

Seniors Canada On-line

2001 Senior Survey-Summary of Findings

INTRODUCTION

The Government of Canada has made a commitment that Canadians will be able to access key government information and services on-line by 2005. Many Canadians already embrace new technologies as part of their everyday lives.

However, there is a very real risk that many of Canada's seniors will be left behind as the rest of the nation goes on-line. The challenge is that seniors do not use computers and the Internet as much as other age groups¹. Demographic trends indicate that our population is aging rapidly. Seniors are becoming the largest growing consumer group, and are remaining in the employment and volunteer sectors for a much longer time².

Seniors Canada On-line (SCOL) undertook this Qualitative Survey to explore the various barriers that prevent seniors from acquiring computer and Internet skills. Much of the information contained in this report falls into the realm of "common knowledge". For example, everyone "knows" that the cost of training programs presents a barrier. However, *Seniors Canada On-line* wanted to validate this so-called common knowledge, and perhaps dispel a myth or two, by speaking directly with seniors who have enrolled in computer / Internet training courses, and by gathering first-hand stories from trainers on the front-lines.

Canada's economic and social prosperity is going to depend more and more upon the extent to which its citizens are prepared for the digital age. This survey did not seek simple solutions or a quick fix for any of the challenges faced by trainers and seniors. However, it is our hope that the information uncovered by the survey will provide a focal point for further discussions aimed at developing strategies and initiatives to help Canada's seniors gain the skills and support they will need in order to go on-line with the rest of the nation.

METHODOLOGY

The survey team used two primary methods to gather research:

- Field surveys in Vancouver (BC) and Ottawa (ON)

WWW.SENIORS.GC.CA / WWW.AINES.GC.CA

-
- An Internet survey accessed through the *Seniors Canada On-line* Web site.

Field Surveys

The field surveys were conducted in two urban areas, Ottawa and Vancouver in December 2001. They consisted of:

- The collection of demographic data and program information from 24 community and seniors organizations offering Internet and/or computer-based training to seniors.
- Open-ended interviews with clients and trainers/providers of Internet and computer-based training for seniors at these organizations.

Provider / Trainer Interviews

These interviews were conducted with the Program Directors of 24 community training organizations, and focused on such core areas as:

- Challenges starting computer and Internet-based training programs.
- Necessary resources to keep programs sustainable over the long-term.
- Participant benefits observed during the training experience.
- Recommendations to organizations interested in starting computer or Internet training programs for seniors.

A qualitative approach was used by the survey team in interviews. They were loosely structured to encourage Program Directors to offer opinions and explain their experiences on the front lines.

Client Interviews

The survey team conducted client interviews with 84 seniors who had been enrolled in computer or Internet training programs sometime in the past year at the organizations contacted for the Provider / Trainer interviews.

A qualitative approach was also used during these sessions to ensure that seniors had an opportunity to express their opinions on various issues, without the constraints of categories chosen by researchers.

The *Seniors Canada On-line* National Internet Survey

The survey team also developed an on-line Internet Survey to capture a more accurate national picture of senior computer / Internet users and their training experiences. Eighty-seven people responded to the Internet Survey, which was delivered through the *Seniors Canada On-line* Web site between December 2001 and January 2002.

Constraints

The survey team noted a number of constraints with respect to their methodology, including the following:

- The field surveys were conducted in large urban areas. While it is reasonable to draw national implications from the findings, caution is warranted when applying them to rural and remote areas.
- Age was not included in any of the surveys. This prevented an exploration of special barriers that may be pertinent to specific age groups within the seniors' population.
- When compared as groups, the seniors who took part in the surveys were better educated than the general population of seniors in Canada. Therefore, the views of seniors with lower levels of education are not directly represented in the findings. However, the survey team reasonably concluded that barriers identified by seniors with more education would also affect seniors with less education.
- In looking at the barriers presented by disabilities, the survey team focused only on the primary disabilities associated with seniors. An additional constraint is that seniors with disabilities may reside in institutions, and would not have access to the types of training centres that took part in the survey.
- Time and budget necessitated a sampling of seniors and training providers that was too small to declare the findings statistically significant.

PROFILES OF RESPONDENTS

Field Survey

Clients

About two-thirds of the 84 clients involved in the field surveys in Vancouver and Ottawa were female. Most participants were well educated, with three-quarters having completed some form of post-secondary education. More than 90% reported a family income that exceeded \$20,000 per year.

Training providers

One-third of the 24 community and seniors organizations participating in the field survey were public facilities, including libraries, community centres, colleges and school. The others were non-profit organizations, with the exception of one, which was privately owned.

Nearly 4 out of 5 organizations (79%) offered both computer and Internet training, and they all offered basic level courses, regardless of the type of training provided. More than half gave courses at the intermediate level (54%), but less than one-quarter (21%) provided advanced level training.

The length of training varied from single, day-long workshops to regular training sessions that lasted between 45 minutes and 3 hours spread over a 3 to 8 week period. Cost for training ranged from none (30%) to \$205 per student. 60% of providers charged between \$10 and \$50. A large percentage of organizations (54%) paid their instructors, while 42% used volunteers exclusively and 4 % used a combination of both.

Seniors Canada On-line Internet Survey

Three-quarters (71%) of the 87 respondents to the Internet Survey were male. Almost one third (32%) were university graduates, while 39% had finished some university or college courses. Roughly 12% graduated from high school, while 13% did not finish high school, and 4% completed primary school or less.

More than half of the respondents lived in Ontario (59%), followed by Quebec (13%), the Prairies (12%), British Columbia (9%) and the balance from the Maritimes (3%) and the Territories (3%).

SURVEY FINDINGS

Survey participants identified six primary barriers that prevent seniors from gaining access to computer skills and the Internet. These are:

- I. Economic Barrier
- II. Education and Literacy Barriers
- III. Program Development Barrier
- IV. Human Resource and Organizational Barriers
- V. Psychological and Social Barriers
- VI. Disabilities Barrier

This report summarizes the responses and comments from participants regarding these six areas, and includes their suggestions about strategies and programs to help overcome the barriers.

Survey participants recommended a number of Web sites with information for organizations and individuals who wish to help seniors gain access to computer skills and the Internet. Many of the End Notes referenced in the Appendix also provide links to relevant Web sites.

For detailed survey results and a complete list of Web sites and reading suggestions from survey participants and the research team, please visit www.seniors.gc.ca.

I. Economic Barrier

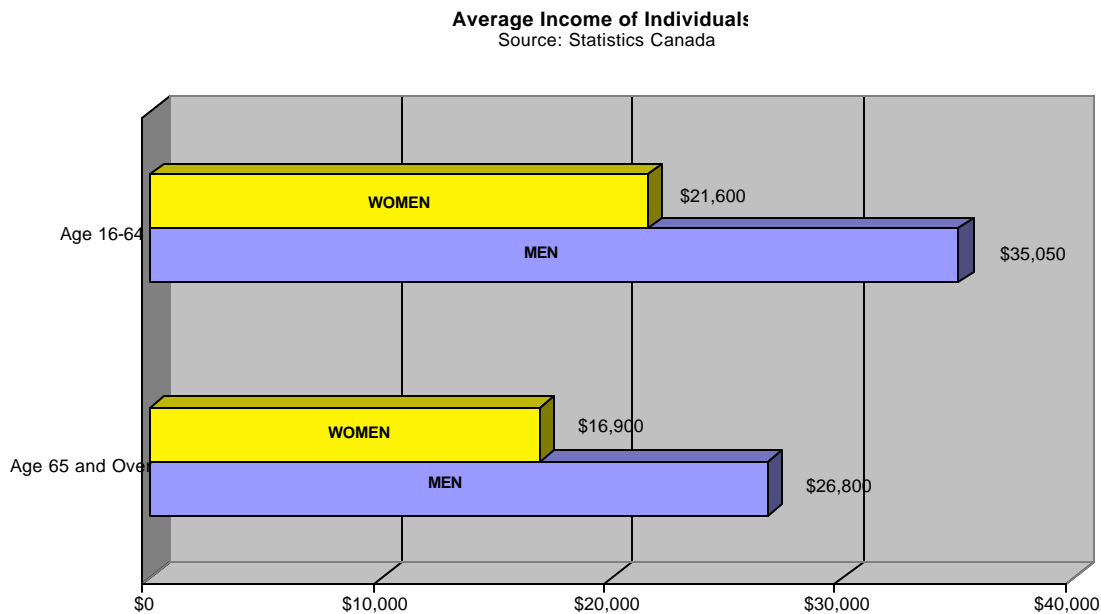
Issue

A large number of seniors cannot afford the cost of home computers, Internet service, or training.

