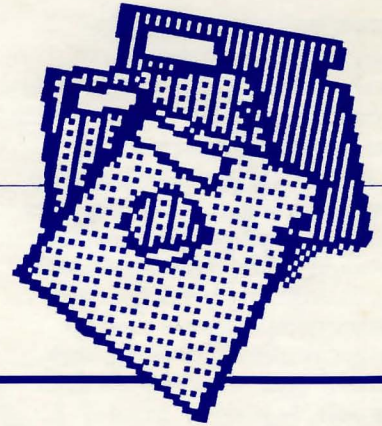


The Bank Street SOFTWARE LETTER

a friendly guide
for parents and others



THE LEARNING ADVANTAGE

A Word Processor in the Family

We overheard two 10 year olds from the Bank Street School for Children talking the other day. Douglas was touting the delights of a new computer game. But Robert seemed oddly uninterested. We were puzzled until we heard him explain, "I'm not into games right now. I'm into word processing."

Robert reflects an American trend. Families are indeed "into" word

processing, which has now passed game-playing as the most frequent application of home computers. This being the case, it seems important to take a look at how you and your family can get the most out of the word processing experience.

What is Word Processing anyway?

All microcomputers have the built-in capacity to accept a limited number of words. All you have to

do is plug in the system and begin typing, and you'll see your words on the screen. You can write a simple BASIC program to place the words where you want them or make them print out on paper. But you will soon find that for writing anything more than a brief communique, this method is quite cumbersome.

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R3's Corner

Welcome to the Bank Street Software Letter — our "friendly guide for parents and others." We've designed it to provide, in non-technical terms, the perspective and practical advice that will help you and your children best use computers as a new tool for learning. At the



same time, it will help you make your computer use an enjoyable experience, marked by a sense of fun and playfulness.

In this Letter, we will draw on the expertise of Bank Street College — and on our colleagues throughout the country — to present a variety of "best ways" computers can be used by children and adults. Each issue will look at a particular type of software. We will look at music software, games, word processing programs, spreadsheets, programming, and graphics applications. In addition, we will look at current topics that affect our children's use

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Computers and Girls

Walk into a computer lab in most any school across the country during after-school hours. Chances are you will find "hackers" — kids practicing their programming skills, filling up hour after hour of free time. The chances are even greater that very few of those hackers will be girls.

Why do boys seem to take over the computer labs? Why do girls in

junior high and high school express so little interest in computers? And what can you do to stop this trend?

First of all, girls don't start out uninterested or uninvolved. In the early grades, girls are as adept and eager to use computers as boys. Yet at some point — around sixth or seventh grade — researchers report a gap in both achievement and interest levels. Not surprisingly, this gap

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R3's Corner...

of computers. For example: Do computers make children better problem-solvers? At what age should kids start using computers? Are video games harmful or addictive?

At Bank Street, we have a distinct point of view about how computers should be used: *actively*. Computer use should not be a passive experience, as watching television often is. Whether computers are used for writing, calculating, drawing, making music, organizing and manipulating data, or playing "what if" games and simulations, something of ourselves is invested in the activity. We take risks, and we make something happen.

Making something happen is both exciting and rewarding. Like any important learning experience, it can involve a certain amount of frustration, failure, and self-doubt. You will see that our focus is on exploring the many available computer applications—following your interests and being prepared to learn something new, realizing that learning something new takes a bit of bravado, plunging ahead, asking questions, and experimenting.

The lead article in this issue focuses on the use of one particular computer application—word processing. It describes what word processing is, and how it can be used to benefit both children and adults. A second article addresses the issue of equity in relation to girls' use of computers. The question posed is: Why do many girls lose interest in computers in late adolescence? We'll review the research and describe what thoughtful parents can do to foster computer learning experiences for their daughters.

Computers and other newer interactive technologies offer wonderful possibilities for stimulation, education, and plain enjoyment—particularly when families learn together. In future issues we'll explore why interactive technology is here to stay, why it's so important to use the best software, what shape the new technologies will take, and much more. These are important questions. And I'm delighted to share this corner with you.

—Dick Ruopp
President of
Bank Street College
(Richard Randolph Ruopp)

A Word Processor . . .

Here's where word processing comes in. As soon as you add a word processing program to your computer's repertoire, it becomes, in addition to whatever it was before, a writing and editing machine of dazzling versatility. The true beauty of word processing is that it can be tailored to fit the needs of each member of the family—even its youngest members.

