

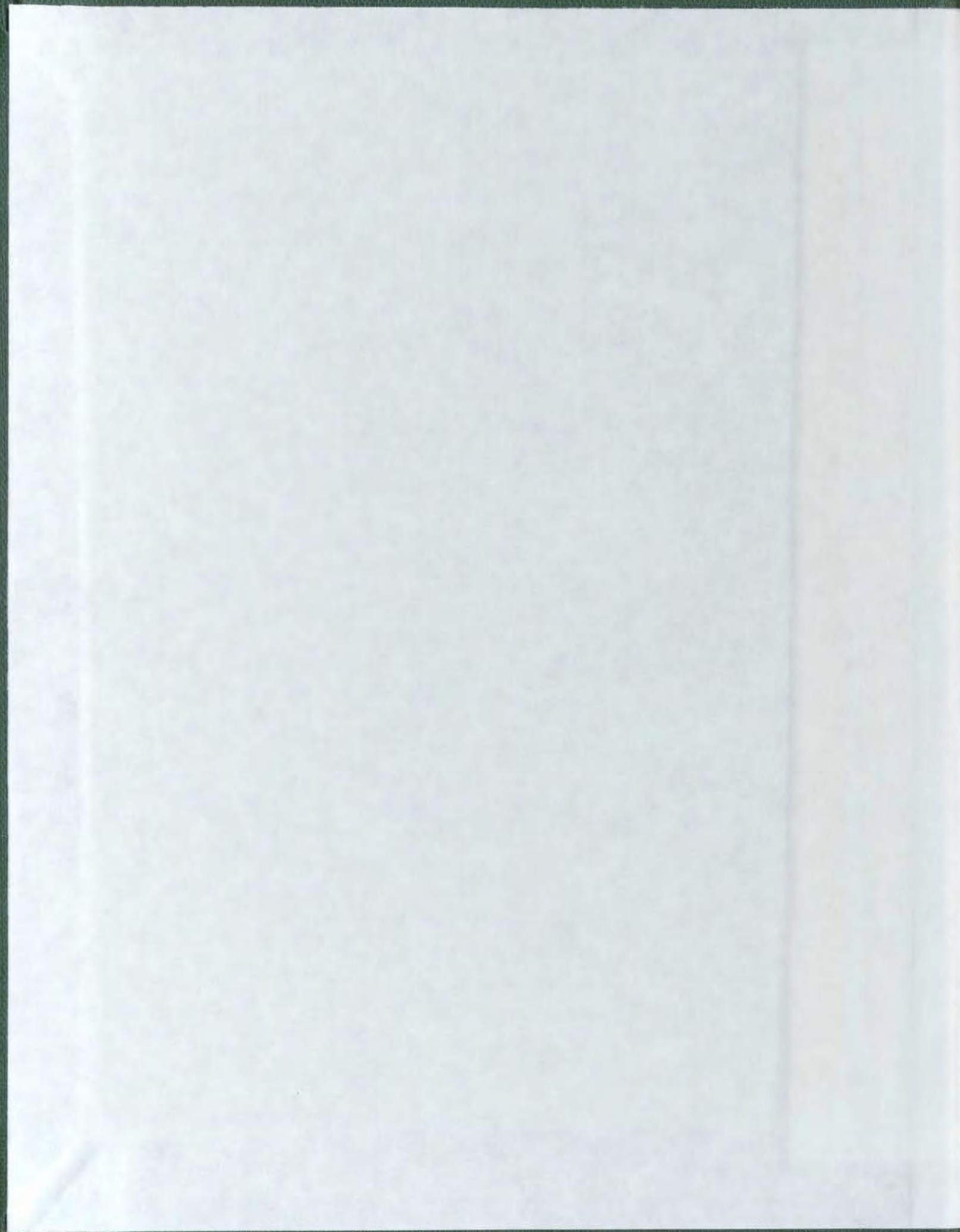
COMPUTER-ASSISTED WRITING IN
ADULT EDUCATION SETTINGS

CENTRE FOR NEWFOUNDLAND STUDIES

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JOAN PAULINE MARCHE



COMPUTER-ASSISTED WRITING IN ADULT EDUCATION SETTINGS

BY



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A thesis submitted to the School of Graduate
Studies in partial fulfillment of the
requirements for the degree of
Master of Education.

Department of Curriculum and Instruction
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July 1986

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ISBN 0-315-33617-X

ABSTRACT

The current technological revolution has produced the need to find more efficient ways of recording and storing information. The latest technological advancement for the writer is the computer. This new medium permits the writer to get words into print quickly and easily while facilitating more effective revision.

This researcher surveyed adult educators across Canada to determine if and how the computer is being used as a writing tool in adult education classes. The data for the study was collected by means of mailed questionnaires. Responses were tabulated from both users and non-users of the computer. Although only 29% of those responding were using computers in their writing classes, the results were positive. It was reported that adults generally enjoy using the computer and that the ease of revision which the computer allowed actually improved both the students' writing and their attitude toward writing.

Provided in this study is a 16 week module for adult learners. Offered in this module are writing exercises based on information gathered from the survey and on ideas from related literature on the subject.

ACKNOWLEDGEMENTS

This writer wishes to express her gratitude to a friend and supervisor, Dr. Frank Wolfe, for his understanding, encouragement, and competent guidance during the course of this study.

Appreciation is expressed to Dr. M. Kennedy and Dr. G. Fizzard who took time from their busy schedules to discuss this project and offer assistance.

This writer wishes to express special thanks to her family, especially her sister Ellen, whose support and encouragement helped make this study possible.

Special thanks is expressed to those who demonstrated true friendship during the past year, especially Cyril, Helen, Maxine, Reg, Joyce and the Governor.

Finally, this writer wishes to express deep appreciation to her husband Pat and children Pamela and Ian, without whose love, patience and understanding this thesis would never have been completed.

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CHAPTER 1

Introduction

Reading maketh a full man, Conference
a ready man, and Writing an exact man.

(Francis Bacon)

What is writing? Writing has been defined as a "system of human intercommunication by means of conventional marks" (Gelb, 1969, p.12). Historically, writing has taken many forms. Primitive man drew symbols on cave walls. Modern man uses the lighted dots on a cathode ray tube (C.R.T.) screen, more simply known as the computer, to aid in the writing process.

A brief look at a history of writing as outlined by Tuchudi and Tuchudi (1984) reveals much of the evolutionary nature of the writing process.

History of Writing

In his earliest attempts at communicating visually, primitive man used drawings to transmit his ideas. In the intervening years, the drawings lost their

clear definition and were modified and changed into simpler forms. Somewhere around 3000-2000 B.C., these ideograms became more widely used. These markings were symbols in which a rough sketch represented not just a single object but several related ideas. For example, a picture of the sun might also mean day, good weather, or the east.

The next stage in the development of writing, the cuneiform system, occurred in Sumeria around 3500 B.C. At this time, people used marks made by pressing a wedge-shaped stylus or marking tool into wet clay. These symbols came to represent specific words in the spoken language.

A further important development took place in Phoenicia. The Phoenicians adapted earlier writing systems, using marks to represent not whole words, but individual sounds in their language. Through letter symbols, the Phoenicians could use 22 symbols in place of thousands of pictures.

The modification of the alphabet to the point at which we can recognize the letters came through the Greeks and Romans. The Greeks borrowed the Phoenician alphabet, adopted 19 of these symbols and added some of their

own to create a 24 letter alphabet. The Romans then took that basic system of alphabet writing and carried it through their part of the world as the written form of their language, Latin.

The technology of writing has also steadily evolved. For the caveman, writing on walls meant using charcoal and paints laboriously created from materials in his immediate environment. Not only was the process a slow one, but written ideas were rooted to the cave walls. In the cuneiform system, printing on a clay tablet with a stylus remained very slow and cumbersome. In Egypt, written language was used only by priests who had access to the materials and the slave labor to create writing. This writing was carved in stone, which itself allowed little room for error. Later, the Egyptians developed papyrus, parchment, and vellum, which were better and lighter writing materials. Then, about the first century A.D., the Chinese developed paper.

With the development of pencil and paper, writing became easier, faster, and more easily shared. However, the physical act of writing by hand was still a tedious

chore for many people. The invention of the typewriter eliminated the laborious task of writing by hand, made the printed word more legible, and provided the advantage of speed in getting words on paper.

The current technological revolution has produced the need to find yet more efficient ways of recording, storing and making available information. Thus, the latest technological advancement for the writer is the computer. This new medium not only allows the writer to get words into print quickly and easily, it also facilitates more effective revisions, thereby removing the necessity of rewriting the entire text when changes are to be made in the original writing.

Need for Computer-Assisted Writing Programs

This thesis focuses on the use of the computer in the teaching of writing. Although the concept is still relatively new in the field of adult education, a number of community colleges across Canada are trying this new medium in their writing classes and are achieving positive results. A survey conducted by this researcher shows that computer users and non-users alike felt that the computer can be a useful tool in teaching adults to

write. Adult educators who are using the computer as a writing tool report that learners generally enjoy the writing process and that the quality of students' work improves. The ease of revision which the computer allows has eased the reluctance of learners to rewrite their work and has made them more willing participants within the instructional process.

A review of the literature on the use of computers in writing programs will show that this new technology has been used effectively as an aid in adult writing programs. At present, neither the community college nor the vocational schools in Newfoundland have a teaching module in place which focuses specifically on computer-assisted writing. Since we are preparing students for a technological society, and since computers in adult writing classes have proven to be both motivating and effective, this researcher feels that the need exists for the installation of such a program.

The following section will introduce the technological requirements essential to the incorporation of a new process for the instruction of writing within the context of the adult education system.

The Components of the Computer System

A computer system requires several basic components. Each system must contain:

1. the computer itself,
2. a device to transmit information and commands to the computer (although a cassette can be used, the most common device is the keyboard),
3. a device known as a disk drive to read and record information stored on disks,
4. some means of storing information - a disk or a cassette,
5. a monitor (T.V. screen) to display the material being processed,
6. a printer which will give a copy of the written work. This copy is known as a hardcopy. For rough drafts, a dot matrix printer will serve the purpose. However, a letter quality printer is necessary for final drafts.

Those components which make up the computer system are known as the hardware.

The type of system most useful for word processing and most useful for inexperienced writers is a micro-

computer system. This type of system can stand alone; that is, it is not connected with a central computer housed in another location. This type of system is very reliable, and it is relatively cheap to install. Software packages are readily available, either from the system's manufacturer or from various software firms.

Software

"Software" is a collective term for the sets of instructions that tell the hardware what to do. Individual sets of instructions are called "Programs" (Fluegelman & Hewes, 1983, p.28).

The software package which is central to writing on the computer is the word processing program. Word processing software allows written communication of all sorts to be easily generated, proofread, printed, and revised. No longer is it necessary to retype or rewrite many pages of a manuscript. Many working hours which would normally be devoted to rewrites can be saved.

For those who are unfamiliar with the system, a description of word-processing capabilities is warranted. Bitter and Camuse (1984) outline the capabilities of such a program.

