UB G REPORTS

Vol. 17, No. 4/Feb. 11, 1971/Vancouver 8, B.C. UBC REPORTS CAMPUS EDITION

Act Change Proposed

A committee representing four B.C. universities has proposed an amendment to the British North America Act, the major document of the Canadian constitution.

The proposed amendment would make it clear that the federal government has the authority to allocate grants for higher education to provincial governments for current and capital grants to public and private universities, make direct grants for research and provide scholarships, bursaries and loans to students at all post-secondary institutions.

The amendment was contained in a brief presented to the Special Joins Committee of the Senate and House of Commons on the Conditution of Canada early in Jenuary by GBC's Academic Planner, Dr. Robert M. Clark. UBC's Board of Governors accepted the brief as official University policy at its Feb. 2. meeting. Excerpts from the brief appear on Pages Four and Five of this issue.

No Shortage of Jobs For Education Grads

By DORIS HOPPER

Assistant Information Officer, UBC

How real is the problem of unemployment for UBC graduates? Is it fact or fiction?

The UBC Office of Student Services has conducted surveys of 1970 UBC graduates holding bachelor degrees in an effort to determine the extent of the employment problems facing UBC students.

The most intensive survey was conducted by Mrs. D. Claire Hurley in co-operation with the Faculty of Education among those students graduating in 1970 with a bachelor of education degree. There has recently been much discussion of unemployment among teachers in British Columbia.

As a result of the survey the Office of Student Services has concluded that "There would seem to be little justification for students being discouraged from entering the Faculty of Education because of a lack of available positions."

The wider survey of UBC graduates holding other types of bachelor's degrees indicates that somewhat less than four per cent of 1970 graduates are still without work, which compares with the current general unemployment rate of about 8.6 per cent.

STUDENT SURVEY

A total of 1,175 education students were surveyed, including all students who took the one-year teacher training program in secondary or elementary education.

Of the graduates surveyed, 1,005 are employed as teachers or are otherwise employed. Only 40 can be considered as unemployed teachers, and of these 25 have restricted themselves to a particular geographical area (most frequently the Lower Mainland).

Of the students surveyed, 130 were "unaccounted for." Many of these were women students who may

have married since June, 1970, and whose new names have not yet been discovered.

Student Services is continuing efforts to contact these 130 students by letter and will tabulate the results in a follow-up study.

The survey showed no significant difference in employment opportunities at the elementary school and secondary school levels. Two out of 120 B.Ed. secondary spring graduates were unemployed and 16 could not be located. One out of 108 fall secondary graduates were unemployed and four could not be located.

SECOND ASPECT

Eight out of 255 B.Ed. elementary spring graduates were unemployed and 29 could not be located. Of 272 fall B.Ed. elementary graduates, 249 were employed and 23 could not be located.

Another aspect of the survey examined the extent to which individuals are still permitted to teach in B.C. on a letter of permission issued by the Department of Education.

As of December 22, 1970, there had been 288 letters of permission issued, as compared with 300 in 1969 and 448 in 1968. Of the 288 letters issued, 132 were to individuals with degrees and 115 to persons who had some teacher education.

An analysis of the 288 letters indicated that home economics accounted for 65, music (chiefly instrumental) 37, elementary education 29, commerce 27, French 20, industrial education 15, mass cooking (chefs) 13, secondary school subjects 49, and special classes 15. There were 18 unaccounted for.

Student Services has concluded that "it appears to Please turn to Page Eight See EMPLOYMENT



UBC's ENGINEERS appeared to have run amok Feb. 3 when they cut down four entrance and intersection pillars recently erected as part of a campus graphics program. The phony entrance pillar shown tumbling above is located at the corner of University Boulevard

and Wesbrook Crescent. It was later burned by the students. The real pillars were removed and stored in the dead of the previous night by the students and will be re-erected this week. Current hoax recalls a similar incident a number of years ago when engineers

removed and carefully stored a number of modernistic campus sculptures at night and then smashed replacement phony sculptures the following day with sledge hammers. Photo by Dan Scott, Vancouver Sun.