The Word Processing Program

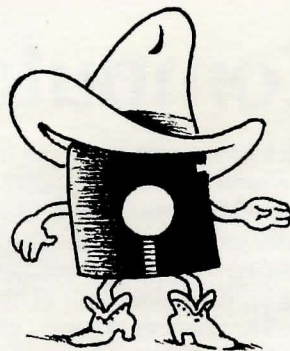
Home computers generally get their word processing capability from a piece of software (a diskette or occasionally a cassette), which programs the computer to go into the word processing mode. The more popular word processing programs have versions available for each of the leading brands of home computers. Each word processing program comes with a detailed manual that tells you how to use it with your particular hardware.

What Word Processing Does

Basically, word processing allows you to type into your computer's memory a letter, proposal, poem, term paper, speech, book report, novel—in other words, any block of text. It also allows you to change the text, erase it, move portions of it, save it on a disk and, if you have a printer, print it out. Besides these basic functions, most word processing programs these days (even the less expensive ones) permit you to find and replace every instance of a certain word, to copy passages from one manuscript to another, and to perform any number of other useful tasks.

The Processor at Work

It's a funny expression—word processing. Sounds like you run



THE DISCO KID SAYS:

The first modern-day word processor was called the *Mag Card Typewriter*, launched by IBM in 1964.

words through some sort of chemical process. In a way, you do. Except that you supply the chemistry. Unlike processed foods, processed words can be tastier, more substantial and certainly more legible. Corrections, additions and erasures are so easy to make that they tend to reduce some of the biggest hang-ups of writing. Want to change a word in mid-sentence? Use ERASE and you'll zap it out as easily as you zap a Space Invader. Would paragraph Two be better where paragraph Three now is? You can move it almost as quickly as you can say the word. What? Changed your mind again? There may be a MOVE-BACK function in your program that will cater to your changes of mind.

As a practical help, the word processing capability of a home computer is light-years ahead of a typewriter. With word processing, correcting, changing and editing become fun. Writing tasks that ordinarily are sheer labor become a more organic part of the creative process. For example, having the ability to move large chunks of text with ease prompts many people to experiment with the structure of a piece of writing. In so doing, they may discover weak writing habits such as the tendency to imbed main ideas. And for the family that misspells together, there are programs that check your text for spelling errors from a bank of words in the program's memory.

Once having said your piece with the word processor, you can save it and store it under your own (even private) label on diskette. If you have a printer you can print out all or part of your letter or story—or even several copies. For families that do a lot of writing, storage is often a problem. Word processing lets you dispose of your print-outs when you don't need them anymore, and store lots of words in a small space. This is a real boon for a family that needs the computer for letter-writing, business and school work.

Word Processing and the Grownups

Adults who don't type tend to worry that their lack of typing skills will hamper them in word processing. Clearly, there's no question that knowing where to get your hands on QWERTYUIOP is a help. But it's less essential on a computer keyboard than on a typewriter. For one thing, the key press is generally

easier on a computer. And perhaps because of the ease with which "typos" can be corrected, both children and adults with no typing skills seem to quickly gain the confidence to click away on a computer keyboard. Dads and Moms who are used to having secretaries do their computer work may have to make a few adjustments in their thinking, but most adults we talked to who use word processing as an adjunct to their businesses said they enjoyed the feeling of being in total control of their own work at home.