The computer screen serves as a blank sheet of paper, and the text is typed, using the computer keyboard. Insertion and deletion of characters, words, lines, and even paragraphs can be done with the touch of one or two keys. This means that mistakes can be very easily corrected.

The word wrap feature allows the writer to enter long paragraphs without ever pressing the return key. The computer makes certain that no word exceeds the right-hand margin, automatically bringing words that are too lengthy down to the next line. No attention need be paid to margin limitations when entering text. This in itself is a time saver.

At intervals, and after a piece of writing has been completely entered, the user saves his/her writing by using a special command. This means that the work will be saved on a storage disk and can be recalled whenever needed. Before saving a piece of work it is necessary to give the file a name, for identification and recall purposes.

Now, let's assume that a student has entered his/her composition, saved it on a disk, and received a printed copy of his/her first draft. The student proofreads

and wishes to make revisions. This is where a word-processing program can make a tremendous difference; no laborious rewriting is required.

By using a simple command, the writer calls his/her piece of writing from the storage disk, and it is displayed on the computer screen ready for revisions. The writer is now free to make deletions, insertions, paragraph-moves and surface corrections. The word wrap feature insures that adding or deleting sentences and words will not interfere with correct paragraph and margin format after revisions are completed. In addition, titles can be automatically centered. When all changes have been made, the user can save his/her work and print the revised manuscript.

Students will find that use of word processing software can greatly add to their productivity and to the quality of the final draft of writing.

There are three other software packages that are useful to student writers. One such program is a spelling checker which allows the student to compare the words in his/her written composition with the program's dictionary. Any word that does not conform exactly

to a word in the dictionary is marked by the program and shown to the student on the screen. The student then has the option of letting the word remain as is or correcting it and saving the corrected version.

A dictionary program can improve a student's writing in two ways:

First, it catches typos and lets the student concentrate on getting the words down without stopping to consult a dictionary every few minutes. Secondly, the program displays every word it doesn't recognize. Since the student has to look up and correct each misspelled word, he may eventually learn the correct spelling.

(Fluegelman and Hewes, 1983, p. 133)

As well as the Spelling Checker, there is also available a thesaurus on disk which lists synonyms for many common words.

Another program which can contribute to better writing is a grammar-check program. A variety of

programs are available which check the students' writing for structural errors and highlight these mistakes for the student. Because errors are only located by the computer and not corrected, individuals have a guided learning experience of editing and completing a grammatically correct composition.

The Writing Centre

An ideal situation in any writing centre would be to have one computer per student. However, this would be a costly venture and most schools would be unable to provide such facilities. Since students in the writing centre may sometimes work in pairs, and since not all students will be using the computers at the same time, a class of 20 could easily be accommodated in a writing centre equipped with:

- a) a minimum of 10 microcomputers,
- b) one large monitor for demonstration purposes,
- c) a minimum of one high speed, dot matrix printer and one letter quality printer,
- d) a good range of software selected with students' needs in mind.

Timetabling for the use of the writing centre should be structured to accommodate designated periods of

instruction and practice for students in writing courses. The emphasis here would be on editing and revising. During unassigned periods and, after school hours, the writing centre could be utilized by students who wish to do extra work or to complete assignments on the computer.

Stages of Writing

In order to understand how the computer can facilitate the writing process, it is necessary to explain the stages of writing and show how they are compatible with the technology. West, Bailey and Wood (1981), outline the steps in the writing process as follows:

1. prewriting,
2. writing,
3. revising,
4. editing,
5. writing and proofreading final copy,
6. sharing and publishing (pp. 18-21).

All stages of writing still occur when writing is done on the computer. However, the computer changes the way each step is handled, especially the revising, editing, and rewriting stages.

Prewriting

During the prewriting stage, the student spends a considerable amount of time thinking about what he/she wants to write. Brainstorming, listing, freewriting, dreaming, and talking with friends are all strategies which are used to find ideas (Crist, W., 1984; Schwartz, L., 1983). This stage of writing is perhaps done as easily by pen and paper as with a computer. However, according to Myers (1986), there are software programs available that present a series of questions to be answered which will assist writers in the initial stages of writing.

Writing

During this stage, the writer uses the ideas generated in the prewriting stage to write a rough draft. The computer can be helpful at this stage. The student no longer worries about making mistakes, so he/she can get ideas out on the screen quickly (Loheyde, 1984; Gula, 1983). The computer also alleviates the physical struggle and the pain of cramped fingers which some students experience (Myers, 1986; Bean, 1983). This makes the act of writing easier.

Revising

It is at this stage of the writing process that the computer is most useful. When writing by hand, the penalty for error correction, rearrangement, and substitutions, is recopying. Therefore, most students, though aware that mistakes exist, will risk a lower grade and submit their first draft rather than recopy a written assignment. The word processor eliminates the sense of punishment in making extensive changes. Additions, deletions, substitutions can be done with the touch of a key or two. Sentences or whole paragraphs can be rearranged without the worry of rewriting (Smye, 1984; Loheyde, 1984; Levin, 1984).

Editing

During this stage, the student is concerned with the correct conventions of English. There are a number of grammar-checking software packages available that can check written work for subject-verb agreement, consistent verb tense, punctuation and other aspects of correct usage. The computer will highlight errors in usage, and the student can very quickly make the correction without spoiling the look of the printed

page. At this stage, also, the student can run a spelling checker program through his/her written work which will point out errors in spelling. With the use of the computer, editing becomes an easy learning activity.

Writing and Proofreading

Since all necessary corrections have been made, instead of rewriting the entire document, the student gives the print command to the computer and a crisp, clean copy is produced by the printer, ready for the final proofreading. If other errors are discovered at this stage, the student once again goes to the computer, calls up his/her file, makes the necessary correction, and again receives a printed copy.

Sharing and Publishing

At this stage, the completed document is submitted to the teacher, or it can be shared with peers. Although this step does not require a computer, the sharing can be done while the writing is still on the screen. It is probably a good practice to do this, since the teacher or the student's peers may pick up an error or

a point that needs clarification. Further correction can then be made before the final print-out is obtained.

The review of literature which follows will focus upon research that has been done on the use of the computer in the writing process. It will also discuss the benefits and some problems of using the computer in the writing classroom.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Introduction

A computer can no more teach the craft of writing than a paintbrush can teach the art of painting. But both are powerful tools, especially if you use them well.

(Wheeler, 1985, p.54)

The value of word processing as an important component of educational computer applications has been discussed in an ever-increasing number of articles over the past few years. The computer has been finding its way into the language arts classrooms, and English teachers are beginning to accept and apply this technology to the field of writing. However, despite the vast amount of literature on the subject, few of these articles are directed toward the successes or failures of computer applications to writing programs in the adult education setting.

Research

How extensive and how successful has the use of the computer been in adult writing programs? A number of

community colleges in Canada and the United States have been conducting observational studies to determine the effect of the computer on the writing process. Bean (1983), director of writing at Montana State University, observed the revision habits of four freshman composition students who used word processing as an aid for writing. His experiment showed that the computer can have a significant positive impact on revising habits. He states:

The success of this program for students suggests that the computer can help beginning writers learn to revise their initial drafts with less emphasis on lexical substitution and grammatical correctness and with more emphasis on progressive reshaping of ideas through successive draft (p. 146).

Collier (1983b) also studied revision strategies of students at Mount Royal College in Alberta. He perceives inexperienced writers as facing four basic problems when they write.

1. The more intricate kind of revision, particularly those applied to the larger domains of a text (such as the paragraph) or to the text as a whole, may strain a student's conceptualizing powers. Often these powers

are already taxed by difficulties in proofreading and by problems in the choice of words and phrases, matters which a more experienced writer might solve automatically and unconsciously while focussing on larger issues in revision.

2. Most inexperienced writers are not able to juggle successfully the demands placed on short- and long-term memory by revision that requires more than simple addition, deletion, or substitution.

3. Since students seem frequently to assume that writing is governed by the same principles that control speech, they act as if altering a portion of their text wipes out the original, thus making its retrieval nearly impossible.

4. Revision always entails, at some point, recopying or retyping. Since serious revision requires large-scale alterations and thus several complete drafts, students often make minimal or trivial changes in a text so as to ensure that recopying is as simple and quick as possible (p. 149).

He felt that encouraging students to work at their writing on the word processor, particularly revision, would resolve most of these problems.

Collier studied four subjects (all female) from introductory composition courses, on the basis of several activities that demonstrate competence in writing. All of the students could touch-type, but none had used a word processor before. Two of the subjects possessed average writing skills, one, weak skills, and one, superior skills. He observed, and compared their revision done by hand and that done on the word processor.

Collier found that the use of a word processor for revision is more advantageous than the traditional method, and that it does not appear to have any detrimental effects on revision strategies. However, Collier notes that most word processors are far more complex than the typical writing requires, and he feels that if the word processor is to become a useful part of the writing laboratory then:

- 1) Students will have to become sufficiently "computer literate" to make composing and revising on a word processor a practical alternate to writing by hand.
- 2) Our electronic engineers will have to redesign the word processor so that it demonstrably supports and enhances the writing process.
(p. 154).

With these improvements, he foresees students almost entirely dispensing with the traditional format of pen and paper, substituting in its place a keyboard, a computer, and a printer.

Unlike Collier, Smye (1984) does not see a problem with the complexity of word processing programs. He feels that a variety of word processing programs, such as Bank Street Writer and Story Writer, aim at simplicity. Smye feels that because of the simplicity of such programs "Students can compose at the keyboard after only ten minutes of instruction" (p. 31).

In his work with students at Sheridan College in Ontario, Smye found that:

Ninety-seven percent of the students enjoyed using the computers. Ninety-one percent liked the computers because you can make mistakes without being embarrassed. Seventy-three percent agreed that they learned better in classes using computers than in classes that don't. Ninety percent agreed that computers allowed them to assume greater responsibility for their own learning (p. 36).

Similarly, Kiefer and Smith (1983) studied randomly selected students taking freshman composition at Colorado State University, and found that 80% of these students enjoyed using the terminals and would use them again. Students surveyed in week five and ten of the experiment overwhelmingly agreed that using the computer is enjoyable, easy, and not frustrating.

Two further studies of word processing have been cited by Wresch (1983).

At Teachers' College, Columbia University, Collete Daiute spent several years researching the effects of word processors on student writing. She found these programs made a number of contributions. First, she found readers were freer "to spill out" ideas directly from inner speech, since they needn't worry until later about spelling, tense agreement, inappropriate wording, or other problems; these could be mended later without having to recopy the entire text. Thus, she found, thoughts could more easily be

captured in the writers natural voice. In addition, projects which were heavily formatted such as lab reports (or grant proposals) could be entered first as an outline to ensure correct organization, and then "Fleshed out" by inserting supporting detail.

She also found, as have many researchers, that because a word processor makes revision much easier and faster, students do more of it (pp. 797-8).

Another study of word processing, that one by Lillian Bridwell and Donald Ross (in Wresch 1983) at the University of Minnesota, points out that the computer does put some constraints on the writer. The limited size of the C.R.T. screen makes it difficult for writers to see as much of the text at one time as with paper and pen, as a result, text coherence may suffer. Another problem is that the gadgetry available on a computer may distract some writers, causing them to break off from writing every few words in order to "play" with editing features. And, of course, no matter how simple the word processors

are made, there will be a few writers who will be terrified by the new medium.