Changes Underway in UBC's Medical School

Sweeping changes in the administrative structure of UBC's Faculty of Medicine are underway. The changes aim at up-dating government and administration of the Faculty after more than two decades of growth.

After some 10 months of study and review, faculty members in the Faculty of Medicine have decided to:

- Revise the make-up of the key administrative body of the Faculty.
- Review the administrative tenure of the dean and department heads every five years.
 - Periodically review all teaching staff.
- Open up more positions for students on administrative committees.
- Re-examine staff promotion and admission guide-lines.
- Give full faculty status to part-time teachers who meet required academic standards.

Behind the moves are the tremendous changes that have taken place in the school since it began in 1950. It had a handful of staff when it opened its doors. Today there are roughly 160 full-time faculty members and about 400 part-time staff.

"In 1950 there was a group of full-time department heads and that was essentially all," said Dean John F. McCreary. "We had to build up quickly the departmental staff in anatomy, biochemistry and physiology because these departments had to begin teaching students coming into our first year.

"Departments responsible for teaching the second year — pathology, pharmacology and others — expanded quickly as well. Clinical departments such as medicine and surgery which receive students in their final years of study were manned in the main by full-time department heads for the first couple of years and then gradually began to build up with part-time people and then, as time went on, with full-time staff.

"It was quite reasonable then that the executive committee of the Faculty be made up of department heads only, because they were close to the administration of the school and it was necessary for them to be involved in virtually all decisions."

Dean McCreary said it is not impossible for heads to represent the Faculty as a whole because of its size and diversity. Junior and part-time and other staff members not close to department heads have not been getting the opportunity to have a say in decisions.

POSTS ROTATE

As a result the Faculty decided to re-examine the old administrative structure and change it if necessary.

Another factor behind the changes was a recommendation by the accreditation team that periodically examines every medical school in North America. After scrutinizing UBC's Faculty of Medicine in March, 1970, the team recommended that a system be set up for reviewing administrative posts at regular intervals.

"The accreditation team pointed out that because of our age we had a number of administrative staff who have been in their positions for a longer period than usual," the Dean said.

"In fact some of our administrative staff have been in their present positions for the full 21 years the medical school has been in operation. Usually administrative posts rotate much more rapidly."

The faculty of the school elected a committee on Faculty organization in February, 1970, to "study arrangements of government of other Faculties and recommend as to what changes, if any, are necessary in the organization of government of the Faculty of Medicine which would be in the best interests of the medical school."

The committee studied the way other Canadian and U.S. medical schools are run and a letter was sent to every teacher and student in the UBC school asking for comments on government of the Faculty.

The committee also interviewed Dean McCreary, UBC President Walter H. Gage, two basic medical science department heads, two clinical science department heads and the head of a non-medical 2/UBC Reports/Feb. 11, 1971

department on campus

The committee's report was circulated early in October, 1970, and virtually all of its recommendations were accepted at two Faculty meetings in October and November.

Probably the most important recommendation of the committee was to replace the existing Faculty Council, made up exclusively of department heads, with a new Faculty Executive.

The Faculty Executive would be made up of a dean, five department heads elected among themselves, six representatives elected by faculty members, and two undergraduates elected by undergraduates. Ex-officio members are the associate deans of the Faculty and the dean of Graduate Studies.

ELECTIONS HELD

Elections for the Faculty Executive were held over the Christmas period under the Registrar's supervision.

The dean's administrative tenure will be reviewed every five years by a committee reporting to the President and made up of two senior educational administrators — one selected by the dean and one by the Faculty Executive — and three senior UBC faculty members appointed by the President. At least one of these should be from the Faculty of Medicine.

Review of departments and their heads will be done every five years by a committee of five. Three members will be appointed by the dean in consultation with the Faculty Executive. The three should be senior faculty and have been at UBC for at least five years.

The remaining two members should be from outside the University but from the disciplines under review. One of them should have had substantial administrative experience at some other university.

One of the two will be chosen by the department head and one by voting members of the department under review. Make-up of the review committee must be endorsed by faculty of the school.

In view of the accreditation team report, at least one-fifth of the school's departments will be reviewed in the first year. Departments whose heads have had the longest administrative tenure or where need for review has been clearly identified will be reviewed first.