Context

Many seniors, especially women, have a lower than average income compared to most people³. The average income for seniors 65 years of age and over in Canada is \$21,219⁴. The chart below illustrates income disparities in Canada between:

- seniors and people aged 16 to 64
- senior men and senior women



The notion that economic barriers prevent seniors from gaining access to computer skills and the Internet is reinforced by the following facts:

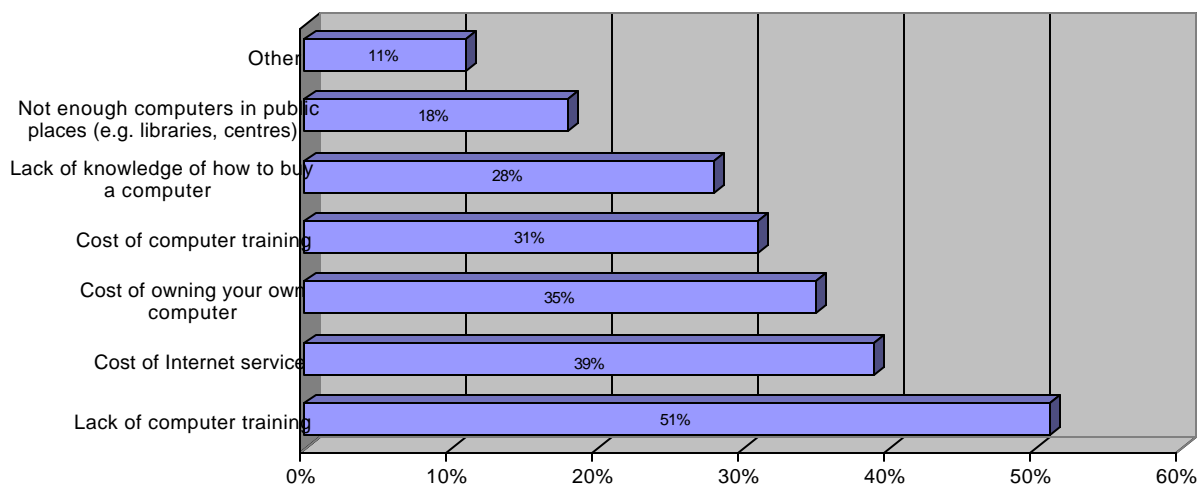
- Seniors with a higher income are more likely to use the Internet than those with a lower income⁵.
- Since a senior is less likely (than younger people) to be in the workforce or attending school, it is then necessary for a senior to rely on his / her own resources to access the Internet⁶.

Survey findings

- Only 8 % of the respondents to the field surveys reported a family income under \$20,000 per year
- Respondents to the Internet Survey identified the lack of computer training and the costs associated with training, obtaining a computer and Internet service as the biggest problems seniors face in becoming computer literate and being able to access the Internet.

Challenges Seniors Face in Acquiring Computer and Internet Sk

Source: SCOL Internet Survey

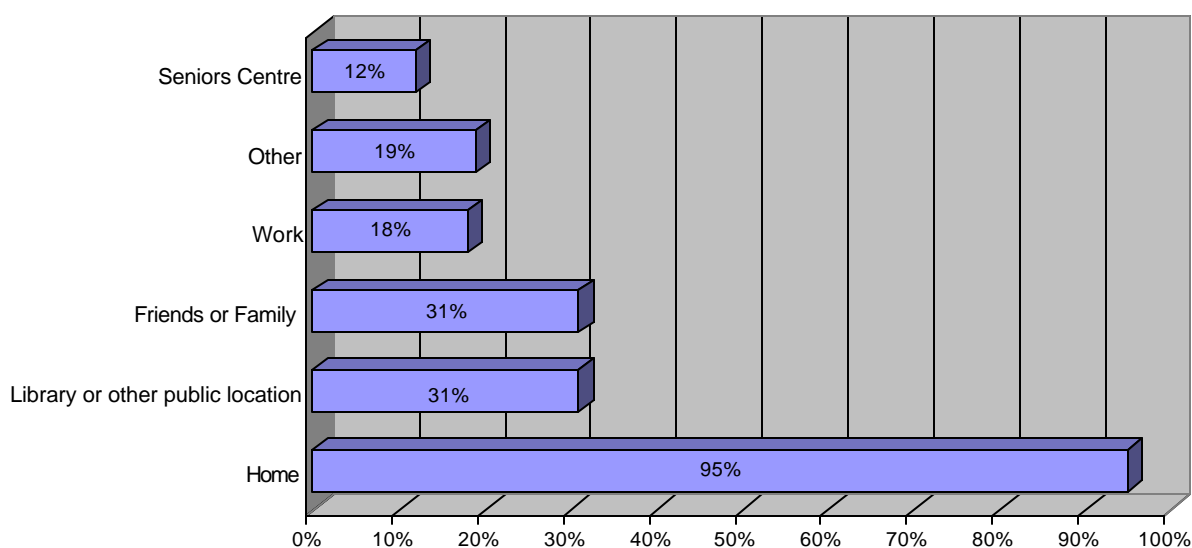


- Most seniors in the Client Field Survey (92%) and Internet Survey (90%) did not receive any financial assistance for their computer / Internet training.

- Almost one-third (32%) of respondents to the Internet Survey indicated they had paid more than one hundred dollars for the training they had received.
- Training providers stated that low-cost (39%) and instructor's patience / teaching ability (39%) were key factors to a successful program.
- The majority of respondents to the Internet Survey (95%) and the Client Field Survey (86%) had access to a computer and / or the Internet at home.

Where Seniors Access the Internet

Source: SCOL Internet Survey



- One-third (33%) of training providers felt it was necessary to subsidize computers for home use in order to increase access to computers and the Internet for seniors.

Suggestions to help overcome the Economic Barrier

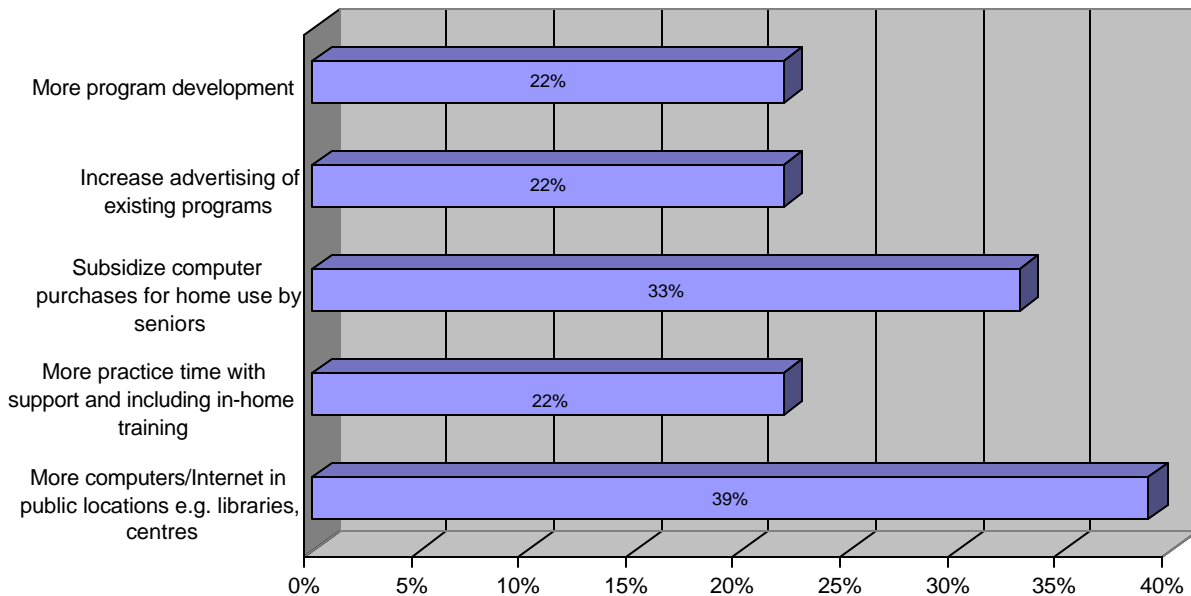
Survey participants provided the following suggestions:

- Offer low-cost or subsidized computer and Internet training programs for seniors.
- Provide subsidies to seniors for computer purchases for use in-home.