Despite these drawbacks, Bridwell and Ross found the word processor is an excellent medium for research on the writing process and that it improves student revisions.

In their judgement, the advantages outweighed the disadvantages so much that they plan to use word processors as a routine component of their composition classes.

Research conducted at the University of Victoria by Evans, Mickelson and Smith (1984), investigated the use of microcomputers in the development of the prose writing ability of university students. A computer-assisted language program, one which presents information responding to answers, and evaluating student input with programmed responses was used in this study. Student performance was measured through pre- and post-tests of sentence structure, error analyses, and examination of sentence types used in written compositions.

The results indicated few significant differences between control and experimental groups. It was concluded that computer-assisted instruction appears to be at least as effective as regular instruction.

What effect does writing on the computer have on creativity? Collier (1983a) studied college students by

comparing written text produced by hand, by typewriters, and by word processors for differences in improvement, in creativity, and in writing skills. His subjects included six college students - two with high creative ability, two with average creative ability, and two with low or weak creative ability.

His findings showed that the average creative ability group increased in creativity and the high creativity ability group increased their scores in writing skills when they shifted from writing skills by hand to typing. The strong ability group improved their creativity most with the word processor. The average creativity group was the most creative on the typewriters, next-most creative on the word processor, and the least creative ability group displayed little difference in creativity between essays written by hand and that written on a typewriter. Use of the word processor for writing seemed to enhance creativity.

Similarly, Catano (1985) in his observation of two professional writers at Brown University, concluded that, contrary to expectations, computer technology and creativity are not incompatible.

Varsava (1986) Memorial University of Newfoundland, has also researched the effect of the computer on writing.

A study was set up using English 1000 students. The experimental group (English 1000 computer) had 28 students while the control group (English 1000) had 33 students (two dropped because of the additional time required to learn to function on the computer, and three dropped for unknown reasons).

During the study, students in the experimental group did all their writing on a computer using a text editor and a program called "Criticize". Criticize highlighted errors in diction, sexist language, deadwood phrases, spelling, and weak beginnings, but left correction of such errors to the students. The student in both groups had to complete one assignment per month.

Gain scores for all students were obtained by comparing their high school English mark and their final grade in English 1000. Statistically significant differences were found between the scores of both groups, with the experimental group showing the greater gain.

The above studies show that English teachers are trying computers in adult composition classes and researching their impact. Not all findings are positive. However, research is continuing, and programs for computer-assisted writing are being improved.

Advantages of Using Computers in Writing

The Word Processor

According to Myers (1986), the computer program that has had the greatest effect on writing outside of English classes is the word processor. These programs can vary from expensive, "dedicated" processors to micro-based programs, some of which are simple enough to be used by very young children.

Not surprisingly, the word processor, with its ability to allow students to make endless changes to their texts without rewrites, is receiving positive reviews in the literature. Schwartz (1984), feels that word processing can change both the way students write and their attitude about writing. She states:

Students immediately realize the power of the word processor. Writing becomes a playground where revising is part of the fun instead of part of the punishment. For this reason, word processing is central to any use of computers in teaching writing. It changes the process fundamentally,

often making writers better readers of their own work and therefore more willing revisers for other readers (p. 240).

Ease of Revision

The computer offers the potential for new possibilities in teaching and learning. Dudley-Marling (1985); Levin (1984); Loheyde (1984) and Smye (1984), all note the ease and speed with which revision can be accomplished by the student as perhaps the greatest benefit of word processing. Insertions, deletions, spelling corrections and the like are readily accommodated on the computer. Using the commands available to him/her, the student can delete words, sentences, or whole paragraphs which can then be replaced by other words or sentences. The student can move sentences or paragraphs around in the text to make his/her composition more coherent. He/she can make additions to any part of the text at any time. This frees the writer from continually starting over and running the risk of accomplishing very little. Students can also save their text on a disk for further revision and print it when they are satisfied with a final copy.

English teachers are often frustrated by the resistance of students to make changes and corrections in their

written work. Since revising and rewriting can be a tedious chore, it is easy to understand a student's reluctance to produce a number of drafts. Watt (1983), a writer and a teacher of writing, states:

It is extremely difficult to devote thoughtful and creative energy to the task of evaluating your writing when you know that it will be followed by the grueling process of integrating all the changes, then rewriting the entire piece. Even then there's the frustrating thought that you might want to make even more changes. Most of us prefer to stop with a first draft (p. 43).

Crist (1984), sees word processing programs as a means of surmounting this obstacle. He feels that if students can change word order, sentence construction, paragraph structure, and the organization of the composition without having to rewrite the entire composition, there would be fewer reasons for resistance to these essential tasks of writing.

Schwartz (1982), a professor of writing at Stockton State College, New Jersey, strongly advocates the use of computers in the writing classroom. Based on what current research tells us about composing, particularly revision, she feels that the computer seems both psychologically and technologically suited to help the writer write more, take more risks, and achieve more fully-developed writing. She states:

I would like to suggest that the computer of today can, if wisely used, encourage writers of all ages to attempt more substantive changes in text. It can do this by reducing the frustration of recopying, by facilitating reading of the text during the intermediate writing stages - both for the writer and other readers - and by reproducing multiply drafts of this text for easy sharing with faculty and peers during the intermediate writing stages. As a result, the writer gains new confidence, energy, and information

needed to explore new meanings without feeling that there is a penalty for trying (p. 28).

Vacc (1984), feels that with the development of word processing programs, the computer has great potential for assisting with the development of individual writing skills. She supports the use of the computer as a means of recording, editing, revising and printing creative writing experiences. Word processors have the potential to encourage learners to edit and revise their writing more willingly than does the traditional paper-pencil method.

Writing as a Comparison Process

An important advantage of writing on the computer is that with a word processor, writing becomes more of a comparison process. Newman (1984), believes that the capacity of the computer for storing and manipulating text makes it easier for the student to consider alternative frameworks while writing:

It (the computer) allows writers to become more willing to take risks, to be tentative about meaning for longer, to consider organization

and word choices more freely than ever before. What this means is that children (and adults, too) can learn a great deal about language and the writing process each time they engage in writing (p. 495).

According to Smye (1984), the computer seems to encourage what James Britton would describe as "the expressive use of language". He feels that student writers use "language as exploration" more willingly (p. 30). He says that students do more planning, re-planning, editing and messing around with words than they have done before, and they do it with a lot less apprehension. Schwartz (1983), sees two advantages of using the computer for those who lack the confidence to play with language. The word processor can:

1. reduce initial fears of making mistakes, and
2. encourage a greater willingness to fully explore meanings (p. 28).

The actual process of writing entails prewriting, writing, and revision. The computer can make this process easier for beginning writers (Myers, 1986; Dudley-Marling,

1985; Watt, 1983). With a word processor, it becomes easy to experiment with words, try out different arrangements for the text, save several versions, print them all out, and compare. Writing becomes a process of continuous evaluation and revision. Since corrections are easily made, students are freed from their concern to get it right the first time.

Peer collaboration

The computer in the writing class provides excellent opportunities for peer collaboration. Several students can view the text at one time and help each other with the computer commands, thus making the writing process more fun. Samples of good writing can be stored on disks for modeling purposes and accessed at any time by a single student or by a group. As well, a single composition can be written using contributions from all members of the class.

Wheeler (1985), advocates this use of the computer. She feels that collaboration is both a useful writing activity and a way to take advantage of a limited number of computers. Simultaneous collaborative composition can provide opportunity for students to model the writing process for one another. When students work together,

they share the constraints of writing. One student may assume responsibility for entering and revising the text while, another may suggest what to say. Or they may wish to switch roles during the process. When partners disagree, they can try out alternative solutions to see what sounds better. This helps them to develop a sense of audience and voice.

Computer as a Motivator

The computer is viewed by a number of writers as a great motivator for getting students to write and to keep them writing. Levin (1984); Loheyde (1984); Cohen (1985) and Dudley-Marling (1985), all comment favorably on the computer as a motivator. Levin points out that since students are curious about computers, the machine itself is a strong attraction. Dudley-Marling has found that using the microcomputer to write letters can be a powerful motivator. Cohen states that students like to see their work in print, and that they are eager to write with a word processor. In summing up her experience with writing and the computer, she says:

I have found that microcomputers have a positive impact on students' motivation as well as achievement (p.47).

Fluidity of Text

One great value of the computer to the writing program lies in its capacity to keep fluid the process of writing, while at the same time the process may be fixed at any point for close study (Myers, 1986, p. 1).

It has been argued that computers make it easier to think while you write. Student writers often attribute their failure to produce a coherent essay to the problem of forgetting what it was they were going to say somewhere in the middle of their composition. Loheyde (1984), feels that strain on a student's memory can, in part, be alleviated by the ability to get one's ideas out on the screen quickly. Schwartz (1983) and Gula (1983) agree. They feel that the computer will not necessarily improve the quality of one's thoughts, but it will make it easier to think more clearly.

Struggle with Handwriting

Another advantage of using the computer in the writing class is the alleviating of the "physical" struggle with writing that some students experience. Once the difficulties with the physical process of writing with

pencil and paper are eliminated, the act of writing becomes easier for most learners. Bean (1983), director of writing at Montana State University, writes:

The computer ... can eliminate mechanical difficulties that hinder beginning writers, particularly the cramped illegibility of many students' handwritten drafts and their lack of time for extensive copying (p. 146).

With the word processor, students need no longer be embarrassed about messy handwriting. Graves, in an interview with Green (1984), cited poor handwriting as one of the reasons students don't write. He states:

Some writers dismiss as unimportant their experiences and their views about issues because their handwriting has been deemed unacceptable. If writing is not pleasing to the eye, they decide it must not be pleasing to the mind (p. 12).

Change in Attitude towards Writing

According to Crist (1984), writing for most students is a drudgery to be gotten through as quickly as possible (p. 77). However, it appears that when given the opportunity to write on the computer, most students have a change of attitude toward writing. Madigan (1984), states that students generally report liking computers or courses that use them. They feel word processing is an enjoyable way to prepare papers - it is not frustrating and not difficult. Wheeler (1985) writes that many teachers report that students, after having experienced writing with the computer, have an improved attitude towards writing, even when they are not using the computer. Gula (1983), has also noted a change of attitude toward writing, and he feels that with improvement of attitude there is invariably an improvement of quality. Since changes are easy, there is also more detail supplied in the students' writing. Other writers, (O'Brien, 1984 and Schwartz, 1982) have also reported changes in attitude towards writing by their students.

Advantages for Teachers

Writing with computers is advantageous to the teacher as well as for the student. Loheyde (1984) points out that writing which is legible and free of smeared pencil or pen marks is far easier to read, and that evaluation decisions on a composition will not be colored by the struggle to decipher a student's handwriting. Wheeler (1985), states that with traditional methods of writing, teachers respond to surface errors, because students can correct them without recopying an entire draft. Similarly, teachers tend not to encourage flexible planning strategies, because subsequent reorganization would require a new draft. Requesting a second or third draft can be unrealistic and unproductive because students become frustrated and tend to make additional mistakes in the process. With word processing, however, students never have to recopy an entire draft. This means that teachers can set higher standards for adhering to the conventions of writing.