Recommendations have also been made to President Gage that faculty members should be involved in the search for new deans and department heads and the make-up of these search committees has been suggested to him for his consideration.

The faculty organization committee also recommended that the Faculty Executive:

Create four associate deanships for the clinical sciences, basic medical sciences, research and student affairs. The committee's report also said that the dean should appoint "such assistants to the dean as are required to handle special problems as continuing medical education and other matters."

Review divisions within each department to clarify their status in the medical school;

Form a budget and agenda committee. The budget committee would meet regularly with the dean to review the financial position of the medical school. The agenda committee will be responsible for the agenda of Faculty and Faculty Executive meetings;

ALREADY FORMED

Establish with faculty membership standing committees on admissions policy, student evaluation and promotion, long-range planning, UBC—teaching hospitals, graduate clinical training, the library, and research co-ordination.

In line with a recommendation of the faculty organization committee, faculty members have already formed nominating, curriculum and teaching evaluation committees which will report to faculty, as well as an admission selection committee and committees on faculty appointments, re-appointments, promotions and tenure.

TUTORIAL



MR. JEFF WATTS

More Help

There is more help offered than help wanted so far at UBC's new Tutoring Centre, located in the Student Union Building.

After four weeks of operation in the pre-Christmas' term the Tutoring Centre received applications from 106 people offering their services as tutors, but only 58 students approached the Centre for help with their studies.

The results of the Centre's first month of operation can be interpreted two ways. Either UBC's students are doing well with their studies and don't need extra help, or, UBC students do need tutoring help but haven't yet discovered that the new Tutoring Centre is the place to go for it.

The aim of the new Centre is to ensure that students who have problems with courses, particularly first- and second-year courses, have a place to turn for help.

The Centre works to co-ordinate tutoring for

SCHEME NO REFLECTION ON FACULTY

Jeff Watts, an Australian-born, fifth-year Education student at UBC, is the man who started a tutorial scheme for students in the Place Vanier residences in 1969. The scheme, which has now been expanded to include the Totem Park residences. earned Mr. Watts the 1970 award for outstanding contribution to residence life. The success of the residence scheme has also led to a similar service for non-residence students, organized by the UBC Alumni Association in cooperation with the Alma Mater Society, which operates in the Student Union Building. For a report on the operations of the SUB-based scheme, see the article at the bottom of this page. In the article which follows, UBC Reports discusses the background and beginnings of the tutorial scheme with Mr. Watts.

UBC REPORTS: Jeff, can we begin by discussing the need for a campus tutorial scheme. What was it that led you to decide to concentrate on developing this area?

MR. JEFF WATTS: I think it is safe to say that a tutorial scheme reflects the increasing size of the University. The large classes in some courses, the increasing amount of work which students have to de, and a number of other factors often result in a growing sense of isolation in students. First-year students, in particular, who are getting their first taste of University life, are often reluctant to take advantage of the offers of help from faculty members who are themselves often over-worked. What students need is a person-to-person relationship with a senior to who has already successfully completed work in the member of the control of th

I hope that no one regards the tutorial scheme as any reflection on the faculty of the University. The scheme has nothing to do with the competence or the ability of the faculty. It is a comment on the depersonalization of the society we live in. The tutorial scheme is meant to supplement the work in the classroom, to fill in gaps for those students who have a heavy course load and who often find they simply don't have enough time to do all the things that are required of them at a university.

Another thing which this scheme does is to utilize student power. On the one hand you have students who need assistance, while on the other you have a huge, untapped potential of senior students who are able to communicate knowledge to students in the beging years at the University. So I think a tutorial scheme is an extremely relevant kind of thing for students to be involved in because it means that students are helping students.

UBC REPORTS: What was it led you to begin the tutorial scheme in the Place Vanier residences?

MR. WATTS: As a matter of fact, it began as an election pledge which I made when I was running for the vice-presidency of the Place Vanier residences. I said in my election speech that I would like to see a tutorial scheme in the residences. After my election, and as the year advanced, I thought I had better start implementing the promise I had made with regard to the scheme. The initial efforts to get it started were not successful because the system which we began

with proved to be too cumbersome. Early in 1970, however, we ironed out most of the kinks and the scheme began functioning.

