to fill the evaluation out in hard copy even though the Seniors were interested in using the online version. Overall, the majority of the team leaders were in support of using the online evaluation form as it offered the Seniors a chance to practice their skills. A hard copy version was available for Seniors who preferred to not fill out the form online.

Recommendations

The following recommendations should be used as a guideline for the future of the TTIS project, including the training of teams, workshop preparation and implementation, and evaluation of the project with a focus on the impact of the project on the learners.

National Training

- Inform the teens prior to the initial Training session of the purpose of their involvement in the project and the focus of teaching Seniors Internet skills to search the Medicare website.
- Ask teens to develop a preliminary "game plan" including their goals/objectives for participation, ideas for preparing and carrying out a workshop in their community, and their fears and expectations. Hold a focus group with the evaluators, allowing the teens to discuss and share their ideas on this preliminary "game plan."
- Hold a pilot workshop at the training so teens may get a feel for working with Senior Citizens and recognize who is their target audience. This practice will help dissuade the fears and expectations of the teens in working with Seniors, including their willingness to learn new things and working with different skill levels.
- Discuss evaluation methods that teams will be responsible for carrying out, including the proper use of intake and evaluation forms, responsibility to send the evaluators all handouts, fliers, press releases, etc, use of the listserves, and completion of various evaluation reports.

Workshop Preparation

- Identify teens based on their knowledge of computers and the Internet, ability to work with people, interest in working with senior citizens, and willing to commit the necessary time.
- Teams should hold a "kick off" event in the state to promote the workshops.
- The primary target group of people who attend TTIS workshops are over 50 and persons who are eligible for Medicare (age 63), however care givers both expressed an interest and attended a few workshops.
- Advertise and recruit Senior Citizens through means that are appropriate for the type and size of the community. It is necessary to collaborate with a Senior Center.
- Adults and lead teens should review with trainers a half an hour to an hour before the workshop, the agenda and handouts describing the workshop curriculum and techniques in working with senior citizens. If possible, provide teens with an agenda/curriculum for the workshop before gathering for the workshop for review.
- Identify the comfort and skill level and hobbies/interests of participants before the workshop or at the beginning of the workshop.
- Modify the curriculum based on the skill level, interests of participants, and the number of people who are expected to attend the workshop.
- Trainers should inspect and prepare the computers and equipment before the workshop to ensure they are working properly and are comfortable for Seniors to use.
- Workshops should begin with basic introduction to the parts of the computer, allowing the learners to become familiar and comfortable with using the mouse, keyboard, monitor, etc. This could be done through the use of a power point presentation and/or handouts.

Techniques for Handling a Variety of Learning Situations

- When possible, trainers should work one to one with the seniors, especially if participants have different skill levels or interests. If this is not feasible, teens should act as "moving helpers", assisting people when needed and offering suggestions to faster students to keep them learning.
- Use small groups, when appropriate, to have the learners help each other.
- The pace of the lesson should be determined by the capabilities and interests of the students.
- Advertise for Seniors who have minimal computer skills, emphasizing that workshops are focused on learning about the Medicare website.
- Use ice breaker techniques, such as solitaire, bridge, chess, and other computer games in order for participants to feel comfortable with the computer and using the mouse.
- Assure Seniors that the Internet is safe and discuss general policies about using the Internet, such as not downloading anything that the user did not initiate.
- Reflect and review with the learners what they have accomplished, what they are now able to do with their skills, and how to go about doing it. This will help the learners recognize their accomplishments as well as what "next steps" they can take to use their skills for their benefit. This is important as
- Collaborate with a local Senior Center to recruit and advertise for workshops
- Contact and gain the support of local schools, Universities, and libraries in order to use their computer lab for workshops free of charge.
- Ask the participants before coming to the workshop about their skill level with computers
 and the Internet and special interests/hobbies, as a way of getting to know workshop
 participants in order to plan the lesson accordingly.
- Teens and adults should be willing to commit time to this project, required for training, travel, and conducting workshops.
- A strong adult leader who can commit the time to provide structure and guidance for the teens throughout all stages of the project is crucial to the project.

Techniques for dealing with low attendance at workshops

- Follow up with participants to remind them of the workshops
- Target a larger audience through the local newspaper.
- Use word of mouth once workshops have a presence in the community.
- Vary the times of the day that the workshop is held.
- Plan workshops during the time of year when Seniors are most able to attend.
- Target advertisements towards the interests of seniors.

Techniques for dealing with technical problems

- When possible, all computers should to look and act the same, so there will be minimal confusion among the learners and the trainers in working with different types of hardware.
- Comfort and ergonomics are important, such as adjustment of the monitor to reduce glare or adjustment of the font size of the on the Internet.

Evaluation Methods

• Future evaluation of the TTIS project should focus on both the short and long term impact of the workshops on the learners and the impact of the experience on the youth.

- It is important to establish a listserve for the group use, teens only, and adults only, to facilitate communication and support among the teams, evaluators, and administrators, and for evaluation purposes.
- At the National Training, the state teams should be informed of the importance of the intake and evaluation forms, the need to use them, and how to use them correctly. This data is crucial to measuring the impact of the workshops on the learners.
- Teams should be informed that in the event that workshop participants are not able to complete the evaluation form, an effort should be made to follow up, asking them to complete the evaluation form either online or in hard copy. A postage paid, pre-addressed envelope may be given to learners who fill out this form outside of the workshop to return the completed form to the evaluators.
- The Technology Teams should be informed of their expectations concerning evaluation, including completing periodic reports, posting updates on the listserves, and sending evaluators materials used during the project.
- The workshop evaluation form should be available online as this offers the participants a chance to find the website and practice their skills. A hard copy of the questionnaire should be available for persons who are not comfortable completing the online evaluation.

References

Adler, R. P. (1996). *Older adults and computers: Report of a national survey*. SeniorNet [online] Available at http://www.seniornet.org/research/survey2.html

Boyd, B., Herring, D., and G. Briers. (1992). "Developing life skills in youth." *Journal of Extension* 30(4).

Bullock J. and S Osborne. (1999). "Seniors', volunteers', and families' perspectives of an intergenerational program in a rural community." *Educational Gerontology* 25: 237-251.

Caudle, S. (1994). "Using qualitative approaches." *Handbook of Practical Program Evaluation*. Jossey-Bass Publishers. San Francisco. 69-98.

Chen, N. (1997). "Building bridges – An intergenerational program." *Journal of Extension* 35(5)

Dean, D. (1994). "How to use a focus group." *Handbook of Practical Program Evaluation*. Jossey-Bass Publishers. San Francisco. 338-349.

