

# Computers for Elder Learning

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Sue Brigden and Carla Petker

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## Introduction

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The need to improve the literacy skills of older Canadians is clear: “Fully 79% of senior citizens have measured literacy abilities at the two lowest levels for each of the three literacy types<sup>1</sup> [identified by International Adult Literacy Survey (IALS)]” (Roberts & Fawcett, 1998, p. 2). That is, the vast majority of Canada’s senior citizens have literacy skills that fall into the first two of the following five IALS literacy categories:

*Level 1 indicates very low literacy skills, where the individual may, for example, have difficulty identifying the correct amount of medicine to give to a child from the information found on the package.*

*Level 2 respondents can deal only with material that is simple, clearly laid out and in which the tasks involved are not too complex. This is a significant category, because it identifies people who may have adapted their lower literacy skills to everyday life, but would have difficulty learning new job skills requiring a higher level of literacy.*

*Level 3 is considered as the minimum desirable threshold in many countries but some occupations require higher skills.*

*Level 4 and 5 show increasingly higher literacy skills requiring the ability to integrate several sources of information or solve more complex problems. It appears to be a necessary requirement for some jobs. (Statistics Canada, 1996a, p. 3)*

IALS defined literacy as “the ability to understand and employ printed information in daily activities, at home, at work and in the community, to achieve one’s goals and to develop one’s knowledge and potential” (Statistics Canada, 1996a, p. 1). Yet according to IALS data, many senior Canadians do not have this ability. Low literacy skills have serious implications for older adults: “Poor literacy skills may lower senior’s quality of life and increase their health and safety risks, both of which have high human and social services costs” (Statistics Canada, 1996b, p. 7).

To help seniors with low literacy skills, the literacy field needs to reach out and provide literacy training to this rapidly growing segment of the population. Yet, little research exists regarding best practices for literacy programming for “third-agers.” Since many adults who have low literacy skills do not self-identify as needing training, recruitment of senior learners is a challenge. A potential solution to this problem is to teach literacy skills within the context of meeting other needs. Interest in learning about computer use is growing among older adults as information spreads about its benefits as a source of information and as a means of communication. Since the ability to use technology is related to the ability to read and write competently, instruction in computer use has the potential to develop and consolidate learners’ existing print literacy skills.

This project, involving a partnership between the University College of the Fraser Valley (UCFV) and Chilliwack’s ElderCollege, targeted older adults, who may not already be accessing training opportunities, by offering free computer training. We sought, through action research, to answer the following questions:

- 1) Is there a positive relationship between acquisition of computer skills and development/improvement of print literacy skills?
- 2) What instructional strategies work best with older adults to teach computer literacy skills while developing print literacy skills? and
- 3) What recruitment/marketing strategies work best to attract older adults who do not usually seek out formal learning opportunities into literacy related programs?

To that end, computer skills were taught to older adults within the context of an introductory computer course called *Computers for Elder Learning (CEL)*.

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<sup>1</sup> IALS identified three types of literacy: “1. Prose Literacy: the ability to understand and use information from texts such as editorials, news stories, poems and fiction. 2. Document literacy: the ability to locate and use information from texts such as job applications, payroll forms, transportation schedules, maps, tables and graphs. 3. Quantitative literacy: the ability to perform arithmetic functions such as balancing a chequebook, calculating a tip, or completing an order form. (Statistics Canada, 1996a, p. 2).

The *CEL* course was offered in the community of Chilliwack at the UCFV campus during the spring of 2001. Located on the south bank of the Fraser River to the east of Abbotsford, Chilliwack covers an area of 263 square kilometres. Its southern boundary stretches to the Canada-US border, and its eastern boundary reaches the Hope District Municipality. It is located 92 kilometres east of Vancouver. In 2000, Chilliwack's population was estimated at more than 65 000 (BCSTATS). Census data for 1996 set the unemployment rate at 10 percent (Statistics Canada). At that time, the vast majority (74.8 percent) of its working population was employed in the service industry, 16.7 percent was employed in the manufacturing and construction industries, and 8.4 percent in agriculture and other resource-based industries. Census data from 1996 also showed that 33.4 percent of the population over the age of 25 years did not have a high school certificate.

This report describes the research methods, participants, and results of the *CEL* project offered in Chilliwack during the spring of 2001.

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## Research Methods

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Because research was an integral part of the *Computers for Elder Learning* course, participants completed a number of different instruments and participated in post-course focus groups. Descriptions of the instruments and the *Focus Group Protocol* are given below.

### Research Instruments

Several research instruments were identified and/or developed for the project (see [Appendix A](#) for copies of the instruments used in this project): the *Computers for Elder Learning Information Session Survey*; the *Computers for Elder Learning Consent Form*; the *Computers for Elder Learning Background Questionnaire*; the *Loyd/Gressard Computer Attitude Scale* (Loyd and Gressard; 1984, 1985); the *Computers for Elder Learning Computer Skills Questionnaire*; the *Stanford Diagnostic Reading Test, Third Edition, Blue Level* (Karlsen, 1984); the *ZIP Scale for Reading Comprehension* (Cramer & Dorsey, 1970); and the *Computers for Elder Learning Course Feedback Form*. Descriptions of these instruments follow.

#### Computers for Elder Learning Information Session Survey

The purpose of the *CEL Information Session Survey* was to collect some basic information from the people who attended the information sessions. Each participant was asked to give his or her name and telephone number and to answer questions about his or her computer experience, reading habits, level of education, willingness to participate in a research project, and reason for participating in the course. The information collected via this survey was used to identify suitable participants; that is, people with little or not computer experience and, preferably, limited education.

#### Computers for Elder Learning Consent Form

Because research was part of the project, all participants were asked to sign a consent form. The *CEL Consent Form* described the purpose of the project, the research methods to be used, and participants' rights. The consent form also included places for signatures of the participants and researchers. Session One participants were asked to complete the *consent Form* at the beginning of their first class. Session Two participants were sent a package that included the consent form the week before their first class; they brought the completed form with them to the first class.<sup>2</sup>

#### Computers for Elder Learning Background Questionnaire

To supplement the background information collected from the participants via the *Information Session Survey*, a second questionnaire was developed. This questionnaire, the *CEL Background Questionnaire*, was based, in part, on the International Adult Literacy Survey (IALS) Background Questionnaire published in *Adult Literacy in OECD Countries: Technical Report on the First International Adult Literacy Survey* (Murray, Kirsch & Jenkins, 1997). The questions on the *CEL Background Questionnaire* were designed to collect information about each participant's approximate age, work situation, computer situation, language(s) spoken, and opinions about their reading and writing abilities and activities. To accommodate the participants in class, they were also asked to indicate whether or not they suffered from several specific health problems (e.g., eye/ vision trouble of the kind that is corrected by glasses; hearing problems). Health information was collected so that the instructor would be aware of difficulties that could affect participants' success in the course.

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<sup>2</sup> Both the Session One and Session Two participants completed the *Computers for Elder Learning Background Questionnaire*, the *Loyd/Gressard Computer Attitude Scale*, and the *Computers for Elder Learning Computer Skills Questionnaire* before course instruction began. However, Session One participants completed these instruments at the beginning of the first class, while Session Two participants were sent a package with these forms prior to the first class and asked to bring the completed forms with them to the class. A change was made in the timing of the administration of the instruments because it had taken such a long time for some Session One participants to complete the forms (i.e., more than an hour), leaving little time for instruction. Participants of both sessions were given a package of materials to complete on the last day of class. A stamped self-addressed envelope was included in the package so that completed forms could be returned to the researcher for analysis.

## Loyd/Gressard Computer Attitude Scale

The *Loyd/Gressard Computer Attitude Scale* (Loyd & Gressard, 1984, 1985) is designed to assess people's attitudes towards computers. It is a Likert-type instrument consisting of 40 items which present positively- and negatively-worded statements of attitudes toward computers. The *Computer Attitude Survey* has four subscales: *computer anxiety*, *computer confidence*, *computer liking*, and *computer usefulness*. Each scale includes ten questions. The questions for each subscale are distributed evenly throughout the instrument. A copy of the *Computer Attitude Survey* can be found in [Appendix A](#).

The *computer anxiety* subscale includes statements such as "Computers do not scare me at all," and "Working with a computer would make me very nervous". The *computer confidence* subscale includes statements such as "I'm no good with computers," and "I am sure I could do work with computers." The *computer liking* subscale includes statements such as "I would like working with computers," and "I will do as little work with computers as possible." The *computer usefulness* subscale includes statements such as "I will use computers in many ways in my life," and "Learning about computers is a waste of time."

Respondents check whether they *strongly agree*, *slightly agree*, *slightly disagree*, or *strongly disagree* with each statement. The items are coded so that the higher the score, the more positive the attitude. The maximum score for the *Computer Attitude Scale* is 160. Four subscores can also be generated: one for each subscale. The maximum score for each subscale is 40, and, again, the higher the score, the more positive the attitude. For example, a higher confidence score means more confidence and a higher anxiety score means less anxiety about the computer. The *Computer Attitude Scale* uses statements similar to those used by other authors and has been adequately tested for validity and reliability (Gressard and Loyd, 1984; Loyd and Gressard, 1985).

Participants completed the *Computer Attitude Scale* two times: at the beginning and the end of the course; the data collected were to see if the course had affected participants' attitudes toward computers.

## Computers for Elder Learning Computer Skills Questionnaire

The *CEL Computer Skills Questionnaire* asks participants to review and evaluate their knowledge of computer skills. This self-report questionnaire is divided into three sections: Section A: Basic Computer Skills; Section B: Word Processing Skills; and Section C: E-mail/Internet Skills.

Sections B and C were developed by Janet Gibson of UCFV's College and Career Preparation department for the Volunteer Tutor Certificate WebCT course. Janet based her scales on scales developed by Dave Harper of UCFV's Kinesiology and Physical Education department.<sup>3</sup> Section A was developed specifically for the *CEL* course and modeled after the other two sections.

The *Computer Skills Questionnaire* consists of 35 questions. The 15 questions in Section A ask respondents to rate their knowledge about some basic computer skills (e.g., Do you know how to turn on a computer? Can you use a mouse to select items on the desktop?). The 10 questions in Section B ask respondents to rate their knowledge about some basic word processing skills (e.g., Do you know how to create a document? Do you know how to enter text and change fonts and type sizes?). The 10 questions in Section C ask respondents to rate their knowledge about some basic e-mail and Internet skills (e.g., Can you navigate through a web page? Can you send an e-mail message?).

Three response options are provided for each question. For example, three response options are provided for the question, "Do you know how to turn on a computer?": *Yes, I can do that; I think so, but I am not sure; and I don't know how to do that*. The wording of the response options varies depending on the wording of the question. Participants completed the *Computer Skills Questionnaire* two times: at the beginning and the end of the course.<sup>4</sup> Data collected via the questionnaire were used as a measure of self-reported computer skills knowledge.

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<sup>3</sup> For more information about the Volunteer Tutor Course, contact Janet Gibson at [gibsonj@ucfv.bc.ca](mailto:gibsonj@ucfv.bc.ca) or visit UCFV's website at <http://www3.ucfv.bc.ca/on-line/index.html>.

<sup>4</sup> See footnote #1.

## Reading Assessments

The project encountered significant difficulty assessing participants' reading comprehension.

Session One participants completed the *Stanford Diagnostic Reading Test, Third Edition, Blue Level* (Karlsen, 1984) during their second class. This test was selected because it is one of the assessments given to adult students applying for College and Career Preparation (CCP) department courses at UCFV. Unfortunately, the response of one gentleman to this test was extremely negative. After completing part of the test, he became very agitated and expressed his opinion that the test was actually a psychological test that we were administering on behalf of the government and not a reading test at all. Although the researcher and instructor both attempted to calm him down, he stormed out of the room taking his wife, who was also enrolled in the class, along with him<sup>5</sup>. His outburst upset the other participants and disrupted the testing session. As a result, the data collected via this instrument are suspect and were only used to find out if any of the participants appeared to have significant reading difficulties. Only one Session One woman scored poorly on the assessment; she dropped out after the second session and her data are not included in this report.

The *Stanford Diagnostic Reading Test* was not used during Session Two for two reasons: the researcher and instructor wanted to avoid the possibility of upsetting other participants; and the results from Session Two could not be used for the purpose of data analysis. Instead, the *ZIP Scale for Reading Comprehension* (Cramer & Dorsey, 1970), which has also been used by the CCP department at UCFV, was given to Session Two participants. The results of the *ZIP Scale* were used solely to identify people with significant reading difficulties and are not reported in this document. All of the Session Two participants scored well on the *ZIP Scale* and did not appear to have low literacy skills.

## Computers for Elder Learning Course Feedback Form

To collect information from course participants about how they felt about the organization and content of the course, the *Computers for Elder Learning Course Feedback Form* was developed for the project (see Appendix A). This form consists of 15 fixed-response questions, each with a space for a written comment. Thirteen of the questions have three response options, and two have five response options. The response options provided depends on the wording of the question. For example, the following five response options are provided for the question "Was the course too easy or too difficult?": *too easy, somewhat easy, just about right, somewhat difficult, and too difficult*. The question, "Was the course poorly organized or well organized?" has three response options: *poorly organized, somewhat poorly organized, and well organized*. The *Course Feedback Form* was included in the package of materials given to the participants on the last day of class.

## Focus Group Sessions

A focus group session was held three weeks after the conclusion of each *CEL* session. The three-week delay between the end of the course and the focus group session was necessary because it allowed sufficient time for the participants to complete and return the end-of-session questionnaires to the researcher for analysis. The data collected via these questionnaires were used to inform the development of the *Focus Group Protocol* (Appendix A). Each focus group session was facilitated by the primary researcher, Sue Brigden; Vicki Grieve, recorded and summarized the group's comments.

To start each focus group session, participants were given a *Computers for Elder Learning Focus Group Instruction* sheet with a description of the process and a list of the following questions: 1) How has taking the *Computers for Elder Learning* course affected you? 2) What challenges do older adults face when learning how to use a computer? What can instructors do to help older adults overcome these challenges? 3) What are the most difficult things to learn about the computer? What can instructors do to help students learn these things? and 4) How has learning to use a computer affected your reading and writing skills? The participants were then given five minutes to respond to the questions on their own, making notes as needed.

Once participants had answered the questions on their own, each question was discussed separately by the group in two rounds. Round 1 gave each participant one minute to share his or her views about a question with the group without interruption. As they spoke, Vicki recorded participant comments on a flip chart. Round 2 was

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<sup>5</sup>These two people were dropped from the study and data collected from them are not reported in the results.

a general discussion of the question up for discussion. This gave participants an opportunity to clarify and/or explain their views and to comment on what others had said. After Round 2, Vicki, worked with the group to identify common themes.