We sent an individually addressed form to all students in the Place Vanier residences asking if they needed help or if they were prepared to give help to students who needed it. In asking for volunteers to give help we made a distinction between a tutor and an advisor. We regarded a tutor as a person who would give regular lessons to a limited number of people who needed help. An advisor, on the other hand, was a student who would not give regular lessons, but would see students by appointment or arrangement and would give help when asked to. The third category of persons involved in the scheme were designated members, or students who were actually seeking help or advice.

UBC REPORTS: What sort of response did you get to this?

MR. WATTS: It was really quite extraordinary. At least 70 per cent of the forms which were distributed were handed back in again from a total of 960 persons in residence in Place Vanier. Then, of course, we had to involve ourselves in a sort of giant matchmaking process in which those who offered to give help were coupled with people who needed help. I won't go into detail here about how we did this but it did involve a considerable amount of work. We found, however, that after this tremendous initial effort in matching people up the scheme literally ran itself and about all I had to do was handle complaints as they arose.

There were some curious side effects to the scheme as well which I hadn't bargained on when I was setting it up. For instance, it had a socializing effect. Boys were often matched with girls and vice versa and as a result people had an opportunity to meet other people. I found that a male student who found himself in a situation where he was tutoring two or three girls would be more enthusiastic about the whole idea of tutoring than he would if he was tutoring only male students.

There were a couple of other funny wrinkles as well. One lad from Guatemala found himself tutoring a Ph.D. student in Spanish, or advising him anyway. On another occasion a girl approached me and complained that I had given her only girls to tutor. She wanted more male students to tutor.

I suppose a measure of the success of the scheme is the fact that we were approached by Fort Camp with a suggestion that we should integrate the tutoring scheme in the two residence areas. We accomplished this later in the same year.

UBC REPORTS: You must have noticed some areas of weakness in the operations of the scheme. Could you describe these for us?

MR. WATTS: One weak area seemed to be simply getting people together. We would inform a tutor or a student who needed help that such and such a person had been assigned to assist him and then for some strange reason neither party heard from the other again. I really didn't have time to track down the cause of this lack of contact. Another weakness seemed to be that girls were a bit shy about going

over to meet male advisors or tutors. If I ran the scheme again I would arrange some kind of situation where the girls could actually be introduced to their male tutors or advisors. Another area of weakness seems to be that anything which is free tends to be regarded with suspicion. I think if there was a small charge — say a dollar — to join the scheme there would be greater utilization of it.

UBC REPORTS: How many people were involved — tutors, advisors and students who needed help — in the scheme in its first year of operations?

MR. WATTS: We had 129 tutors and advisors, most of them advisors because there was less of a continuing commitment in being an advisor. Advisors simply waited for students to come to them. The total number of students who asked for help was approximately 150. There were only about ten students whom we were unable to find advisors or tutors for.

One other possible weakness of the scheme was the fact that I was not able to follow up and ask students how they had benefitted from the scheme or if they were satisfied with the way it had operated. I think the fact that the scheme largely ran itself after our initial effort at organization is at least a partial indicator that it was operating successfully.

UBC REPORTS: Are you involved in any way with the residence tutorial scheme which has continued to operate or with the scheme which is operating in the Student Union Building under the sponsorship of the Alumni Association and the Alma Mater Society?

MR. WATTS: No, I am not. The scheme is operating successfully in Totem Park and Place Vanier and I am acting as an advisor to the campus tutorial scheme in SUB. But I am not involved with the day-to-day operations this year. I am devoting most of my time to writing a report detailing a more efficient scheme for a campus tutorial program, a resident tutorial program and a format for a scheme to be operated during the summer session.

UBC REPORTS: What additional things would you like to see included in a future tutorial scheme?

MR. WATTS: I think there is something to be said for providing potential tutors and advisors with some coaching on methods of instruction. Many senior students have had no teaching experience and I think they would benefit from a seminar on methods of instruction at the beginning of the tutoring year.

