gateway features — # EDUCATIONAL

EXPERIMENTS

Experimenting on future experimenters is and has been the lot of the enterprising educational psychology professors. When asked about the Educational Psychology experiment now is in its second year, Dr. MacDonald of the faculty of education briefly outlined it.

Classes in Ed. 276, an introductory course in psychology are divided into 4 groups, each containing 150-160 students. Students are not selected for a group but just fall in the division they happened to choose in making up their time-table.

One group is split into three sections of some 50 each. These are taught in an orthodox manner receiving three lectures a week. The second group is kept as one large unit and is lectured to three times a week. The last two sections are

NO "RAMMING"

tutorial groups, who receive two lectures a week and 1 tutorial. For the tutorial, classes are split with some 15 to 16 in each tutorial.

The general aim of the experiment is to prove which method is the best. Last year's results seem to favour the tutorial method but Mr. DacDonald was not prepared to release the statistics on the results as this year's results are needed to confirm the findings.

The advantage of the tutorial seems to be in the informal atmosphere which is facilitated by the smallness of the class and which stimulates discussion.

According to MacDonald the professor is not "ramming" psychology into the student but encouraging the student to discuss psychology with ease and fluency. There is more student participation and thus more interest. MacDonald feels that there are advantages to both professor and student.

The inclusion of some simple psychological experiments help students to gain an appreciation of psychology as a science. As to the advantages of education psychology courses MacDonald said (and take heed Education students) that the school is taking a more and more important part in the formative part of child's life. Wihin the next ten years there will be a need for psychologically trained teachers and school psychologists.

The next question was one that is currently causing some controversy.

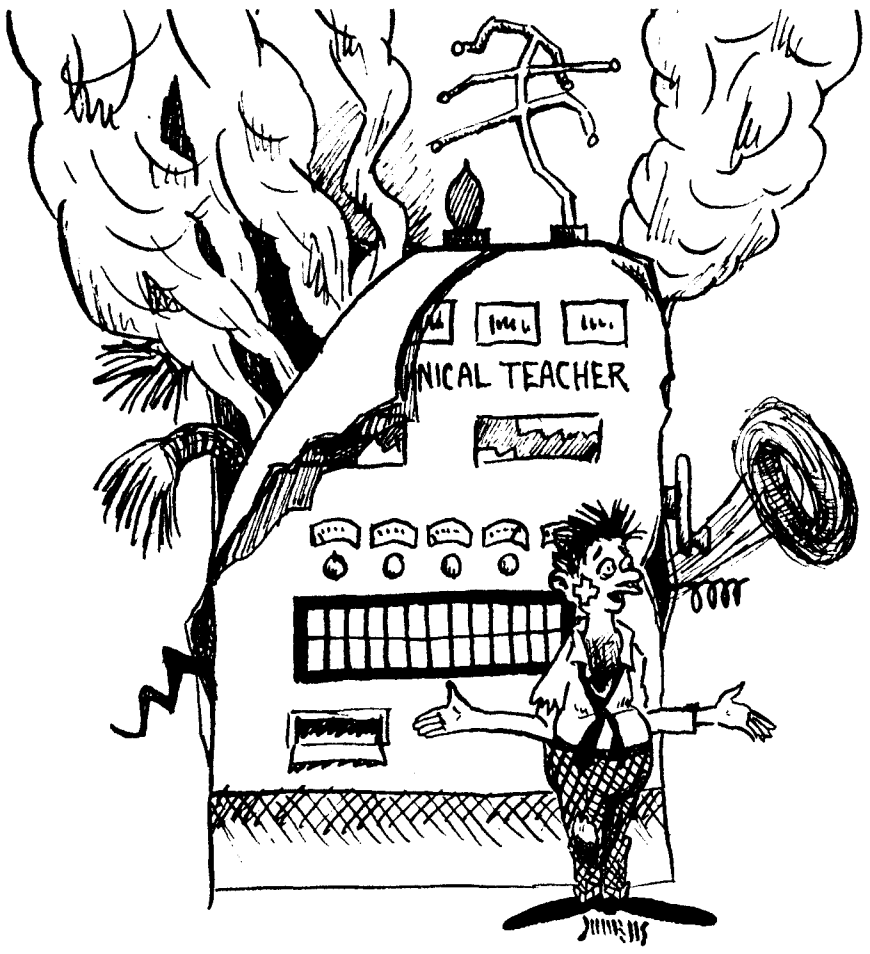
"SCHOOL FAILS"

Should we have streaming in schools and when should it start?