English teachers are beginning to use word processing as a tool for teaching writing. Dictionary and editorial programs are also being used in conjunction with the word processing function. Teachers who use word processing in their writing instruction say that students enjoy writing

more and are encouraged to become better writers. However, many authors have warned about the misuse of a computer in the English classroom. It will not serve its purpose if used merely as an electronic workbook. Computers can be used for drill and practice, but they can also be used to encourage active, exploratory learning, particularly in the area of writing. Schwartz (1983), states:

We already know that teaching writing in the form of drills and exercises about spelling, grammar, syntax, etc., does not develop writing abilities. And word processor and computers will not be helpful if that is how they are used. I am not advocating that this advanced technology be attached to the "old" pedagogy (p. 35).

Clearly, advantages exist for using computers in the teaching of composition. Rodrigues (1985), believes that the word processor can become the centerpiece for an effective computer-writing curriculum. However, the computer by itself will not make better writers - only good instruction will improve a student's writing

performance. Wheeler (1985), feels that the technology and the teaching reinforce each other. English teachers must look at computers as a tool to be used. They should become familiar with existing programs designed to aid in the teaching of writing and use the computer to complement their instruction. If wisely used, this new technology can have a great impact on writing instruction.

Problems with Using the Computer

Although most educators have reported positive results when the computer is used to teach writing, there are a number of problems that need to be discussed.

Cost

Watt (1983) and Loheyde (1984), pointed to the cost of the computer unit, as one such problem. To teach writing while using a computer, it is necessary to have a keyboard, a monitor, a disk drive, a good word processing program, and access to a printer. This equipment is costly, even at the ratio of one computer per classroom.

Student Access

Researchers (Dudley-Marling, 1985; Wheeler, 1985; Watt, 1983; Fisher, 1983) have noted that in order for a word processing program to be of maximum benefit, a tremendous amount of time is needed at the computer to compose, edit and revise writing. Few schools have the number of computers necessary to give every student this kind of access to the machines. Levin (1984), has the following to say on the subject:

If a class of 25 students tries to put hands on two computers, there will be few converts. But, if there are several machines, and if the class is divided into groups, fun and profit are possible (p. 47).

According to Wheeler (1985), students need time and guidance to become as efficient at using a word processor as they are at using a pencil. A writing corner could be set up to work with individuals or small groups and this would eliminate some of the problem. Also, where there are a limited number of computers, flexibility in timetabling with the computer being used all day, as opposed to during writing period only, could help.

The problem of giving each student access to the word processor is a very real one, and the only solution is to supply more computers in the classroom.

Lack of Faculty Awareness

A computer is of no value if staff members are unwilling to use it or do not realize the full potential of such a teaching tool. Daiute (1985), claims that if a teacher is unaware of the potential of the machine, the temptation is to use it as a very expensive substitute for a workbook. This problem can be overcome by providing teachers with workshops and inservice training programs to demonstrate good software and to show how it can be used in the writing program. As Bruce et al (1985), expressed it:

A computer can be a wonderful teaching tool, a major classroom disruption, or a waste of resources (p. 149),

It is the teacher who will determine whether or not the computer will be used in the classroom.

Lack of Typing Skills

Most proponents of computers in the writing class

feel that the lack of typing skills is not a problem, because most students are able to use the "hunt and peck" method well enough to use the computer. R. Dollard (personal communication, June 17, 1986), Business Education-Chairperson, Bay St. George Community College, disagrees. She feels that in order for a student to get the maximum benefit from using the computer he/she must first learn how to type. One of the main reasons for using the computer is to get the words into print quickly. The "hunt and peak" method slows students, and ideas cannot flow smoothly if the student has to stop to search for the right key. She feels that keyboarding skills should be a prerequisite to any computer-assisted writing course.

Learning the Commands.

A concern of some teachers is that students must learn the commands in order to be able to use the computer. It becomes important here to select a word processing program with a suitable level of difficulty for the student. The teacher would need to become familiar with available programs and make a selection suited to the students' needs. The use of cue cards and having

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students work together can help to make the learning of commands a little easier.

Tendency Toward Surface Correction

Some educators fear that although the use of the computer makes revision easier, the focus is on making changes at the word level, which however, does not necessarily add to the quality of the text. This may indeed happen initially. However, according to Schwartz (1982), this problem is eliminated when writing is shared. The writer quickly learns that no matter how nice the text looks, no matter how few spelling and punctuation problems there are, if the message is not clearly stated, others will not understand and will question the meaning. In trying to explain, the writer will discover that he/she will need to add, delete or rearrange in order to make the text clearer. Wheeler (1985), feels that the process of writing has to be emphasized. Students need to learn how to take advantage of the computer as a writing tool.

Conclusion

Will the computer fulfill its potential as an educational tool? The answer depends to a large extent

on the user. The computer could be used primarily as a mindless electronic toy, or we as educators could make it work for us. The computer will do what it is programmed to do, so the choice is entirely ours. English teachers have a number of options. As Withey (1983), puts it: "Teachers may opt for ignorance, rail against it, or operate as if it did not exist" (p.24). However, the fact remains that computers are here and the English teacher's best option is to have a voice in the selection of hardware and software so that computers can become a useful tool in the teaching of writing. This researcher feels that evidence strongly supports the use of the computer in the writing classroom.

CHAPTER 3

PURPOSE OF THE STUDY

The present study was conducted to ascertain to what extent and for what purpose colleges and vocational centers across Canada use the computer as a tool in the writing classroom. Although many articles have been written about the use of computers in writing, very little attention has been paid to adult experiences with this technology. The literature, therefore, has left many questions unanswered. Can statements made about the use of computers by children be generalized to the adult learning situation? More specifically, this study seeks to answer the following questions:

1. Do computers offer an enjoyable learning experience for adult writers?
2. Are adults apprehensive about this new technology in the classroom?
3. How do people in adult education feel about the computer and its potential as a teaching tool?

4. Is there an improvement in students' writing when it is done on the computer?
5. Why are computers not being used on a larger scale in writing programs in the field of adult education?
6. Is there a problem in the availability of appropriate writing software for adults?
7. For what purpose is the computer being used in the English classroom?
8. How many hours per week do students spend at the computer?, and
9. What do adult educators feel is a workable computer/student ratio in a writing program?

Significance of the Study

This study was conducted in order to gain some insight into how computers are being used in adult education

programs in Canada, their usefulness in the area of writing, and adult students' reactions to the use of the computer.

The results of this study should be of particular interest to administrators and educators in adult education in Newfoundland who are interested in using this new technology in their writing programs.

Design of the Study

The present section outlines the method used to gather data for the study.

1. The Survey Instrument

To obtain from adult educators the information required to answer the questions listed in the Purpose of the Study, the mailed questionnaire method was adopted. Based on the available literature concerning the computer and its use in the composition process, on general discussions with educators in the field, and with the advice of two professors at Memorial University, a questionnaire was constructed.

The questionnaire was then subjected to analysis by several sources. It was first administered to ten adult

educators in Newfoundland whose area of concern is the teaching of English. These educators were asked to make suggestions as to necessary additions or deletions and to check wording for clarity. A reply was received from each with suggestions for improvements. Secondly, this investigator discussed the questionnaire with her thesis advisor and with graduate students in the Department of Curriculum and Instruction at Memorial University. Each questionnaire item was examined carefully, and, as a result, a number of changes were made.

The questionnaire was divided into three sections. Section I (demographics) was to be answered by all respondents. Section II was designed for those presently using computers as an aid in the teaching of writing, while Section III was designed for those who were not using a computer for this purpose.

2. Pilot Study

As stated earlier, this questionnaire was administered to ten adult educators in Newfoundland. These ten were not included when the responses to the revised questionnaire were calculated.

As a result of the pilot study, a number of questions were changed to statements and the use of a Likert-type scale was incorporated using a four point scale covering Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The 'Unsure' option was intentionally omitted in the hope that this would cause respondents to give the statements more serious thought. However, a number of respondents added the fifth option as can be seen in the tabulation of results (Tables VII and X).

The Sample

In order to obtain a broad sample, this investigator sent questionnaires to all Community Colleges and Vocational Centers in English speaking Canada as listed in The Directory of Canadian Schools. A total of 368 questionnaires were mailed in March 1986. Two hundred forty-four questionnaires or 66% were returned, 36 of which were unanswered because administrators felt that staff members were too busy at this time to respond. A breakdown in institutions responding can be seen in Table 1.

TABLE 1
TYPE OF INSTITUTION (N=208)

INSTITUTION	NUMBER
Community College	165
Vocational Training Centre	39
Junior College	2
Other	<u>2</u>
Total	208

Limitations

The limitations of a mailed questionnaire as outlined by Wallace (in Miller, 1970), apply to this study. Wallace states the disadvantages as follows:

1. problem of non-returns,
2. those who answer the questionnaire may differ from the non-respondents thereby biasing the sample,
3. validity depends on the ability and willingness of the respondent to provide information,
4. possibility of misinterpretation of the question,
5. no follow-through on misunderstood questions or evasive answers; no observation of apparent reluctance or evasiveness (pp. 76-77).

However, because of the large geographic area surveyed and because a means of collecting data at a minimum of time and expense was required, this researcher chose the mailed questionnaire as a survey instrument.

An effort was made to lessen the influence of the weakness of the mailed questionnaire upon this study. A pilot study was conducted in an attempt to assure face validity and to help eliminate misinterpretation of the questions. To help reduce the number of non-returns, a self-addressed, stamped envelope was included with each mailed questionnaire.

Sixty-six percent of those surveyed responded willingly, so this researcher assumes that all answers are indeed valid.

Definition of Terms

For the purposes of this study, the following terms have been defined:

Adult

An individual who is fifteen years of age or older and who is eligible for entry into Community College or Vocational programs.

Computer

In this case a microcomputer - a system containing a microprocessor, memory, and input/output circuits.

Word Processor

A program which makes it possible to enter and to revise writing on the computer. This allows formatting (centering, margins) to be done.

Adult Basic Education

The process of upgrading an individuals' education in the areas of Math, English and Science to a level where that student has met the requirements for entry to trades or general studies.

Vocational

Having to do with trades.

Post-secondary

Beyond the high school graduation level.

Junior College

Any institution offering two year university - parallel programs for students transferring to universities and programs of two years of vocational training for students.

Need for the Study

Since no national survey exists on how colleges are using computers in the English classroom, this study aims in part to answer that question. It is hoped by the researcher that this will:

1. show that computers are being used successfully in writing programs in other provinces of Canada,
2. provide some direction for establishing a computer-assisted writing course for adult learners, and
3. give interested English instructors a better understanding of adult learners' concerns and feelings about the use of computers in their writing.

Analysis of the Data

This section is divided into two parts. The first presents data related to adult educators who use the computer in writing classes. The second section presents data related to adult educators not presently using the computer in writing class.