## Participant Recruitment

Several methods were employed to recruit *CEL* course participants: posters and sign-up sheets were hung in places frequented by seniors (i.e., the Senior's Resource Centre, Veteran's Association, Seniors Recreation Centre, and Regional Library); the course was advertised at an ElderCollege orientation evening held at UCFV's Chilliwack campus; ElderCollege personnel told people visiting their office about the course; and Carla Petker, the instructor, held two information sessions. The first information session was held on February 2, 2001 for the February 17 to April 7 session; the second information session was held in April for the May 7 to May 30 session.

During the information sessions, Carla explained the background and purpose of the project and presented an outline of the curriculum and the skills to be taught, emphasizing that the course was intended for beginning computer users. In addition, she distributed the *Computers for Elder Learning Information Session Survey* (see [Appendix A](#)) for people at the session to complete. The data collected during the information session were used to identify suitable course participants. Two criteria were used to identify participants: computer experience and level of education.

Computer experience was used as a criterion because the course was an introductory computer course not viewed to be suitable for people with significant recent computer experience. Level of education was used as a criterion because the *Computers for Elder Learning* project is a "literacy" project and we wanted to attract participants with literacy issues. Using level of education as an indicator of literacy difficulties is problematic, however, because it is not necessarily true that a person with less education has a lower level of literacy. Nor is the converse necessarily true either. Nevertheless, because project resources were limited, level of education was selected as one of the criteria used to select participants.

After reviewing the *Information Session Surveys*, Carla contacted all of the applicants. People who indicated on their survey that they had significant recent computer experience were advised that the course would not be appropriate for them and that they should inquire about other computer courses offered through UCFV and ElderCollege. People who indicated that they had little or no computer experience were contacted and told when and where the first class was to be.

A number of people who had learned about the course from the ElderCollege or posters contacted Carla directly by phone. When contacted, Carla explained the purpose of the course and asked them about their computer experience; people with little or no computer experience were then signed up for the course and *Information Session Surveys* were sent to these people to complete and return.

## Data Collection

### At the Beginning of the Course

As previously mentioned, some basic background information was collected from *CEL* participants during recruitment when all potential participants completed the *Information Session Survey*. The information collected via this survey was used to identify suitable participants; that is, people who had little or no computer experience.

Session One participants were asked to complete several questionnaires during their first class: the *Consent Form*, *Background Questionnaire*, *Computer Attitude Scale*, and the *Computer Skills Questionnaire*. Completing the instruments during the first class took such a long time little was left for instruction. As a consequence, Session Two participants were sent a package of these questionnaires before the course to complete and bring to the first class.

## **At the End of the Course**

At the end of the course, participants were given three questionnaires to take home to complete and return to the researcher: the *Computer Attitude Survey*, the *Computer Skills Questionnaire*, and the *Course Feedback Form*. They were asked to return the completed questionnaires a week before the focus group was to be held. The information collected via these three questionnaires was used to help guide the focus group sessions.

Three weeks after the end of classes, a focus group session was held for the course participants to discuss the *CEL* course.

## **Curriculum Development**

Carla developed the curriculum. It was reviewed by Sue, Vicki, and Steering Committee.

From the beginning, this project focused on providing introductory computer skills to seniors and the effect that the acquisition of these skills would have on literacy; therefore, many of the exercises were formed with a basic literacy component. The *CEL* instructor developed a curriculum outlining the skills essential for the beginning computer user. The *CEL* advisory committee made suggestions and seemed generally pleased with the outlined curriculum. Upon reflection, the plan was ambitious but all of the skills outlined in the curriculum were taught throughout the eight sessions. The instructor used a combination of handouts, web sites, and texts as instructional delivery methods (see Appendix B for the curriculum materials).

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## The People of the Project

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More than people were directly involved in the *CEL* project. This section briefly describes who these people were.

### The Instructor

Carla Petker was hired to teach both of the Computers for Elder Learning sessions. An Access Advisor for Disability Services at UCFV, Carla has several years experience teaching beginning computer classes to adults with special needs.

### The Classroom Helpers

During the two *CEL* sessions, several people volunteered in the classroom. These volunteers made sure that the participants understood Carla's lessons and were able to use the computers as instructed.

### The Researchers

Three people acted as researchers for the project: Sue Brigden developed and selected the survey instruments used to collect information from the elder learners; Carla Petker maintained a journal throughout the project, recording her experiences as a teacher of elder learners; and Vicki Grieve helped facilitate the focus group session held at the end of each course.

### The Participants

The data discussed in this section apply to people who completed the course; for privacy, the data collected from people who indicated that they no longer wished to participate in the project have not been included. Fifteen of the original 18 people enrolled in Session One completed the course, and 16 of the original 18 in Session Two completed the course.

The 15 Session One participants ranged in age from the mid-50s to mid-80s (Table 1, Appendix C)<sup>6</sup>. Two of them were employed, one was looking for employment, and 12 were either retired or homemakers (Table 2, Appendix C). The 16 Session Two participants also ranged in age from the mid-50s to mid-80s. Only one person in Session Two was employed; the remaining 15 described themselves as being retired or homemakers.

Ten of the Session One participants were born in Canada, two in Great Britain, two in Germany, and one in Denmark. Only two of them first learned to speak, read, and write in a language other than English, and all of them spoke English on a day-to-day basis at the time they took the course (Table 3, Appendix C). Eleven of the 16 Session Two participants were born in Canada, while five were born in other countries; 11 of them first learned to speak, read, and write English, and five first learned to, read, and write a language other than English. All Session Two participants spoke English on a day-to-day basis during the spring of 2001.

Most Session One participants rated their *English reading skills* as *good* (9) or *excellent* (4); two rated their reading skills as *moderate* (Table 4, Appendix C) shows,. Most Session One participants also rated their *English writing skills* as either *good* (2) or *excellent* (9); however, two rated them as *moderate* and two rated them as *poor*. Overall, participants did not seem to believe that their *math skills* were as good as their reading and writing skills: two believed them to be *excellent*, seven to be *good*, five to be *moderate*, and one to be *poor*. The majority of Session Two participants also rated their *English reading skills* as being *good* (6) or *excellent* (6); only four rated them as *moderate*. Most also rated their *English writing skills* as *good* (7) or *excellent* (5). Session Two participants didn't rate their math skills as highly as they rated their reading and writing skills. For the most part, the participants in both sessions indicated that they were satisfied with their literacy skills (Table 5, Appendix C) and rarely encountered significant literacy difficulties (Table 6, Appendix C).

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<sup>6</sup> All of the tables in this report can be found in Appendix C.

Most participants engaged in a variety of reading activities on a regular basis each week (Table 7, Appendix C). Although the most common activity was reading a newspaper or magazine, participants also read letters or memos; reports articles, or journals; bills, invoices, spreadsheets, or budget tables; and instructions for medicines, recipes, or other products regularly each week.

The vast majority (13 in Session One and 15 in Session Two) had vision problems corrected by eyeglasses (Table 8, Appendix C), and several (six in Session One and five in Session Two) had hearing problems. Vision and hearing problems were taken into account by the instructor throughout the course.

Ten Session One and 10 Session Two participants had access to Windows-based computers at the beginning of their sessions (Table 9, Appendix C). By the end of each session, other participants had either acquired, or planned to acquire, computers for their homes.

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## Results

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### Computer Attitude Survey

To find out if participants' attitudes to computers changed during the *CEL* course, the *Computer Attitude Survey* (Loyd & Gressard, 1984, 1985) was administered at the beginning and the end of the course. As previously described, the *Computer Attitude Survey* consists of four subscales; *computer anxiety*, *computer confidence*, *computer liking*, and *computer usefulness*. Each subscale has a total possible score of 40; higher scores correspond to more positive attitudes. For example, a higher confidence score means more confidence and a higher anxiety score means less anxiety.

Table 10 (Appendix C) reports pre- and post- mean scores and the two-tailed t-test results for the *Computer Attitude Survey* and its four subscales. Although participants' mean scores increased slightly for the *anxiety*, *confidence*, and *liking* subscales, only the two-tailed t-test for the anxiety subscale of the Session Two participants was significant at the 0.01 level. Mean scores for the *usefulness* scale decreased slightly but not significantly during the course for both groups. Apparently, the participants' attitudes toward computers as measured by the *Computer Attitude Survey* did not change very much over the duration of the course.

### Computer Skills Questionnaire

The *CEL Computer Skills Questionnaire* asked participants to review their knowledge of computer skills in three areas: basic computer skills, word processing skills, and e-mail/Internet skills. Because participants completed the questionnaire at the beginning and the end of the course, two-sample t-tests were calculated for each area to determine if any changes in their perceptions of their computer skills had changed. As Table 11 (Appendix C) shows, participants' self-evaluation of their skills levels in all three areas increased significantly; that is, participants believed that their basic computer, word processing, and e-mail/Internet skills had increased from the beginning to the end of the course. These results are not unexpected since participants had little if any computer skills at the beginning of the *CEL* course.

### Reading Assessment

As discussed in the Methodology section above, the reading assessment results were not usable for research purposes and were only used to identify *CEL* participants who might have had literacy challenges. The reading assessment results, therefore, are not reported here.

### Course Feedback Form

To collect feedback from participants at the end of the course, they were asked to complete the *Course Feedback Form*. Fifteen surveys were completed and returned by Session One participants and 16 by Session Two participants. Table 12 (Appendix C) shows the results for the 15 fixed-response questions on the survey. To better understand participants' answers to the fixed-response questions, they were encouraged to provide written comments. Only a few people wrote comments on the survey; some of them have been included in the following discussion.

Questions 1 to 6 of the *Computer Feedback Form* asked about the design and delivery of the course. As Table 12 shows, most participants found the difficulty level (Question 1) of the course *just about right*. One participant suggested that prior computer knowledge might affect a persons' opinion about the difficulty level of the class: "For me it was good but for those with no previous computer knowledge it may have been difficult." Another with no prior computer experience wrote: "Once we were shown, understood and had time to figure it out, it was great." Several found the course to be either *somewhat difficult* or *too difficult*. For one, the terminology was difficult: "I found it hard to keep all these new names sorted out." For another, the classroom environment and the amount of information taught were challenging: "[The course was somewhat difficult] because of the large class and too much talking and not paying attention to the teacher and too much information too fast."

As is to be expected in any classroom, the pace of the course was not appropriate for all participants (Question 2, Table 12). Some felt the pace of the class had been affected by its size and makeup. For example, one person thought the pace *somewhat slow* due to the size of the class: *"People had problems and we'd wait. Maybe too many in class."* Another who found it *somewhat slow* felt the participants' behavior had affected the class: *"Because of people talking."*

For the most part, participants found the course to *be well organized* (Question 3, Table 12). Only one of the four participants who found it to be *somewhat poorly organized* wrote a comment. This Session One participant wrote: *"It was slow to get started."* One participant who found the course *well organized* observed: *"Not due to Carla but sometimes the computers and the overhead projects didn't coincide with what she was teaching."* Another suggested that the people who helped Carla during the class helped with its organization: *"It was great our instructor had some extra help as we were very demanding and eager to learn."*

When asked if they had found the course boring or interesting, all but one of the participants chose the response *interesting* (Question 4, Table 12). Participants' comments suggest that they found it interesting because they were learning new things: *"Because I gained more knowledge"*, *"Never boring as it is all new to me and I want to learn. Frustrating would be a better word"*, *"Never having access to computer, before course, it was interesting for me."*

Likewise, all but one of the participants found the handouts provided by the instructor to be informative (Question 5, Table 12). People who wrote comments about the handouts found them helpful mainly because they could use them as references later on: *"The Computer Basic 2000 book is really going to come in handy — plus all the other pages about what we learned will be good references!"*, *"They will be handy for reference."*

The majority of participants found that the computer activities helped them learn (Question 6, Table 12). A Session Two participant who had chosen the response option *somewhat* felt more instructors would have improved the course: *"More instructors would help to keep things moving."* Another highlighted the value of games: *"Playing games definitely was good for learning to control mouse."*

Questions 7 to 13 provided feedback to the instructor about her interactions with the class. Participants found her to be knowledgeable (Question 7, Table 12): *"There was very little we stumped her with."*, *"Very knowledgeable and I'm sure she got frustrated with me for being so slow to catch on."*

Most participants also found the instructor easy to understand (Question 8, Table 12): *"Clear on all subjects."*; *"And she put it in our language not computer language."* One participant who had found Carla *somewhat* easy to understand explained that his difficulty had arisen from factors other than Carla: *"I am not blaming Carla for this. While she was trying to explain, certain hard heads, sometimes quite a few, were talking all at once and it was very hard to understand especially with a hearing problem."* They also generally found her to be enthusiastic (Question 9, Table 12): *"I think she enjoyed her work and teaching us sponges."*; *"She seemed to enjoy teaching us and was very patient."*

The participants also felt that the instructor had been able to answer their questions (Question 10, Table 12): *"She always answered the questions."*; *"She didn't mind repeating when I didn't understand the first time."* When asked if the instructor had helped them learn, the majority answered yes. Some participants also attributed their learning to the assistants: *"It was very helpful having at least 2 others besides the instructor to help. If we needed help we didn't have a long wait and then could move on to complete our assignment."*; *"The assistants were also very helpful."*

Most participants found the instructor easy to communicate with (Question 12, Table 12) and felt comfortable asking questions in class (Question 3, Table 12). One participant who found communicating with the instructor *somewhat* difficult suggested that the wide variety of skill levels had affected the class: *"We were learning at different levels, which slowed her ability to teach."*

All participants indicated that they had learned something in the class (Question 14, Table 12); the majority of these indicated that they had *learned a lot*. However, one Session One participant explained that he had chosen the *I learned something* response option because his vision and hearing difficulties had affected his learning: *"My hearing and eyesight isn't as good as it used to be and sometimes I didn't hear everything."* Another who had chosen the *I learned something* option explained that she had more to do: *"I got a general basic idea of things and I learned it's going to take a lot more practice."*

Based on their responses to Question 15 (*Would you recommend this course to other?*), the participants were satisfied with the CEL course; 30 out of the 31 people who completed the course would do so. Their comments provide further reiterated their satisfaction with the course: *"They would be very fortunate to have the opportunity as were we."*; *"I think lots of people would like to attend a course like this."*; *"Definitely. It takes the fear out of learning."*; *"I will certainly recommend the course to others."*

Participants were given the opportunity to write additional comments on their *Computer Feedback Form*. These comments provide valuable suggestions to instructors of introductory computer courses and/or older learners. For example, some wrote that, at times, the pace of the class had been too fast:

*I would suggest that the steps on the computer would have to be accomplished by each student before the next step is taken. Four students should have one assistant helper. And watch for the students who do not listen to the instructor because they are busy on their computers.*