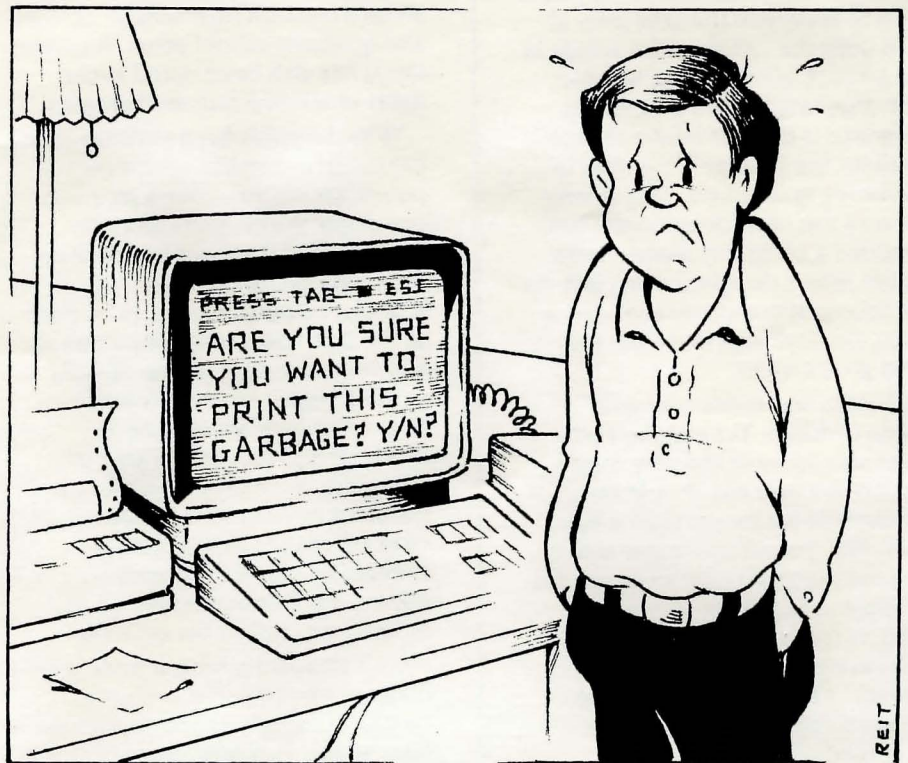
Women are generally more subject to computer phobia than men. But word processing seems to be an exception. Perhaps it's because more women have typing skills and are familiar with the keyboard set-up. In our own modest poll of what Bank Street parents used home computers for, we discovered that word processing was the single most significant use of the computer by women, and our respondents regarded it as a distinct time-saver.

Children and Word Processing

Most families who purchase a word processor for their home computer do so at least partly for the children. In fact, an increasing number of parents learn about word processing through their children's experiences at school.

In schools, word processing has become one of the most familiar ways to use the computer as a tool for learning. It's too narrow a view, however, to think of it only in the learning context. If your youngster writes a letter to a friend, makes entries in a diary, creates her own TV drama — what do you call it? We call it a lovely blend of entertainment and learning. On this basis alone, the word processor is a valuable experience for a youngster.

But there's more to it than that. Rewriting is an important step in writing. It's not easy, even for adults, to rewrite, and it's something that most youngsters resist. Kids don't want to have to recopy what's good in order to correct errors, and they're afraid they'll make new mistakes as they correct the old ones. So they wind up writing as little as possible. "How many words does it have to be?" is a cry familiar to most teachers of writing. Yet it's precisely this rewriting process that is invaluable in honing the skills that American educators say our children lack.



A word processor can help overcome children's resistance to rewriting, in the same way that it can overcome adults' resistance to typing. It allows for changes and corrections without having to type a whole manuscript over again. With a word processor, a youngster can erase and retype as many times as necessary, without leaving any tell-tale smudges or evidence of second thoughts. New material can be inserted and what's already there can move over to make room for what's added. And when the final draft is printed out, any piece of work has a professional look. Kitty Newhouse, one of the teachers at Bank Street's Children's School, says that using a word processor has made reluctant writers write more frequently and at greater length, and has given very good writers more freedom to experiment.

Choosing a Word Processing Program

At last count, there were about 400 word processing programs on the market. Some of them are more difficult to learn than others. Some of them are much more expensive than others. Some give the user much more satisfaction than others. So how do you know which one to choose?

If you project that your family's word processing will consist mainly

of personal correspondence, homework assignments and an occasional list, menu or instruction to the summer renter, it may make sense for you to get a no-frills program — that is, a program with basic word processing functions. Many people feel there's a distinct advantage to not having to learn an extensive menu of functions if you're not going to need most of them. Another advantage to a simpler program is that it will be easier for the younger members of the family to use, and it will serve as a warm-up, should you want to tackle Wordstar or one of the other more complex programs later.

Here's another idea. Several of the newer pieces of software offer word processing, an accounting spread sheet program and a filing program on a single disk. If you need all of the above, and plan to use them together at times, the three-in-one type word processing program may be your best bet.

What About Programs Especially Designed for Young Children?