I think also that there should be some form of payment by the student to the tutor. I think this would have the effect of making both parties to the experience feel that they had obligations; the tutor for getting his lessons ready for the student and not re-teaching material that the student already knows and the student for letting the tutor know instantly when he is going off the track and therefore saving the tutor's time by not making frivolous demands on it. I think also that the student who needs help should go to the tutor rather than the tutor having to go to the student.

There are some special problems involved in a tutoring scheme for the summer session. It would have to begin operating at the outset of summer session because of the time element involved. I should say here that the campus tutorial system does not start operating until the latter portion of the first term since it takes students some time to discover what areas they are having problems in.

There are all sorts of other wrinkles that could be worked into a more comprehensive scheme. For instance, it might be possible to extend the tutoring service into the evening period to handle emergency service for students who find themselves stuck for answers late at night. And, of course, there are special problems associated with foreign students who require coaching in English. International House is already involved in this kind of scheme and it could be incorporated into a larger campus tutorial scheme in the future.

One potential problem of any campus-wide scheme is that one will have a great many tutors and advisors in one area and an insufficient number in another area. This might be overcome by having counsellors in the undergraduate societies of the various faculties co-ordinate their subjects and the tutors within their area.

ls Offered Than Wanted

courses given at UBC and brings together students and tutors. It is a new project organized on the campus by the Alumni Association in cooperation with the AMS (Academics).

So far the Centre has had a high degree of success in placing students under the guiding hand of appropriate tutors. In the pre-Christmas period only two students who applied for tutoring help had not been placed with a suitable tutor. Both were third-year students, one in economics and one in political science.

More mathematics students than any others have sought tutoring help so far, with computer science running a close second. Languages rank next in numbers of students needing aid, with French holding a slight edge over English.

Miss Susan Westren, tutorial scheme co-ordinator for the Centre, said that all comments she has received so far indicate that the students are pleased with the tutoring service.

"Several people have stopped in at the Centre just to say that the tutoring scheme is a good idea," she said.

She said, however, that in terms of the total student population, the Tutorial Centre has not been doing very well. She thinks that usage of the Centre will increase once its existence becomes more widely known.

A registration fee of \$1 is charged in an effort to maintain the Centre as a self-supporting entity. Where the Centre is unable to find either students for tutors or tutors for students, the registration fee is refunded.

All students desiring extra help with specific subjects, and all qualified people who wish to give such help (including graduate students and senior honors students) can be registered with the Centre.

The Centre is located in Room 100B in SUB and is open from 12-2 p.m. weekdays. Telephone 228-4583.

AMENDMENT WOULD REMOVE DO

Early in January, Prof. Robert M. Clark, UBC's academic planner, presented in Vancouver to the Special Joint Committee of the Senate and the House of Commons on the Constitution of Canada a brief prepared by a committee selected by the presidents or the Boards of Governors of UBC, Simon Fraser University, the University of Victoria and Notre Dame University in Nelson. Prof. Clark, in his presentation to the Special Joint Committee, said the brief could not claim to speak officially for the four universities of B.C. What follows is most of the text of the brief which was approved as official University policy by UBC's Board of Governors at its meeting on Feb. 2.

The British North America Act is and has been one of the most successful constitutional documents ever written. Yet it has received more public criticism than popular acclaim. This is partly because it is as pragmatic as any part of our Canadian heritage. Unlike the American, French or Russian constitutions, or the United Nations Declaration of Human Rights, it contains no lofty assertions of human rights. It includes no appeals to an idealism that would make people proud to be Canadians. It has been condemned by some who fail to recognize it as a highly flexible framework for a living constitution that has been in the process of continuing transformation ever since it was enacted in 1867.