*More planning needed. Slower step by step instruction. Instructor very nice and dedicated but must realize many terms and steps are very strange to a beginner.*

*For me it was too much, too fast and not enough time in my busy schedule to practice. I think I needed daily practice sessions and as a retired senior almost 80 years young, I could use a younger memory also. But I loved the course, the students I met and the helpful teacher, prof and helpers. Thanks a bunch.*

Others, especially for those with hearing difficulties, found that distractions within the classroom had affected their learning:

*Some of the participants may have had difficulty hearing the instructor (age-related), which may have increased the problem of class participants talking when the instructor was trying to speak (needs a bell or buzzer!)*

*I thought the course was very good. The instructor was very knowledgeable and helpful and I was very much impressed by the helpfulness of her assistants. Working with an assistant, however, made it difficult to always follow the instructions, though overall, the course was very good.*

*Overall I enjoyed the computer course. At times the instructor had difficulty getting everyone's attention when she was trying to explain something to the class. I have more confidence now to go on the computer and explore and do the things we were taught.*

*It did limit my ability to learn, that I would become involved in pursuing individual tasks, and procedures didn't come clear to me right away. I therefore tended to become occupied with the computer, while the instructor (in order to cover all tasks within the available time) of course had to proceed to other subjects. My hearing problem didn't help either, especially because of background noise from discussions between students (to which I also contributed). In general I feel that the course has helped me a lot, although differences between the college computer and my own makes it hard for me to duplicate work at home. I am very glad to have attended the course, because I have become less afraid of venturing into work that I previously didn't dare touch. Thank you!*

*I felt there was a lot of distraction because of people talking back and forth and trying to show their way on the computer.*

Two participants suggested that people with different levels should be placed in different classes:

*I think if future classes were held, there should be a separate class for those with no computer knowledge and another for those with some experience.*

*I think that a person that goes on this course, should have a basic knowledge of computers. Otherwise I think it is a good course at least I know more now than when I first started the course.*

The majority of people who wrote comments, however, discussed the benefits of attending the CEL course:

*Due to work commitments, I was forced to miss some classes. I would have acquired a lot more knowledge with these missed classes. The instructor was excellent.*

*I found Carla helped anyone that needed help. She certainly had a lot of patience with us. Not having a computer, I usually went to the library for practice and you just get 1 hour there.*

*This course was well structured as an introduction to computer use, its possibilities for our future use and motivational to seek more advanced knowledge and skills.*

*I know quite a few who would be interested in taking a course like this (they were very interested in what I was doing). They are not registered with the Sr. Society so I don't know how they would hear about it. I was contacted because I wanted to register at ElderCollege.*

*I enjoyed this course very much, would have loved it to be longer, as even at my age, I'm always willing to learn. Instructors and helpers were very helpful and knowledgeable. If you have any more courses I would like to attend them.*

*I thought I would never need to know how to use a computer because at my age I wouldn't be out in the work world anymore. But since I'm going to live to be 100 (ha, ha), well hopefully and healthy, if I don't know how to operate a computer I'd be left behind and feel really stupid and lonely. The computer age is upon us, like it or lump it. Many thanks to the volunteers who helped Carla. They were great!!*

*There were people in the class that have computers and a fair amount of knowledge. As for myself, I was a manual bookkeeper all my working days, and when computers came in, I was older and not prepared to change. My attitude stayed the same all these years. Now that I've taken this course, I want to learn about computers, and definitely have a change in attitude. I'm now shopping around for a computer.*

*The course shows you how much there is to learn.*

*Although I had more experience than some of the students, I still feel that I learned many things that will be useful in the future e.g. using TABS, attaching files, using the various "Home", "Page Up", "Page down" keys, centering the document, aligning the task bar, etc. etc. Thanks, Carla, Judy, Susan, and others.*

As these comments show, the *CEL* course was a very positive experience for its participants. The data from the *Computer Feedback Form* also indicate that instructors need to be aware that many older learners have hearing difficulties and that background noise within a classroom can affect their learning. They also should ensure that people are grouped according to their computer experience so those with less experience have adequate time to learn new skills and those with more can progress at a faster rate.

## **Focus Group Sessions**

The focus group sessions were very informative because they gave participants an opportunity to discuss their experiences with each other. Thirteen participants attended the Session One focus group session and 14 the Session Two focus group session. Carla; the instructor; Carla's helpers; Vicki, the focus group facilitator; and Sue, the researcher also attended the sessions. . Several points emerged for each focus group question during the discussions They are summarized below.

### ***How has taking the Computers for Elder Learning course affected you?***

As the following comments show, the *CEL* course helped participants feel more confident about using a computer:

*I feel a lot more comfortable around a computer and I'm not scared of them any more. (Woman, Session One)*

*For me, it was also the fear for the machine and to approach it without fear even if I make mistakes. (Woman, Session One)*

*Well, confidence is the word that stood out for me ... doing anything on the computer. Like, I go to all the newspapers, now, anywhere in the world, wherever I can and read them. I've travelled all over in my computer. As a matter of fact, you can just type in anything at all and something will come up. (Man, Session One)*

*Well, it's made me less afraid of them. In fact, I bought myself one during the course, so I'm trying to learn on that. (Woman, Session Two)*

*It was very hard for me to get started on computers. I've had one now for about three years. But this class helped give a lot more confidence; I'm able to go further into my computer now looking for things, which has been really good for me. (Man, Session Two)*

*It's given me more confidence because I used to be scared in case I pushed the wrong button, and now it doesn't matter if I do. And to explore more and get more knowledge, which I'm already beginning to find out what's on there. And I've already found that, now, I can go England and Germany and all the places I want to know more about. (Woman, Session, Two)*

In addition to increasing their confidence about using computers, the course increased the amount of time some participants spent using them:

*I'm on there almost constantly sending e-mail to everybody. I'm having a lot of fun with that. (Man, Session One)*

*I got my computer at Christmas and I was pretty ignorant. I really wanted to get more information and once you start it's very nearly addictive. Actually, I couldn't sleep some nights and I was getting out of bed. (Woman, Session One)*

*I've gone from about 5 hours a month to 28. (Man, Session Two)*

Although most of the people who spoke about using the computer more often seemed to find this to be a positive effect, one woman from Session Two did not: *"The only negative thing is that you can spend too much time on it and you don't get other things done."*

Many participants felt that learning to use a computer helped them better understand modern technology and made them feel more "up-to-date":

*I also learned, hopefully, a lot of new technology. Like, I heard a lot of words — people talking about different things about computers — and I didn't have any idea about what they were talking about. And I just feel it's the coming ... the technology is changing so quickly today, that you'll be left behind if you don't keep up. So, for me, it was very enjoyable. (Woman, Session One)*

*It brought home to me how small the world is becoming and how we're so dependent upon all this new technology ... how we're going to be left behind if we don't get involved, and that's what stimulated my interest in the whole thing. (Man, Session One)*

*For me, it helped me to understand the computer a lot more. My kids they just run through it and I can't keep up with them. So I think I'll be able to stay up with them a little bit more through the times. I think, like he said, computers are the coming thing. You've just about got to get on board with them or you get left behind. (Man, Session One)*

*Well, it's shown me that it is very important for seniors to learn about all this new technology that's out there. Whether it's using a computer at home, or whether it's using an ATM machine, you have to get with it. (Woman, Session Two)*

Some believed that by being more "up-to-date" they were better able to talk to younger people:

*Well, having family that have computers, I was very shy about using it. The grandchildren would say, "Come on Grandma, do this and do that." And I wouldn't; I was afraid of it. The grandchildren were quick on it. Now, I feel good when I go over there. I think, "Okay, I'm on my road to learning." (Woman, Session Two)*

*For one thing, it sounds like it's bridging a lot of gaps between families cuz that's the thing with generations, you know, the older generations aren't accustomed to this and the younger generation is. I think it gives them a lot more dialogue between them; they can discuss things about computers and different sites and they understand. And I think that's good, too. (Woman, Session Two)*

*Our grandchildren are thrilled that we're doing it. You know, they are just so excited. They'll say, "Okay, come on and sit down. I've got an hour." And they'll sit down and play on the computer with*

*[my husband] or myself and share what they know: "Well, this is how you can do this. Have you seen this?" And they show you how to ... and they really want us to do it. (Woman, Session Two)*

Others described how learning to use e-mail had made it much easier to communicate with family and friends:

*I have two children in Scotland and I now feel that I can communicate with my son there without having to go to the telephone to ask him where I should look for information. I've just e-mailed him, and he's e-mailed me back with how to do something instead of having to wait to speak to him on the phone, which has been great. (Woman, Session Two)*

*I've had e-mail from my grandson who has just turned five. (Woman, Session Two)*

*I'm taking my granddaughters to Britain in August and now I can look up my e-mail there and I'm going to find that very useful. (Man, Session Two)*

*I use my computer everyday e-mailing my grandchildren. (Man, Session Two)*

Some participants said that learning specific computer skills such as word processing and using the Internet were valuable:

*I also learned to do a lot more within the word processing program. (Man, Session One)*

*It just gave me confidence in trying to find things on the Internet. (Woman, Session One)*

The *CEL* course also had an unexpected effect: it provided a way for older people to socialize. When one woman said, "I think one of the things I enjoyed about [the course] was the social part of it ... meeting everybody ... meeting so many nice people," everyone in the Session One focus group session appeared to agree.

#### **What challenges do older adults face when learning how to use a computer?**

One of the biggest challenges faced by the *CEL* course participants was fear. As the following comments show, learning to overcome their fear of computers was a necessary first step for participants:

*I think adults face a fear of computers and maybe a fear of wrecking the computer by pushing the wrong button and having it blow up or whatever you call it when they break down. (Woman, Session One)*

*I think fear of the machine and the computer language were the greatest challenges. (Woman, Session One)*

*Well, I think, in general, adults have a real fear of new technology. I wanted to learn computer, but I also have friends ... I even ask them if they want to try on mine and they won't. They just say they are not interested. I think that part of it is that they are really afraid to try it. (Woman, Session Two)*

*I have to overcome a fear of damaging the computer by deleting things that must not be deleted and answering "yes" to questions I don't understand. (Man, Session Two)*

Learning the language and terminology of computers was also a major challenge identified by many Session One participants:

*It's almost like, as somebody already mentioned, is like learning another language and I found that the nomenclature was all new to me and that takes a lot of understanding. And I find that my memory is rather short. (Man, Session One)*

*I found the lingo was hard to learn. Like learning another language as we said before. It might help to have a lingo vocabulary up. You know, how you make wall charts. (Woman, Session One)*

*Understanding computer language ... that was a challenge. (Woman, Session One)*

*Well, the computer language was a problem and all the abbreviations we don't know what they stand for. That drives me crazy. I sit with the dictionary in one hand and try to figure out what it means. (Man, Session One)*

*The computer jargon was one of the big things. A little more time by the instructor to define some of the words would help. Although, I think it was up to us to dig a little further and learn for*

*ourselves. You can't expect her to make us understand it all in a few short minutes.* (Man, Session One)

Age-related challenges were often mentioned during the focus group sessions. For example, hearing the instructor when others in the class were talking was challenging, especially for those with hearing problems:

*I found in the classes there was a little too much distraction with people talking behind me and I couldn't follow what Carla said. That was one of my big concerns.* (Man, Session One)

*The only suggestion I would like to make is ... and I don't know how one could rectify it ... but I found when Carla was instructing and a helper was talking to you, you lost track. So that's the downside of having the assistants, but there were very valuable, too. It is distracting and I wanted to listen to what Carla was saying.* (Man, Session One)

*The talking when Carla was speaking and explaining was often a distraction.* (Woman, Session One)

*If everyone is talking at once, then forget it. Especially with hearing aids because you get all that sound coming in at the same time.* (Man, Session Two)

Seeing the computer and the computer on wheels (COW) screens clearly was challenging for some:

*What you said about the font. I didn't know you can change it because I have eye problem and glasses don't help. So if the font is bigger I think that is great because, in all my e-mails, I can change the font.* (Woman, Session Two)

*The first day Carla turned out the lights when she used her [COW] screen but, after that, they just stayed on and it was very hard to see from our corner. The people who were right in front of the screen were okay, but in our corner it was harder to see.* (Man, Session Two)

*I think that if the [COW] screen was closer, it would have been better.* (Woman, Session Two)

*I think part of it is that for many of us it is harder to see and I think that's a lot of the trouble. I couldn't see the [COW] screen either.* (Man, Session Two)

Others found remembering what they had been taught challenging:

*I don't know how you all feel about it but, by being older, I find that my short memory is sometimes leaving me behind. And I find that all the terms and signs on the keyboard is quite a lot to learn in a very short period of time.* (Woman, Session One)

*I don't think I have been able to do as well as some of them, you know, I can't seem to remember that well.* (Woman, Session One)

*Just the recall. I can learn and I think, "Oh, I know that. I'll remember that," but an hour later I've forgotten.* (Woman, Session One)

*Well, I'm probably a little older than anyone here, so I need more repetition because my short term memory isn't what it used to be.* (Man, Session Two)

*Well, really what he said about repetition is very important. I think that if they tell me once, I should know it forever, but it takes 10 times before it sinks in.* (Man, Session Two)

A number of participants felt that the pace of the course had been too fast:

*I think there's certain parts of the course where there's a bit more understanding needed; therefore, there is more time needed to be allocated to certain aspects.* (Woman, Session One)

*Because of the short time of the course and the length of the course, I don't think that anybody would have become knowledgeable about the use of the computer in that short time. Maybe, if you had your own and you went home and practiced and you read your book over and over and over again, you'd become proficient at it. And I think you will in time. I don't think you will by the length of this course.* (Man, Session One)

*I thought the course was tremendous, but I also thought that there was an awful lot of information in a short time. Sometimes I felt quite rushed during the class.* (Woman, Session One)

For some, finding an opportunity to practice using the computer was challenging:

*I think the challenge is just to use the computer. As I said, I don't have a lot of time right now and I don't have the time to use the computer, so I don't know when my skills are going to be used or if I even remember them. But I think that once you start using the computer — and this is young and old — to actually use the computer, you need to use it. So that is the biggest challenge.* (Woman, Session One)

*And I didn't have a computer to practice on. Next time I take this course, could you get me a computer? [laughs] And maybe some help on how to go and buy a computer.* (Woman, Session One)

*I don't mean to pretend that I am proficient in using the computer by any stretch of the imagination because I'm not ... because we don't have a computer to practice on and I think that was a big draw back.* (Man, Session One)

### **What can instructors do to help older adults overcome these challenges?**

During the focus group sessions, the participants made several suggestions about how to help older learners overcome the challenges they had identified.