- Implement programs that assist low-income seniors and training facilities with the direct costs associated with computer ownership and training. Such programs could include:
 - Subsidies for computer purchases for use in-home and at public training facilities
 - Financial assistance for Internet service both in-home and at public training facilities
 - Scholarships, bursaries, tax-incentives, and subsidies to assist low-income seniors (especially women) who wish to enroll in a training program.
 - Discounted software programs.
 - Developing programs in which technical students help with computer maintenance and repairs for seniors' organizations that offer training.

Suggestions on Increasing Seniors' Access to Computers and the Intern

Source: SCOL Training Provider Field Survey



Web sites of interest

The Vancouver Community Network (VCN)

<http://www.vcn.bc.ca>

This web site offers resources for organizations providing computer training, and for individuals seeking information to get started on the Web. VCN also acts as a network to various community organizations in need of affordable Internet service.

For detailed survey results and a complete list of Web sites and reading suggestions from survey participants and the research team, please visit www.seniors.gc.ca

II. Education and Literacy Barriers

Issue

Seniors who lack higher education and strong literacy skills are less likely to enroll in computer and Internet training courses. If they do enroll in courses, they are more likely to have problems reading and understanding training materials.

Context

There is a link between higher education and Internet use. University graduates are three times more likely to use the Internet than those with only a high school education⁷.

Only 8 % of Canadians over the age of 65 had a University degree in 1996, compared with 17% of people between the ages of 25 and 64⁸. In addition, six out of ten seniors have never completed high school, and more than one third of these did not finish grade nine⁹.

In a 1994 International literacy survey, 53% of seniors in Canada had difficulty performing reading tasks, such as locating one piece of information in a text¹⁰. About 80% of seniors are functioning at the lowest levels of literacy, compared to nearly half of all Canadian adults¹¹, and yet, more than two-thirds of seniors with the lowest level of literacy *believe* that they possess “good to excellent” reading skills¹².

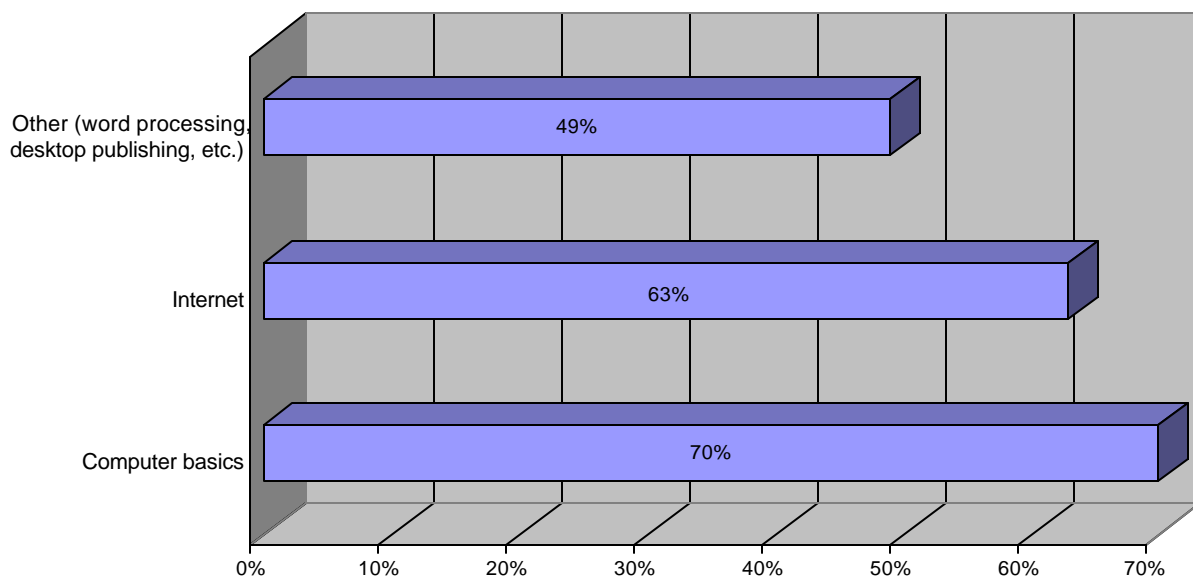
According to the National Adult Literacy Database (NALD), most adult education opportunities do not consider the needs of seniors. Even though literacy instruction can help increase seniors’ autonomy and quality of life, they are still under-represented in literacy programs. Too often, literacy funding provides for those whose goal is employment¹³.

Survey findings

- Approximately 23% of respondents to the Client Field Survey indicated that high school was the highest education level they completed while 3% mention elementary school. This compares favourably with the Internet Survey where 25% reported graduating / having some high school and 4% noting elementary school as the highest level completed.
- Approximately 13% of training providers mentioned that seniors had difficulty with reading or had limited literacy skills.
- Training providers noted that keeping the course content basic (30%) and materials simple (17%) were key components to teaching seniors computer and Internet skills.
- 52% of seniors who responded to the Internet Survey suggested that course content and printed course material were the most useful aspects of the training they had received.
- 12% of respondents to the Client Field Survey cited the use of technical jargon as the least useful part of the course, while 41% of respondents to the Internet Survey felt that the pace of instruction was the least useful.

Types of Courses Taken by Senior:

Source: SCOL Internet Survey



- Training providers reported that the most common software applications used during training for seniors were:
 - Windows
 - MS Word
 - Outlook Express
 - Netscape
 - Internet Explorer
- Nearly half of the senior respondents to the Internet Survey enrolled in courses other than basic computer or Internet-based programs.

Suggestions to help overcome Education and Literacy Barriers

Respondents to the surveys suggested practical measures and long-term strategies to overcome these barriers, including the following:

- Develop and deliver programs to increase the basic literacy skills of seniors.
- Develop a strategy which encourages seniors with low-literacy skills to enroll in computer / Internet training programs. This strategy could include the following components:
 - subsidized basic literacy programs for seniors which emphasize the need for reading skills in their daily lives and in the use of technology. (e.g. implement a volunteer/peer support reading program).
 - providing low-income seniors with financial assistance to enroll in basic literacy programs.
 - promoting the use of plain language in training manuals and course materials for seniors.
 - encouraging government departments to use plain language on their Web sites.
 - developing marketing campaigns to increase awareness of senior literacy issues using positive senior role models and success stories.
- In seniors' training, use software programs that build literacy skills, such as word-processing programs that check spelling and grammar.

- In training modules for seniors, use Web sites with content that is easy to read and understand. Explore Web sites that feature:
 - informal, personal language
 - dark print on a light background
 - the active voice
 - large font that is easy to read
 - pictures / graphics to illustrate what is being said
 - plenty of white space
 - one sentence per idea

Web sites of interest

The National Literacy Secretariat

<http://www.nald.ca/nls.htm>

Organizations seeking assistance to improve adult literacy can use this site to find out about resources and funding.

The National Adult Literacy Database

<http://www.nald.ca/index.htm>

This is a single-source, comprehensive, up-to-date and easily accessible database of adult literacy programs, resources, services and activities across Canada.

ABC Canada Literacy Foundation

<http://www.abc-canada.org/>

ABC is a partnership of business, labour, educators and government. It focuses on public awareness programs and provides promotional support to local literacy groups as part of its mission to further the development of a fully literate Canadian population.

The Senior's Education Centre

<http://www.uregina.ca/cce/seniors/index.html>

This University of Regina site offers an opportunity, within a supportive environment, for continuing learning in a University context for people aged 55 and over.