This investigator invited recommendations and suggestions for using the computer in adult writing programs and encouraged comments from both users and non-users. Selected comments from this section of the questionnaire can be found in Appendix B.

Computer Users

This survey shows that computers are being used at all levels of adult education with the greater percentage being used at the post-secondary level and in classes of more than 20 students. Table II shows the levels taught. Table III shows the size of the classes.

TABLE II
LEVELS TAUGHT (N=61)

Level	Number	Percentage
Adult Basic Education	20	33
Vocational	5	8
Post-secondary	36	59
Other	0	0
Total	61	100

TABLE III
SIZE OF CLASS(ES) (N=61)

Size of Class(es)	Number	Percentage
fewer than 15	10	16
15-20	29	48
more than 20	22	36
Total	61	100

One concern of instructors considering the use of computers to assist in the writing program is the number of hours per week that should be devoted to computer use.

Fifty-six percent of users reported that they spent one to three hours per week at the terminal. Table IV outlines hours spent.

TABLE IV.
AVERAGE HOURS PER WEEK (N=61)

Hours	Number	Percentage
1-3	34	56
4-6	17	28
7-9	7	11
Other	3	5
Total	61	100

When asked what a workable student/computer ratio would be in a writing program, fifty-four percent of the respondents felt that a 1-1 ratio would be best. See Table V which follows.

TABLE V
STUDENT/COMPUTER RATIO (N=61)

Ratio	Number	Percentage
3-1	19	31
5-1	4	7
7-1	5	8
other* (1-1)	33	54
Total	61	100

* All respondents who checked this category specified 1-1.

One of the main purposes of this survey was to determine how the computer was being used for writing. Respondents were asked to note whether it was used for letter writing, paragraph writing, or essay writing. Seventy-four percent of those responding said they used the computer for all three areas, while 7% used the computer for paragraph writing only and 11% for essay writing only. The 8% who checked "other" all specified that it was used in journalism classes. Table VI gives a summary of computer uses.

TABLE VI
COMPUTER USES (N=61)

Uses	Number	Percentage
Letter writing	0	0
Paragraph writing	4	7
Essay writing	7	11
Other	5	8
All	<u>45</u>	<u>74</u>
Total	61	100

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Adult Educator Opinions

Of the 208 adult educators who responded to the questionnaire sent to all Community Colleges and Vocational Centers in English speaking Canada, 61 or 29% of these were using the computer in their writing classes (complete tabulated responses appear in Table VII).

When asked if they felt the computer is a useful tool for teaching writing, 97% of the users agreed, while 3% disagreed. Does the use of the computer improve the

students' writing? 92% of the respondents felt that it did, 5% disagreed, and 3% were unsure.

Are adult students apprehensive about using the computer as a tool in writing? Eighty-nine percent of the users reported that students are generally apprehensive when first exposed to the computer. However, 98% reported that after the initial introduction, students generally find the process enjoyable and rewarding.

One of the biggest fears of educators (teachers) is that the computer will replace them as the medium of instruction. Adult educators who use computers in their writing classes do not seem to have that concern. One hundred percent of the respondents considered the computer a complement to and not a substitute for the teacher.

A computer allows for ease of revision and consequently repeated evaluation of students' work. Ninety-four percent of respondents agreed with this statement, 3% disagreed, and 3% were unsure. When asked if availability of appropriate software for teaching writing to adults presented a problem, 60% agreed that it did, while 40% disagreed.

Results for Individual Statements

The percentage of respondents selecting each response for each statement is given in Table VII

TABLE VII
RESULTS FOR INDIVIDUAL STATEMENTS

Statement	Percentage of Respondents				
	SA	A	U	D	SD*
1. The computer is a useful tool for teaching writing.	44	53	0	3	0
2. The use of the computer improves the students' writing.	25	67	3	5	0
3. Adult students are generally apprehensive when first exposed to writing on the computer.	25	64	1	10	0
4. After the initial introduction, students generally find the process enjoyable and rewarding.	39	59	2	0	0
5. The computer is considered a complement to and not a substitute for the teacher.	79	21	0	0	0
6. The ease with which revision can be done allows for repeated evaluation of students' work.	41	53	3	3	0
7. The availability of appropriate software is a problem when teaching writing to adults.	16	44	0	38	2

* SA = Strongly Agree D = Disagree U = Unsure
 A = Agree SD = Strongly Disagree

Computer Non-Users

This section presents data related to educators not presently using computers in writing classes. The greater percentage of non-users (44%) taught at the Adult Basic Education level. Information on levels taught is presented in Table VIII.

TABLE VIII
LEVELS TAUGHT (N=147)

Level	Number	Percentage
Adult Basic Education	65	44
Vocational	23	15
Post-secondary	56	38
Other	5	3
Total	147	100

Despite the fact that they were not using computers to teach writing, many of the non-users were familiar with computers. Forty-five percent were either self-taught or had completed formal courses. Thirty-five percent

of the respondents reported very little familiarity with computers, while twenty percent said they had no familiarity. Table IX shows the familiarity with computers.

TABLE IX
FAMILIARITY WITH COMPUTERS (N=147)

FAMILIARITY	NUMBER	PERCENTAGE
Completed formal courses	25	17
Self-taught	41	28
Very little familiarity	51	35
No familiarity	30	20
Total	147	100

Of the 208 adult educators who responded to the questionnaire sent to all Community Colleges and Vocational Centers in English-speaking Canada, 71% were non-users.

When asked if they felt the computer is a useful tool for teaching writing, a strong 88% agreed, 9% disagreed and 3% were unsure. In response to the statement that they would use a computer in adult writing programs if one were available, 82% said that they would, 12% would

not, while 6% were unsure. This, combined with the positive response to the preceding statement, suggests that adult educators are very receptive to this new technology.

When non-users were asked if the general use of the computer to teach writing to adults would be realized in the next five years, 65% agreed, 23% disagreed, while 12% were unsure.

Results for Individual Statements

The percentage of respondents selecting each response for each statement is given in Table X.

TABLE X
RESULTS FOR INDIVIDUALS STATEMENTS

Statement	Percentage of Respondents				
	SA	A	U	D	SD*
1. The computer could be a useful tool for teaching writing to adults.	29	-59	3	5	4
2. I would use a computer for this purpose if one were available.	24	-58	6	7	5
3. The general use of the computer to teach writing to adults will be realized in the next five years.	17	48	12	18	5

* SA = Strongly Agree D = Disagree U = Unsure
 A = Agree SD = Strongly Disagree

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The positive response to statements one and two above again shows that adult educators are very receptive to this new technology. Then why is the percentage of users so low? Fifty-nine percent felt that lack of funds was the number one reason. Other reasons for non-use on the part of adult educators can be seen in Table XI.

TABLE XI
REASONS FOR NON-USE OF COMPUTERS

Reasons	Percentage of Responses
a) Lack of funds	59
b) Lack of staff training	39
c) Lack of suitable software	33
d) Resistance of faculty	11
e) Resistance of administration	5
f) Other	<u>3</u>
Total	150

* Percentage totals more than 100 because some respondents checked more than one option.

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SUMMARY

Overall, both users and non-users responded positively to using computers in writing classes. Ninety-one percent of all respondents felt that the computer is a useful tool for teaching writing, 7% disagreed, and 2% were unsure.

This survey showed that computers are being used in adult writing classes across Canada but on a smaller scale than this researcher had assumed. Only 29% of the adult educators who responded to the questionnaire were using the computer as a writing aid. Cost of hardware and software was the main reason for non-use.

The main function of the computer in the English program is word processing which gives students a chance to revise and rewrite. However, it was also noted that in 8% of the cases it was used for diagnostic purposes, 20% for tutorial, 25% for drill and practice and 5% for enrichment.

Conclusion

The microcomputer has potential for making significant changes in the way adult writing classes are structured. Though we are still in a transitional state, the situation is rapidly changing. This researcher predicts that in the near future, students will use word processors for writing as commonly as they now use calculators for mathematics. Within a few years teachers will use computers in some combination of ways in adult writing

programs. Students will revise their writing on computers and will receive computerized feedback on at least some aspects of their writing.

The following chapters will outline the rationale and objective for a computer-assisted writing program. Chapter VI will suggest activities for a sixteen-week teaching module for the program.

CHAPTER 4

RATIONALE FOR A TEACHING MODULE ON USING THE COMPUTER IN THE WRITING PROCESS

Technology will ... increasingly affect what we teach and how communications are generated. Recent advances in communication technology are embryonic, and writing teachers are just beginning to examine the potential for integrating computer technology and composing instruction (Tebeaux, 1985, p. 426).

Colleges and universities are reporting that students at these institutions lack the ability to communicate effectively while using the written word. Walpole and Hess (1985), have noted that students of today do not write well and that schools must improve the ability of our students to write. As well, reports from industry indicate that employees do not possess basic writing skills and recommend that schools and

colleges place more emphasis on the acquisition of these skills. P.J. Power (personal communication, June 18, 1986), Chairman of the Industry Advisory Committee to the technologies, Bay St. George Community College, states that one of the main complaints from industry is that graduates lack good writing skills.

How can writing instructors rectify this problem? The answer would appear to be simple: one learns to write by writing. However, a major difficulty lies in motivating adult students to write and revise their written work. Having already completed ten or eleven years of writing in our school system, many students feel there is no need to do more. Most view writing, particularly revision, as a drudgery. Having to produce second and third drafts demands time that the student does not have or is unwilling to give. Teachers are also reluctant to make such demands of a student because of the time and work required to produce multiple drafts.

When writing is done by hand and a student has to make changes in the text, the entire paper has to be rewritten. However, using the computer as a writing tool eliminates the frustration of rewrites. Changes in texts are very easily made. A student can go to the computer,

insert his/her disk, make necessary additions or deletions, and get a new print-out of his/her entire paper without having to rewrite anything. It is this writer's contention that this new medium for writing will be motivating in itself, despite the belief that adults are intimidated by the advanced technology. In a recent survey done by this researcher of adult education across Canada on the use of the computer in writing classes, it was reported that although adults are a little apprehensive initially, they generally enjoy the process.

Myers (1984), reports on his use of the computer in the teaching of writing development to first semester students at Seneca College and in so doing outlines the reasons for the teaching module included here. He feels that the gains of such a program are threefold:

Students reported that the writing task is more enjoyable, revisions are easier to make, and they have acquired a skill that will be useful in other writing situations (p. 27).

This module addresses itself to the need for adult students to discover the computer as a tool which

facilitates composition and revision as well as a tool which provides them with an additional skill to be used in the work place. As the student progresses through the exercises, he/she will be applying word processing functions to writing problems, and at the same time he/she will be preparing himself to use word processors effectively in future writing situations. This module will provide opportunity for many different kinds of writing, for different purposes and for different audiences.

Composition is a skill requiring more practice than anything else. This can best be accomplished in the context of the workshop classroom model - lecture, discussion, writing, and rewriting with the computer and a word processing program as composition tools. The workshop model is the basis for this teaching module.

Southwell (1982), proposes another good reason for using the computer for developmental writing. She feels that the computer keeps students constantly involved in their learning, offers privacy because it spares students having to reveal to others how much they may not know, and contributes to positive attitudes. These provisions are important for adult learners who may feel inadequate

and need experience that can help build self-confidence and permit them to progress at their own rate.