To overcome the short-term memory problems experienced by many participants, some said that the concepts taught in the course should be continually repeated:

*Having the instructor repeatedly explain the computer words would help; I do feel it's necessary to repeat them the first three or four lessons. We've got to get the basics drilled into us because without the basics you have no building blocks. So we do really need to remember what the different words mean.* (Woman, Session One)

*I have to have it repeated and repeated.* (Man, Session Two)

*And I think, too, that we all have different levels of learning — that's true in any class, I suppose. But I think you have to be aware of that, that probably we need repetition and take a little more time. I think Carla was quite aware of that, actually.* (Woman, Session Two)

*Like the others, I have to do things repeatedly for a while before I remember. The big thing for the instructor is to be slow and patient and let us do things over and over because your brain doesn't absorb things as fast as it used to and the repetition is what you really need.* (Woman, Session Two)

*I think just repetition. I know for myself I have to do things several times to remember.* (Woman, Session Two)

*I feel mainly the same way; there's so many things to learn and we have to have a lot of repetition and keep going over it so it stays I there.* (Woman, Session Two)

*And, again, the big word repetition. this is the first time I ever sat at a computer. So, repetition in the beginning and till it's in.* (Woman, Session Two)

Others also suggested that course needed to be slower and longer:

*I really think that from my point of view that the course should be slower and should be longer in order to grasp what you need to have to become proficient in the computer.* (Man, Session One)

*If I was an instructor, I would probably slow things down, but we were given time to play and then it was time to learn something, so everybody had to hush up. But we never ever did hush up; we were always talking. But if an instructor could get everybody at the same spot at the same time by saying, "Okay, everybody go to here. Now, go over here," it would be better.* (Woman, Session Two)

Some said that one-on-one or small group instruction would be valuable ways to help older adults learn to use computers:

*And I think the way of helping is probably the individual instruction ... that I found helpful.* (Woman, Session One)

*But I need more individual help ... I can't listen to a whole bunch of instruction and remember it all. It's got to be more individual all the time and repetitive.* (Woman, Session Two)

*Individual attention for more steady guidance would help. (Man, Session Two)*

*I wondered if it would help if a helper was assigned to a particular group of four students because then you know what they have done. (Woman, Session Two)*

Partnering people without any computer experience with those who have some experience was a suggestion made by one Session One man:

*When a person comes here, he should sit beside a person that has a computer or knows something about a computer like I did because, when your instructor or your aide are busy, you bug him and you ask him what's going on. Or if a person is deaf, you ask: "What did she say? What did she say?" So it helps an awful lot. (Man, Session Two)*

One woman in the first session suggested that courses designed specifically for seniors are important:

*I think one of the challenges for adults is finding a computer class that we can be comfortable in. Like, I've looked at classes that are listed in the paper and I think, "No, they're all going to be twenty year olds and they're going to be way ahead of me and the pace is going to be too fast and won't be able to keep up." So I think it's important to present separate courses for people of this age group so that nobody's going to feel stupid. And, again, Carla and Jason and everybody were very understanding with our stupid questions and were very patient and came round and explained things endless numbers of times and I felt really comfortable in the class and in the group. And I didn't feel that I was way behind everybody. I felt that I could fit comfortably in the class and I think that's important. (Woman, Session One)*

During the Session One focus group discussion, many agreed with one woman who suggested that changing the room configuration would make it easier on the participants:

*I thought if everybody was in a semicircle with the teacher in the middle and the helpers behind, everything would run smoother; you could see what the teacher was doing and do it on your computer and, if you made a mistake, whoever was behind you could take a look at all the computers and see who needed help. And I think that would go faster. Maybe you can't arrange computers like that. (Woman, Session One)*

*You'd like everybody to be able to face the instructor. Even if we had them in a circle. (Woman, Session One)*

One woman who had found it difficult to hear the instructor suggested a way to get everyone's attention in the class:

*I think that to get everybody's attention at the same time, maybe, you need a buzzer or a bell. Not waiting patiently until everybody stops talking. (Woman, Session Two)*

Several acknowledged that the materials handed out in class had been very helpful:

*I thought the book was very good and I liked Carla's handouts, too. (Man, Session One)*

*I agree that the handouts were a great idea because when you were trying to do something at home, if you had it written down you could go back and check. The handouts were nice. (Woman, Session Two)*

*The handouts are essential and the simpler they are better. Several of those handouts were just perfect: you could follow them down through and, if you didn't pick it up right away, you had the handout, too. I think that's essential. (Man, Session Two)*

To supplement the handouts, one woman suggested that posting vocabulary charts around the room would be helpful: *"It might help to have a lingo vocabulary up. You know, make wall charts."* (Woman, Session One)

### ***What are the most difficult things to learn about the computer?***

Using a mouse was one of the most difficult skills for some participants to learn:

*I guess using the mouse was one of the biggest obstacles I faced. (Woman, Session One)*

*Learning to operate the mouse on exactly the right spot was a challenge. (Woman, Session One)*

For others, working with disks was difficult:

*I think my biggest problems came when we started working with the disks: opening the disk, closing it, putting it into other programs. Putting the disk in, opening it -- fine, but when you wanted to open something and transfer it into something else, that's where I got slightly sort of screwed up. When I got home and I put the disk in, I was pleasantly surprised to find that there was actually something on it. But other than that, no, I was very, very happy to be part of it.* (Woman, Session One)

*Like she said, getting it on the disk and then getting it back off ... But I guess more practice and that will bring it around.* (Man, Session One)

*I'm concerned about the disks, too, because I haven't had a chance to practice at home and I wondered about the saving to the disk and saving to the hard drive.* (Woman, Session One)

During the course, participants were often shown more than one method for doing something on the computer. This proved to be difficult for some people:

*I found ... with the best interests at heart, our instructors would explain something and then say, "Well, you can do it this way, too." Gee, I'm just trying to understand the first one when they give you another alternative, and sometimes you get a third alternative, and I just go "chooom". And there are just so many of them. It's not that they aren't there on the computer, but just give it to us one at a time this week or the same one for three weeks. Just learn that one; I don't need to learn the other ones.* (Woman, Session One)

*Fewer alternatives would make it better. If it was just set out in a logical form, it might be easier.* (Man, Session One)

*I think an important fact is that there is always more than one way to do something, and Carla pointed this out more than once. As an instructor, it would be beneficial if, as Carla did repeatedly, the instructor said, "This is the basic way you get into this." And then after she showed you on the screen how we arrived at that thing sometimes we were showed some others ways. But the thing is, when I have to remember one thing, I only want one thing to remember: I don't want six choices when I get home because they all got into the stew. And that one way to do it and play with it after. But get that basic thing first.* (Woman, Session Two)

During the first focus group session, many agreed with one woman who said that she had found getting into and out of programs hard to learn:

*Yes, I have finding and getting into programs, getting out of programs, getting back to the first program you had.* (Woman, Session One)

Others agreed with the man who said using e-mail was difficult:

*I found getting into your e-mail, writing up e-mail and that was my biggest problem, which I was more interested in than other parts of word-processing than that.* (Man, Session One)

### **How has learning to use a computer affected your reading and writing skills?**

As previously discussed, the people who completed the CEL course did not appear to have significant literacy problems. Most participants, therefore, did not believe that the course had affected their reading and writing skills. In fact, when one woman in Session One said, "I don't feel it's affected my skills at all, and I feel you need to be fairly literate in the first place to be able to operate a computer," others in the group seemed to agree.

Although most participants did not feel their literacy skills had been significantly affected by the course, some felt that their skills had been somewhat affected. These people explained how their writing skills had been affected as a result of using e-mail:

*I don't think it's changed my reading skills, but with my writing skills I think it's made me do more. Rather than speak to people, you know, I am e-mailing and taking the time. Whereas I wouldn't sit down and write a long-handed letter, I will take the time and write a letter on the computer and e-mail. So that is the only thing that has changed.* (Woman, Session One)

*Definitely, it helped my writing skills because I never wrote many letters to people unless I had to. So I do a lot of e-mailing people now. (Woman, Session Two)*

*I've gone from one liners to pages. (Man, Session Two)*

Others mentioned that Spell-check had improved their spelling and, as a consequence, had made writing easier for them:

*My spelling in the English language — due to the fact that I have never had any formal lesson in English — my spelling is just terrible. That's where the computer comes in — Spell-check has really helped. (Man with English as a second language, Session One)*

*I think that it affected me quite a bit being on the computer, especially spelling. Instead of firing off a one-liner to my grandkids and children all the time, now I have a Wednesday report. And I get little e-mails back: "Not so much, Dad." (Man, Session Two)*

*I find that it has helped me in my spelling because there's lots of words that I have never written for years that I've started to use again, and it makes me think about the words I'm using. I like that. (Woman, Session Two)*

While some participants described how using a computer had affected their writing skills, others described how it had affected their reading skills by helping them to become more flexible readers:

*I read more. I understand more because I pay more attention to what I'm reading on the screen. (Man, Session Two)*

*There is a need to read completely everything that is on the screen and be patient. Quite often if you don't do that, you miss a little circle up in one corner that says "go" and if you don't go to "go" you don't go. (Man, Session Two)*

*I am quite a fast reader and I tend to skim things. But what I did learn in this class is that you have to read slowly and read every word. It's taught me that. (Woman, Session Two)*

Two participants focussed on the esthetics of their writing. One man described how his typed documents were more legible than his handwritten documents: *"My writing is better typed than hand written — it's readable"* (Man, Session Two). Another man described how using a computer had affected the look of his documents: *"I think my letters look a lot better than they used to because you can have a look at it before you send it away and see if it's centred on the page. We were shown how to do that, and things like that were very useful."* (Man, Session One)

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# The Challenges and Rewards of Teaching the CEL Course

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Throughout the project, Carla, the instructor, documented her experiences in a journal. In this section of the report, she discusses the challenges and rewards of teaching the *CEL* course to older adults.

## Challenges

### Skill Level

Like any teaching situation, different skill levels among the learners creates a challenge. It was very difficult to keep the class at a comfortable pace for everyone. Evaluations either stated that the pace too slow or too fast and that practice time would be beneficial. During Session Two, the I changed the structure of the class to address these concerns. The first half hour of class was designated to get students logged on and to let them practice the skills that they had learned in the previous class as well as to feel more comfortable with the computer. Essentially the students were able to “warm up”. This process had a relaxing effect on the class and seemed much more effective. There was no designation of the first half hour for practice during Session One of *CEL*. There was, however, one comment on the *Course Feedback Form* for the second session said, “It took too long to get class started.”

Generally those with prior experience on the computer learned more quickly. It is interesting to note that these students had also overcome the fear of “breaking something”. Student fear was one of the greatest challenges. In order for them to learn and expand their knowledge, they needed to feel comfortable to practice. In many instances, their fear of “breaking something” inhibited their ability or desire to practice the skills that were taught. The students seemed to follow along for a few steps and then were hesitant to actually try on their own. Students got behind because they didn’t want to try what had been shown to them for fear that they wouldn’t do it right and they would “push the wrong buttons.”

At times there was difficulty with simple instructions, which led me to believe that there was some inability to conceptualize. Even with a handout, a student might put in a web site address instead of his or her user name when logging onto the computer. It took so long to learn a new skill (to go through the steps) that there was no time to get to the exercise to practice it. What may have been difficulty in conceptualizing was most likely compounded by computer jargon, fear, and information overload. These were all factors that were identified by the students during the focus groups held after each session was over.

The mouse was a difficult piece of equipment for the students to get used to. One student would press the button too hard, another would push the button as she was moving to where she wanted to go as opposed to getting there first and then pushing the button. Mouse use was difficult in both sessions. Solitaire was helpful exercise as well as learning to drag icons.

File management was the most difficult lesson for both of the sessions. I used a web site that included self tests. This quickly became a nightmare as students progressed at different rates and the ability to switch between windows was not well developed enough for the exercise. I brought props into class to help students visualize what was happening when they filed a document: a filing cabinet represented a hard drive or a floppy disk; file folders represented electronic folders and documents.

### The Keyboard

In Session One, I did not spend much time going over the keyboard; instead, I only highlighted keys such as, backspace, home, end, insert and delete as well as the cursor keys. I found going over all the keys on the keyboard during Session Two was very helpful. Several Session Two students commented on the usefulness of this exercise and of the handout.

### Hearing and Vision

The classroom was not conducive to teaching small groups. It was a very large teaching lab in which sound got lost. For those students who were hard of hearing, a hearing system was tested with the first session but students did not find it useful. Due to the arrangement of workstations, students were sitting perpendicular to

me. The system was set such that the student needed to be facing the control system so the headset could make contact with the infrared on both units. The seating arrangement also made lip reading difficult. Students who wanted to be able to keep an eye on their screen as well as look at me were unable to do this since they were not facing me. A projected image of the instructor computer screen was difficult to see due to lighting, position of workstations, and the distance of the screen from the workstations. This difficulty was noted in the focus groups but these were logistics that could really only be solved through repetition of concepts that were missed. Computer lab set up was beyond our control.

During the first focus group session, students mentioned the difficulty they had learning more than one way to do something. I taught the longer way of performing a task by using the menus file, view, edit etc., but the helpers would sometimes show students other ways because that is how they would do it. My goal was to get people to understand the role of menus so, if they ever forgot how to do something, they could look in the menus. I did my best to teach only one method of doing something during Session Two.

## **Language**

Learning the computer language was difficult for the students especially when there was more than one way to define something (i.e. applications and programs). The cut-and-paste activity (see [Appendix B](#)) incorporated cutting and pasting the appropriate term with its definition. This activity combined literacy, computer skills and computer vocabulary. The terms of reference for seniors are very different from someone who has grown up in the information age. Unlike younger generations, seniors have not grown up with the computer language, which is second nature to the youth of today.

## **Memory**

During Session One, classes were held once a week and during Session Two classes were held twice a week. I didn't observe any noticeable differences between the two sections in regards to memory: both seemed to have trouble remembering skills whether they had the class twice a week or once.

## **Distractions**

Noise level within the classroom was an issue that was brought up during the focus groups. On many occasions, the volunteer assistants would be talking to a student trying to get them caught up while I was talking, or a student would ask a volunteer for clarification while I was still talking. I mentioned this problem to the helpers during the beginning of Session Two. The first session was also a very social group, which is a variable that should be addressed as well. The classes were not only important for the skills that they were teaching but also for the social aspect and the fact that many seniors can feel isolated as friends and partners begin to pass away and family moves away. For some the social aspect was just as important as the learning, if not more so.

The need for more helpers was noted in both focus groups. Class size was very similar between the two groups with two volunteer assistants in each session.

## **Rewards**

For many people, computers are part of everyday life. Many of us don't go a day without sitting in front of a computer at work or at home. However, there is one segment of the population that is overlooked and "being passed by" in this information age. It was exciting to be part of a research project that focused on this population. Developing a course to teach seniors computers was quite challenging and, to some degree, a "try as you go" experience. Strategies that didn't work in the first session were modified for the second.