Computer literacy (and other kinds as well) is encouraged by allowing kids to play with words. The computer and a word processing program is a good way for kids to play. A five year old may enjoy typing in the alphabet, or his name, or the words on the cereal box. If

you have one program for all, you'll have to supervise the little one, at least until she can read the words in the prompt window. The trouble with most adult word processing programs is that the letters are too small for the youngest member of the family to focus on. That is why some of the new tot-tailored word processing programs feature large, legible letters designed especially for the youngest computer user and a more standard size for when the child grows older.

One caution to exercise with young children: Time at the computer should be in the play mode, and no five year old should be at the console for longer than a half hour. Nor should computer activity take the place of other kinds of play. An eight year old, on the other hand, is ready to tackle a word processing program for longer periods of time, particularly one designed for youngsters but powerful enough for adults.

A Last Word on Word Processing

Although a word processing program turns the computer into a writing and editing machine it doesn't teach writing—any more than a typewriter does, or a pencil and paper. What it does do is allow you to enter a piece of writing into the computer by way of the keyboard, then work on it to rewrite and make corrections and changes easily.

It may also save you some time.

And put you and your family in touch with a few new skills.

And make you feel that you are at one with the new technology.

Give it a try.

—Barbara Brenner

Barbara Brenner is an Associate Editor in the Media Group at Bank Street College and the author of Bank Street's Family Computer Book.

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Computers and Girls . . .

widens through high school, college and graduate school years. A similar trend has also been noted in the areas of science and mathematics.

Why does this happen? Consider the social context in which computers are found—video arcades, computer stores, and computer labs. In all of these settings, a male-oriented culture prevails. In high schools, computers tend to be part of the math or science department, and therefore take on the already existing stigma of sex differences. The majority of advertising for products and jobs in the area of computer technology is directed toward a male audience. Moreover, most computer games feature stereotypically male themes—power, competition, chivalry, or outerspace fantasy, for example.

Girls frequently have a poor self-concept for tasks stereotyped as "male." Computers are no exception. Not surprisingly, girls approach problem solving in these areas with less confidence, persistence, and lowered expectations.

If such external settings influence girls, they can also affect even the most well-intentioned teachers and parents. As parents, what can you do to give girls the same opportunity to learn with computers that is enjoyed by boys? Here are a few suggestions:

(1) Provide a comfortable setting.

If you have a computer at home, you have already provided a comfortable setting for your daughter to begin experimenting and perfecting her skills. Keep the computer in a space that is shared by all members of the family, rather than one that is considered male turf, such as a boy's bedroom. Make sure that your daughter has frequent opportunities to use the computer alone or with a small group of friends.

(2) Be a role model.

Mothers who avoid using computers set a poor example for their children. Admit to yourself that computers are new territory and somewhat frightening, then plunge right in. You may want to sign up for a computer course alone or with your daughter. Or, purchase a new software package, such as a data base program or music writer, and work through the instructions together.

Don't be afraid to ask "dumb" questions or admit that you know nothing about computers. In fact, it may be very instructive for girls to see you encounter and work through difficult problems. Some research indicates that girls tend to blame themselves when they have difficulty solving a problem. Boys, on the other hand, are more likely to blame situational factors, such as the task, the method of instruction, or a lack of effort. You can serve as a role model of a computer user and a learner.

(3) Select software carefully.

Choose software that matches your daughter's interests and learning style. Tool software, for example, is sex neutral because it can be adapted to whatever interests girls or boys bring to it. It can also adapt to individual learning styles since the locus of control remains with the child rather than the software. It does not judge the child's work, set arbitrary goals or impose artificial time constraints (smash 200 aliens in 30 seconds or less, for example).

Another benefit of tool software is that it develops important computer literacy skills. Understanding how to use software tools for such things as making music, creating graphics, writing (word processing), or organizing information (data base management) means understanding the power of the computer in the modern world.

You might also consider adventure-style games, puzzles, or simulations that interweave mathematics and science (traditionally male domains) with themes that are appealing to girls. Such games frequently involve group play or collaboration, a style of learning that many girls enjoy.

By providing equal access to computers in a non-threatening environment, appropriate role models, and well-chosen software, you can give your daughter a head start in conquering sex stereotypes. You may also find that as her skills and self-confidence at the computer increase, so will her eagerness to tackle other "male oriented" subjects.

—Fay Wheeler

Fay Wheeler is Product Manager for the Media Group at Bank Street College of Education.