The computer is a tool of the current age and adult educators must explore the potential of this new medium for writing. Why have students perform the tedious task of writing and rewriting when they can easily compose and revise at the computer? Not only does writing become easier, but when individuals become familiar with the word processing commands, they work independently. Such a consequence is most applicable to adult learning.

CHAPTER 5

BEHAVIORAL OBJECTIVES FOR THE MODULE

The main purpose of educational objectives is to give direction to the learning process. The objectives which follow are fundamental to the writing process and particularly to writing on the computer. These objectives were developed with career-oriented high school graduates in mind. Therefore, the objectives do not deal directly with learning to write but with developing and practising good writing skills.

Behavioral Objectives for the Module

After carefully completing the module, the student should be able to:

1. know the computer and its components,
2. know how to care for the computer and disks,
3. know how to start and stop the computer,
4. know how to load and stop a computer program,
5. call up the computer menu or directory,
6. select required word processing functions,
7. recover from errors,
8. create and name a file,

9. recall a file,
10. use the centering command,
11. use the command to set margins,
12. use the insert and delete functions,
13. use the save and print commands,
14. move the cursor a word, a line, a screen,
15. use the scrolling techniques,
16. rearrange blocks of text,
17. enter a piece of writing on the computer,
18. use the indent function,
19. use the double/triple spacing command,
20. separate and combine text,
21. know the six stages of writing as being:
 1. prewriting
 2. writing
 3. revising
 4. editing
 5. writing and proofreading
 6. sharing and publishing
22. use the steps of the writing process to develop acceptable written communications;

23. know the functions involved in revising as being:

1. addition
2. deletion
3. transposition
4. substitution

24. use the functions involved in revising,

25. know the operations associated with effective editing procedures as being:

1. capitalization
2. punctuation
3. subject-verb agreement
4. consistent verb tense
5. pronoun reference and agreement
6. appropriate word choice
7. spelling

26. use effective editing procedures,

27. know the methods of gathering ideas for writing as being:
 1. discussion with others
 2. brainstorming
 3. use of literary materials
 4. observation
 5. recalling
28. use these methods to gather information for a composition,
29. demonstrate audience awareness when writing,
30. recognize a well constructed piece of writing,
31. recognize the value of unity and coherence in writing,
32. use unity and coherence in writing,
33. know the different methods of ordering information - chronological, spatial, categorical,
34. use the different methods of ordering information,
35. recognize the importance of using supporting details in writing - examples cause/effect, comparison/contrast,
36. use supporting details in writing,

37. develop a topic sentence by maintaining the subject in several consecutive sentences,
38. produce several different types of writing from the same topic sentence,
39. write an effective ending,
40. recognize the importance of descriptive detail and vivid verbs in writing,
41. write a descriptive paragraph,
42. know the effects of sensory appeal on writing,
43. use sensory appeal in writing,
44. know the elements of narration as being:
 1. purpose
 2. point of view
 3. structure
45. write a narrative paragraph,
46. use clear, concise language,
47. know the elements of exposition as being:
 1. structure
 2. thesis statement
 3. methods of development
 4. unity and focus
 5. coherence

48. write an expository paragraph,
49. know the importance of transition in writing,
50. use transition in producing an essay of several paragraphs,
51. know the kinds of information to be included in a resume,
52. prepare a resume,
53. recognize situations requiring various kinds of business letters,
54. write a letter of application ,
55. write a letter of inquiry or complaint,
56. write a friendly letter,
57. recognize situations requiring a memo,
58. recognize information contained in a memo,
59. recognize similarities/differences between the business letter and the memo,
60. write appropriate memos for various situations,
61. recognize different types of reports,
62. recognize kinds of information contained in reports,
63. research facts for a simple report,

64. write a simple business or investigation report,
65. know the aspects of creative writing as being:
 1. sincerity
 2. emotion
 3. originality
 4. re-creation of an experience.
66. discuss various pieces of writing in terms of these aspects,
67. know the importance of using figurative language and of avoiding cliches,
68. write a short essay, keeping in mind the aspects of creative writing,
69. use figurative language,
70. avoid cliches in writing.

CHAPTER 6

OUTLINE OF POSSIBLE ACTIVITIES FOR A TEACHING MODULE ON COMPUTER-ASSISTED WRITING

Introduction

What is written without effort is in general
read without pleasure.

(Samuel Johnson)

This statement sets the tone for any writing lesson. Producing an effective piece of writing often requires several drafts of the written work prior to a finished product. When done by hand, this indeed demands much effort on the writer's part. However, some of the redundancy and unnecessary effort required to produce good writing can be eliminated by utilizing the latest in educational technology, the computer, in the writing class.

This module aims to improve a student's writing ability by exposing each one to a variety of writing - for different purposes, and for different audiences. At the same time, the module aims to alleviate the laborious task of revising and rewriting entire scripts.

The target learners will be high school graduates. This researcher assumes that these students will already have mastered the basics of writing. Therefore, the lecture/discussion activities of this module will deal with methods of improving upon these basics by examining and discussing samples of good writing. Any problems with grammar and mechanics should be handled on an individual basis in student/teacher conferencing sessions.

Evaluation for this module will be continuous. Each piece of writing will be kept on file for comparison purposes, but only the final copy will be considered in determining a student's grade.

This teaching module is designed to cover a sixteen-week period of three lessons per week. Each lesson is designed to cover a fifty-minute teaching period. Detailed lesson plans are not provided. The intention of this researcher is to outline activities that a writing teacher can adapt to the needs of his/her individual students. Time constraints for activities are based on what this researcher has determined to be the level that the average student can accomplish. Individual students who do not require the time allotted to complete exercises can use the extra time to work on

written assignments for other classes. Students experiencing further difficulties will be dealt with on an individual basis in the form of instructor-administered tutorials.

The first six lessons of the module will focus on the operation and care of a computer and on the basics of operating a word processing program. The process of writing will not be directly discussed during this period. Since individual instructors will be using different computers and a variety of word processing programs, the outline of the first six lessons will be a general one. Since explanations may vary depending on the computer and the word processing program being used, each instructor will be guided by the manuals which accompany the computer and word processing program when these lessons are conducted.

The Computer

Week 1, Lesson 1

This lesson will familiarize the student with the computer and its components. A step-by-step explanation of the function of each component will be necessary. Have

students sit at the computer as you discuss each component - the keyboard, the screen, disks, disk drive, and the printer. At this time it is very important to explain to the class how to care for each computer component, particularly the disks.

This lesson should also cover the basic steps in using a computer. These steps would include?

- a) starting the computer,
- b) loading a program,
- c) stopping a program, and
- d) turning off the computer.

Have students perform and practice each step.

Week 1. Lesson 2.

This lesson will begin with a review of how to start and stop the computer, and how to start and stop the word processing program. This lesson will also cover:

- a) an explanation of the program menu,
- b) how to call a menu to the screen,
- c) how to select word processing functions,
- d) how to recover from errors.

All of this will be outlined in the word processing manual.

Have students practice these exercises.

Week I. Lesson 3.

The student is now ready to enter text and use some of the word processing functions to make corrections. Provide each student with a letter or a paragraph which has mistakes throughout. Go through the following procedure with the students:

- a) have each student create and name a file,
- b) have students type in the piece of writing exactly as it appears,
- c) show students how to set margins and use the centering command,
- d) show the students how to use the insert and delete functions,
- (e) show students how to correct mistakes in the text,
- (f) demonstrate how to save and print the document.

Week II. Lesson 4.

This lesson will begin by having each student recover the piece of writing which he/she saved on disk in the previous lesson. This lesson should review everything

covered in the previous lesson. By directing the student to make further changes in the piece of writing, each one will practice the functions introduced in the previous lesson. At this time, the student should be shown how to move the cursor without having it cover each letter. In effect, the student should be taught how to move the cursor one line or one screen. At this stage the student should be introduced to scrolling - moving the entire text backward or forward. At the end of this lesson, the student should once again use the SAVE and PRINT commands.

Week II. Lesson 5

This lesson will cover inserting, deleting, and rearranging blocks of text. In order to accomplish this, the student will need to call his/her original file to the screen. Another paragraph, prepared by the instructor, will now be added to the original text by the student. This paragraph will include mistakes such as words repeated, a sentence repeated, and illogical ordering of the sentences. The student should be directed to delete the sentence that appears twice in the text. Since the sentences are not in logical order, the student will practice block movement of text to rearrange them. A sentence from paragraph two may be moved to paragraph

one. New words or sentences may be added to either paragraph. A whole paragraph may be moved, such that paragraph two now becomes paragraph one. Any such exercise will suffice as long as the student acknowledges the need of adding and deleting characters, words, or whole lines, and can see how the entire text can be reshuffled using the commands available. This new document can now be **SAVED** and **PRINTED**.

Week II. Lesson 6

This lesson will deal with entering paragraphs correctly. The student will practice how to:

- a) indent a paragraph,
- b) select double or triple spacing,
- c) split one paragraph into several, and
- d) merge several paragraphs into one

Instruct students to create and name another file. Provide students with a piece of writing consisting of two or three paragraphs to be entered on the computer. The student can now be directed to split a paragraph between two specified sentences. Paragraph one may be joined with paragraph two. Again, any exercises will suffice, so long as the student practices the new commands. At the end of the period, the student should **SAVE** and **PRINT** his/her written work.

WRITING ACTIVITIES

The student is now ready to begin the writing program and use the computer as a composing aid. Although the basic word processing functions will have been covered, a number of others will be introduced during the course of the writing. When students are sufficiently familiar with the word processing program, they can be introduced to other programs such as a spell check program or grammar check program. These programs are not really essential to a computer-assisted writing course, so when they are to be used is entirely up to the writing instructor.

The following exercises deal directly with writing. It is recommended that all exercises be short (200-300 words). The idea is not to have students produce lengthy documents but to write well.

Each of the following activities is based on the workshop model of teaching writing. A lecture to be followed by discussion will introduce each topic. The two classes following will be used for writing and revising. During these periods, teacher/student conferences and sharing with peers will take place.

Week III. Lesson 7.

Lecture seven covers the steps of the writing process from pre-writing to writing the final draft. Involve the students in a discussion of writing, methods used by experienced writers and methods the students themselves use. Discuss the computer and the advantages of using it during all stages of the writing process. Demonstrate the steps of the writing process by using a computer and a large monitor which can be viewed by the whole class. At the end of this lesson, direct students to spend some time between classes thinking about a topic that they would like to write about the during next class. Encourage students to select a topic that they know and are interested in.

Week III. Lesson 8

The first 20 minutes of this class period should be a free writing exercise. Instruct students to sit at the keyboard, create a new file, and write for 15 - 20 minutes. Have them simply list words, phrases, sentences - anything that comes to mind about the topic they have chosen. Assure the students that they need not be concerned about coherence or usefulness. Encourage

students to think of the audience for whom they are writing. Try to reinforce everything that was covered earlier on the stages of writing. It should be pointed out that even professional writers seldom get a perfect piece of writing the first time around. After about 20 minutes, have the students print a copy of their ideas.