There were great differences in the skills of the students between the first and last lessons of each session. Most students were very motivated, which made teaching them extremely enjoyable. Several students started the course not knowing anything about computers and by the end they were creating documents, sending e-mails, and searching on the Internet. The sense of accomplishment and growth among the students was rewarding, even if it was as simple as getting over the fear of using a computer. It was gratifying to provide skills that may change the quality of life for these seniors as well as empower them. It was great to be able to give them the skills that would allow them to keep in touch with loved ones through e-mail and to be able to plan

their own trips. Many mentioned grandchildren that were whizzes at the computer and they were excited about now being able to understand some of what they were talking about. The classes provided a social outlet for the students as well. Students helped each other throughout the classes. Some students mentioned that they did, in fact, feel that their reading and spelling had improved, particularly the students in the second session.

It is one thing to develop the curriculum for teaching computer skills to seniors; it is another to deliver it. The teaching process is very educational in learning what works and what doesn't work when teaching seniors. It is essential that an instructor address the fear seniors have of computers. Patience and providing time to practice helps increase seniors' confidence levels. The more time that is spent working on skills, the faster students' fears disappear because they realize that they really aren't going to break anything. For many students, an introductory computer course will be their first contact with a computer, so constant repetition of concepts and materials in terms that were simple and consistent is also needed.

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## Conclusion

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The goal of the *Computers for Elder Learning* project was to offer a beginning computer course to older learners with low literacy skills in the hope that their skills would improve. Three questions guided the project: 1) Is there a positive relationship between acquisition of computer skills and development/improvement of print literacy skills? 2) What instructional strategies work best with older adults to teach computer literacy skills while developing print literacy skills? and 3) What recruitment/marketing strategies work best to attract older adults who do not usually seek out formal learning opportunities into literacy related programs? Unfortunately, recruiting seniors with low literacy skills for the *CEL* course proved to be difficult, and only people confident in their ability to read and write attended it. As a consequence, the three research questions that guided the project have not been answered. Despite this, many things were learned about teaching computers to seniors.

To start with, participants' knowledge of computers, as measured by the self-report *Computer Skills Questionnaire*, increased dramatically as a result of the course. They reported that they had learned many basic computer skills including how to turn the computer on and off, use a mouse, create and save files, complete basic word processing operations, send and retrieve e-mail messages, and use the Internet.

Feedback provided by the *Course Feedback Form* and during the post-course focus group sessions highlighted several significant factors that can affect learning for older adults. Course participants cited poor vision, hearing, and memory as factors that instructors must keep in mind when they teach older adults. For example, because hearing is often reduced as we age, background noise and seating arrangement can significantly impair a person's ability to hear the lesson; instructors must keep this factor in mind as they arrange computers classes for older learners. Similarly, vision problems may make it difficult for seniors to clearly see the computer screen or images projected onto wall screens. Instructors, therefore, must ensure that the contrast, brightness, and size of image are adjusted according to learners' needs. Many participants also suggested that to master a skill they require many opportunities to repeat it. Some suggested that instructors refrain from covering too much material in a class. The course also proved to be a positive social experience for many participants.

Participants' responses to the course were very positive. For example, they spoke about feeling more confident in their abilities to learn new things and more "up-to-date" due to their increased knowledge of computers. They described how they were reading and writing more often due to the computer and how they felt more confident about their reading and writing skills. Some explained how learning to send and receive e-mail messages had increased connections with family and friends. Others explained that the course had increased connections with family and friends because they were now able to participate in conversations about computers. Several participants said that they intended to purchase computers to use at home, while others expressed a desire to take more computer courses in the future.

As already mentioned, older adults with low literacy skills were not attracted to the *CEL* course; that is, our recruitment methods were not effective with low-literacy seniors. We suspect that there are several reasons for this. First, older adults with low literacy skills may not have been willing or been able to read the information used to advertise the *CEL* course. Second, they may not have frequented the places where the course was promoted. Third, seniors with low literacy skills may not believe that they are capable of learning how to use a computer and refrain from signing up for such a course. To stimulate an interest in learning to use computers by adults with low literacy skills, other recruitment methods should be used. For example, programs that introduce seniors to computers could be embedded into other services for seniors; or programs that partner seniors with strong literacy and computer skills with those lacking such skills could be set up in local libraries and recreation centres.

Whether or not introductory computers courses can significantly improve literacy skills in seniors is yet to be determined and should be the focus of future research. However, given the positive effects the *CEL* course had on its participants, we believe that other seniors, including those with low literacy skills, would benefit greatly by participating in similar courses.

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**Appendix A:  
Research Instruments**

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## Computers for Elder Learning Information Session Survey

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Computers for Elder Learning, a joint project of the University College of the Fraser Valley and the Chilliwack ElderCollege, is funded by the Ministry of Advanced Education, Training & Technology and the National Literacy Secretariat.

**Name** \_\_\_\_\_

**Phone** \_\_\_\_\_

1. How often have you used a computer?

- I have never used a computer
- I have not used a computer for several years
- I have used a computer a few times within the last year
- I use a computer several times a month
- I use a computer several times a week
- I use a computer almost every day

2. What would you like to use the computer for?

- send e-mail messages to my friends and family
- keep track of finances and/or investments
- use the Internet for things such as shopping and finding travel information
- write stories
- other \_\_\_\_\_

3. Which of the following do you read on a regular basis? Check ALL that apply.

- |  |   |
|--|---|
| <input type="checkbox"/> community newspaper | <input type="checkbox"/> books                |
| <input type="checkbox"/> daily newspaper     | <input type="checkbox"/> church bulletins     |
| <input type="checkbox"/> magazines           | <input type="checkbox"/> brochures and flyers |
| <input type="checkbox"/> letters             | <input type="checkbox"/> other _____          |

4. How many hours do you read each week?

- |  |  |
|--|--|
| <input type="checkbox"/> 0 to 2 hours a week | <input type="checkbox"/> 5 to 10 hours a week      |
| <input type="checkbox"/> 2 to 5 hours a week | <input type="checkbox"/> more than 10 hours a week |

5. What is your level of education?

- did not complete high school
- completed high school or high school equivalency
- completed some college courses
- completed a certificate or diploma program
- completed an undergraduate degree
- completed a graduate degree

6. *Computers for Elder Learning* will be offered two times. Please indicate which of the two sessions you would prefer to attend.

Saturday afternoons from February 17 to April 7 (8 weeks)

Monday and Wednesday mornings from May 7 to May 30 (4 weeks)

7. We are able to offer this course for FREE because it is part of a research project designed to find out how computer use affects adult learners' reading and writing skills and attitudes. Therefore, anyone who takes the course will be asked to complete reading and writing assessments, attitude and opinion surveys, and course feedback forms. In addition, students will participate in two recorded interviews: one on their own, and one as part of a small group. When the research report is written about the *Computers for Elder Learning* project, no students will be identified by name because pseudonyms will be used. Before the course begins, participants will be required to read and sign a form that describes the project in more detail.

Are you willing to complete questionnaires and be interviewed?

Yes

No

8. Because we want to be able to make the course interesting and valuable to you, please use the space provided and tell us a bit about yourself and why you would like to participate in *Computers for Elder Learning*.

**Thank you for completing this questionnaire. We will be contacting you soon.**

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## Computers for Elder Learning Consent Form

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Thank you for agreeing to participate in the *Computers for Elder Learning* project. This form outlines the purposes and methods of the project and provides a description of your involvement and rights as a participant.

### **Purposes**

The purposes of this project are ...

1. to provide an introductory computer course to older adults, and
2. to study how this course affects adults' computer and literacy skills and attitudes.

### **Methods**

The methods we will use to collect information for this study are explained below. From this information, we will write a report about our project.

You are encouraged to ask questions at any time about the nature of the study and the methods that we are using.

During the project, you will be asked for some demographic information (age, education, etc.). You also will be asked to complete the following:

- several brief questionnaires concerning your attitudes and knowledge about computers, your reading and writing activities, and your opinions about the *Computers for Elder Learning* project;
- reading and writing assessments;
- an individual interview that will be scheduled shortly after the end of the course and will take about 30 minutes; and
- a small group discussion that will be scheduled shortly after the end of the course that will take about 1 hour.

The information from this study will be used to write a report about the project. This report will be published by UCFV and Chilliwack ElderCollege. Copies of it will be distributed to the Ministry of Advanced Education, Training & Technology, the National Literacy Secretariat, and literacy specialists throughout Canada.

You may request a copy of the project report once it is published.

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## Participant's Rights

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We guarantee that the following conditions will be met:

1. Your real name will not be used in any reports written about this project; instead, pseudonyms will be used in all verbal and written records and reports.
2. If you grant permission for audio or video taping, no tapes will be used for any purposes other than to do this study; they will not be played for any reason other than to do this study. All tapes will be kept in a secure location until the study is completed. At that time, they will be destroyed.
3. All questionnaires and assessments completed by you will be kept in a secure location for the duration of the study and then destroyed.
4. Your participation in this research is voluntary; you have the right to withdraw at any point of the study for any reason. Should you withdraw from the study, all information collected from and about you will be destroyed.

***To be completed by the participant:***

Do you grant permission to be quoted directly? .....  Yes.....  No

Do you grant permission to be audio and/or video taped? .....  Yes.....  No

I \_\_\_\_\_ agree to the terms of this consent form.

*Please print*

\_\_\_\_\_  
*Sign here*

\_\_\_\_\_  
*Date*

***To be completed by the researchers:***

I \_\_\_\_\_ agree to the terms of this consent form.  
*Please print*

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*Sign here* \_\_\_\_\_ *Date* \_\_\_\_\_

I \_\_\_\_\_ agree to the terms of this consent form.  
*Please print*

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*Sign here* \_\_\_\_\_ *Date* \_\_\_\_\_

I \_\_\_\_\_ agree to the terms of this consent form.  
*Please print*

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*Sign here* \_\_\_\_\_ *Date* \_\_\_\_\_

### Computers for Elder Learning: Background Questionnaire

*This survey is based, in part, on the  
 International Adult Literacy Survey (IALS) Background Questionnaire published in  
 Adult Literacy in OECD Countries: Technical Report on the First International Adult Literacy Survey*

Name \_\_\_\_\_ Date \_\_\_\_\_

*The questions of this survey ask you about your background, the languages you speak, and your reading and your writing abilities and activities. For each question, please check the blank that applies to you or write your answer in the space provided. All responses will be kept confidential. Please return the survey to your instructor when you are finished.*

1. Age:  46-50  51-55  56-60  61-65  66-70  71-75  76-80  80+
2. What is your current work situation?  
 Employed  Retired  Unemployed/  
 looking for work  Homemaker  Other (Please specify) \_\_\_\_\_
3. Do you own a computer or have access to a computer that you can use on a regular basis? .....  Yes ...  No
4. What type of computer is it? (e.g., IBM, Mac) \_\_\_\_\_
5. Can you use the Internet with this computer? .....  Yes ...  No
6. In which country were you born? \_\_\_\_\_
7. How many years have you lived in Canada? \_\_\_\_\_

8. What language did you FIRST speak as a child? \_\_\_\_\_

9. What language did you FIRST learn to read and write? \_\_\_\_\_

10. What language(s) do you speak most often in your daily life? \_\_\_\_\_

11. How would you rate your reading skills in English needed in daily life?

Excellent       Good       Moderate       Poor

12. How would you rate your writing skills in English needed in daily life?

Excellent       Good       Moderate       Poor

13. How would you rate your math skills needed in daily life?

Excellent       Good       Moderate       Poor

14. How satisfied are you with your reading and writing skills in English?

Very satisfied       Somewhat satisfied       Somewhat dissatisfied       Very dissatisfied

15. How often do you read or use information from each of the following in your daily life?

	Every day	A few times a week	Once a week	Less than once a week	Rarely or never
a) Letters or memos .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Reports, articles, or journals.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Newspapers or magazines.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Manuals or reference books, including catalogues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Diagrams or charts.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Bills, invoices, spreadsheets, or budget tables....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g) Material written in a language other than English...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h) Directions or instructions for medicines, recipes, or other products .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. Sometimes people need help from family members or friends to read and write English. How often do you need help from others with...

	Often	Sometimes	Never
a) Reading newspaper articles .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Reading information from government agencies, businesses, or other institutions .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

c) Filling out forms such as applications or bank deposit slips .....	θ	θ	θ
d) Reading instructions directions such as those on a medicine bottle .....	θ	θ	θ
e) Reading instructions on "packaged" goods in stores or supermarkets	θ	θ	θ
f) Doing arithmetic; that is, adding, multiplying, and dividing .....	θ	θ	θ
g) Writing notes and letters .....	θ	θ	θ

17. Please indicate if any of the following applies to you.

h) Eye/vision trouble of the kind that is not corrected by glasses .....	θYes	θNo
i) Eye/vision trouble of the kind that is corrected by glasses.....	θYes	θNo
j) Hearing problems.....	θYes	θNo
k) A speech disability .....	θYes	θNo
l) A learning disability .....	θYes	θNo
m)Any other disability or health problem of six months or more.....	θYes	θNo

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**Computer Attitude Scale**

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*Brenda H. Loyd and Clarice P. Gressard  
University of Virginia*

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**Name** \_\_\_\_\_ **Date** \_\_\_\_\_

*The purpose of this survey is to gather information concerning people's attitudes toward learning about and working with computers. It should take about five minutes to complete this survey. All responses are kept confidential. Please return the survey to your instructor when you are finished.*

*Below are a series of statements. There are no correct answers to these statements. They are designed to permit you to indicate the extent to which you agree or disagree with the ideas expressed. Place a CHECK in the space under the label which is closest to your agreement or disagreement with the statements.*

	Strongly Agree	Slightly Agree	Slightly Disagree	Strongly Disagree
1. Computers do not scare me at all.....	θ	θ	θ	θ
2. I'm no good with computers. ....	θ	θ	θ	θ
3. I would like working with computers.....	θ	θ	θ	θ
4. I will use computers many ways in my life. ....	θ	θ	θ	θ
5. Working with a computer would make me very nervous.....	θ	θ	θ	θ
6. Generally, I would feel OK about trying a new problem on the	θ	θ	θ	θ