For detailed survey results and a complete list of Web sites and reading suggestions from survey participants and the research team, please visit www.seniors.gc.ca.

III. Program Development Barrier

Issue

Seniors require computer / Internet training programs that have been developed to meet their specific learning needs.

Context

Program development is a broad area, covering teaching methods, curriculum, training materials, learning tools, technical support programs, and the marketing of courses.

Almost 85% of people aged 60 and over who use the Internet have a home connection¹⁴. This indicates that receiving in-home technical support may become an increasingly important issue. Also, according to Statistics Canada, a great number of seniors acquire computer skills on their own¹⁵. This may point to a need for increased advertising of available courses so seniors will know where to get training.

Responses to the *Seniors Canada On-line* Qualitative Survey validated much of the so-called “common knowledge” about seniors’ programs, namely, that seniors want and need programs that are client-centric in approach, with an appropriate pace, one-to-one and small group instruction, on-going volunteer / peer support, and improved technical support.

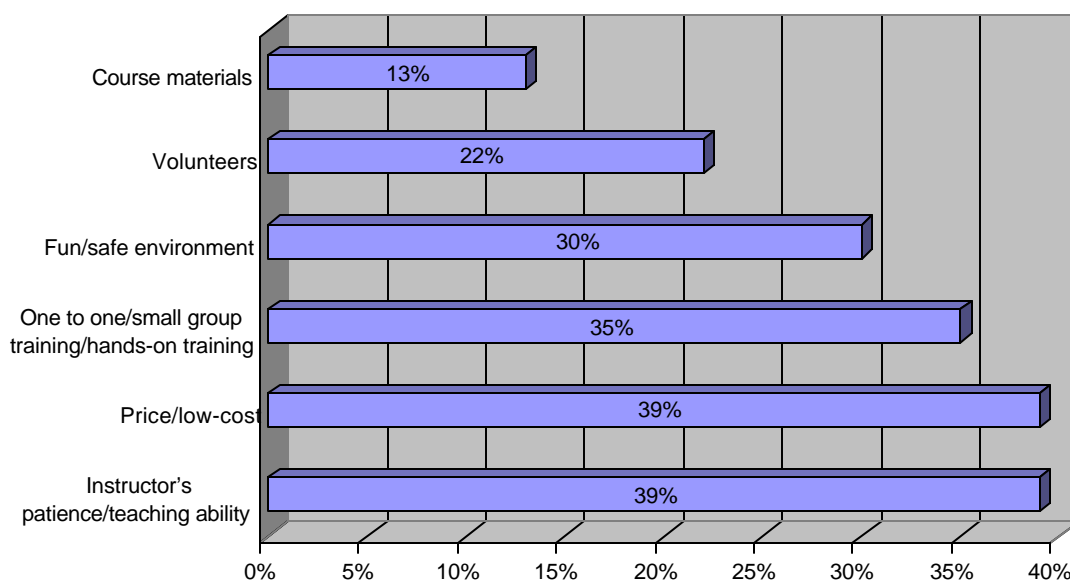
Survey findings

- Internet Survey respondents ranked the number of computers available to students for training (64%) and the instructor’s ability (61%) as the two most useful aspects of their computer training.
- 40% of respondents to the Internet Survey felt the training they received did not meet their needs. Of these, 64% said they needed more advanced training or a different course, while 44% mentioned there was either not enough time in the course, or not enough time to practice.
- When asked to identify what is missing in computer training for seniors, 50% of respondents to the Internet Survey mentioned a lack of advanced courses / different types of computer courses.

- This chart lists the factors training providers believe most important for a successful training program

Key Factors for Successful Computer Training for Senior

Source: SCOL Training Provider Field Survey



- Making more classes available (25%), increasing class/practice time (11%) and tailoring instruction to seniors' needs – speaking louder, giving clearer instructions – (9%) were the top suggestions from respondents to the Client Field Survey for improving training for seniors.
- 10% of training providers said that increasing the advertising of courses would help improve computer and Internet training to seniors.

Suggestions to help overcome the Program Development Barrier

Respondents suggested the following strategies and actions:

- Provide high quality instruction. This would involve funding “train the trainer” workshops to ensure that instructors of all ages understand the importance of avoiding technical jargon and going at a slower pace when teaching seniors.

- Conduct course pre-screenings to ensure that seniors are placed in courses suited to their level of knowledge and ability.
- Develop senior-specific curricula, training materials, and on-line tools for a wide variety of levels and interests. This would involve:
 - a client-centric approach with one-to-one or small group instruction. This would include course pre-screenings for knowledge and ability levels.
 - the use of materials that consider and address the physical and intellectual needs of seniors.
 - computer courses that cover topics of interest to seniors (genealogy, travel), to be offered at all levels, from beginner to advanced.
- Enhance funding to develop training resources and tools for on-going volunteer / peer support programs as a means to increase the quality and sustainability of programs.
- Increase the advertising and marketing of available courses.
- Improve technical support in-home and at training facilities.
- Expand partnering and information sharing between organizations that offer training. This could include such initiatives as compiling an inventory of Computer Training Courses that are available on-line and in local communities across Canada.
- Provide specialized training for intergenerational programs – training young people about how to instruct seniors
- Encourage school boards to suggest students to provide training and maintenance of computers as part of community service credits.

Web sites of interest

Older Person's Guide to the Internet

<http://connect.gc.ca/en/920-e.htm>

This Industry Canada Web site gives some useful ideas on how to get connected. It is also linked to a fact sheet entitled "Everything you need to know to get connected".

Getting Familiar with New Technologies

<http://olt-bta.hrdc-drhc.gc.ca/learning/ltech.html>

Human Resources Development Canada offers this web site which provides links to many useful learning guides, including "Beginners Central" and "Learn the Net".

The Student Connections Program

<http://scp-ebb.com/english/seniors.cfm>

This site offers a Canada-wide list of Internet training programs for seniors.

The McGill Centre for Aging

<http://www.aging.mcgill.ca/connections.htm>

A number of on-line tools and training materials are available at this site, which is a partnership between McGill University and Human Resources Development Canada.

Using Technology? Positively!

http://www.sppd.gc.ca/docs_e.html

Health Canada, Division of Aging and Seniors, and its various partners offer a series of Fact sheets on everyday technologies and older Canadians.

For detailed survey results and a complete list of Web sites and reading suggestions from survey participants and the research team, please visit www.seniors.gc.ca.

IV. Human Resource and Organizational Barriers

Issue

Seniors lack access to computer and Internet training because training organizations face serious shortfalls in two key resource areas:

- Human Resources (course instructors, volunteers, and peer support)
- Organizational Resources (classroom space, computer equipment).

Context

“The largest barrier to establishing computer equity for seniors and special populations lies not in their reluctance to give computers a chance, but in the lack of resources available to learn about and use computers. Once instructors are found and equipment is made available, there appears to be an ample supply of people who are interested in and capable of discovering how computers can enhance their lives”¹⁶.