Using this list of ideas, have students spend the remainder of the period writing a paragraph which will be saved on disk, printed, and submitted for review. These paragraphs will provide the exercise for the next writing session.

Week III. Lesson 9

This writing session will be used by the student to make essential changes in his/her written paragraph. Once revisions are made, the corrected paragraph is saved on disk and printed. At this point, samples of student writing may be shown to the class on the large monitor, and the students may wish then to return to the computer to revise further.

Week IV. Lesson 10

The students have now completed their first piece of writing, and you as the instructor will have some

idea of the students' writing ability. It is now time to look at some samples of good writing. These samples can be obtained from a number of sources and put on a disk to be displayed on the large monitor for the entire class to view. Have the students examine and discuss opening sentences, supporting details, and endings. Use the sample paragraphs to show how writers can effectively communicate their thoughts with the help of good paragraph structure. Discuss the concepts of unity and coherence with the students. Discuss the ordering of events in a paragraph - time, space, climax. As a home assignment, provide students with a list of topic sentences and have them develop one of these sentences into a well structured paragraph. These paragraphs will be shared with teachers and peers during the next writing session.

Week IV. Lesson 11

During the first five minutes of this class period, each student will enter his/her paragraph on a computer disk. It is now ready to be revised. Some students may wish to display their paragraphs on a large monitor, for peer evaluation. Time should be allotted for this

type of activity. The remainder of this period will be used for student/teacher conferring and peer/peer conference.

Week IV. Lesson 12

This is a time to revise and rewrite. Have the student rewrite the paragraph in at least two different ways and copy both for comparison purposes. The student will then decide which version sounds best. A student may decide whether he/she wants to use sections from both paragraphs to produce a third. Students will produce as many versions as they wish, until they are satisfied with a final copy. This exercise simply enables the student to play with language.

Week V. Lesson 13

This class period will be spent discussing and demonstrating to the class how the addition of describing words can improve a paragraph by providing more vivid pictures for the reader. Have sentences, to which descriptive detail can be added, on a disk, and use the large monitor for demonstration. Have students suggest describing words to add to these sentences. Discuss

the idea of "appeal" to one or more of the senses when writing. Discuss the use of vivid verbs. Demonstrate how comparing and contrasting can make pictures more vivid. Review the use of interesting openings and strong endings.

Weeks V. Lesson 14

It is suggested that this period be used for in-class writing. Have students select a topic of their choice (or provide a number of topics for the students) and enter a descriptive paragraph on their disks. Have them SAVE and PRINT their rough draft. This should be submitted for the instructor's comments at the end of class.

Week V. Lesson 15

This period will be used for revising and sharing writing with the class. A final copy should be produced during this period.

Week VI. Lesson 16

This lesson deals with the narrative paragraph. Discuss how this paragraph will tell about things that happened and how it is normally written with one event

following in sequence after another. Discuss the use of clear and precise language. Show how descriptive detail can be included. Have students compose and enter a narrative paragraph on their personal disks and PRINT a copy for submission.

Week VI. Lesson 17

This class should be used by the students to discuss and revise their written work. A final copy should be produced during this period.

Week VI. Lesson 18

This lesson will deal with the expository paragraph. This is explanatory writing - how to make a cake; how to fix a flat tire. Discuss how narration and description can be used to enrich expository writing. Discuss the use of examples when trying to explain something. Discuss the importance of clear and precise language.

Have students open a new file at the computer and compose and enter an expository paragraph. Have a few suggested topics for students who have problems deciding on a topic.

Week VII. Lesson 19

Use this period to examine and discuss the paragraph from the previous class. Students will make revisions and produce a final copy by the end of this class period.

Week VII. Lesson 20

This period is to be used for an in-class writing assignment for evaluation purposes. Have students use the computer to compose, revise, SAVE and PRINT a paragraph of their choice. Have a number of topics available for students who may not have a topic in mind.

Week VII. Lesson 21

Now that students have spent five weeks on paragraph writing, they are ready to write longer compositions. This lecture will be spent on easy writing. It would be helpful here to have several good essays which can be displayed on a large monitor and discussed by the entire class. Opening paragraphs, the body of the text, and closing paragraphs should be closely examined. Discuss the idea of transition. Examine language usage, coherence, and unity of the written composition. Instruct students to come to the next writing session with an essay topic in mind.

Week VIII. Lesson 22

During this class, students will engage in a collaborative writing exercise. Have each student select a working partner. Divide the class time equally to insure that each student gets time to discuss his/her topic. As one student talks about his/her topic, the other will enter ideas on the computer. Since this is a brain-storming exercise, advise students to enter only key words and phrases. Trying to write complete sentences will be restricted at this stage. Sharing ideas may trigger other ideas, and a partner may make suggestions as well. After 25 minutes have the first student SAVE and PRINT his/her list of ideas. Have students switch roles and follow the same procedure. Each student will now be equipped with a list of ideas for a short essay.

Week VIII. Lesson 23

During this session, each student will decide which ideas are relevant to the topic. The student will then arrange and build these ideas into an essay of about 200 words. At the end of this period, each student will save and print the rough draft which can be taken away and studied for revision purposes.

Week VIII. Lesson 24

During this session, each student will revise the essay and print a copy at the end of class.

Week IX. Lesson 25

During the first thirty minutes of this session, the student will sit with a writing partner. Each student will examine his/her partner's paper and suggest possible changes. The final twenty minutes of this period will be devoted to making final revisions and printing the final copy for submission.

Week IX. Lesson 26.

This lecture will deal with resume writing. Discuss the types of information to be included in a resume and the format to be followed. It would be helpful to have some sample resumes to share with the class. Discuss the importance of considering one's audience here. Encourage the use of strong active verbs to present a picture of competence and efficiency.

Week IX. Lesson 27

During this session, each student will organize the personal data for a resume and enter the resume on the computer. The instructor will be available to give assistance where needed. A rough draft of the resume will be printed at the end of class and taken away to be studied for revision purposes.

Week X. Lesson 28

During this lesson, the student will make revisions to the resume and print a final copy for submission.

Week X. Lesson 29

Since the letter of application is included with the resume when one applies for a job, this would be a good place to introduce letter writing. This period will be spent discussing both business and friendly letters. Discuss the types of information to be contained in each and the importance of considering one's audience when one writes letters. The letter of application will be examined closely. Stress the fact that information must be relevant and accurate in this type of letter. Since the resume lists all specific facts, the covering

letter may be brief but must be very carefully written. The potential employer forms a first impression when he/she reads the covering letter. If he/she is not impressed, the resume may not be read at all.

Week X. Lesson 30


During this session, each student will write a rough draft of a letter of application and save it on his/her personal disk. Have the student print the rough draft and take it home to be studied for revision purposes.

Week XI. Lesson 31

During this class, students will revise, examine, and further revise the letter of application. At the end of the period, each student will print and submit his/her letter.

Week XI. Lesson 32

Return the letters, together with suggestions for revision to the students. Have students spend this class time revising and producing a final copy. This copy will be submitted for evaluation.



Week XI. Lesson 33

This lecture will deal with two other types of business letters - the letter of inquiry and the letter of complaint. Use the large monitor to display samples of both good and poor correspondence. Lead the group in a discussion of each type of letter. Point out the use of clear, direct, and simple language.

Week XII. Lesson 34

Have the students write either a letter of inquiry or a letter of complaint. Provide the students with situations which would require such a letter. Provide names and addresses for the student. Have each student print a rough draft to be submitted at the end of the session.

Week XII. Lesson 35

Return corrected letters to the students. Have them spend this class period revising and producing a final draft to be submitted for evaluation.

Week XII. Lesson 36

This period will be used to write and revise a friendly letter. Point out to the student how the language used

will be different here because of the different audience being addressed. Encourage students to make the letter light and lively but informative. Have each student print a rough draft of his/her letter and take it away to be revised.

Week XIII. Lesson 37

During this period, each student will revise and print a final copy of his/her friendly letter.

Week XIII. Lesson 38

This lecture will deal with the following points:

- a) what a memo is,
- b) the types of information it should contain,
- c) situations calling for a memo,
- d) the similarities and differences between a memo and a business letter, and
- e) the necessity for clarity and precision.

Throughout this lesson, samples of memos will be displayed on the large monitor and discussed with the students.

Week XIII. Lesson 39

Provide students with a list of situations which might require a memo. Have students:

- a) select a situation,
- b) write a memo,
- c) exchange writing with a partner for proofreading and editing,
- d) revise memo, and
- e) print and submit memo at the end of the session.

Week XIV. Lesson 40

The next five lessons will be spent on report writing. Since many job situations require that reports be submitted periodically, this is a very important skill to acquire.

This lecture will deal with:

- a) what a report is,
- b) kinds of information contained in a report,
- c) situations calling for a report,
- d) the necessity for clarity and precision, and
- e) the importance of knowing the audience to be addressed.

Have sample reports available for the students to examine and discuss.

Week XIV. Lesson 41.

Students will spend this class period in the library researching information for a short report.

Week XIV. Lesson 42.

Have students use the information as gathered to compile a short report. Students will print a copy at the end of this period. The report will be taken and studied for revision purposes.

Week XV. Lesson 43.

Have students make revisions to the report and print a copy for further revision.

Week XV. Lesson 44.

During this period the report will be shared with teachers and peers. Students will note suggestions for further revisions.

Week XV. Lesson 45

Have students make final revisions to the report, print it, and submit it for evaluation purposes.

Week XVI. Lesson 46

This lecture will deal with aspects of creative writing as being:

- a) sincerity,
- b) emotion,
- c) originality, and
- d) re-creation of an experience.

View and discuss some samples of creative writing. Discuss the use of figurative language and the avoidance of cliches.

Week XVI. Lesson 47

Have the students produce a short essay while keeping in mind the aspects of creative writing. Instruct the students to use figurative language and to avoid cliches. Have students print their essays at the end of class and take them home to work on revisions.

Week XVI. Lesson 48

This period will be spent in revising and producing a final copy of the essay to be submitted at the end of class.

Summary

Microcomputers offer important advantages to students at all stages of the writing process. The computer

encourages students to produce text and then provides them quick help in shaping, formatting, and polishing their work.

In this technological society, the introduction of the computer also provides the career-oriented student with an additional skill to be used in the work place. Writing instructors and students who explore the potential of this new technology will find the experience to be most rewarding.

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Appendix A: Survey Instrument

March 10, 1985

Dear Administrator:

I am a masters candidate in Curriculum and Instruction at Memorial University of Newfoundland. This questionnaire is an attempt to survey adult education instructors across Canada to determine how computers are presently being used in the area of writing. It is hoped that the information collected can be used as a basis for a thesis.

I would appreciate it if you would distribute the enclosed questionnaire to English instructors at either the Adult Basic Educational level or the Post Secondary level (excluding Business Education Programs).

An early response would be appreciated.

Sincerely,

Joan Marche

g1

March 10, 1986

Dear Colleague:

The attached questionnaire is an attempt to survey adult education across Canada to determine how computers are presently being used in the area of writing. I hope to be able to use the information collected as a basis for a thesis. Please complete Section I and EITHER Section II (if a computer is being use) OR Section III (if a computer is not being used).