Dieter, S. (2000). *SeniorNet Internet Survey*. SeniorNet. [online] Available at http://www.seniornet.org/research/rsch_000517.html

Egan, E. (2000). "Bridge Building". Learning and Leading with Technology 28(3): 22-27.

Fink, A., and J. Kosecoff. *How to conduct surveys: a step by step guide*. Sage Publications. California

Fitz-Gibbon, C., and L Morris. (1978). *How to design a program evaluation*. Sage Publications. California.

Groff, J. (1992). "Teens reaching youth." *Journal of Extension* 30(4).

Holmquist, D. and L. Juricek. (1994). Welcoming Seniors to the computer Age." *Vocational Education Journal*, September 1994.

Huebner, A. (1998). "Examining 'Empowerment': A how-to guide for the youth development professional. *Journal of Extension* 36(6).

Ito, M., Adler, A., Linde, C., Mynatt, E., and V. O'Day. (1998). *Broadening Access: Research for diverse network communities*. SeniorNet. [online] Available at http://www.seniornet.org/research/9911.shtml

Kleon S, and S. Rinehart. (1998). "Leadership skill development of teen leaders." Journal of Extension 36(3).

Lensch, J.E. (1997). "A high-tech magnet for Seniors." Educational Leadership 54(5): 64-67.

Lundt, J. and T. Vanderpan. (2000). "It computes when young adolescents teach senior citizens." *Middle School Journal* 31(4): 18-22.

Marks, K. (1996). Report on ownership of computers and modems among AARP volunteers. The American Association of Retired Persons Evaluation Research Services Department. Unpublished document.

Miller, T. (1994). "Designing and conducting surveys." *Handbook of Practical Program Evaluation*. Jossey-Bass Publishers. San Francisco. 271-292.

Ogozalek, V., Hayeck, E., Bush, C., and J. Lockwood. (1994). "Introducing elderly college students to multimedia: an intergenerational approach." *Recreating the Revolution. Proceedings of the Annual National Educational Computing Conference*. 240-245.

Owen, O. (1991). "The computers and the elderly program at Syracuse University: A history. Syracuse University Kellogg Project. Syracuse, New York.

Pinquart, M., Wenzel, S., and S. Sorensen. (2000). "Changes in attitudes among children and elderly adults in intergenerational group work." *Educational Gerontology* 26:523-540.

Prisuta, R.H. and R. Sutterlin. (1995). *Personal computers and older persons: Use and ownership trends and projections*. The American Association of Retired Persons. Demographic and Trend Analysis Research Division. Unpublished document.

Scheirer, M. (1994). "Designing and using process evaluation." *Handbook of Practical Program Evaluation*. Jossey-Bass Publishers. San Francisco. 40-68.

Shipman, M. (1999). "How senior volunteers and intergenerational programs contribute to education and enrich lives." *Education Canada* 39(1): 31-34.

Thompson, M. (1996). "Computer Technology: How it impacts the lives of older adults." *Ageing International* 23(1): 85-91.

U.S. Department of Commerce. (1999). *Falling through the net: defining the digital divide*. National Telecommunications and Information Administration.

Wright, K. (1998). *Social Support and Internet Survey*. SeniorNet. [online] Available at http://www.seniornet.org/research/kwright.html

Appendices

Appendix A

Teens Teach Internet Skills - Medicare Evaluation Project

EXECUTIVE SUMMARY

Current Situation:

The Teens Teaching Internet Skills Project is a national initiative involving seven (or so) states. This is a pilot project for a future, wider, national effort to engage youth in training individuals who need Medicare information, either for themselves or someone else, how to navigate and obtain the needed information from the world wide web. Twenty-four 4-H volunteers, delegated from their states' 4-H Technology Corp., will attend a 2-day workshop on August 5 and 6, 1999 to obtain information about the program and gain skills needed to carry out the project objectives in their respective states. The training sessions by youth will commence in September 1999 and continue through June 2000.

The Center for Rural Studies (CRS) at the University of Vermont is the evaluator of the above project. Personnel in CRS and Extension in the areas of technology transfer and teaching, have a combined expertise in working with youth and elders and in conducting qualitative and quantitative evaluation methods. They also have extensive experience in the evaluation of related projects. These skills and experiences are critical to the success of the evaluation at hand.

Our evaluation will focus on two distinct areas. The first is "best practice", which will evaluate the process of teens teaching Internet skills to the intended audience. The second is "learning outcomes", which relates to whether or not participants (elders and others who need information) reached the objective of the project—learning Internet skills in order to navigate (and understand) the Medicare web site. Each of these evaluations can not be fully analyzed without some understanding of the other.

Project Objectives:

The overall objective is: To provide HCFA and REES a comprehensive evaluation, with the aim of informing best practice techniques in training that will achieve the learning objective that participants can navigate and obtain needed information from the WWW with regard to Medicare information.

Procedures:

The evaluation project will use BOTH the trainers and the learners in informing best practice and learning objective outcomes. Our steps to inform best practice are straightforward. It is the interaction of both the teacher and student that results in the expected outcome. Both qualitative and quantitative methods will be involved in meeting the major objective of informing best practice guidelines with respect to training.

Evaluation Outcomes:

Ultimately, we should be able to inform "best practice" training and learning outcomes by:

- 1. Identifying whether trainer expectations and perceptions were met or confirmed, and, if not, why;
- 2. Identifying steps that were taken through time to remedy problems encountered and identify ideas generated to improve the training program in the future;
- 3. Identifying training approaches that worked, and why:
- 4. Identifying a cadre of successful techniques that trainers can utilize in a variety of learning situations; Providing information concerning technical problems and how they may be solved;
- 5. Being able to describe learners in terms of their objectives for participating, their initial levels of knowledge and growth in knowledge after participating in the training, and their intentions for the future; and
- 6. Identifying whether learners "got what they bargained for" in terms skills to navigate the WWW.

The above information is imperative in informing best practice, as it will allow proper targeting of teaching techniques to meet the needs of various types of Medicare information users.

PROPOSAL

Background:

The Teens Teaching Internet Skills Project is a national initiative involving seven (or so) states. This is a pilot project for a future, wider, national effort to engage youth in training individuals who need Medicare information, either for themselves or someone else, how to navigate and obtain the needed information from the world wide web. Twenty-four 4-H volunteers, delegated from their states' 4-H Technology Corp., will attend a 2-day workshop on August 5 and 6, 1999 to obtain information about the program and gain skills needed to carry out the project objectives in their respective states. The training sessions by youth will commence in September 1999 and continue through June 2000.