Yes, according to Dr. MacDonald, who believes schools fail to stress academic achievement in trying to assure happiness and adjustment of the child. He favors the acceleration program that allows the child to complete the elementary grades in five, six or seven years depending on his ability.

The fear of social immaturity of the child is generally unfounded according to MacDonald. Intellectually advanced children are generally advanced in most other areas and need no social adjustment.

MacDonald also mentioned that the entrance policies are under examination. The tests of maturity are of doubtful validity and reception classes could be provided to orient all students old enough to start.



I ONLY ASKED: "ARE YOU SURE?"

STREAMING VS SHOVING

As a graduate student in educational psychology, Mr. Unruh has had some experience with streaming in Calgary Junior High School. There are different kinds of streaming but all are concerned with grouping students in classes on the basis of ability.

In homogenous streaming, each class is lower in general ability than the one before it. Thus there is one very high ability group and one very low ability group in an extreme case. Mr. Unruh feels classes should be adjusted with one top class but the following classes mixed in ability. If all the slow students are together in one class, they tend to discourage each other and the teacher.

Commenting on our present school system Mr. Unruh saw it as aimed mainly at the bottom and average students even though the main program is matriculation. The idea seems to be to shove everyone through the same program to allow all an "equal" education. "I think this is rubbish."

Mr. Unruh also feels those students who wish to drop out of school should be allowed to do so leaving teachers with smaller classes of students who are desirous of obtaining an education. Mr. Unruh evidently feels that although there is equality of opportunity in education not everyone is equal to the opportunity in the matriculation program.

Mr. Unruh indicated streaming is already done in primary grades in some schools. This is the program in which students can take grades one to three, two to four years. If not accelerated in the first three, students are accelerated in the four-six years but never in both. As might be expected slow students take three grades in four years and the bright students take them in two years. If slow students improve they can be moved back into the regular three year pattern. Mr. Unruh said that so far as the experiment shows accelerated students don't always come out of the program as superior students as they could have, had they taken the work slower. The reason is that they take more work so much faster, they lack sufficient practice to keep them on the level they should be on. This leaves features questioning whether this could be a future use of teaching machines?

Stories on this page, Layout
by Carol Anderson

MACHINES

The University of Alberta is receiving two Dibaks 501's—sometime. No, the Dibaks 501's are not missiles, but equally as controversial in the education world, teaching machines.

When Dr. Ayers, faculty of education, was interviewed regarding these, he explained the delay in the arrival of the machines was due to smoothing out the bugs and making the machines "child proof" (for a university?). However Dr. Ayers logically pointed out the machines are to be used in schools as well as universities.

Continuing on the topic, Dr. Ayers said teaching machines are not a new invention. They were brought out in the 1920s. "The real revolution is not in the machine itself but in the pro-

MACHINES NOT MACHINES

vision of programs. It's how the machine should be set up that counts."

Two general methods are in use. The Skinnerian method is a simple step-by-step one that provides a feeling of satisfaction to the student by providing a high degree of probability of getting the right answer. The Crowderian method provides question and multiple choice answers. Explanations are given if the student marks the wrong answer and he is returned to the original question for another try. Although there is conflict regarding the effectiveness of the two methods both kinds blend into the same concept.

Another shock altering my conception of teaching "machines" was the information that not all are mechanical machines. Also included under this heading are such devices as programmed textbooks, multiple choice test punch boards, flash cards. Price of the machines ranges from $20 to $10,000.

Main principles of the machine are: 1. active participation of the learner and 2. provision for immediate reinforcement. This last principle brings up the advantage of the teaching machine-instantaneous answers which greatly aid retention.

The problems of the machines are many. They have a tendency to break down, an example of this, Dr. Ayers smilingly reminded me, the university still has not received theirs.

"Can they be used for anything other than drill types of learning?" Dr. Ayers felt there has not been

A TEACHING AID

enough experimentation in the field of mechanized learning but machines seemed most effective for simple and skill learning. Indeed the biggest problem retarding the use of the machines is lack of sufficient experimentation to prove their value.

For those who just can't seem to get organized, teaching machines are a big boom as the student is forced to structure his learning into patterns.

Concluding the interview, Dr. Ayer emphasized the machine is to be a teaching aid, not a replacement for a teacher. It could leave the student and teacher more freedom for classroom discussion.