Any additional comments you wish to make are welcomed. Thank you for your participation in this survey. An early response would be appreciated.

Sincerely,

Joan Marche

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Section 1

Please check the appropriate response.

1. Type of institution:

- a) Community College
- b) Vocational Training Centre
- c) Junior College
- d) Other

Please specify _____

2. Size of class (es):

- a) fewer than 15
- b) 15-20
- c) more than 20

3. Level taught:

- a) Adult Basic Education (8-12)
- b) Vocational
- c) Post-secondary
- d) Other

Please specify _____

4. Familiarity with computers:

- a) I have completed formal courses
- b) I consider myself self-taught
- c) I have very little familiarity with computers
- d) I have no familiarity with computers

5. Type of computer used:

- a) Apple
- b) Commodore
- c) IBM
- d) Radio Shack/tandy
- e) Texas Instruments
- f) Other

Please specify _____

6. The Software being used is mainly:

- a) Word processing
- b) Drill and Practice
- c) Tutorial
- d) Enrichment
- e) Diagnostic
- f) Other

Please specify _____

Section II

If you are using or have ever used a computer to teach writing to adults, please complete this section. Check the response which best expresses your opinion.

SA= Strongly Agree A= Agree D= Disagree SD= Strongly Disagree

Statement	SA	A	D	SD
1. The computer is a useful tool for teaching writing.				
2. The use of the computer improves the student's writing.				
3. Adult students are generally apprehensive when first exposed to writing on the computer.				
4. After the initial introduction, students generally find the process enjoyable and rewarding.				
5. The computer is considered a complement to and not a substitute for a teacher.				
6. The ease with which revision can be done allows for successive evaluation of students' work.				
7. The availability of appropriate software is a problem when teaching writing to adults.				

Please check the appropriate response.

8. On the average, how many hours per week does each student spend at the terminal?
- a) 1-3
 - b) 4-6
 - c) 7-9
 - d) other

Please specify _____

9. The computer is being used to teach:
- a) letter writing
 - b) paragraph writing
 - c) essay writing
 - d) other

Please specify _____

10. A workable ratio between students and number of computers would be:
- a) 3-1
 - b) 5-1
 - c) 7-1
 - d) other

Please specify _____

11. Recommendations or suggestions for using the computer in adult writing programs.

12. Please use the space below to add any comments about topics raised in this questionnaire or related matters. Thank you for your co-operation. Your comments are a vital part of this research project.

Section III

If you are not using a computer to teach writing, please complete this section. Check the response which best expresses your opinion.

SA= Strongly Agree A= Agree D= Disagree SD= Strongly Disagree

Statement	SA	A	D	SD
1. The computer could be a useful tool for teaching writing to adults.				
2. I would use a computer for this purpose if one were available.				
3. The general use of the computer to teach writing to adults will be realized in the next five years.				
4. In your opinion, why is the computer not being used in your program?				
a) Lack of funds				
b) Lack of staff training				
c) Lack of suitable software				
d) Resistance of faculty				
e) Resistance of administration				
f) Other				

Please specify _____

5. Please use the space below to add any comments about topics raised in this questionnaire or related matters. Thank you for your co-operation. Your comments are a vital part of this research project.

Appendix B: Additional Comments

ADDITIONAL COMMENTS FROM NON-USERS

Please use space below to add any comments about topics raised in this questionnaire or related matters. Thank you for your co-operation. Your comments are a vital part of this research project.

- The computer would be especially valuable in encouraging self-editing.
- I would be concerned that in the type of class I am teaching that too much time would be spent on learning 'how to use the computer' than time on writing. After all, the time allotted to go from grade 8 to 10 is only 7.5 months - year maximum. In this situation, I would use a computer but only nominally.
- I am planning to incorporate computers into the English Communication program.
- I never realized that the computer could be used to teach writing.

Additional comments (non-user) continued

- We have never considered the use of the computer in our reading/writing program, largely because the number of students would not justify the cost, nor have we been convinced of the value of the software available.
- User friendly microcomputers are at present too expensive for general use.
- I would suggest that post-secondary students who are not taught to compose with computer assistance will be improperly prepared for employment by most large companies.
- Our school is planning to implement computer-assisted training within the next two years.
- We are just now ~~talking~~ talking and planning our way into this field. Some staff members are taking classes in preparation for the big day!

Additional comments (non-user) continued

- I have some students who use a computer to do their essays and the quality of their work is much better. Therefore they achieve a higher grade. The computer is a positive training aid and I hope to make more use of the computers in our school in the future.
- The computer could be a useful tool, but not the only tool for teaching writing. The human element is important when dealing with the skills of writing, reading and speaking.
- I believe that as computers become more user friendly, they will become much more widely used by writing instructors.
- The problem appears to be that Humanities faculty just don't see the computer as being relevant to their interests or their jobs. So they ignore it. There may well be some computer phobia involved.
- Budget - lack of funds is the problem as well as leadership by administration to give priority to such teaching tools.

Additional comments (non-user) continued

- Computer programs could be used for such things as drill-and-practice of grammar skills, or sentence structuring, but the student would need adequate time to devote to these activities.
- Computer assisted instruction is valid but is time consuming for many students. Not enough software aimed at ABE students at basic literary level. We are expecting two C-64 computers within the next few months. I may have more to say at that time.
- I would be interested in learning more about the use of the computer in teaching composition. I've read several favourable reports on its use in composition, but at this point I know very little about it.
- Best of luck with you MA studies!
- This is the 1st year that I've used a computer - I've found it very useful for preparing class materials etc. Our college is planning a remedial learning center (using computers), but not all staff members feel the computers will be valuable aids.

Additional comments (non-user) continued

- I have observed several classes where the computer was in use. In most cases it was being used as an "excuse" for not teaching. Thought processes and organization which are the most important components of writing have to be taught/learned through discussion and example. Software for some of the mechanics may be useful, however.

- We are hoping to have a small computer writing lab in place by January 1987 to assist students.

- I have been asked along with another instructor to look into the possibility of using computers in the English programme at Niagara College. My interest is in using the computer as an aid in our letter writing course for business students. Ray is considering the use of computer pre-writing software for our basic writing (Freshman English) courses. Currently we are considering the Sheridan College Prewriter programme, and the Writer's Workbench for editing purposes. I would appreciate receiving a copy of your survey findings if you will be making them available.

Additional comments (non-user) continued

- I feel word processing would enhance student interest in writing.
- We obtained 7 Rainbows to be used in the classroom but the faculty voted to give them up!
- I would like to see more inservice training on computers. Since I have not had any experience I feel a little hesitant to begin.
- I've referred appropriate Software to Administration but was told high cost of such packages as opposed to cost of traditional English textbooks is a negative factor. Key reasons for non-use are (1) cost (2) logistics of scheduling (3) traditional view of English lecture type classes.
- Good luck with your work!
- The logistics involved in computer taught writing are too horrendous to contemplate here. We have 20+

Additional comments (non-user) continued

sections @ 27 bodies in the fall semester! Unless we had a minimum of 8 rooms with at least 15 consoles, we couldn't get started!

- The full potential of the computer to adult education will only be realized when the necessary hardware and software are put in place.

- I am extremely enthusiastic about the possibilities of using computers in teaching writing.

ADDITIONAL COMMENTS FROM COMPUTER USERS

Recommendations or suggestions for using the computer in adult writing programs.

- The computer should be used as early as possible in communication courses. Text analysis program are also useful.
- I don't know about other kinds of writing, but I know about journalism. Computers are essential and should be used exclusively.
- Students need basic introductory courses in keyboarding to help cut "typing" time.
- Introduction to word processing should precede writing instruction: students should be familiar with the processing system, so they can concentrate on editing.
- We use the computer to teach a unit on word processing to our students. We then insist that some assignments are done on the word processor throughout the term. We attempt to overcome their insecurity about approaching computers.

Additional comments from computer users continued

- We use the computer in the writing clinic. We do not find drill and practice programs helpful. Essentially, we find the use of a word processor, combined with tutoring, to be most effective in helping students with a variety of writing problems.
- Skill and care must be used in introducing adults to computers. I try to help them understand the machine and begin doing something useful and impressive in the first hour. Refinements can come later.
- Students in basic courses in writing would benefit greatly if they had access to a word processor during all stages of writing.
- Computers enter into all stages of composing process: in the prewriting stage in the form of dialogues perhaps or brainstorming; in writing stage in form of word processing; in revising stage as editor and critic in form of computer assisted editing.

Additional comments from computer users continued

- Use a simple word processing program and ensure that the instructor is available at the beginning to avoid frustration.

- I have a couple of articles out on writing and teaching writing with computers: CC, 34 (May, 1983), 149-55; ERIC microfile: ED 246 430; and a third in Computers and Composition: Selected Papers ... (April 1984), pp 67-93 (published in Minneapolis). I have noted some suggestions in those articles that you might find helpful.

Please use the space below to add any comments about topics raised in this questionnaire or related matters. Thank you for your co-operation. Your comments are a vital part of this research project.

- We are currently teaching approximately 6,000 students to generate text using word processing. (Seneca College).

Additional comments from computer users continued

- Students must enjoy computers to see the value of the word processor in order to be motivated to use a computer in his own time. Some students can edit better when using a computer. I see little value in using W.P.'s to teach writing until computers are cheaper. The Toshiba portable computer, available in Australia, but not here, is the type of machine that holds promise for the future.

- I think a real selling job must be done with many of the older and more traditional instructors before the computer will be used successfully in many Adult Basic Education classes.

- I have used word processing only as an optional method of transcription. It would require 1:1 ratio of computer to students to use this in the classroom, and the lack of keyboard skills on the part of most students is a disadvantage. "Writer's Workbench" is a fairly sophisticated editing program put out by Bell Laboratories, and students find it quite beneficial.

Additional comments from computer users continued

- The special editing functions mean more pride with and attention to the final drafts of projects. Out of 120 students in my classes only 3 are not enjoying computers.

- Good luck! Keep me posted on the results of your research! Ron Adams - South East Community College.

- I would be most interested in a copy (or abstract) of your research proposal - and, of course, the results. Cariboo College just hosted a successful inter-provincial conference on computers and Language Arts. We intend to host an international convention next year.

- Good luck with your thesis work!

- I'm afraid that you have caught me just two weeks into introducing word processing to my students. Because I am a "convert", however, I have high hopes that my students will respond similarly!

Additional comments from computer users continued

- One of the significant values of the computer is that it increases student confidence. Since mistakes are easily corrected, students worry less about making mistakes and can concentrate on the writing process.
- Some kind of central source of information regarding software available to teachers is urgently needed.
- Using a word processor is great because students get a nice, clean typed copy of what they have written - they seem to like it better than writing their stories out by hand.
- I am working on my masters' as well. Your topic sounds very interesting. Good luck! (Karen Ridley)
- First, this is an excellent idea. Can we improve on it by getting together a data exchange (using modems) of the survey respondents? I know some programs must be doing great things, but I don't know about who or where they are.