STILL EVOLVING

Some aspects of federal influence, such as the power of disallowance by the Governor-General-in-Council or reservation by the Lieutenant-Governors, have largely fallen into desuetude. Other aspects are still evolving with far reaching effects upon the quality of Canadian life. One example of this is the use of conditional grants to the provincial governments. Another illustration is the development of federal-provincial conferences to resolve major inter-governmental controversies. This is a remarkable form of inter-governmental bargaining, for which there has been no direct counterpart in the United States

We believe that the constitution in Canada has worked sufficiently well that any attempt to replace it with an elaborate new written constitution would be most unlikely to gain the degree of acceptance necessary for its practical implementation. In all probability it would lack the necessary flexibility, which is so essential in a living constitution. We also are very mindful of the limitations of what can be achieved by less ambitious changes in the British North America Act. We have no desire to advocate constitutional amendments in the place of what should be more appropriately sought through other aspects of the ongoing political process. At its best the constitution is not a panacea for political problems: rather it is a framework within which the partly conflicting objectives of people in society can most readily be achieved, insofar, indeed, as they can be accomplished through government action.

PROBLEMS OF UNIVERSITY EDUCATION UNDER THE CONSTITUTION. The only reference to education in the British North Ámerica Act is in section 93, subsection (1) of which states:

In and for each Province the Legislature may exclusively make laws in relation to education subject to the following provisions:

Clearly there are divergent interpretations of these words. In the past fifteen years successive federal governments have provided increasing grants for vocational training and for research at Canadian universities. On the one hand it can be argued that both vocational training and research are aspects of education and therefore under section 93 should fall exclusively within provincial jurisdiction. From this viewpoint the only role which the Federal Government should have would be to leave sufficient income in the pockets of the taxpayers and to provide sufficient unconditional equalization grants to less affluent provincial governments to enable them to discharge their responsibilities efficiently.

On the other hand, with former Principal J.A. Corry of Queen's University, one of Canada's most distinguished political scientists, we can emphasize the words "In and for each Province ..." It is by no means self-evident that all of the needs of the nation in education will be met if each province discharges its

TABLE I. RESEARCH FUND ALLOCATIONS BY THE GOVERNMENT OF CANADA TO THE UNIVERSITY OF BRITISH COLUMBIA IN 1966-67 AND 1969-70

| | 1966-67 | 1969-70 | | | | | |
|--|-------------------|-----------|--|--|--|--|--|
| FACULTY | GRANT | GRANT | | | | | |
| Science | .\$2,399,036 \$ | 4,645,490 | | | | | |
| Medicine | . 1,525,711 | 2,360,210 | | | | | |
| Applied Science | . 917,051 | 1,338,809 | | | | | |
| Arts | . 250,499 | 1,134,016 | | | | | |
| Agricultural Sciences | . 158,767 | 437,886 | | | | | |
| Forestry | . 98,271 | 213,500 | | | | | |
| Dentistry | . 22,605 | 194,030 | | | | | |
| Commerce and Business Administration | | 115,880 | | | | | |
| Pharmaceutical Sciences | . 24,400 | 103,380 | | | | | |
| Education | . 27,730 | 31,750 | | | | | |
| Law | • | _ | | | | | |
| Totals | . \$5,436,470 \$1 | 0,574,951 | | | | | |
| Source: Office of Research Administration — University of British Columbia | | | | | | | |

responsibilities as it sees fit. Principal Corry has written:

If there are national needs and objectives that require concerted educational policy in two, several, or all provinces, no provincial legislature is by itself competent in the matter, and judicial interpretation on other comparable aspects of the distribution of powers under the British North America Act makes it clear that Parliament is competent, under the "peace, order and good government" clause.

The problems we wish to consider may be summarized under the headings of support for research, mobility and equity.

I. SUPPORT OF RESEARCH AT UNIVERSITIES. Two issues concern us here. Research conducted by university scholars provides new insights into human and natural phenomena. Some carefully focussed research is directed to the solution of problems of a local or provincial nature. The benefits, however, of most university research are not confined to the province in which it is conducted. The spillover effects of successful research, for example, on cancer, air pollution, or unemployment can be enormous.

Table 1 . . . shows the amount of federal grants for research awarded to the University of British Columbia, including those to individual faculty members, by Faculty, for the years 1966-67 and 1969-70. We believe that the distribution of these grants is fairly typical for large Canadian universities. The increase of over \$5,000,000 in the total grants in a period of three years is encouraging. But the important fields of education, commerce and business administration, and law received meagre support or none at all. Considering the major issues challenging society in these areas, this neglect seems to us to be indefensible.