From our perspective, program evaluation implicitly includes the word, "practical." Therefore, any evaluation, even at a pilot stage, should not only assess program results, but also identify ways to improve the program (Newcomer, Hatry, and Wholey, 1994). Program evaluation is embedded in the total process of developing, operating, and analyzing a particular program. Any comprehensive evaluation will include a connection with all of the following parts of a program:

- 1 determining the need for the program;
- 2 formulating goals and objectives that are based on identified needs;
- 3 designing the program to reflect specific goals and objectives;
- 4 appraising program outcomes and
- 5 analyzing benefits and costs (Touliatos and Compton, 1988; Finsterbusch and Wolf, 1977).

While the evaluation of Teens Teaching Internet Skills will focus on 4, above, as do most evaluations, the conference call between HCFA, REES, and the potential evaluators was essential in laying down the framework for understanding 1 through 3. Further understanding of these aspects will be gained during the August workshops, through focus group interviews with the trainers and through continued conversation and collaboration with the funding agencies. Thus, the evaluation team will engage in program monitoring (process evaluation) to a greater extent and outcome assessment to a somewhat lesser extent. Outcome assessment should not be underestimated; however, given GPRA and the impact that knowledge of outcomes can have on the improvement of program delivery.

Some of the challenges to program evaluation have already been overcome for this particular project, given the early and planned continuing collaboration between evaluator and the program designers and implementers. Although 5, above, was not discussed during the conference call, budget matters are usually included at least in a cursory manner in any project evaluation. This aspect should be discussed further between the funding agency and the evaluator, if we are chosen.

Project Objectives:

The overall objective is: To provide HCFA and REES a comprehensive evaluation using all the information collected in objectives 1-7 below, with the aim of informing best practice techniques in training that will achieve the learning objective that participants can navigate and obtain needed information from the WWW with regard to Medicare information.

Specifically, the objectives are:

- 1. To utilize baseline evaluations of the project volunteers initial perceptions of the project in order to inform best practice outcomes with regard to training.
- 2. To utilize quantitative baseline information from participants in the project (learners) through the use of a survey instrument developed in conjunction with the trainers, HCFA and REES contacts in order to inform best practice outcomes with regard to training.
- 3. To utilize quantitative evaluation information related to the actual training sessions that learners participated in, to inform both process and learning objective outcomes. These instruments will be administered immediately after the training sessions, through the use of a survey instrument developed in conjunction with the trainers, HCFA, and REES contacts. These instruments will collect information on process and learning objectives.
- 4. To utilize qualitative evaluation information from trainers in all states, half way through the project (March, 2000), and at the end of the project (July, 2000) through the use in-depth interviews or focus groups depending upon the ability to bring the volunteers to a central location in their state or not. The first set of data will provide information to make preliminary recommendations for improvements in the second half of the project. The second set of data will provide information to make recommendations for future implementation of the program with regard to best practice.
- 5. To utilize qualitative evaluation information from learners in all states, using focus group techniques, near the end of the project to inform meeting both process and learning objectives. Information obtained will inform both process and learning objectives though the use of retrospective and forward thinking techniques.
- 6. To develop a database that can track trainers and learners through the course of the project.
- 7. To utilize quantitative information from learners, at the end of year 1, in the form of a survey (mail or phone, to be determined) in order to inform both process and learning objective outcomes.

Procedures:

All successful program evaluation is routed in use of the scientific method of any research project. Our evaluation team is well trained in quantitative and qualitative methods of data collection and analysis and has had extensive experience merging these two data types into information that can be used to inform decisions about the "Teaching Internet Skills" program.

To this end, the evaluation project will use BOTH the trainers and the learners in informing best practice (process) and learning objective outcomes. Our steps to inform best practice are straightforward. It is the interaction of both the teacher and student that results in the expected outcome. Both qualitative and quantitative methods will be involved in meeting the major objective of informing best practice guidelines with respect to training.

First, we will collect baseline information from project volunteers concerning their initial perceptions of the project. We will conduct focus groups with the 24 (or so) volunteers during the afternoon break on the first day of the training conference to obtain information about their perceptions of the audience, their game plans, and their understanding of the problem at hand. With 8 participants per group, the task will require that three individuals from the evaluation team be at the training session on Aug. 5, 1999.

Second, we collect quantitative baseline information from participants in the project (learners) through the use of a survey instrument developed in conjunction with the trainers, HCFA and REES contacts. This instrument will collect information that will allow us to (possibly, depending on size of segments) identify different segments of learners according to their need for information, the purpose of obtaining the

information, their demographic profiles, and their initial skill levels and perceptions of the technology to be used. This instrument should take no longer than 5 or 6 minutes to fill out. We expect that the trainers can administer these surveys and send them to the evaluation team for coding and analysis.

Third, we will collect quantitative evaluation information related to the actual training sessions that learners participated in, administered immediately after the training sessions, through the use of a survey instrument developed with input from the trainers, HCFA, and REES contacts (and pre-tested by experts and in the field). These instruments will collect information on process and learning objectives. We will ascertain positives and negative associated with the learning experience and process, next steps for the learners, immediate changes in attitudes toward the technology, and possible changes in expected use of the Internet site. Learning objective evaluation might include whether or not the learners can navigate the site and understand the information provided. This instrument should take no longer than 5 or 6 minutes to fill out. We expect that the trainers can administer these surveys and send them to the evaluation team for coding and analysis.

Fourth we will collect qualitative evaluation information from trainers in all states, half way through the project (March, 2000) through the use in-depth interviews or focus groups depending upon the ability to bring the volunteers to a central location in their state or not. This first set of data will provide preliminary recommendations for improvements in the second half of the project. If travel is involved, we will send focus group moderators to each state. If other means are used, we anticipate "focus groups through conference calls" with no more than six trainers in each conference call session. This is not ideal and will take great expertise on the part of the moderator in order to make sure all trainers become involved in the focus group.

Fifth, we will collect qualitative evaluation information from learners in all states, using focus group techniques, near the end of the project. Information obtained will inform both process and learning objectives though the use of retrospective and forward thinking techniques. This part of the evaluation will be dependent on the ability to follow-up with participant learners.

