

The Role of Microcomputers in Education

By Jim W. Lai

It has been estimated that up to 70% of jobs in the future will be computer-related. Across the country, many high schools now offer computer literacy courses using microcomputers. It would seem that microcomputers, or

"micros", are the wave of the future.

However, microcomputers are not as useful as many would like to claim. Microcomputers have been found to be most useful in word processing and business

applications. Here, it is undeniable that, as a whole, people have benefited from the technology.

Parents who buy microcomputers for their children are often dismayed to find that the computer is either used as a videogame machine or left to collect dust in

a closet. In Grade 7, my parents bought me a micro: for a year, I played games for hours each day and my marks were mediocre. This is one example of how a microcomputer can be harmful to a high school student.

I am doubtful of the need for computer literacy in grade schools. A recent study of children, aged from 8 to 13, in American schools with intensive computer curricula found that most had a poor understanding of how computers operated and had no interest in computers.

In addition, some computer science professors say that many who are self-taught programmers in unstructured BASIC, a computer language found in most microcomputers, pick up bad programming habits and suffer irrevocable damage to their programming skills when they take university-level computer courses. Fortunately, I am one of those exceptions.

It takes flexibility, ingenuity, organization, and patience to become a good programmer. These are qualities not easily developed on one's own, as can be seen by

the poor performance of university students in computer programming courses. For high school students who are truly interested in computer science a good option would be to take a summer course in structured programming, such as Computer Science 101 at UPEI.

At the university level, microcomputers are simply not very useful. Most of the programming is done on large computers which are far beyond micros in capability. Micros give people an extremely narrow and distorted view of computer science by over-emphasizing low-level programming in BASIC. It is therefore not surprising that many people at UPEI, in ignorance, look down upon computer science as frivolous.

It is apparent that computer skills will be a major factor in the job markets of tomorrow for young people. Despite the difficulty of computer courses, I would strongly advise everyone to take at least one university-level course in computer science, no matter what field he is studying. It would certainly be more useful and relevant than University 100.

How I Study

By Tony Lai

Three years ago, when I arrived at UPEI fresh from grade school, I did not really know how to study. After receiving a disappointing mark in one course in the first semester, I proceeded to quickly develop an efficient method of studying. I would like to present my technique here so that you can compare your technique to mine.

The first part of my student method is concerned with how to condense the material of a course.

The second part of my technique for studying deals with problem practicing, as the courses I took are mostly in the area of mathematics, computer science, and physics courses.

There are two methods that I used for condensing material: underlining and summarizing. Before underlining part of a textbook, I read the text once carefully. I then underline the text while quickly rereading it. From then on, I only read the underlined portion of the text. As a rule, I generally would not underline more than a third of the text. Occasionally some sections can be completely omitted; I usually rely on my notes to determine which sections, if any, can be skipped. Very important parts of the textbook may be doubly underlined.

I also usually write a terse, detailed summary of the material. This outline must be well-organized and must cover all important information in the text and notes. This summary may augment the text and notes, or if it is sufficiently complete, the summary can replace the text in preparing for examinations.

To practice solving problems, I read and then repeat nontrivial solved examples in the text, if there are any. In a similar manner, I practice proofs of theorems in math courses. Often I find reading such examples and proofs is not always sufficient.

In addition to the problems assigned by professors, I also do some extra problems in the textbook that have answers at back. The sheets on which the problems have been solved should be kept so that they can be reviewed in the future.

After writing a draft copy of an assignment, I write another neat copy of the assignment that I submit. This is done in case the professor does not return the assignment before the test. Photocopying the assignment would also guarantee that one has a copy of that assignment, but writing another copy helps one more when preparing for a test.

I also test my knowledge of the material by trying to reproduce important formulas and facts. I also read and try previously solved problems that I believe are representative of the problems on the upcoming midterm or final examination. If I cannot do some problem with ease, I reread and redo

those problems.

I have one additional piece of advice. When doing a question with a long description on a test paper, I try to underline important phrases in the question and understand exactly what the question asks.

This approach of studying has served me well, but I cannot guarantee extraordinary results for others using this method. Nevertheless, I hope my article will help you develop an efficient method of studying that will suit you in your university years.

Editor's note: Tony Lai graduated from UPEI at age fourteen with the Governor General's Gold Medal last May.

JACK SCORPIO

By BRIAN LINKLETTER