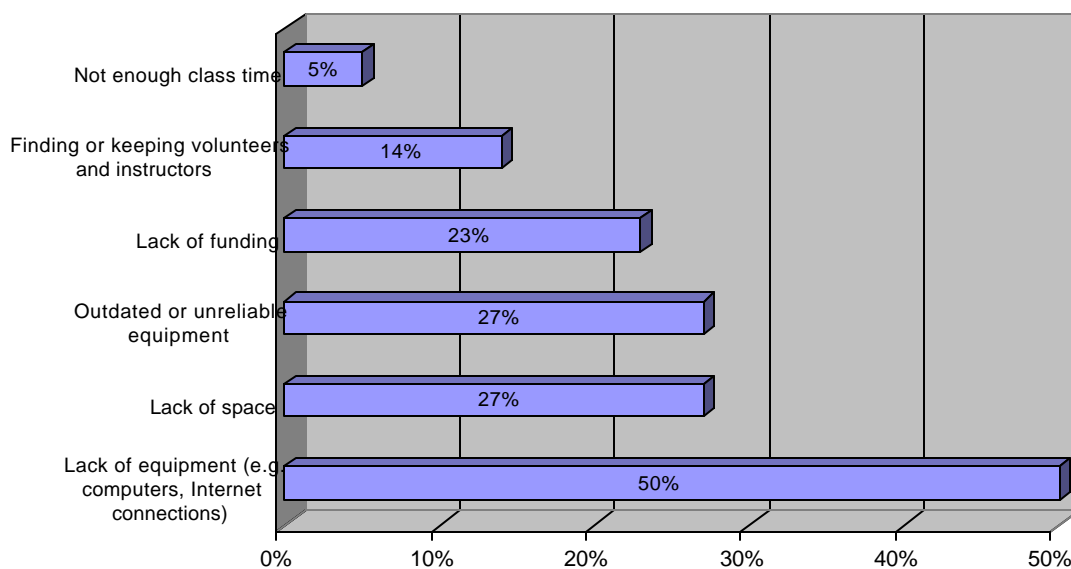
The conclusion quoted above was drawn from studies conducted more than a decade ago, but the impact of human resource and organizational shortfalls continues to be a major roadblock that prevents seniors from accessing computer skills and the Internet. The *Seniors Canada On-line* Qualitative Survey validated the “common knowledge” about resource shortfalls. Simply put, training organizations reported a need for more funding, more instructors, more volunteers, more class time, more computers, better computers, and more space.

Survey findings

- Training providers most commonly cited lack of equipment, outdated/unreliable computers, lack of space and funding as the main difficulties they faced in providing computer training for seniors.

Challenges Faced by Providers of Computer Training to Seniors

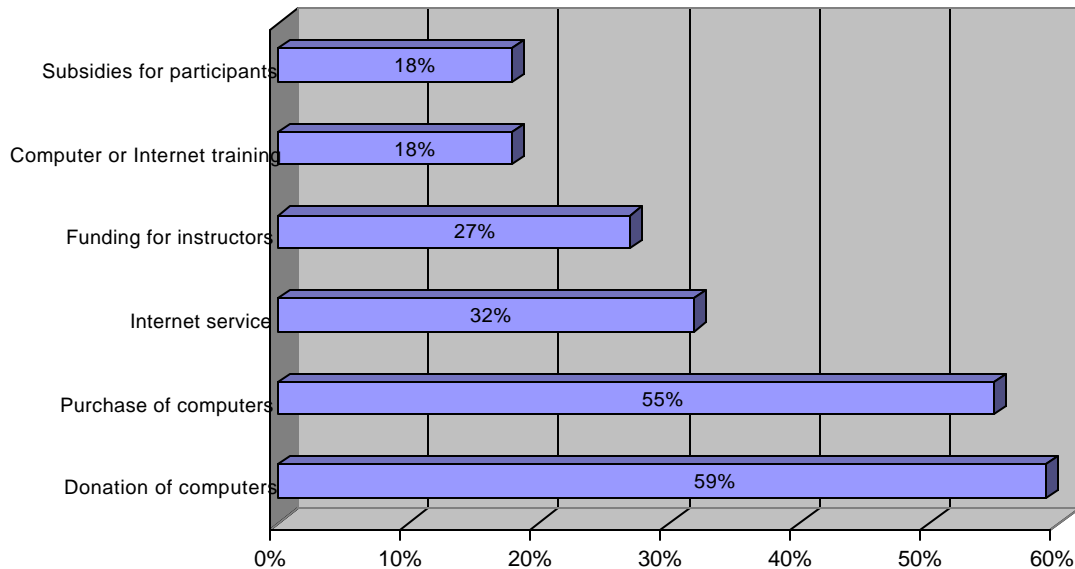
Source: SCOL Training Provider Field Survey



- Many training providers used outdated computers. For example, 19% of training providers used 486's and 24% had basic Pentium computers in their classrooms.
- One-third (33%) of training providers still used Windows 95 as their main operating system.
- 21% of training providers had only one Internet connection available for use in seniors' Internet training programs.
- Some of the training providers did not have curriculum guides, training materials, handouts, or homework assignments to assist in their instruction.
- 48% of computers used for training were donated while 52% were owned outright.

Nature of Funding Received by Training Provide

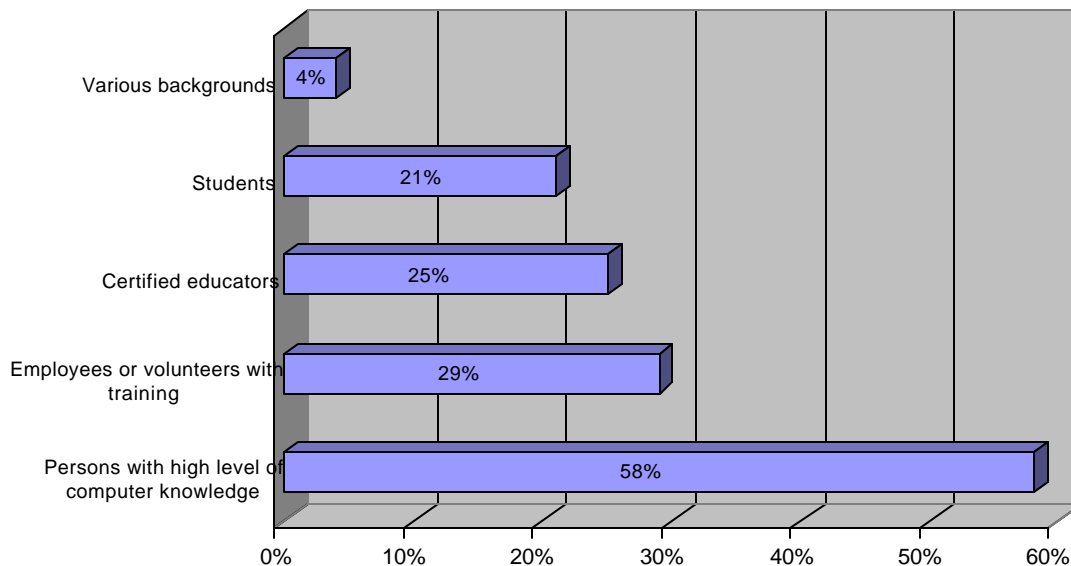
Source: SCOL Training Provider Field Survey



- Half (50%) of training organizations participating in the Field Survey operated with only one instructor to teach computer and Internet skills to seniors.
- 54% of training organizations employed paid instructors, 42% used volunteers and 4% had both.
- A number of training providers indicated there is a problem retaining long-term volunteers and instructors.
- One-quarter (25%) of training providers thought that instructors and volunteers required more training in order to improve computer and Internet programs for seniors.
- One-third (35%) of training providers felt that more small group and one-to-one training was needed to improve training for seniors.

Credentials of Computer Instructors

Source: SCOL Training Provider Field Survey



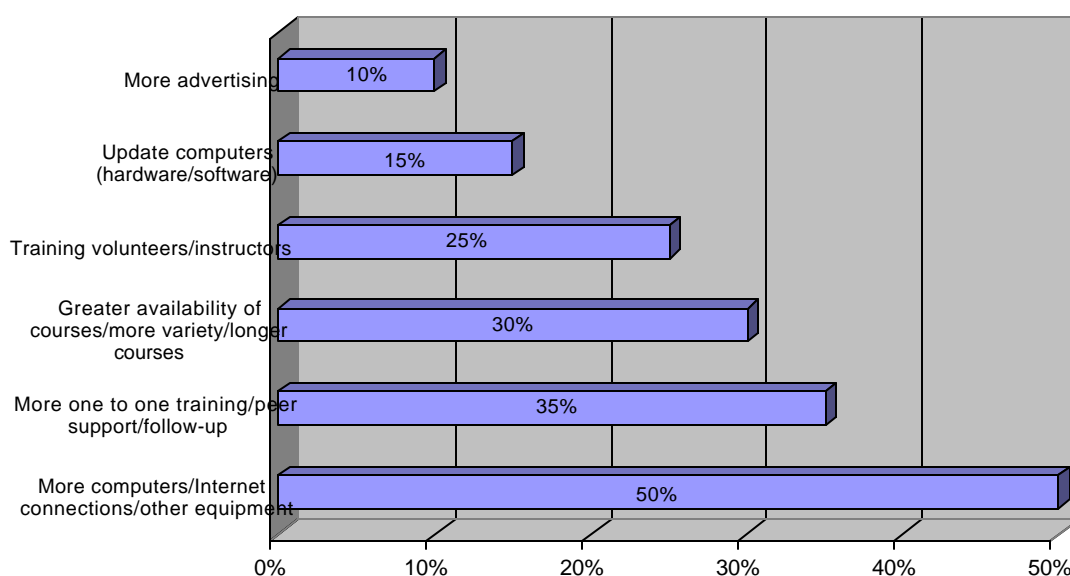
- The majority of trainers (58%) were individuals with a high level of computer knowledge.
- One quarter (24%) of training providers offered intergenerational programs.
- 80% of respondents to the Client Field Survey said they would join a computer class taught by young people (ages 16-30). Of those, 16% qualified their answers by saying instructors must be patient.
- Of the 20% of respondents who would not join an intergenerational program, 56% said their reason is they felt younger people would be too quick and impatient.
- 85% of respondents to the Client Field Survey want access to computers and the Internet in public areas local such libraries, senior and community centers.