Sixth, we will collect quantitative information from learners, at the end of year 1, in the form of a survey (mail or phone, to be determined) in order to inform both process and learning objective outcomes. This survey will be developed in conjunction with HCFA and REES and should take no more than 10 minutes to fill out. If qualitative focus groups can not be conducted with learners (see above) we will include some open-ended questions in this survey instrument, making it both quantitative and qualitative

All of the above information will be entered into a database that will follow trainers and learners through time. No individual will be identified by name, only by number. We anticipate using uni-variate and bivariate statistical techniques, including simple frequencies and cross-tabulations. Further, we can conduct bi-variate tests of association between characteristics of the program and learning outcomes, for example. A fairly new tool to help understand and utilize qualitative data, "In-vivo" will also be used. We will also synthesize case by case analyses into "best practice" guidelines.

Ultimately, we should be able to inform "best practice" training by:

- 1. Identifying whether trainer expectations and perceptions were met or confirmed, and, if not, why not;
- 2. Identifying steps that were taken through time to remedy problems encountered and identify ideas generated to improve the training program in the future. These steps are anticipated to include both facilitation skills by trainers, as well as technical problems encountered;
- 3. Identifying training approaches that worked, and why;
- 4. Identifying a cadre of successful techniques that trainers can utilize in a variety of learning situations; and

5. Providing information concerning technical problems and how they may be solved.

After the initial training session on August 5 and 6, 1999, the above will be modified as more information about the project is obtained. While we are experts at evaluation, each project is unique and as information is gained, it must be incorporated into the entire evaluation scheme. The August workshop will be critical. The Center for Rural Studies is no stranger to flexibility and time pressure.

Learning objective outcomes of the evaluation are less ambitious than best practice outcomes, given the pilot nature of the project. These are, none-the-less important. They include:

- 1. Being able to describe learners in terms of their objectives for participating, their initial levels of knowledge and growth in knowledge after participating in the training, and their intentions for the future: and
- 2. Identifying whether learners "got what they bargained for" in terms of obtaining necessary skills to navigate the WWW to obtain information they need.

Ultimately, the above information is imperative in informing best practice as it will allow proper targeting of teaching techniques to meet the needs of various types of Medicare information users.

References

Finsterbusch and Wolf, Eds (1977), Methodology of Social Impact Assessment, (Stroudsburg, PA: Dowden, Hutchinson, and Ross).

Newcomer, Kathryn, H. Hatry, and J. Wholey (1994), "Meeting the Need for Practical Evaluation Approached: an Introduction," in Wholey, Hatry, and Newcomer, Eds. <u>Handbook of Practical Program</u> Evaluation, (San Francisco: Jossey-Bass).

Touliatos and Compton (1988), <u>Research Methods in Human Ecology</u>, (Ames: Iowa State University Press).

	Budget
Personnel:	
Jane Kolodinsky, lead evaluator,	6,000
Ellen Rowe, extension evaluator	3,000
Wages—assistant for data management	10,000
Fringe benefits	6,213
Total personnel	\$25,213
Travel:	
Trainer initial focus groups—2 evaluators	
1 for two day training	
2 one day	2,562
Seven state travel—2 times, 2 days	14,000
Total Travel	\$16,562
Other expenses:	
Survey development and administration	2,225
Conference Calls, other telephone	1,000
Publishing and communication of results	1,000

\$4,225

\$46,000

Total, other expenses
Total

Budget Narrative

Personnel: Dr. Kolodinsky will commit 10% effort to the project. Ellen Rowe will commit 8% effort to the project. The Data management and evaluation research assistant will commit 50% effort to the project.

Travel: Travel comprises a substantial portion of the budget. The initial focus groups with trainees, given the time crunch of the August workshops, will require that 2 persons from the evaluation team be at the workshop site for one of the workshop days. One of these, Dr. Kolodinsky, will attend the entire workshop. Given the short notice, these tickets must be full price.

It will be necessary that the evaluator travel to each of the participating states to have face to face discussions (hopefully focus groups) with both trainers and learners. If this proves not to be feasible, given constraints of the ability to get trainers or learners together after the initial workshop, some of these funds will be transferred to the survey data expenditures and conference call budgets.

Other expenses: These expenditures cover the cost of supplies and time necessary to conduct survey research, communicate with trainers and learners in the field, and communicate results of the project.

Name and Address of Institution

Center for Rural Studies 202 Morrill Hall University of Vermont Burlington VT 05405

Name of Director Jane Kolodinsky **Phone Number** 802-656-4616

Program Code

Type of Request NEW Federal Funds Requested \$46,000

Project DirectorJane Kolodinsky, Ph.D.

PD Business Address 202 Morrill Hall UVM Burlington VT 05405

Proposal Abstract: (100 words)

The overall objective is: To provide a comprehensive evaluation, with the aim of informing best practice techniques in training that will achieve the learning objective that participants can navigate and obtain information from the WWW with regard to Medicare information. The evaluation will focus on "best practice" as related to the process of teens teaching internet skills, and "learning outcomes," related to whether or not participants reached their learning objectives. The evaluation will use data collected from both trainers and learners and utilize both qualitative and quantitative evaluation techniques in order to deliver an action oriented, practical evaluation useful for improve programming.

Appendix B Evaluation Procedures

The evaluation of the TTIS project was based on the seven research objectives outlined in the original grant proposal (Appendix A). Evaluation methods were adjusted based on participant and learner response and constraints that arose as the project unfolded. The evaluation methods included a variety of quantitative and qualitative assessment tools, including focus group questionnaires and a pre and post test, that involved both the trainers and learners. These tools were designed to inform "best practices" in conducting TTIS workshops and learning objective outcomes as stated in the grant proposal. All survey instruments were pre-tested by both trainers and project managers. Data collected was compiled in a manner to track both individual state team and group progress in conducting workshops and track the learning objectives of the learners. Quantitative data was compiled and aggregated in descriptive form using the SPSS statistical program. Qualitative data was analyzed using N-Vivo, a program designed to organize and analyze the content of qualitative material.

First, the evaluators developed a qualitative focus questionnaire (Appendix C) to provide baseline information from project volunteers concerning their initial perceptions of the project. Two focus group sessions were conducted at the National Training in Maryland in August 1999. Following the National Training conference, the evaluators established three different listserves, a public (for use of the entire group), a teen, and an adult listserve. The listserves were established for evaluation purposes for the collection of qualitative data and to facilitate communication among the state teams, the evaluators, and the project coordinators. Specifically, qualitative information extracted from the listserves allowed the evaluators to track team progress for case by case analysis. They were also used for conducting on-line focus groups, given the constraints in periodically gathering the state teams together for a face to face focus group.