	Strongly Agree	Slightly Agree	Slightly Disagree	Strongly Disagree
computer. ....				
7. The challenge of solving problems with computers does not appeal to me.....	θ	θ	θ	θ
8. Learning about computers is a waste of time.....	θ	θ	θ	θ
9. I do not feel threatened when others talk about computers.....	θ	θ	θ	θ
10. I don't think I would do advanced computer work. ....	θ	θ	θ	θ
11. I think working with computers would be enjoyable and stimulating.....	θ	θ	θ	θ
12. Learning about computers is worthwhile.....	θ	θ	θ	θ
13. I feel aggressive and hostile toward computers.....	θ	θ	θ	θ
14. I am sure I could do work with computers. ....	θ	θ	θ	θ
15. Figuring out computer problems does not appeal to me.....	θ	θ	θ	θ
16. I'll need a firm mastery of computers for my future work. ....	θ	θ	θ	θ
17. It wouldn't bother me at all to take computer courses.....	θ	θ	θ	θ
18. I'm not the type to do well with computers.....	θ	θ	θ	θ
19. When there is a problem with a computer that I can't immediately solve, I would stick with it until I have the answer. ....	θ	θ	θ	θ
20. I expect to have little use for computers in my daily life. ....	θ	θ	θ	θ
21. Computers make me feel uncomfortable.....	θ	θ	θ	θ
22. I am sure I could learn a computer language.....	θ	θ	θ	θ
23. I don't understand how some people can spend so much time working with computers and seem to enjoy it. ....	θ	θ	θ	θ
24. I can't think of any way that I will use computers in my career. ....	θ	θ	θ	θ
25. I would feel at ease in a computer class. ....	θ	θ	θ	θ
26. I think using a computer would be very hard for me.....	θ	θ	θ	θ
27. Once I start to work with the computer, I would find it hard to stop.....	θ	θ	θ	θ
28. Knowing how to work with computers will increase my job possibilities. ....	θ	θ	θ	θ
29. I get a sinking feeling when I think of trying to use a computer.....	θ	θ	θ	θ
30. I could get good grades in computer courses.....	θ	θ	θ	θ
31. I will do as little work with computers as possible. ....	θ	θ	θ	θ

	Strongly Agree	Slightly Agree	Slightly Disagree	Strongly Disagree
32. Anything that a computer can be used for, I can do just as well some other way.....	0	0	0	0
33. I would feel comfortable working with a computer. ....	0	0	0	0
34. I do not think I could handle a computer course. ....	0	0	0	0
35. If a problem is left unsolved in a computer class, I would continue to think about it afterward.....	0	0	0	0
36. It is important to me to do well in computer classes.....	0	0	0	0
37. Computers make me feel uneasy and confused.....	0	0	0	0
38. I have a lot of self-confidence when it comes to working with computers. ....	0	0	0	0
39. I do not enjoy talking with others about computers.....	0	0	0	0
40. Working with computers will not be important to me in my life's work. ....	0	0	0	0

---

Computers for Elder Learning:  
Computer Skills Questionnaire

---

Name \_\_\_\_\_ Date \_\_\_\_\_

*This questionnaire asks you to review your knowledge of basic computer skills. There are three sections to the questionnaire: Section A: Basic Computer Skills, Section B: Word Processing Skills, and Section C: E-mail/Internet Skills.*

*Sections B and C were prepared by Janet Gibson of UCFV's College and Career Prep department, using similar quizzes prepared by Dave Harper of the Kinesiology department. Section A was prepared by Sue Brigden for the Computers for Elder Learning project and is modeled after the other two sections.*

---

**Section A: Basic Computer Skills**

---

*This Section tests your knowledge of some of the Basic Computer Skills that you will be using in this course.*

*Check the box of the answer which is most appropriate to your skill level.*

---

1. Do you know how to turn on a computer?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
  
2. Do you know how to use the start button on the task bar?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
  
3. Can you use a mouse to select items on the desktop?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
  
4. Do you know how to use a mouse to drag an icon?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.

5. Do you know how to double-click an icon to open it?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
  
6. Do you know how to minimize or restore a window on a computer?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
  
7. Can you resize a window on a computer?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
  
8. Can you close a window on a computer?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
  
9. Do you know how you scroll up and down or left and right in a window?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
  
10. Can you use the menu bar to make a new folder?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
  
11. Can you rename a folder?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.

12. Do you know how to save a document to a folder?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
13. Do you know how to start an application?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
14. Can you save a document to a disk?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
15. Do you know how you use a web browser (e.g., Netscape, Internet Explorer) to get information from the Internet?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.

---

### **Section B: Word Processing Skills**

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*This Section tests your knowledge of some of the Word Processing Skills that you will be using in this course. Check the box of the answer which is most appropriate to your skill level.*

---

1. Do you know how to create a document?
  - a) Yes.
  - b) I think so, but I am not sure.
  - c) I don't know how to create documents.
2. Do you know how to use the ruler bar to create tab sets for indenting?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do any of that.
3. Do you know how to use the control key with the home, end or arrow keys to efficiently move around a document?
  - a) Yes, I do this all the time.
  - b) I think so, but I'm not sure.

- c) Where is the control key? I have never heard of it?
4. Can you find and open an existing document?
    - a) Yes.
    - b) I think so, but I am not sure.
    - c) I don't know how to find and open documents.
  5. Do you know how to close files and use the save and save as commands?
    - a) Yes.
    - b) I can close and save, but I'm not sure what you mean by "save as".
    - c) I don't know how to do any of that.
  6. If you try an operation or an action within a word processing program and it doesn't work the way you expected, do you know how to undo this operation?
    - a) Yes. I use my favorite key.
    - b) I have heard that a magic key exists to do this, but I have never used it.
    - c) If there is such a magic bullet, you will be hearing from me. I want to learn more.
  7. Do you know how to enter text and change fonts and type sizes?
    - a) Yes.
    - b) I can enter text, but I don't know how to change font and type size.
    - c) I don't know how to do any of that.
  8. Can you use bold, italics and underline?
    - a) Yes.
    - b) I think so, but I am not sure.
    - c) I can't do any of that.
  9. Can you align/justify text right, left, and centre?
    - a) Yes.
    - b) I think so, but I am not sure.
    - c) I don't know how to do any of that.
  10. Do you know how to cut, copy, and paste to move/copy text in one document or between documents?
    - a) Yes, I can do that.
    - b) I think so, but I am not sure.

- c) I don't know how to do any of that.

---

### Section C: E-mail/Internet Skills

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*This Section tests your knowledge of some of the E-mail/Internet Skills that you will be using in this course.*

*CHECK the box of the answer which is most appropriate to your skill level.*

---

1. Can you connect to a specific URL (universal resource locator) like <http://ucfv.bc.ca/ccp?>
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
  
2. Can you find web pages with information on a specific topic (called a web search) using a search engine?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
  
3. Can you use a bulletin board? (This is like a listserv.)
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
  
4. Can you navigate through a webpage?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
  
5. Do you know how to save information from a webpage?
  - a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
  
6. Do you know how to "bookmark" a site that you might want to revisit later?

- a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
7. Can you send an e-mail message?
- a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
8. Can you access the UCFV e-mail system?
- a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
9. Do you understand the rules of "Netiquette"?
- a) Yes, I understand that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.
10. Can you attach a file to an e-mail message?
- a) Yes, I can do that.
  - b) I think so, but I am not sure.
  - c) I don't know how to do that.

---

## Computers for Elder Learning: Course Feedback Form

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We would like to know how you feel about the Computers for Elder Learning course. Please complete the following questions so that we can learn from your experiences. Your comments will be greatly appreciated.

1. Was the course too easy or too difficult?

- Too easy
- Somewhat easy
- Just about right
- Somewhat difficult
- Too difficult

COMMENT:

2. Was the course taught too fast or too slow?

- Too slow
- Somewhat slow
- Just about right
- Somewhat fast
- Too fast

COMMENT:

3. Was the course poorly organized or well organized?

- Poorly organized
- Somewhat poorly organized
- Well organized

COMMENT:

4. Was the course boring or interesting?

- Really boring
- Somewhat boring
- Interesting
- COMMENT:

5. Did the instructor give out informative handouts?

- No
- Somewhat

Yes

COMMENT:

6. Did the computer activities help you learn?

No

Somewhat

Yes

COMMENT:

7. Was the instructor knowledgeable about the subject?

No

Somewhat

Yes

COMMENT:

8. Was the instructor easy to understand?

No

Somewhat

Yes

COMMENT:

9. Was the instructor enthusiastic?

No

Somewhat

Yes

COMMENT:

10. Did the instructor answer your questions?

No

Sometimes

Yes

COMMENT:

11. Did the instructor help you learn?

$\theta$  No

$\theta$  Somewhat

$\theta$  Yes

COMMENT:

12. Did you have difficulty communicating with instructor?

No

Somewhat

Yes

COMMENT:

13. Did you feel comfortable asking questions in class?

No

Somewhat

Yes

COMMENT:

14. Did you learn a lot in this class?

I learned nothing

I learned something

I learned a lot

COMMENT:

15. Would recommend this course to others?

No

Maybe

Yes

COMMENT:

Use this space to add any other comments you may have:

---

## Computers for Elder Learning Focus Group Instructions

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### **Individual Preparation**

You have 5 minutes to respond to the focus questions that are printed on the back of this page. Use the space below each question to make any notes you like. You will not be asked to hand in your notes; they are for your use only.

### **Round 1**

Each participant gets **one minute** to share his or her views about a question. You are to listen to each speaker. You may wish to take notes so you can build this into your speaking opportunity. Main ideas will be recorded on flip charts as people speak.

### **Round 2**

During the second round, there will be a general discussion of the focus question. You may use this time to further explain your position and/or comment on what others have said. Main ideas will be recorded on flip charts as people speak.

### **Summary**

After the second round is completed, the facilitator, with the help of the group, will identify common themes. Themes will be recorded on flip charts.

**Steps 2 to 4 will be repeated for each focus question.**

### **Closure**

Comments from focus group participants.



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**Appendix B:**  
**Computers for Elder Learning Educational Materials**

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## Computers for Elder Learning: Curriculum Goals and Objectives

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### **Goal A: Discuss parts of the computer**

#### Objectives

1. Identify computer hardware
2. Identify computer software
3. Define common computer terms
4. Explore Windows operating system

### **Goal B: Explore the basics of Word processing with MS Word**

#### Objectives

1. Identify the elements of the MS Word window
2. Explain uses of Word processing
3. Create a new document
4. Save a document
5. Open a document
6. Print a document
7. Close a document and exit word
8. Perform spell check
9. Move within a document
10. Perform various font formatting techniques
11. Cut, copy and paste
12. Manage folders

### **Goal C: Prepare to E-mail**

#### Objectives

1. Create e-mail message
2. Send e-mail message
3. Receive e-mail message
4. Create address book
5. Create attachment to e-mail
6. Manage Inbox and Outbox

### **Goal D: Explore the Internet**

#### Objectives

1. Identify uses of the Internet
2. Define Internet terms
3. Apply search techniques
4. Explore various search engines and their uses

---

## Computers for Elder Learning Lesson 1: Computer Hardware and Software

---

### **Goal**

Discuss the parts of the computer.

### **Objectives**

1. Learners will be able to identify and name some computer hardware.
2. Learners will be able to differentiate between computer hardware and software.

### **Skills**

Learn the parts of the computer; differentiate between software and hardware.

### **Instructor's Notes**

Read along through pages 1 to 4 of the *Computer Basics 2000* booklet with the students. Bring in old parts of a computer for students to look at. Pass around an opened floppy disk.

### **Activity**

Read along through pages 1 to 4 of the *Computer Basics 2000* booklet with the students. Name a piece of equipment and ask students to tell you whether it is software or hardware. Have students list software or hardware items and then decide whether they are software or hardware.

### **Follow-up**

Review parts of the computer during subsequent lessons.

---

## Computers for Elder Learning Lesson 2: Windows Operating System

---

### **Goal**

To discuss the parts of the computer.

### **Objectives**

1. Learners will explore the windows operating system.
2. Learners will be able to maneuver within the windows operating system.

### **Skills**

Using the mouse, cursor, and insertion point, using menus, using dialogue boxes, desktop, dragging, clicking.

### **Instructor's Notes**

This exercise works well even with multi-levels, since more experienced learners can contribute what they know. Often even those with more experience may not know how to do all these skills, so the lesson is valuable for them as well.

### **Activity**

Read along through pages 5 to 10 and 11 to 14 in the Computer Basics 2000 booklet with the students. Have students go through the Windows tutorial within Windows 98.

### **Follow-up**

Review terminology. Students can refer to the tutorial during free time in class and at home.

### **Related Activity**

Identifying the elements of the MS Word window.

---

## Computers for Elder Learning Lesson 3: Important Keyboard Keys

---

### **Goal**

To explore the basics of word processing with MSWord.

### **Objectives**

Learners will be able to move within a MSWord document by using keyboard keys.

### **Skills**

Typing, backspace, delete, insert, page up, page down, cursor keys, number pad, shift control.

### **Preparation/pre-requisite skills**

Opening a word processing program, using the mouse, cursor, and insertion point.

### **Materials**

Important Keys handout

### **Instructor's Notes**

Read through with the class the Important Keys handout. Do not assume that your students know how to type. Review proper touch typing technique if desired. Walk around and ask students what particular keys do.

### **Activity**

Have students create a new document, type a sentence or two and then practice using the keys.

### **Follow-up**

Review keys.

### **Related Activity**

MS Word window lesson.

---

## Lesson 3 Handout: Important Keyboard Keys

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- Home:** The HOME key will take you to the beginning of the line you are currently working on.
- End:** The END key will take you to the end of the line you are currently working on.
- Page Up:** The PAGE UP button is a quick way to move the cursor to the top of the screen.
- Page Down:** The PAGE DOWN button is a quick way to move the cursor to the bottom of the screen.
- NOTE:** In order to move the cursor to the top of the document – hold the CTRL key and the HOME button. To move to the bottom of the document hold CTL and the END button.
- Backspace:** The BACKSPACE key will remove anything to the left of the cursor.
- Delete:** The Delete key will remove anything to the right of the cursor.
- Insert:** If INSERT is selected, the typist can type without deleting any word. If TYPEOVER is selected the typist will TYPEOVER words.
- Cursor Keys:** CURSOR key are directly below the INSERT, DELETE, HOME END, PAGE UP and PAGE DOWN keys.
- They allow the cursor to move in the direction of the arrow.
- Tab:** Always use the TAB if you need to indent a paragraph. DO NOT USE THE SPACE BAR TO CREATE SPACE. This will cause you headaches when you are trying to format your document.

---

## Computers for Elder Learning Lesson 4: How to Create, Save, Open, and Close Documents

---

### **Goal**

To explore the basics of Word Processing with MSWord.

### **Objectives**

1. Learners will gain familiarity with the elements of the word window and the uses of word processing.
2. Learners will be able to create, save, open and close an MSWord document.

### **Skills**

Using the mouse, cursor, and insertion point, using menus, typing, using dialogue boxes, using floppy disks.

### **Preparation/pre-requisite skills**

Opening a word processing program.