Suggestions to help overcome Human Resource and Organizational Barriers

The chart below illustrates the training providers' top suggestions for improving computer and Internet training for seniors.

Suggestions on Improving Computer and Internet Training to Seniors

Source: SCOL Training Provider Field Survey



Additional suggestions from survey respondents include:

- A continuance of Industry Canada's Volnet program. (This program, which helps volunteer groups gain access to computer equipment and Internet service, completed its mandate on March 31, 2002).
- Provide on-going training for paid instructors and volunteers.
- Create a marketing campaign to promote volunteerism for seniors' computer / Internet training programs. Components of the campaign could include:
 - promoting the benefits of volunteerism, such as health benefits, continued learning opportunities, employment possibilities, plus the chance to enrich seniors' lives.
 - offering incentives to volunteers, such as tax incentives, recognition, free training and certification.

- compiling a database of volunteers / instructors in communities across Canada.
- partnering with community organizations to identify effective ways of recruiting, training, and retaining volunteers.
- Develop employment programs for training providers who need assistance with volunteer co-ordination, program development, and technical support. These programs could include Job-creation Programs, Science and Technology Internship Programs, and Summer Career Placements
- Recognize the potential value of young people as instructors for seniors, and give them specialized training in the following areas:
 - how the aging process works
 - cognitive, mobility, visual and auditory disabilities
 - how to give and receive the respect of others
 - the client-centered approach
 - the need for patience and a slow pace
- Start a “Computers for Seniors” program modelled after Industry Canada’s successful “Computers for Schools” program. The program would encourage the donation of used computers, software, computer tables and chairs to seniors’ organizations and low-income seniors.
- Develop programs to improve and increase the amount of space that could be used for computer and Internet training for seniors. This could involve:
 - partnering with schools and libraries to identify under-utilized existing space.
 - collaborating with government programs such as Industry Canada’s CAP program and Veteran Affairs Canada’s RCL program.
- Financially assist organizations in purchasing computer equipment and Internet service.
- Implement a program to increase access to computers and Internet service for seniors. This could include:
 - collaborating with schools to allow seniors more access to computers for learning and for their personal use.
 - Working with Industry Canada’s LibraryNet program to designate and increase the number of Internet terminals provided in libraries for seniors to use.

- Broadening programs under Industry Canada's Generations CanConnect program, which would increase opportunities for seniors to use computers and the Internet, and provide more opportunities for seniors and youth to interact.

Web sites of interest

Volnet <http://www.volnet.org/english/aboutvolnetpage.htm>

This is the Web site for Industry Canada's Volnet Program.

Division of Aging and Seniors <http://www.hc-sc.gc.ca/seniors-aines/pubs/factshts/fs5e.htm>

Fact sheets from this Health Canada site may be useful to organizations that would like to recruit and retain more volunteers.

Summer Career Placements <http://youth.hrdc-drhc.gc.ca/programs/scpp.shtml>

This site is home to Human Resources Development Canada's Summer Career Placements program.

Science and Technology Initiatives <http://www18.hrdc-drhc.gc.ca/programs/sciencetechintern/desc.asp>

The program described on this site offers wage subsidies for work experiences that will help young people integrate science and technology into their long-term career/job plans.

Student Connections Program (SCP) <http://www.scp-ebb.com/english/seniors.cfm>

The SCP is an Industry Canada intergenerational program which offers computer and Internet training to seniors at locations across Canada.

Community Access Program (CAP) <http://www.connect.gc.ca/en/240-e.htm>

This Industry Canada program is a key component of the federal government's Connecting Canadians initiative. It provides affordable access to the Internet for residents of rural, remote, and urban communities.

LibraryNet <http://www.connect.gc.ca/en/296-e.htm>

LibraryNet promotes Canada's libraries as public access sites, and encourages the use of the Internet in public libraries for community development, distance education and the delivery of information and government services.

For detailed survey results and a complete list of Web sites and reading suggestions from survey participants and the research team, please visit www.seniors.gc.ca

V. Psychological and Social Barriers

Issue

Seniors often feel apprehensive about learning and using new technologies, and this may prevent some from acquiring computer and Internet skills.

Context

Many younger Canadians consider bank machines, voice-mail, computers and the Internet as normal components of everyday life. However, Canada's seniors did not grow up with these technologies, and may have to overcome psychological barriers in order to acquire computer and Internet skills.

Studies done by the National Council on Aging discovered that:

- Technology can be viewed by seniors as a threat to their privacy, safety, and security¹⁷;
- The Internet can be viewed by seniors as a device that interferes with the social interaction they enjoy with other family members, friends, and the community¹⁸.

On the other hand, research also indicates that:

- Seniors respond positively to using technology once they are introduced and given the opportunity to experience the benefits of the technology itself¹⁹.
- A supportive learning environment creates the necessary mind-shift that allows seniors to overcome their fears and acquire the skills²⁰.

Seniors are more likely to be limited in social contact; they may have retired from the workforce, have experienced the death of a spouse / friend, are living alone (sometimes in a rural area) or have mobility problems increasing with age. Friends and family may also no longer live nearby²¹. Providing seniors with access to computers and the Internet may help them to build and expand social networks with friends and family, using such vehicles as e-mail.

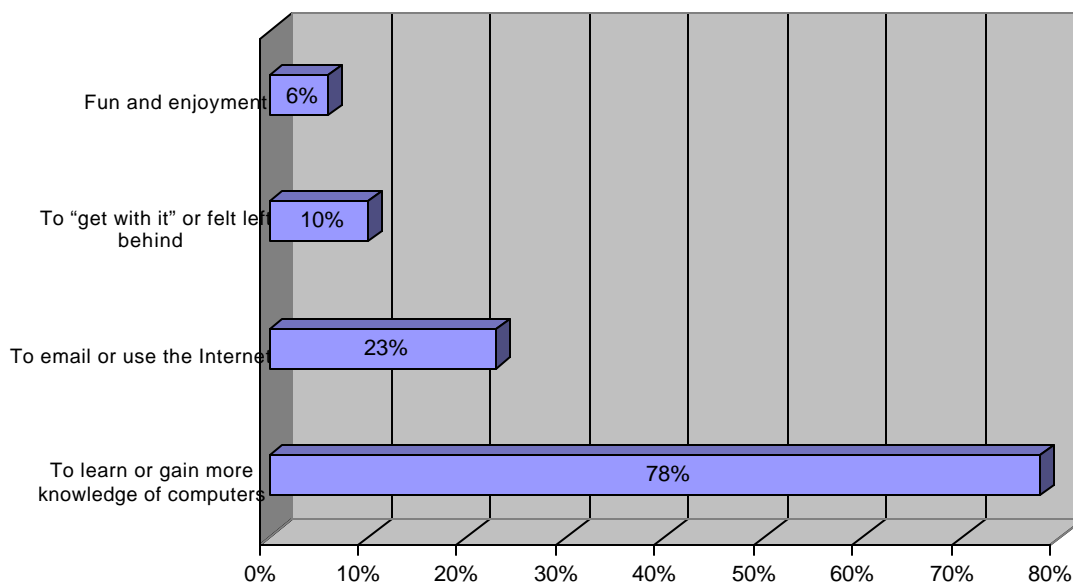
The *Seniors Canada On-line* Qualitative Survey validated the notion that support and encouragement can help seniors conquer their fears and overcome the psychological and social barriers that prevent them from acquiring computer and Internet skills. The findings also help dispel the negative stereotype that seniors either can't or won't learn about new technologies.