In September 1999, the evaluators developed quantitative evaluation tools (Appendix D-F), in the form of a pre (an intake form) and post test (workshop evaluation form), to document the characteristics of the learners and collect information on process and learning objectives of the learners before and after the workshop. These evaluation tools were reviewed and revised by both trainers and project managers. Final documents were mailed to each state team, along with an instruction sheet, and a postage paid, pre-addressed envelope for the return of these materials to the evaluators. Based on the suggestion of an adult team leader, the evaluators put the evaluation form on-line, so learners who were comfortable with using their skills could practice them by locating and completing the workshop evaluation on-line. The on-line evaluation was supported by the state teams as well as project administrators. As few intake and evaluation forms were received through the months of September and October, the evaluators followed up with the teams to ensure that they were successfully utilizing the intake and evaluation forms. However, for reasons discussed in the following section, these forms were not effectively used by the state teams in order to collect sufficient data. Thus, the quantitative analysis will be supported by qualitative analysis.

In November 1999, the evaluators developed a "Mid Year State Report" for both the teens and adults (Appendix G and H), in order to qualitatively assess their experience of the project process, including workshop preparation and conducting the workshops. The respective survey was

administered via the teen and adult listserve in the form of an on-line focus group to inform "best practices" of the process. Due to the low response rate among both the adults and teens, the team leaders were sent the questionnaire via email and snail mail, along with a postage paid, preaddressed envelope for their return. This package also included a cover letter requesting the return of completed intake and evaluation forms. The evaluators followed up several times with teens and the team leader, via the listserves, snail mail, and telephone calls until all completed Mid Year State Reports were received from the adults along with completed intake and evaluation forms. A 50 percent response rate was received from the teens, however sufficient information was provided via the listserve and in the responses from the team leaders, thus additional follow-up was note made.

At the end of the project, in June 2000, the teens were administered the "End of year Teen Questionnaire" (Appendix I) to follow up with questions previously asked at the focus group and the "Mid-Year State Report". This questionnaire was available online and was also emailed and mailed out with a postage paid, pre-addressed envelope to the team leaders and teens. Several attempts were made to follow up with teens who did not respond. In July 2000, the evaluators followed up via telephone calls to Senior learners who had agreed to be contacted six months following their workshop. The "Workshop Participant Follow-up Telephone Interview Guide" (Appendix J) survey measured whether their comfort and skill level in using technology and the Medicare web site had increased, decreased, or remained the same, over time. This survey also addressed changes in their attitudes towards working with teens.

Appendix C

Teens Teach Internet Skills Training Workshop Focus Guide

August 5, 1999

Names of participants (12 persons):

Identifying initial perceptions of need, goals, objectives, and participants

- 1. Why did you get involved in this program?
- 2. Do you feel there is a need for this program?
- 3. What are your goals/objectives for this program?
- 4. What are your fears and expectations of this program?
- 5. What do you think are the goals/objectives of the elders and care givers (learners) whom you will train? Why would they seek training and get involved in the program?
- 6. What level of skill do you think the learners of the program will have?

Initial game plan

- 7. How do you plan to get this program started when you return home?
- 8. Who will be your community partners?
- 9. Where will the workshops take place? Do you have/is there computer space available or reserved for this program?
- 10. How will you advertise for this workshop in order to best reach your intended audience?
- 11. How will identify the intended audience (learners)?
- 12. What are your ideas for setting up and conducting a workshop (i.e. ice breaker techniques, handouts/visual materials, necessary equipment)?
- 13. What are your strategies for dealing with differing technological skill level amongst the learners?
- 14. What are your strategies for helping the learners to overcome any "fear" of technology?

Appendix D

Instruction Sheet: Intake and Evaluation Forms

<u>Intake form</u>: please hand out the "Intake" form at the **beginning of the workshop** after your introduction on what they are going to learn that day. Please **collect this form before you begin the workshop** and immediately put it in the envelope addressed to the Center for Rural Studies.

Please explain to the participants that the **purpose of the form** is:

- To get an idea of their access and use of computers and the Internet;
- To get an idea of areas they are interested in learning at the workshop.
- If they ask who is responsible for this form, let then know that the **evaluators** of the project at the University of Vermont are going to analyze this data to get an idea of who attends these workshops, their skill level, their access to technology, and what their goals are, for the purpose of workshop evaluation.
- Remind them that all responses will be kept confidential

Evaluation form: is available on-line at http:\\crs.uvm.edu/medicare/evaluation.htm

At the end of the workshop, please instruct seniors to locate this site and fill out the evaluation online. Please assist seniors only to understand questions or how to fill out the on-line version, if needed; please do not answer the questions for them. This evaluation is not to "grade" your workshop, but to get the participants opinions on how to improve clarity and content of the workshop, as well as measure their change in attitude towards technology and ability to comfortably use technology and the Medicare website.

**FYI: after evaluations are submitted into our database, the seniors will automatically be sent to a "thank you" page that offers for them to return to the Medicare website. Please let us know how this feature works out or if it should be removed considering limited time after the workshops for seniors to continue "browsing".

The purpose of this form:

- To evaluate the project so we may improve on the quality of the workshops for future participants.
- To get an idea of how their comfort level with computers, searching the Medicare website, and using the Internet has changed after participating in the workshop.
- To find out if they found the workshop to be helpful in the areas covered.
- To get feedback on the performance of the trainer at the workshop so he or she may better meet the needs of other participants.

***If participants ask about the last question: participants should check the box <u>only if they are</u> <u>not interested in receiving a brief follow-up phone call</u> six months after the workshop for evaluation purposes. They will be asked only a few questions about their use of the Medicare

website and technology after a longer period of time following the workshop. Stress that their <u>name and phone number will be kept strictly confidential</u> and will <u>not be given out or used for anything besides long-term evaluation</u> of the workshop.

Hard copy evaluations: We would like you to encourage the seniors to fill out the evaluation online. However if they are extremely uncomfortable in doing so, we have included a hard copy of the evaluation for them to fill out.

What to do with the completed forms (hard copy only): after you collect the forms, please immediately put them into the stamped enveloped addressed to the Center for Rural Studies. Please do not leave them out as the participants may feel that someone other than the evaluators could read their responses. It is important that we ensure confidentiality in all areas of evaluation for both trainers and participants. Please mail them after every workshop so we may keep on top of the forms as they are filled out.

Appendix E

Internet Skills ~ Medicare Workshop ~ Intake Form

Please fill out this brief questionnaire so that we may get an idea of your access and usage of computers and the Internet and areas you are interested in learning at this workshop today. All responses will be kept confidential. Thank you for your participation at this workshop.