The substantial differences in costs of research in various fields accounts for much of the difference in amounts of research money allocated to them by federal agencies and departments. The lack of a well-defined, overall policy in research allocations at the federal level no doubt has accentuated variations in the extent of support of various fields. If, however, it has been difficult to achieve a national policy on research allocations that is adequate to reflect the total range and direction of Canadian needs, we are convinced that ten provincial governments, each proceeding under its own local pressures, would never develop a policy to meet national needs.

GREAT BENEFIT

The second issue arises from recent criticism in a retrospective study of research priorities followed by federal agencies and departments in allocating grants. We agree that there is justification for some of this criticism. We must emphasize, however, that no action of the Government of Canada over the past 30 years has been of greater benefit to research and graduate training in Canadian universities than the policy of awarding research grants. It is largely as a result of this research support that Canada today has strong and healthy graduate schools, providing, for the first time in our history, a large proportion of our needs for university and college faculty members, as well as scientific and other professional personnel for industry and government. If it had not been for federal contributions

to university research, we as a nation still would be dependent on foreign universities to supply most of our research manpower.

The principle of nation-wide competition for research awards, and the refereeing system involving scholars from all parts of Canada, have been of inestimable value in improving the quality of Canadian research production and the quality of our graduate schools. We believe it is the opinion of most university research workers that the continuation of this principle a extension of this practice is a *sine qua non* for the achievement and the maintenance of excellence in research in universities of the nation.

MEET NEEDS

Only if these broad national aspects of research are recognized and supported can research activities most fully meet Canadian needs. We therefore are strongly of the opinion that the British North America Act should be amended to make it entirely clear that the Federah Government has the authority to allocate operating and capital funds for research to universities and other post-secondary educational institutions, as well as to individuals associated with them.

III. TREND TO RESTRICT MOBILITY OF STUE TS FROM OTHER PROVINCES AND COUNTRIES. Fees at Canadian universities cover a small fraction of university operating costs — about 20 per cent or less at most universities at the undergraduate level and about 10 per cent or less at the graduate level. Individual taxpayers in Canada pay most of the rest, directly or indirectly. Even if enrolment were unrestricted at Canadian universities except by minimum academical qualifications, provincial governments naturally would feel that preference should be given to residents of their province.

Notwithstanding rapidly growing federal and provincial support for higher education in Canada in the last 15 years, universities have felt it necessary to restrict enrolment, especially in certain professional programs, to the point of excluding some who have the academic qualifications for them. This has occurred in many instances because of lack of facilities in such fields as medicine and dentistry. In other cases, especially within the last two years, restriction has taken place because a faculty has felt, and the Board of Governors accepts its view, that it is academically undesirable for its program, to expand further.

Whatever the cause of restriction of enrolment in a particular university, the very existence of the restriction tends to increase the pressure to give preference to residents of the province. For example, at the University of British Columbia we discourage undergraduates coming from other provinces to study in the Faculties of Arts, Education and Science, since such faculties are to be found in the universities of their own provinces.

Universities encounter an added argument in favor of discrimination at the graduate level. This argument begins with the generalized finding that in every province a student with a bachelor's degree is more likely to remain in the province in which he obtained his

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degree than a student who gets a master's degree or a doctor's degree. To this consideration is added another fact, namely that it costs the taxpayers much more per student per year to pay for their share of the costs of a graduate student than for an undergraduate student. Thus it is understandable that some provincial governments would look with less enthusiasm on the need to provide money for graduate programs than may seem desirable in the interests of the nation.

SURVEY RESULTS

We can appreciate the concern of the Federal Government in that under existing financial arrangements it has been paying half of the rapidly mounting costs of post-secondary education in Canada without having effective control over these costs. We are concerned that in the forthcoming federal-provincial financial negotiations to modify these arrangements, the Federal Government may seek to withdraw partially from its present role in higher education. We are apprehensive that if this occurs, the pressure to discriminate in each province against out-of-province undergraduate and graduate students will continue to grow . . .