Survey findings

- Nearly two-thirds of the respondents in the Client Field Survey said they enrolled in computer / Internet training because they wanted to learn more about computers.

Reasons for Taking Computer Training

Source: SCOL Client Field Survey



- 63% of respondents to the Client Field Survey said they felt somewhat afraid or apprehensive towards computers before receiving their training. In the Internet Survey, the figure was closer to two thirds (68%).
- After training, there was a sharp increase in confidence levels, with 92% of respondents in the Client Field Survey saying they were "more confident / eager to learn more. Respondents to the Internet Survey (74%) also felt more confident after training.
- 44% of training providers said that overcoming their initial fear of computers was a major difficulty in training seniors.
- Two thirds (61%) of training providers identified encouragement and support as key components of teaching basic computer / Internet skills to seniors.

- A number of providers (39%) said that having a patient instructor is a necessary component in computer training for seniors.
- Many senior respondents – 61% in the Internet Survey and 32% in the Client Field Survey – indicated that the most useful aspect of the training program had been the instructors.
- Approximately one-third (35%) of training providers said that increasing volunteer / peer support would improve computer / Internet training for seniors.
- About 17% of seniors who responded to the Internet Survey said that training could be improved by increasing the length of the courses and practice time.
- 38% of training providers participating in the Provider Field Survey said they make special considerations to accommodate people from different backgrounds.
- 28% of respondents in the Client Field Survey said they would encourage other seniors to join a computer-training program by explaining their personal experiences.

Suggestions to help overcome Psychological and Social Barriers

Survey respondents emphasized the importance of providing a learning environment that is conducive to the processes seniors use to acquire new technological skills.

Specific suggestions included the following:

- Provide high quality instruction, with patient instructors, an appropriate pace and individual attention.
- Reduce class sizes and increase computer practice times for seniors.
- Develop more computer and Internet training programs that adapt to the needs, interests and learning processes of seniors. This involves:
 - Directing resources towards the co-ordination, recruitment and training of volunteers / peers to assist organizations and seniors with pre-screening and registration, training, and post-training support. Support mechanisms are needed in both the classroom and the home.
 - Developing specialized workshops and curriculum guides for Instructors and volunteers who want to tutor seniors.
 - Developing training manuals for informal trainers (family and friends) who want to help seniors acquire computer and Internet skills.

- Increase awareness of computer /Internet training programs for seniors through a marketing strategy which includes the following components:
 - Directing additional resources towards the advertisement of training programs for seniors through such vehicles as television, radio and print, as well as government publications, and mail-outs.
 - Promoting positive role models of seniors using technology to encourage other seniors to enroll in computer / Internet courses. Intergenerational encounters should also be promoted.
 - Emphasizing the social benefits that computers and the Internet offer to seniors in their daily lives.
- Use programs such as Industry Canada’s *Generations CanConnect* to help build social support networks for seniors. Attention should be directed towards creating intergenerational experiences.
- Encourage school boards to suggest students to provide training and maintenance of computers as part of community service credits.

Web sites of interest

Creative Retirement Manitoba <http://www.seniorscan.ca/crm/crcc/index.html>

This organization has a computer club for seniors that promotes positive images on the Internet of seniors taking an interest in computer and Internet programs. This site also hosts the *Seniors Computer Information Project (CSIP)* and offers links to other sites of interest.

Vancouver Public Library www.vpl.vancouver.bc.ca/branches/LibrarySquare/qis/seniors.html

The library offers many computer and Internet based programs for seniors, and advertises extensively in neighbourhood library branches, community centres and senior centres using bright, colourful posters.

Seniors-Internet.com <http://www.seniors-internet.com/>

This site features an on-line magazine for seniors, and a list of valuable resources which is available on-line or through the mail.

For detailed survey results and a complete list of Web sites and reading suggestions from survey participants and the research team, please visit www.seniors.gc.ca

VI. Disabilities Barrier

Issue

A wide range of functional loss may prevent seniors from acquiring computer and Internet skills, unless they are given access to assistive devices and accessibility features.

Context

Loss in function can take many forms, including:

- Visual: Includes diminished vision caused by such conditions as cataracts, glaucoma, diabetes, and presbyopia (aging eyes). The use of text-to-speech software enables many seniors with visual impairments to use computers and the Internet.
- Auditory: Many seniors who use hearing aids are able to take computer and Internet classes. There is concern that the increasing use of multimedia (e.g. self-guided tutorial software with audio) versus having an instructor present may cause problems for seniors with auditory impairments who want to learn computer / Internet skills.
- Cognitive and Language: Cognitive impairments may cause problems related to memory, the use of language, and concentration. Some of the conditions that may cause cognitive impairments include dementia, Parkinson's disease, dyslexia, Alzheimer's disease, and stroke. Seniors with cognitive impairments may have difficulty trying to learn and remember new tasks.
- Mobility: Some of the many conditions that can cause mobility impairments include arthritis, cerebral palsy, stroke, Parkinson's disease, and amputation or loss of digits. It can be very difficult for seniors with these mobility impairments to use the mouse and traditional keyboards.

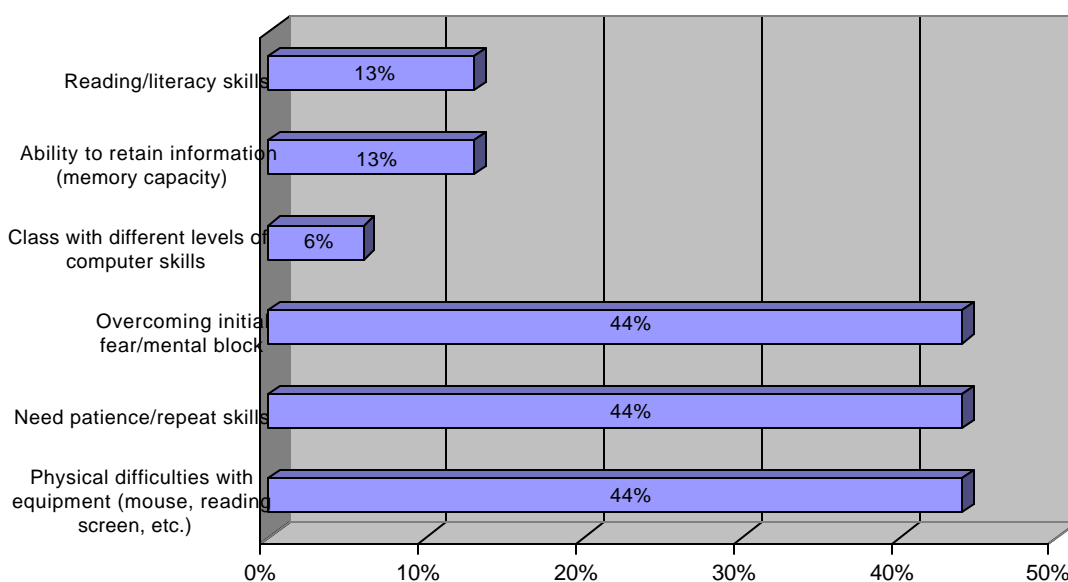
It's true that many seniors in Canada live with some form of disability. But contrary to popular thought, the rates of disability do not dramatically climb until after the age of 75²².

Survey findings

- One in six (17%) seniors who responded to the Client Field Survey said they encountered memory problems during computer training. Other challenges experienced included difficulty reading the computer or projection screens (17%) and using the mouse (8%).