	. Name:									
2. Telephone: 3. E-mail address:										
I	For questions 4 and	5, pled	ase che	ck all that	арр	oly.				
			At home	Famil membe	y er's	Neighbor/ friend's home	Public library	Senior Center	Other	No access
4.	Where do you hav access to a compu									
5.	Where do you hav access to the Internet ?	e								
		Dai	ily	Once a week	A	few times a month	Once a month	A few tin (rar	nes a year ely)	Never
6.	How often do you use a computer ?									
7.	How often do you <u>use</u> the Internet ?									
(On a scale of 1-5, please indicate your level of agreement with the following statements:									
				Strongly disagree		Disagree	Neutral	Agree	Strongly Agree	Not sure
I am	comfortable using	comp	uters	1		2	3	4	5	9

1

8.

9. I am skilled at using **computers**

9

5

I am comfortable using the Internet	1	2	3	4	5
I am skilled at using the Internet	1	2	3	4	5
12. From the following list, ple	ease check of	ff the computer	and Inter	net skills:	
Skill	Currently use	Would lik improve skills		Not aware of this tool	Not intereste
Searching on the Internet					
Searching the Medicare website					
E-mail					
Word processing (e.g. writing letters, journals, etc.)					
Spreadsheets (e.g. making a database or a budget)					
Other:					
13. I came to this workshop to:	(check all th	at apply)			
□ benefit myself	\square benefit	someone else (s	pouse, pa	arent, grandpar	ent, etc.)
14. What are your goals for atte	ending this w	orkshop? (Chec	k all that	t apply)	
To learn specifically how to: ☐ Search the Medicare website ☐ Use the Internet in general ☐ Do word processing ☐ E-mail ☐ Create spreadsheets)	☐ To increase n ☐ To increase n ☐ To meet new ☐ To learn how ☐ To better info ☐ other: (please	ny skill lo people to use th	evel with comp ne Medicare we elf about Medic	uters ebsite
15. In what year were you born	1				
 16. What is the highest level of □ Less than 9th grade □ 9th -12th grade (no diploma) □ High school graduate (Included Some college (no degree) 	-	☐ Assoc ☐ Bache	ciates deg elors degr		

9

9

17.	Gender: ☐ Male	☐ Female		
18.	In what type of comm	nunity do you live: Rural	□ Suburban	□ Urban
19.	In what state do you li	ive:		
	Thank you	ı for your participation and at	tendance at this	workshop!

Appendix F

Internet Skills ~ Medicare On-line Workshop ~ Evaluation

We are asking you to complete this form to enable us to improve the quality of our workshops for future participants. The body of the research gathered from this questionnaire will help us to develop the content and delivery of workshops to meet the needs of others. All responses will be kept confidential. Thank you for your participation.

1. Name: (last) (first)	(MI)					
2. Telephone:	3.	E-mail add	dress:			
State:						
On a scale of 1-5, please indicate y	our level of a	greement w	vith the fol	lowing sta	atements:	
After this workshop	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Not Sure
I am more comfortable with using computers .	1	2	3	4	5	9
My skills with using computers have improved.	1	2	3	4	5	9
I am more comfortable with using the Internet .	1	2	3	4	5	9
My skills with using the Internet have improved.	1	2	3	4	5	9
I am comfortable searching the Medicare website.	1	2	3	4	5	9
Did you find the workshop helpful in	n that you wer	e able to Yes	No		op did not go	
9. Conduct a search on the Medica	re website?			OV		
10. Find how many Medicare HMO your area?	's are available	e in				

11. Compare the benefits of two or more Medicare HMO programs available in your area?				
13. Do you plan to search the Medicare website for info	rmation	in the future?	\square Yes	\square No
The following questions pertain to today's workshop	and the	trainers.		
14. What was the most helpful part of the workshop?				

15. Was there anything you expected that was not presented?

On a scale of 1-5, please indicate your level of agreement with the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Not Sure
16. The trainer proceeded at an acceptable pace for me.	1	2	3	4	5	9
17. The trainer spoke loud and clear.	1	2	3	4	5	9
18. I was able to understand the language that the trainer used.	1	2	3	4	5	9
19. I received enough individual attention to meet my specific computer training needs.	1	2	3	4	5	9
20. I would recommend this workshop to my friends and family.	1	2	3	4	5	9

□ *Please check here* if you would *not be interested* in receiving a follow-up phone call six months after this workshop, to briefly answer a few questions about your continued usage of the Internet and the Medicare website. The evaluators of this program would like to gather this information in order to measure long-term impact this workshop had on the participants. Thank you.

Thank you for your participation! Feel free to write any additional comments or suggestions on the back of this page.

Appendix G

Mid Year State Report ~ Adult Questionnaire

Please complete this questionnaire to the best of your ability. This information will be used to establish a log of progress for this pilot project, documenting methods you used and lessons learned from your TTIS experience. Please attach via email or mail any reports, forms/fliers/handouts that you think would compliment your responses below. Thank you!

ame(s):
tate (subgroup within state, if applicable):

Please fill out this information about your previous workshops (please use back side of p3 if needed)

Date of previous workshops	Approximate attendance	Who participated? (i.e. senior, care giver, etc.)	Use of intake form	Use of evaluation form
			~ Yes ~ No	~ Yes ~ No ~ online version?
			~ Yes ~ No	~ Yes ~ No ~ online version?
			~ Yes ~ No	~ Yes ~ No ~ online version?
			~ Yes ~ No	~ Yes ~ No ~ online version?

<u>Using the guidelines given below</u>, please briefly <u>describe the steps you took in putting together</u> <u>a workshop</u>. Please add any steps not mentioned in the "other" space. <u>Please state</u>: 1) who was primarily responsible for each step (teens, adults, both), 2) rough estimate of amount of time spent on activity (days, weeks, etc), and 3) any difficulties at each step and ways you overcame that difficulty (this response could be included in the "lessons learned" question).

Workshop preparation

- 1. How were teens trained to be workshop trainers (i.e. materials used, how you identified/recruited teens in your community, number attending training, how many actually participated in workshops)?
- 2. How did you obtain resources for your workshops (i.e. funding, "in-kind" resources such as products and services made available to you at no cost)?
- 3. How did you locate or obtain use of a suitable location/computer facility with an adequate amount of computers with access to the Internet?

- 4. How did you advertise for your workshops and/or recruit seniors (i.e. how did you target your intended audience)? *please email or mail any fliers, etc.
- 5. Did you form any partnership with a senior/community organization for either workshop assistance or to recruit seniors? If so, which one? How did you go about doing this?
- 6. How did you assist teens in preparing for your workshop (i.e. handouts/ visual materials, checking computers/equipment to ensure they are working properly, etc.)?
- 7. Please describe any "lessons learned" in your preparation experience. Do you plan to do anything different in preparing for future workshops?