### **Materials**

1. Defining Word Processing Software handout
2. Diagram of Word Window handout

### **Activity**

1. Review the two handouts. Read along through pages 15, 16, 20 to 22 in the Computer Basics 2000 booklet with the students.
2. Have students write a letter to their friends describing what they are learning in computer class.
3. Save letter, practice opening and closing the letter.

### **Follow-up**

Review creating, opening saving and closing of documents during the next lessons.

### **Related Activity**

Musical Disks

Have students create a new document and begin a story. After 3 or 4 minutes have them save the story onto their disks and pass their disk to the person on the right. The next person will open the story and add to it until the instructor tells them to stop and save it. They will then pass the disk to the right and so on. This is a great way to practice opening, saving and closing a document.

---

## Lesson 4 Handout: Defining Word Processing Software

---

You use a **word processor** to organize and present text on a page.

Text entered into a **word processor** is defined as a document.

- ◆ Make editing changes, delete unwanted text, and insert new text at any location in a document
- ◆ Move text from one location in a document to another without having to reenter the text
- ◆ Locate and correct grammatical errors and common spelling mistakes
- ◆ Move quickly to any point in the document
- ◆ Make formatting changes to enhance a document's appearance
- ◆ Align text in rows and columns using tables
- ◆ Create customized form letters, envelopes, and labels
- ◆ Add visual interest to your documents by inserting graphics and arranging text in interesting ways
- ◆ Preview a document before printing to see what it will look like

Source: Biheller Bunin, Rachel, Corel WordPerfect 7 for Windows 95, 199

---

## Computers for Elder Learning Lesson 5: Computer Terms Activity

---

### **Goals**

1. Discuss the parts of the computer
2. Explore the basics of Word processing with MSWord

### **Objectives**

1. Learners will learn definitions of common computer terms.
2. Learners will learn cut and paste skills.

### **Skills**

Using the mouse, cursor, and insertion point; deleting and backspacing; basic text formatting, selecting text, cut and paste, using save as.

### **Preparation/pre-requisite skills**

Opening a word processing program, opening a document, mouse skills, basic keyboarding

### **Materials**

Match the Terms handout

### **Instructor's Notes**

Post the exercise on the student drive. I use the terms frequently as I am teaching to reinforce the language. I will also assess their knowledge by asking students questions. For example, "What is font?" or "Show me how to spell check." Students can work together or individually. Read through pages 16 and 17 in the Computer Basics 2000 booklet with the students.

### **Computer Terms**

hardware, hard drive, floppy disk, selecting text, folders, spell check, paste, font

### **Activity**

1. Give the class the handout "Match the Terms". It is useful for students to have a hard copy of what they see on the computer screen.
2. Have students open the Match the Terms document from the student drive.
3. Students will need to use save as to save the document to their individual disks.
4. Participants cut the term and paste it to the definition.

### **Follow-up**

The terms list can be used to practice simple formatting, by doing things like changing the font, underlining the terms, etc. It's also useful for practicing things like moving the insertion point with the mouse and with the arrow keys, using the home and end keys, and using backspace and delete which were learned while going over the Important Keyboard Keys handout.

(Lesson 3)

*Adapted from [www.gateway.unhny.org](http://www.gateway.unhny.org)*

---

Lesson 5 Handout:  
Match the terms

---

Cut the terms and Paste them to their definitions.

**Definitions**

- \_\_\_\_\_ highlights text that will be affected by the next chosen option such as copying, moving or formatting
- \_\_\_\_\_ specific style of type
- \_\_\_\_\_ the built-in main storage space of the computer
- \_\_\_\_\_ copies or moves information on the clipboard to a new location in a document
- \_\_\_\_\_ a removable storage disk where you can put files
- \_\_\_\_\_ the physical equipment of the computer
- \_\_\_\_\_ file placed into these allow for file maintenance
- \_\_\_\_\_ check for spelling errors, duplicate words and irregular capitalization of words in a document

**Terms**

- folders
- selecting text
- hardware
- floppy disk
- paste
- hard drive
- font

Adapted from [www.gateway.unhny.org](http://www.gateway.unhny.org)

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## Computers for Elder Learning Lesson 6: Font Formatting Techniques

---

### **Goal**

Explore the basics of Word processing with MSWord

### **Objectives**

Learners will perform various font-formatting techniques.

### **Skills**

Changing font face and size, selecting text, using menus and shortcuts (underlining, changing font)

### **Preparation/pre-requisite skills**

Opening a word processing program, opening a document, mouse skills

### **Materials**

Use the "letter to friend" created in Lesson 4

### **Pre-Assessment**

Do you know what "font" is?

### **Instructor's Notes**

Read through pages 17 and 18 in the Computer Basics 2000 Booklet. Demonstrate how to get to the font dialogue box. Explain how to change font. Demonstrate the short cut buttons, bold, underline, and italic

### **Activities**

1. Have students open the letter to friend document from their floppy disks.
2. Ask students to click on the format menu and choose font.
3. Ask students to look through the different fonts that are available.
4. Ask students to change font face to Arial and font size to 14.
5. Save and Print Letter.

---

## Computers for Elder Learning Lesson 7: Print and Spell Check

---

### **Goal**

To explore the basics of Word Processing with MSWord.

### **Objectives**

1. Learners will be able to perform spell check on their documents.
2. Learners will be able to print a MSWord document.

### **Skills**

spell check tool, parts of the printing dialogue box.

### **Preparation/pre-requisite skills**

Opening a word processing program, using dialogue boxes, using the mouse, cursor, and insertion point, using menus, typing, using floppy disk

### **Materials**

Opening a Document and Spell Check handout

### **Activity**

1. Read along through pages 22 and 23 in the Computer Basics 2000 booklet with the students. Demonstrate these skills.
2. Have students perform spell check on and print the letter they wrote to their friend describing what they are learning in computer class.

### **Follow-up**

Review spell check and printing procedure next lesson. Have students spell check and print subsequent assignments.

### Opening a Document

1. Click **File** on the menu bar
2. Click **Open**
3. Click the **Look in:** list arrow
4. Click **3 1/2 Floppy [A:]**

a list of the documents and folders on your disk appear in the list box

5. Click on the document you wish to open
6. Click **Open**

### Spell Check

1. Click **Tools** on the **Menu Bar** and Click **Spell Check**  
**OR**
2. Click the **Spell Check Button** on the **Tool Bar**
3. Once Spell Check is started, it only stops on words that it does not recognize
4. Click **Change** to choose the word that is suggested by Spell Check  
**OR**
5. Choose a word from those suggested  
**OR**
6. Type in the correct spelling yourself
7. Click **Ignore** if you do not want to replace the word

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## Computers for Elder Learning Lesson 8: Managing Folders

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### **Goal**

Explore the basics of Word processing with MS Word.

### **Objectives**

1. Manage Folders
2. Learners will be able to create a folder on their floppy disk.
3. Learners will be able to move or copy a file into a folder.

### **Skills**

Organize documents, moving files, viewing contents of disk, opening folders, renaming folders

### **Preparation/Prerequisites**

Using My Computer, dragging

### **Materials**

Props – Filing Cabinet, File Folders, Paper

### **Instructor's Notes**

Use the props to help clarify what the students will be doing electronically. This gives an example that most will be able to relate to.

### **Activity**

After watching the instructor go through the steps of creating a folder, learners will create their own folder on their floppy disk. They should name it with their name. Have them move their letter document into their folder. Students should then open their folders and view its content to ensure that the document move was successful.

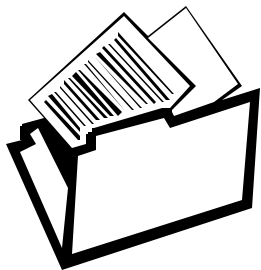
Have students rename their folder - CEL

### **Reference and Practice**

[www.aalrc.org/cl/welcome.html](http://www.aalrc.org/cl/welcome.html)

I find creating folders is easiest from Windows Explorer

1. Click on **Start**
2. Choose **Programs**
3. Click on **Windows Explorer**
4. Drives and Folders are listed on the left hand side of the dialogue box.  
Choose the place where you want to create the folder. i.e. 3<sup>1</sup>/<sub>2</sub> Floppy or C: drive
5. Click on **File**
6. Choose **New** and **Folder**
7. Name the folder
8. Click and drag files into the folder.
9. Double clicking the folder will open the folder – you can then see what is inside



To delete a folder or a file (within Windows Explorer), select the folder and choose delete from the file menu.

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## Computers for Elder Learning Lesson 9: About the Internet

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### **Goal**

Explore the Internet

### **Objectives**

1. Learners will learn the history and uses of the Internet.
2. Learners will gain familiarity with Internet terminology.

### **Skills**

Internet terminology, history of the Internet

### **Pre-assessment**

Ask if any of the students have been on the Internet before? Do they know what it is? How it was developed?

### **Materials**

Copies of the Power Point presentation slides

### **Activity**

PowerPoint presentation with handout. See attached slides.

Invite questions from the students.

### **Related Activities**

Google search

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## Computers for Elder Learning Lesson 10: Searching the Internet Part 1

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### **Goal**

Explore the Internet

### **Objective**

Learners will apply search techniques using the Google search engine to find information on a topic of their choice.

### **Skills**

Narrowing down a search topic, selecting key words, navigating a search engine's results page

### **Preparation/Pre-requisite skills**

Opening a program, scrolling up and down, recognizing and clicking on links

### **Related Activities**

Search the Internet Part 2, On-line Treasure Hunt

### **Instructor's Notes**

Google was chosen for this activity because of its thoroughness and ease of use. You may, however, substitute a different search engine if you wish.

### **Activity**

1. Ask each participant to think of a topic that interests them, or something they would like to find out more about, and write it down (e.g., a hobby, sport or special interest, such as knitting, bicycling, asthma or cooking, a historical or political event, an idea or concept, such as violence on television).
2. Now have them determine the aim of their search. What specific information do they want? Figuring out what they want from a particular search will help them filter out web sites that don't have the information they're looking for.
3. Once they've decided on a topic, ask them to write down a list of keywords or phrases. Explain that keywords are words that describe the subject of a search. Instruct them to avoid very common terms (e.g. Internet, people, health) which will lead to an overwhelming amount of irrelevant search results they want. Here's an example:

*Aim:* I want to find an affordable used car in New York City

*Topic:* Buying a used car

*Keywords:* used cars, used autos, used automobiles

*More Specific:* used car classifieds; used car listings in NYC

Go to [www.google.com](http://www.google.com) and have students begin their search.

### **Follow-up Activity**

The class can discuss their findings and share what they've learned with one another. Internet Part 2 was designed to follow this activity.

Adapted from [www.gateway.unhny.org](http://www.gateway.unhny.org)

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## Computers for Elder Learning Lesson 11: Searching the Internet Part 2

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### **Goal**

Explore the Internet

### **Objective**

Learners will explore various search engines and their uses to find information on a topic of their choice.

### **Skills**

Refining key words, navigating a search engine's results page, comparing and contrasting different search engines, selecting the best search engine for a particular topic

### **Preparation/Pre-requisite skills**

Opening a program, scrolling up and down webpages, recognizing and clicking on links, selecting key words

### **Related Activities**

Search the Internet Part 1; On-line Treasure Hunt

### **Instructor's Notes**

Ideally, this activity should be completed the same day as Search the Web: Activity 1.

### **Activity**

Ask the participants to choose one of the following search engines, and do the same search they did in Search the Internet Part 1. Be sure that they include any new keywords they may have come up with in their initial search.

- ◆ **Yahoo:** Use this search engine when you want to browse and search resources by subject area. If you click on a particular subject area (i.e. News & Media), you can perform a search specifically in that category.
- ◆ **Alta Vista:** Use this search engine when you need a thorough, comprehensive list of sites for your topic. Search results can be selectively refined. You can also search for documents in specific languages.
- ◆ **DogPile:** Use this search engine when you want to search several World Wide Web indexes at the same time. DogPile allows searches to be sent to several search engines all at once. The results are then blended together onto one page.
- ◆ **Lycos** and **Excite** are also options

Have students compare the results of the first search activity using Google with the results of their new search with one of the above search engines. Ask students if they found different results. Do they think one search engine was better than the other?

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Lesson 11 Handout:  
On-Line Treasure Hunt

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Use any of the following web search engines to find the treasures.

- **Google** (<http://www.google.com>)
- **Yahoo** (<http://www.yahoo.com>)
- **Excite** (<http://www.excite.com>)
- **DogPile** (<http://www.dogpile.com>)

Remember to use key word searches and to scan the results of the searches. Use links whenever possible.

**Find**

1. The population of Chilliwack. \_\_\_\_\_  
\_\_\_\_\_
2. The weather forecast for today in London, England. \_\_\_\_\_  
\_\_\_\_\_
3. The phone number for Canton Garden in Chilliwack. \_\_\_\_\_  
\_\_\_\_\_
4. Name one of the current exhibits at the Vancouver Art Gallery. \_\_\_\_\_  
\_\_\_\_\_
5. A site where you can do Genealogy. Write down the address of the web site. \_\_\_\_\_  
\_\_\_\_\_
6. Driving directions from Vancouver, BC to Palm Springs, California.  
Write down the address of the web site. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Adapted from [www.gateway.unhny.org](http://www.gateway.unhny.org)

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## Computers for Elder Learning Lesson 12: Creating an Address Book

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### **Goal**

Prepare to use e-mail.

### **Objectives**

Learners will be able to create an address book in the Eudora e-mail program

### **Skills**

Components of an e-mail address

### **Preparation/Pre-requisite skills**

Keyboarding skills, mouse clicking, recognizing insertion point

### **Materials**

Creating Your Eudora Address Book handout, floppy disk

### **Instructor's Notes**

1. I taught the Eudora e-mail program because it is the student e-mail program used at UCFV.
2. Introduction: Just like regular mail addresses that are kept in an address book we can keep e-mail addresses in an electronic address book. Explain the parts of an e-mail address.

For example, unique identifier@server.province.country

3. Demonstrate the steps for creating an address book.

### **Activity**

1. You first must go through the sign up procedure for the Eudora program and students must have a floppy disk for this procedure.
2. Ask the students to collect 5 or 6 of their fellow classmates e-mail addresses. Remind them that all the addresses will end the same way @student.ucfv.bc.ca
3. Ask students to add all the addresses to their address book
4. Click on the picture of the Blue address book
5. Choose New
6. Type in person's first name
7. Click in box beside "Put on recipient list"
8. Type in the person's e-mail address
9. Repeat until all addresses are in the address book

### **Related Activity**

Lesson 12 - Sending an e-mail; Lesson 13 – Sending an attachment

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## Lesson 12 Handout: Your Eudora Address Book

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1. Click on the picture of the Blue address book
2. Choose New
3. Type in person's first name
4. Click in box beside "Put on recipient list"
5. Type in the person's e-mail address
6. Repeat Steps 2 to 6 until you have added all the addresses.