Difficulties in Teaching Seniors Cited by Training Provide

Source: SCOL Training Provider Field Survey



- 16% of Training Providers used assistive devices (e.g. screen enlargers, screen readers, speech recognition systems, keyboard filters, touch screens, etc.) for seniors with disabilities in their training courses.
- 28% of Training Providers mentioned that they offer lessons using software designed to assist those with disabilities.

Suggestions to help overcome the Disabilities Barrier

To help seniors overcome the barriers associated with disabilities, survey respondents suggested a number of programs and initiatives, including the following:

- Raise awareness about issues related to functional deficits.
- Enhance supports to the families, caregivers and organizations that are geared to helping seniors who have disabilities.
- Identify and develop curriculum guides and training materials for seniors with disabilities. These guides and learning tools should:
 - suggest assistive devices and accessibility features for major disabilities
 - be posted on the Internet for free and easy access by trainers

- Develop training guides for instructors who teach seniors with disabilities. These guides should emphasize the following:
 - the importance of patience when teaching seniors
 - the need to speak in loud and clear tones when teaching hearing impaired seniors
 - the importance of a client-centric approach
 - the need for a slower pace when teaching seniors with disabilities.
- Develop “Train the Trainer” workshops led by trainers who know the needs of the disabled.
- Use large screen computer monitors and projection screens.
- Use marketing campaigns to promote a positive image of seniors with disabilities using computers and the Internet with the aid of assistive devices.
- Make funds available to seniors and training providers for the purchase of assistive devices and accessibility features for use at home and at training facilities.
- Encourage the Federal Inter-departmental Committee for Persons with Disabilities to promote the identification of programs and services for seniors with disabilities. This Committee should:
 - conduct a comprehensive needs analysis of the computer and Internet requirements of seniors with functional limitations
 - advocate a National Strategy to promote greater autonomy and self-reliance for seniors with disabilities, by helping them gain access to computer skills and the Internet
 - build partnerships with other key stakeholders in order to develop cooperative plans and avoid costly overlaps.

Web sites of interest

Canadian National Institute for the Blind http://www.cnib.ca/eng/eye_con/index.htm

This site offers advice and assistance to seniors who have visual difficulties. Some of the technical aids they recommend include large print, braille or speech software, large screen monitors and optical character recognition reading machines.

Persons with Disabilities On-Line http://canadians-canadiens.gc.ca/disability_e.html

This Canadians Gateway site is focused on persons with disabilities.

e-Act http://publiservice.gc.ca/services/act-tia/10a_e.html

Although this site was designed primarily to help federal government employees, it offers links to information about adaptive computer technology and accessibility issues.

Persons with Disabilities Guide to the Net <http://connect.gc.ca/en/930-ehm>

This is an Industry Canada site.

Microsoft Accessibility <http://www.microsoft.com/enable/>

This site offers information about disabilities and accessibility software.

The Adaptive Technology Resource Centre <http://www.utoronto.ca/atrc/>

This University of Toronto site offers information about research and development in the field of adaptive technology. It also describes the many types of products available, and features links to companies which manufacture them.

For detailed survey results and a complete list of Web sites and reading suggestions from survey participants and the research team, please visit www.seniors.gc.ca.

IN CONCLUSION

Although not statistically significant in the quantitative sense, the findings of the *SCOL Seniors Survey* clearly validate existing research into various barriers that prevent seniors from acquiring computer and Internet skills. The Survey also demonstrates very strong agreement among participants: Canada needs to take vigorous and immediate action to develop the programs and the infrastructure required to support computer and Internet training for the country's rapidly growing senior's population.

Otherwise, our seniors will be left behind as Canada steps up its efforts to go on-line.

OUR THANKS

Seniors Canada On-line wishes to thank the seniors and training providers who contributed their time, as well as the benefit of their experience and wisdom, during the course of this research project.

Appendix -- End Notes

Introduction

- (1) Silver, C. (2000). Internet Use among Older Canadians. *Connectedness Series*. Statistics Canada, Catalogue No. 56F0004, No. 4., p. 4.
- (2) Health Canada. Older Seniors Fastest-Growings Group.
<http://www.hc-sc.gc.ca/seniors-aines/pubs/factoids/en/no2.htm>

Economic Barriers

- (3) Lindsay, C. (2000). Gender Differences in Income. *Statistical snapshots of Canada's Seniors*. Prepared for Health Canada by Statistics Canada. NO. 13.
<http://www.hc-sc.gc.ca/seniors-aines/english/pubs-cat.htm>
- (4) Lindsay, C. (2000). Income of Seniors Across the Country. *Statistical snapshots of Canada's Seniors*. Prepared for Health Canada by Statistics Canada. NO. 17.
<http://www.hc-sc.gc.ca/seniors-aines/english/pubs-cat.htm>
- (5) Silver, C. (2000). Internet Use among Older Canadians. *Connectedness Series*. Statistics Canada, Catalogue No. 56F0004, No. 4, p 10.
- (6) Silver, C. (2000). Internet Use among Older Canadians. *Connectedness Series*. Statistics Canada, Catalogue No. 56F0004, No. 4, p 11.

Education and Literacy Barriers

- (7) Silver, C. (2000). Internet Use among Older Canadians. *Connectedness Series*. Statistics Canada, Catalogue No. 56F0004, No. 4, p. 5.
- (8) Silver, C. (2000). Internet Use among Older Canadians. *Connectedness Series*. Statistics Canada, Catalogue No. 56F0004, No. 4, p. 10.
- (9) Silver, C. (2000). Internet Use among Older Canadians. *Connectedness Series*. Statistics Canada, Catalogue No. 56F0004, No. 4, p. 9-10.
- (10) Chiasson, Lorette (1999). Second Chance for Seniors. *NALD Networks*. Vol. 4, No. 2, p.2.
- (11) Chiasson, Lorette (1999). Second Chance for Seniors. *NALD Networks*. Vol. 4, No. 2, p.1.
- (12) Chiasson, Lorette (1999). Second Chance for Seniors. *NALD Networks*. Vol. 4, No. 2, p.2.
- (13) Literacy and Older Adults. (1999). National Adult Literacy Database Fact Sheets. No. 6. <http://www.nald.ca/province/alt/aaal/facts/6.htm>

Program Development Barriers

- (14) Silver, C. (2000). Internet Use among Older Canadians. *Connectedness Series*. Statistics Canada, Catalogue No. 56F0004, No. 4, p. 6.
<http://www.statcan.ca/cgi-bin/downpub/listpub.cgi?catno=56F0004MIE01004>
- (15) Silver, C. (2000). Internet Use among Older Canadians. *Connectedness Series*. Statistics Canada, Catalogue No. 56F0004, No. 4, p. 12.
<http://www.statcan.ca/cgi-bin/downpub/listpub.cgi?catno=56F0004MIE01004>

Human Resource and Organizational Barriers

- (16) Temple, L. & Gavillet, M. (1990). The development of computer confidence in seniors: An assessment of changes in computer anxiety and computer literacy. *Activities, Adaptation and Aging*, 14 (3), 63-75.

Psychological and Social Barriers

- (17) Jessome, J & Parks, C. et al. (2001). Everyday Technology and Older Adults: Friends or Foes? *Writings in Gerontology*. National Council on Aging, Volume 17, p.15.
- (18) Jessome, J & Parks, C. et al. (2001). Everyday Technology and Older Adults: Friends or Foes? *Writings in Gerontology*. National Council on Aging, Volume 17, p. 15.
- (19) White, J. & Weatherall, A. (2000). A Grounded Theory Analysis of Older Adults and Information Technology. *Educational Gerontology*, vol. 26, p. 373.
- (20) James, D. (1995). Adding new life to Elders' Lives. *Ageing International*, March, p. 34.
- (21) White, H. & McConnell, E. (1999). Surfing the net in later life: A review of the literature & pilot study of computer use & quality of life. *The Journal of Applied Gerontology*, 18 (3), p. 359.

Disabilities Barriers

- (22) Age and Disability. National Advisory Council on Aging, Using graphics and text supplied by the Family and Community Support Systems Division, Statistics Canada. No. 16, September 1996. Chart 1.
http://www.hc-sc.gc.ca/seniors-aines/issues/english/pubs/info_16e.htm