Other comments regarding workshop preparation (please use back side of p.3 if needed):

Workshop evaluation

- 1. What strategies did you advise the teens on to help participants overcome their fears/intimidation in working with computers (mice, keyboard, etc)? Surfing the Medicare website?
- 2. What strategies did you advise the teens on for dealing with differing technological skill levels among the participants?
- 3. What obstacles or hindrances did you encounter in conducting your workshop (i.e. time constraints, not enough trainers/computers available or other equipment, etc.)?
- 4. Please describe any lessons learned in conducting your workshop. Do you plan to do anything different in future workshops?
- 5. Did you/the teens offer for the seniors to fill the workshops evaluation out on-line? If so, what was their general response in doing this? Did they require much assistance from the teens? What type of assistance (i.e. understanding the questions, filling out the form on-line, etc)?

Other comments regarding conducting a workshop (please use back side of this page if needed):

Appendix H

Mid Year State Report ~ Teen Questionnaire

Please fill out the following questionnaire to the best of your ability. Please collaborate with the other teens you worked with to prepare for and conduct your workshops. This information will be used to establish a log of progress for this pilot project, documenting methods you used for workshop preparation and holding the actual workshop, your feelings before and after the workshop, and "lessons learned" from your experience. This information will be used to guide future 4-H teens and adults on how to prepare for and hold a successful workshop, when this project is launched on a larger scale. Please attach via email or mail any forms/fliers/handouts that you think would compliment your responses below. Thank you!

Name(s):	
	_
State (location within state, if you are a sub-group):	

Please fill out this information about your previous workshops:

Date of previous workshops	Approximate attendance	Who participated? (i.e. senior, care giver, etc.)	Use of intake form	Use of evaluation form
			~ Yes ~ No	~ Yes ~ No ~ online version?
			~ Yes ~ No	~ Yes ~ No ~ online version?
			~ Yes ~ No	~ Yes ~ No ~ online version?
			~ Yes ~ No	~ Yes ~ No ~ online version?

Workshop preparation

- 1. How were teens trained to be workshop trainers (i.e. materials used, how you identified/recruited teens in your community, number attending training, how many actually participated in workshops)?
- 2. How did you obtain resources for your workshops (i.e. funding, "in-kind" resources such as products and services made available to you at no cost)?
- 3. How did you locate or obtain use of a suitable location/computer facility with an adequate amount of computers with access to the Internet?
- 4. How did you advertise for your workshops and/or recruit seniors (i.e. how did you target your intended audience)? *please email or mail any fliers, etc.

- 5. Did you form any partnership with a senior/community organization for either workshop assistance or to recruit seniors? If so, which one? How did you go about doing this?
- 6. How did you prepare for your workshop (i.e. handouts/ visual materials, checking computers/equipment to ensure they are working properly, etc.)?
- 7. Please describe any "lessons learned" in your preparation experience. Do you plan to do anything different in preparing for future workshops?

Other comments regarding workshop preparation:

Experience in Conducting a Workshop

- 8. What strategies did you use to help participants overcome their fears/intimidation in
- a) working with computers (mice, keyboard, etc) and b) surfing the Medicare website?
- 9. What strategies did you use for dealing with differing technological skill levels among the participants?
- 10. What obstacles or hindrances did you encounter in conducting your workshop (i.e. time constraints, not enough trainers/computers available or other equipment, etc.)?
- 11. Please describe any lessons learned in conducting your workshop. Do you plan to do anything different in future workshops?
- 12. Did you offer for the seniors to fill the workshops evaluation out on-line? If so, what was their general response in doing this? Did they require much assistance from the teens? What type of assistance (i.e. understanding the questions, filling out the form on-line, etc)?

Other comments regarding conducting a workshop:

Appendix I

End of Year Teen Report

Please complete and return your questionnaire by July 7, 2000. Return it to Michele Cranwell at the Center for Rural Studies using the pre-addressed, postage-paid envelope enclosed, or by email to mcranwel@zoo.uvm.edu (you may attach any word processing file, preferably Word or WordPerfect, or paste it in a text message). For your convenience, this questionnaire is also available online at http://crs.uvm.edu/medicare/teens.htm. If you have any questions about this questionnaire, please email Michele Cranwell or call directly at (802) 656-0256.

Thank you for your cooperation!
Name
State
Please describe your experience in teaching Senior Citizens to surf the Internet and the Medicare website?
What did you learn from teaching Senior Citizens computer and Internet skills?
What aspect of the project did you enjoy the most?
What aspect of the project did you enjoy the least?

Please describe in what way your involvement in TTIS has helped you professionally (i.e. skill building, led to other opportunities, etc.)

We would like to assess changes in your skills because of your participation in the TTIS project. On a scale from 1 to 10, where 1 = not at all improved, 5 = moderately improved, and 10 = extremely improved, please <u>indicate the extent you feel the following skills have improved</u> because of your participation in TTIS.

Not at all im Improved	prov	ed	M	lodera	tely Im	prove	d	Extremely			
Recruiting teens	1	2	3	4	5	6	7	8	9	10	
Training teens	1	2	3	4	5	6	7	8	9	10	
Recruiting Seniors	1	2	3	4	5	6	7	8	9	10	
Preparing for a workshop	1	2	3	4	5	6	7	8	9	10	
Developing a curriculum	1	2	3	4	5	6	7	8	9	10	
Teaching skills	1	2	3	4	5	6	7	8	9	10	
Working with Senior Citizer	ns 1	2	3	4	5	6	7	8	9	10	
Working with other 4-H teer	ns1	2	3	4	5	6	7	8	9	10	
Leadership skills	1	2	3	4	5	6	7	8	9	10	
Public speaking skills	1	2	3	4	5	6	7	8	9	10	
Self-confidence	1	2	3	4	5	6	7	8	9	10	
Knowledge of the Medicare website	1	2	3	4	5	6	7	8	9	10	
Understanding information on the Medicare website	1	2	3	4	5	6	7	8	9	10	

Please discuss other skills or knowledge you have *developed* or *improved* because of your participation in TTIS.

The following questions assess your attitude towards working with Senior Citizens, before and after your participation in the TTIS project.

Before participating in TTIS...