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## Computers for Elder Learning Lesson 13: Sending and Receiving E-mail

---

### **Goal**

Prepare to use e-mail.

### **Objectives**

Learners will be able to send and receive e-mail.

Learners will be able to manage their e-mail Inbox and Outbox.

### **Skills**

Components of the Eudora e-mail program, composing an e-mail, sending e-mail, receiving e-mail, managing the inbox and outbox, deleting messages.

### **Preparation/Pre-requisite skills**

Keyboarding skills, using an address book

### **Material**

Accessing E-mail handout

### **Instructor's Notes**

This lesson should be completed right after the students have created their address book. Read through pages 46-50 in the Computer Basics 2000 booklet. Go over To, CC, BCC, the subject field, and message body. Demonstrate the steps for sending an e-mail through Hotmail. Explain the importance of cleaning the Inbox and Outbox to free up disk space.

### **Activity**

1. Have students find a partner – preferably someone whose address is already in their address book.
2. Ask students to send an e-mail to their partner, taking care to fill in the subject line
3. Have students check for e-mail messages within their Inbox and read the message from their partner
4. Ask students to open their outbox and delete the message they sent

### **Related Activity**

Lesson 13 - Sending an attachment

1. Click on **START**
2. Choose **UCFV PROGRAMS**
3. Choose **INTERNET APPS**
4. Choose **EUDORA (Requires disk)**
5. In order to access your e-mail account from somewhere other than a student lab at the college you need **Internet** access.
6. Type `http://student.ucfv.bc.ca` in the address box.
7. Choose **LOGIN**
8. Type in your **USERNAME** and **PASSWORD**

*Adapted from [www.gateway.unhny.org](http://www.gateway.unhny.org)*

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## Computers for Elder Learning Lesson 14

### Attachments in E-mail

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#### **Goal**

Prepare to use e-mail.

#### **Objectives**

Learners will be able to create an attachment for an e-mail.

#### **Skills**

Using the attachment feature of the Eudora e-mail program, searching for files, sending e-mail, and using dialogue boxes.

#### **Preparation/Pre-requisite skills**

Creating and sending e-mail, saving a document, mouse and keyboarding skills.

#### **Instructor's Notes**

The instructor will provide a demonstration of attaching a document to an e-mail and will go through the steps together with the class.

#### **Activity**

Have students send an attachment to a partner as well as to the instructor.

Create a new document within MSWord

Type "I am practicing sending attachment with e-mail"

Save document as E-mail practice and close

Open the Eudora e-mail program

Choose the new message tab

Choose a classmates address from the address book

Click on the attachment button

Browse for Document

Attach document

Click OK

Click Send

*Adapted from [www.gateway.unhny.org](http://www.gateway.unhny.org)*

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## Appendix C: Tables

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**Table 1: Ages of CEL Course Participants**

AGE RANGE	Session One		Session Two	
	n = 15	%	n = 16	%
56 - 60	4	26.3	3	18.8
61 - 65	2	13.3	2	12.5
66 - 70	2	13.3	6	37.5
71 - 75	5	33.3	2	12.5
76 -80	2	13.3	1	6.3
80+	0	0.0	2	12.5

**Table 2: Employment Situation of Course Participants**

EMPLOYMENT SITUATION	Session One		Session Two	
	n = 15	%	n = 16	%
Employed	2	13.3	1	6.3
Retired	10	66.7	13	81.3
Unemployed/Looking for work	1	6.7	0	0.0
Homemaker	2	13.3	2	12.5

**Table 3: Birth Country and Language Information of Course Participants**

Country of Birth	Session One		Session Two	
	n = 15	%	n = 16	%
Canada	10	66.7	11	68.8
China	0	0.0	1	6.3
Denmark	1	6.7	2	12.5
Germany	2	13.3	1	6.3
England	1	6.7	1	6.3
Scotland	1	6.7	0	0.0
First Language Spoken	n = 15	%	n = 16	%
English	13	86.7	11	68.8
Danish	1	6.7	2	12.5
French	0	0.0	2	12.5
German	1	6.7	0	0.0
Polish	0	0.0	1	6.3
First Language: Reading/Writing	n = 15	%	n = 16	%
English	13	86.7	11	68.8
Danish	1	6.7	2	12.5
French	0	0.0	2	12.5
German	1	6.7	0	0.0
Polish	0	0.0	1	6.3
Language Now	n = 15	%	n = 16	%
English	15	100	16	100

**Table 4: Participants' Ratings of Their Literacy Skills**

LITERACY SKILL	Session One		Session Two	
	n = 15	%	n = 14*	%
<b>English reading skills needed in daily life</b>				
Excellent	4	26.7	6	37.5
Good	9	60.0	6	37.5
Moderate	2	13.3	4	25.0
Poor	0	0.0	0	0.0
<b>English writing skills needed in daily life</b>				
Excellent	2	13.3	5	31.3
Good	9	60.0	7	43.8
Moderate	2	13.3	4	25.0
Poor	2	13.3	0	0.0
<b>Math skills needed in daily life</b>				
Excellent	2	13.3	1	6.3
Good	7	46.7	8	50.0
Moderate	5	33.3	5	31.3
Poor	1	6.7	2	12.5

\* Two of the participants of Session Two failed to complete this section of the survey.

**Table 5: Participants Satisfaction with Their Literacy Skills**

Satisfaction with reading and writing skills	Session One		Session Two	
	n = 15	%	n = 15*	%
Very satisfied	7	46.7	8	50.0
Somewhat satisfied	7	46.7	4	25.0
Somewhat dissatisfied	1	6.7	3	18.8
Very dissatisfied	0	0.0	0	0.0

\*One of the participants of Session Two failed to complete this section of the survey.

**Table 6: Frequency of Self-reported Literacy Difficulties**

LITERACY DIFFICULTY	Session One		Session Two	
	n = 15	%	n = 15*	%
<b>Reading newspaper articles</b>				
Often	0	0.0	0	0.0
Sometimes	0	0.0	0	0.0
Never	15	100.0	15	100.0
<b>Reading information from government agencies, businesses, other institutions</b>	n = 15	%	n = 15*	%
Often	0	0.0	0	0.0
Sometimes	0	0.0	3	20.0
Never	15	100	12	80.0
<b>Filling out forms such as application or back deposit slips</b>	n = 15	%	n = 15*	%
Often	0	0.0	0	0.0
Sometimes	0	0.0	4	26.7
Never	15	100.0	11	73.3
<b>Reading directions such as those on a medicine bottles</b>	n = 15	%	n = 15*	%
Often	0	0.0	0	0.0
Sometimes	0	0.0	2	13.3
Never	15	100.0	13	86.7
<b>Doing arithmetic; that is, adding, multiplying, and dividing</b>	n = 15	%	n = 15*	%
Often	0	0.0	0	0.0
Sometimes	0	0.0	1	6.7
Never	15	100.0	14	93.3
<b>Doing arithmetic; that is, adding, multiplying, and diving</b>	n = 15	%	n = 15*	%
Often	0	0.0	1	6.7
Sometimes	1	6.7	1	6.7
Never	14	93.3	13	86.7
<b>Writing notes and letters</b>	n = 15	%	n = 15*	%
Often	0	0.0	0	0.0
Sometimes	2	13.3	4	26.7
Never	13	86.7	11	73.3

\* One of the participants of Session Two failed to complete this section of the survey.

**Table 7: Frequency of Reading Activities**

READING ACTIVITY	Session One		Session Two	
	n = 15	%	n = 15*	%
<b>Letters or memos</b>				
Every day	7	46.7	3	20.0
A few times a week	3	20.2	6	40.0
Once a week	2	13.3	2	13.3
Less than once a week	1	6.7	1	6.7
Rarely or never	2	13.3	3	20.0
<b>Reports, articles, or journals</b>	<b>n = 15</b>	<b>%</b>	<b>n = 15*</b>	<b>%</b>
Every day	3	20.0	2	13.3
A few times a week	8	53.3	4	26.7
Once a week	1	6.7	1	6.7
Less than once a week	3	20.0	4	26.7
Rarely or never	0	0.0	4	26.7
<b>Newspapers or magazines</b>	<b>n = 15</b>	<b>%</b>	<b>n = 15*</b>	<b>%</b>
Every day	11	73.3	9	60.0
A few times a week	4	26.7	6	40.0
Once a week	0	0.0	0	0.0
Less than once a week	0	0.0	0	0.0
Rarely or never	0	0.0	0	0.0
<b>Manuals or reference books, including catalogues</b>	<b>n = 15</b>	<b>%</b>	<b>n = 15*</b>	<b>%</b>
Every day	1	6.7	0	0.0
A few times a week	7	46.7	2	13.3
Once a week	4	26.7	7	46.7
Less than once a week	3	20.0	4	26.7
Rarely or never	0	0.0	2	13.3
<b>Diagrams or charts</b>	<b>n = 15</b>	<b>%</b>	<b>n = 15*</b>	<b>%</b>
Every day	0	0.0	1	6.7
A few times a week	1	6.7	1	6.7
Once a week	5	33.3	1	6.7
Less than once a week	6	40.0	5	33.3
Rarely or never	3	20.0	7	46.7
<b>Bills, invoices, spreadsheets, or budget tables</b>	<b>n = 15</b>	<b>%</b>	<b>n = 15*</b>	<b>%</b>
Every day	3	20.0	0	0.0
A few times a week	6	40.0	4	26.7
Once a week	3	20.0	5	33.3
Less than once a week	1	6.7	5	33.3
Rarely or never	2	13.3	1	6.7
<b>Material written in a language other than English</b>	<b>n = 15</b>	<b>%</b>	<b>n = 15*</b>	<b>%</b>
Every day	1	6.7	0	0.0
A few times a week	0	0.0	0	0.0
Once a week	1	6.7	0	0.0
Less than once a week	3	20.2	2	13.3
Rarely or never	10	66.7	13	86.7
<b>Instructions for medicines, recipes, or other products</b>	<b>n = 15</b>	<b>%</b>	<b>n = 15*</b>	<b>%</b>
Every day	3	20.0	3	20.0
A few times a week	7	46.7	5	33.3
Once a week	0	0.0	4	26.7
Less than once a week	4	26.7	2	13.3
Rarely or never	1	6.7	1	6.7

\* One of the participants of Session Two failed to complete this section of the survey.

**Table 8: Number of Participants Indicating Health Issues**

HEALTH ISSUE	Session One		Session Two	
	n = 15	%	n = 16	%
Eye/vision trouble not corrected by glasses	1	6.7	0	0.0
Eye/vision trouble corrected by glasses	13	86.7	15	93.8
Hearing problems	6	40.0	5	31.3
A speech disability	0	0.0	0	0.0
A learning disability	0	0.0	1	6.3
Disability or health problem of six months or more	2	13.3	6	37.5

**Table 9: Course Participants' Access to Computers**

COMPUTER ACCESS	Session One		Session Two	
	n = 15	%	n = 16	%
Yes*	10	66.7	10	62.5
No	5	33.3	6	37.5

\*All indicated access to Windows-based computers.

**Table 10: Computer Attitude Survey Results**

SESSION	Scale	Maximum Score	df	Pre-Test	Post-Test	t-statistic	t-critical two-tail	
				Mean	Mean		p<0.05	p<0.10
Session One	Anxiety	40	14	31.20	32.93	1.19	2.15	1.8
	Confidence	40	14	28.60	28.93	0.30	2.15	1.8
	Liking	40	14	29.27	29.40	0.17	2.15	1.8
	Usefulness	40	14	27.80	27.60	-0.14	2.15	1.8
	Total Scale	160	14	116.87	118.87	0.71	2.15	1.8
Session Two	Anxiety	40	14	30.07	33.20	2.10	2.15	1.8
	Confidence	40	14	28.67	29.60	0.56	2.15	1.8
	Liking	40	14	30.87	31.27	0.27	2.15	1.8
	Usefulness	40	14	31.20	30.87	-0.21	2.15	1.8
	Total Scale	160	14	120.80	124.93	0.77	2.15	1.8

**Table 11: Computer Skills Survey Results**

SESSION	Scale	Maximum Score	df	Pre-Test	Post-test	t-statistic	t-critical two-tail	
				Mean	Mean		p<0.05	p<0.10
Session One	Basic Computer	30	14	9.40	26.40	11.08	2.15	1.8
	Word Processing	20	14	1.86	15.33	10.38	2.15	1.8
	Internet	20	14	1.53	12.93	12.33	2.15	1.8
	Total Score	70	14	12.80	54.67	15.47	2.15	1.8
Session Two	Basic Computer	30	14	13.75	26.06	5.94	2.13	1.8
	Word Processing	20	14	5.31	14.50	6.59	2.13	1.8
	Internet	20	14	2.75	10.68	7.16	2.13	1.8
	Total Scale	70	14	21.81	51.25	7.52	2.13	1.8

**Table 12: Course Feedback Form Results**

FEEDBACK QUESTION	RESPONSE OPTION	Session	
		One n = 15	Two n = 16
1. Was the course too easy or too difficult?	Too easy		
	Somewhat easy	1	
	Just about right	11	10
	Somewhat difficult	2	5
2. Was the course taught too fast or too slow?	Too difficult	1	1
	Too slow		
	Somewhat slow	2	2
	Just about right	6	5
3. Was the course poorly organized or well organized?	Somewhat fast	5	6
	Too fast	2	
	Poorly organized		
	Somewhat poorly organized	3	1
4. Was the course boring or interesting?	Well organized	12	15
	Really boring		
	Somewhat boring	1	
5. Did the instructor give out informative handouts?	Interesting	12	16
	No		
	Somewhat	1	
6. Did the computer activities help you learn?	Yes	14	16
	No		
	Somewhat	3	3
7. Was the instructor knowledgeable about the subject?	Yes	12	13
	No		
	Somewhat		1
8. Was the instructor easy to understand?	Yes	15	15
	No		
	Somewhat	2	4
9. Was the instructor enthusiastic?	Yes	13	12
	No		
	Somewhat	2	2
10. Did the instructor answer your questions?	Yes	13	14
	No		
	Sometimes		2
11. Did the instructor help you learn?	Yes	15	14
	No		
	Somewhat	1	3
12. Did you have difficulty communicating with instructor?	Yes	14	13
	No	15	14
	Somewhat		2
13. Did you feel comfortable asking questions in class?	Yes		
	No	1	1
	Somewhat	1	2
14. Did you learn a lot in this class?	Yes	13	13
	I learned nothing		
	I learned something	7	6
15. Would recommend this course to others?	I learned a lot	8	10
	No		
	Maybe		1
	Yes	15	15