On the scale given from 1 to 10, please rate your opinion on the following statements before your

participation in TTIS.

participation in 1115.											
My comfort level in working	Very	uncor	nfort	able					Ver	y com	fortable
with Senior Citizens	1	2	2	3	4	5	6	7	8	9	10
Senior citizens' willingness to	Not	willing	at al	11						Very	willing
try new things	1	2	2	3	4	5	6	7	8	9	10
Senior Citizens' ability to learn	Not a	able to								Very	able to
new things	learn new things learn new thin				v things						
	1	2	2	3	4	5	6	7	8	9	10
Senior Citizens' openness to new	Not a	at all o	pen							Ve	ry open
technology	to tec	chnolo	gy						1	to tech	nology
	1	2	3	4	5	6	7	8	9	1	0

After participating in TTIS...

On the scale from 1 to 10, please rate your opinion on the following statements after participating in TTIS.

My comfort level in working	Very	y unco	mfor	table					Ver	y com	fortable
with Senior Citizens	1	[2	3	4	5	6	7	8	9	10
Senior Citizens' willingness to	Not	willin	g at a	all						Very	willing
try new things	1	1	2	3	4	5	6	7	8	9	10
Senior Citizens' ability to learn	Not	able to)							Very	able to
new things	learn new things learn new thin				v things						
	1	1	2	3	4	5	6	7	8	9	10
Senior Citizens' openness to new	Not	at all	open							Ve	ry open
technology	to te	chnol	ogy						1	to tech	nology
	1	2	3	4	5	6	7	8	9	1	0

Please write any other comments on the back side of this sheet.

Appendix J

Workshop Participant Follow-up Telephone Interview Guide

Intro: [Hello, may I speak with Hello, this is Michele Cranwell. I am calling from the Center for Rural Studies to follow up with you on the computer and Internet workshop you attended ontaught by 4-H teenagers. I would like to ask you some questions about your computer and Internet use since you have attended this workshop. Do you have about ten minutes to answer some questions?]
[Is there a better time I could call back?]
[Thank you for agreeing to answer some follow-up question to the computer and Internet workshop. All of your responses will be kept strictly confidential. (all results will be analyzed First I'd like to ask you about your access to computers, the Internet, and the Medicare website since you have attended this workshop.]
Since your attendance at the TTIS workshop
Have been able to access a computer? Y/N
Have you been able to access the Internet? Y/N
[Skip to "Benefit of Workshop" section if no to previous 2 questions] Where is this Internet access? At home (1), family member's home (2), neighbor/friend's home (3), public library (4), senior center (5), local school computer lab (6), Extension computer lab (7), other (8), no access (9).
Have you been able to locate the Medicare website? Y/N Not interested
What type of information were you looking for on the Medicare website?
Were you able to find this information? Y/N
Do you feel you use computers more often after attending the workshop? Y/N

_		A few times a		A few times a	
Daily	Once a week,	month	Once a month	year	Rarely
1	2	3	4	5	6

Do you feel you use the Internet more often after attending the workshop? Y/N

If yes, how often do you use a computer? 9 NR

If yes, how often do you use the Internet? 9 NR

		A few times a		A few times a	
Daily	Once a week,	month	Once a month	year	Rarely
1	2	3	4	5	6

Benefit of the Workshop

[Now I would like to assess how you feel you have benefited from attending this workshop.]

On the following scale from 1-5, how satisfied are you with the workshop you attended?

Would you say you are...

Completely disat	Somewhat disat	Neither dis nor sat	Somewhat satis	Completely satis
1	2	3	4	5

[The following questions assess your attitude towards working with teens, before and after attending the workshop.]

Before attending the workshop...

On the scale given from 1 to 10, please rate your opinion on the following statements before attending the workshop.

My comfort level in working	Very ur	Very uncomfortable Very comfort				fortable				
with teens	1	2	3	4	5	6	7	8	9	10
Teens' respect for Senior	Not resp	Not respectful at all Very				ery re	spectful			
Citizens	1	2	3	4	5	6	7	8	9	10
Teens' ability to teach Senior	Not able	e to							Very	able to
Citizens	teach at	all								teach
	1	2	3	4	5	6	7	8	9	10
Teens' patience with Senior	Not patient at all Very p				patient					
Citizens	1	2	3	4	5	6	7	8	9	10

After attending the workshop...

On the scale from 1 to 10, please rate your opinion on the following statements after attending the workshop.

My comfort level in working	Very un	Very uncomfortable Ver			y com	fortable				
with teens	1	2	3	4	5	6	7	8	9	10
Teens respect for Senior Citizens	Not resp	Not respectful at all				ery re	spectful			
	1	2	3	4	5	6	7	8	9	10
Teens ability to teach Senior	Not able	Not able to				Very able to				
Citizens	teach at	all								teach
	1	2	3	4	5	6	7	8	9	10
Teens' patience with Senior	Not patient at all Very pat				patient					
Citizens	1	2	3	4	5	6	7	8	9	10

Is there anything else you would like to add about your experience in working with the teen trainers?

[Here are some questions relating to your comfort and skill level in using computers and the Internet since you have attended this workshop.]

On a scale of 1-5, please indicate your level of agreement with the following statements:

Since you have attended this workshop...

•	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Not Sure
I am more comfortable with using computers .	1	2	3	4	5	9
My skills with using computers have improved.	1	2	3	4	5	9
I am more comfortable with using the Internet .	1	2	3	4	5	9
My skills with using the Internet have improved.	1	2	3	4	5	9
I am comfortable searching the Medicare website.	1	2	3	4	5	9

[Skip this question if no computer and Internet access]

Are there other areas related to the computer and the Internet that you feel you are able to d
because of attending this workshop, such as
email
use the Internet in general
searching for info on other health or health care topics
shopping online
word processing
Have you sought further training
[Anything else?] other (please specify)

If a follow up workshop was offered by the same group of teens, would you be interested in taking this course to further improve your skills in searching the Internet and the Medicare website? Y/N

[That is all the questions I have for you. Thank you very much for your time. Have a great day.]

For questions or additional copies of this report, please contact:

Michele Cranwell Schmidt
Program Evaluation Coordinator
The Center for Rural Studies
207 Morrill Hall
The University of Vermont
Burlington, Vermont 05405
802-656-3021
Michele.schmidt@uvm.edu
http://crs.uvm.edu/evaluation



The Teens Teaching Internet Skills (TTIS) Project is a national initiative involving youth and adults from the 4-H Technology Teams in six states, including: Connecticut, Florida, Iowa, Maryland, Virginia, and Washington. This Evaluation was sponsored by the U.S. Department of Agriculture 4-H Youth Technology Leadership Team and the Health Care Financing Administration.