It is much easier for the individual taxpayers in a province to imagine in general terms the costs to them of educating university students who subsequently leave the province than it is for the same taxpayers to apply the the benefits to the province from persons whose university education took place outside the province, but who now work in it.

We are convinced that pressures to discriminate against students from other provinces are contrary to the public interest. Students and faculty in the first instance, and the Canadian public in the long run, benefit by having students from a variety of provincial backgrounds. It is impossible to put a precise value on such benefits, but they are none the less real. Having students from a diversity of geographic backgrounds means that a greater variety of viewpoints are likely to be considered in many subjects. A richer range of experience is likely to be brought to bear on important issues.

For example, a course on federal-provincial relations or or madian literature at any Canadian university is likely be more effective if it contains students from each of the major regions of Canada than if all the students come from any one of these regions. Quite apart from these academic advantages are the cultural benefits which are likely to ensue from bringing together students from many parts of the country.

But there is a further point, and to some a more important one. If there is a significant mobility of students and faculty among Canadian universities, this facilitates specialization by individual institutions. It can be an increasingly significant factor in avoiding unnecessary duplication of university facilities, both within and among Canadian provinces.

Ideally we favor a system which embodies the principle that a Canadian student seeking entry to a college or university in Canada would be free to indicate his preferences, and no university or college in any province would discriminate against him because he came from another province, the Yukon or the Northwest Territories. Could such a system work in theory? As far as the universities are concerned, it could work in principle if each of three conditions were met in selecting individual students:

- (i) The universities would have to accept this principle in spirit and not just give perfunctory allegiance to it.
- (ii) The universities individually would have to be free, within the limits of their financial resources, to decide how many students they would take in each of their faculties.
- (iii) The universities individually would have to decide upon the academic qualifications for each of their programs.

*Could a system be developed in Canada under which universities accepted academically qualified students as readily from other provinces as from the one in which they were located? It could be quite feasible, provided it came to be acceptable to public opinion. It could be developed by stages. We are much closer to having it already at the graduate level than at the undergraduate level across the country.

Considerations of the costs of transportation and of living away from home, the desire to attend an institution with one's high school friends, in many cases a concern for one's parents, all suggest that only a limited minority of undergraduates — possibly about 10 per cent — would attend university in a different province from the one in which they were domiciled. At the graduate level the proportion of students going to a university in a province other than the one in which they were undergraduates has been much higher. For all Canadian university students the percentage who have attended university outside their home province has decreased from 10.9 per cent in 1955-56 to 7.5 per cent in 1969-70.

The Federal Government could contribute to the development of such a plan. It could do so for a relatively large number of students or on a limited basis by providing national scholarships for very able students. Such scholarships could be held at any Canadian university or college willing to admit the scholarship students. Such grants to individual students probably would cover only a small fraction of the costs of instruction at universities and colleges across the country.

The Federal Government could also provide a direct grant to each institution for each student receiving a federal scholarship. The amount of the grant to the institutions should not be the same for all undergraduate or for all graduate programs, since their costs will differ widely at the same university or college, as well as among these institutions. Alternatively, the Federal Government could devise a simple system of grants to be paid to each university and college for every out-of-province Canadian student enrolled in its programs.

It need scarcely be said that we do not envisage any such plans as replacing federal grants for research or for specific cultural objectives. If the Federal Government continues to contribute substantially to the costs of university and college education, this will increase the probability that these institutions will have the facilities to accommodate out-of-province students. If the sort of proposals referred to here were unacceptable to the government of any province, an alternative in terms of abatement of personal income tax could in principle be negotiated

UNDER PRESSURE

It is important to add that Canadian universities are under pressure to discriminate against foreign students in their admissions policies. A discriminatory admissions policy is urged on the natural grounds that the interests of Canadians should come first. It is also advocated because most foreigners who come to Canada for university education will leave the country afterward, so that the taxpayers are put to expense with little apparent long-run benefits in exchange. Few argue that foreign students should have equal access with Canadian students to universities and colleges in this country. The admissions policy of the University of British Columbia with regard to foreign students is fairly typical of such

It is University policy to accept students from other countries only after they have carried their undergraduate studies to the highest reasonable level in their own educational systems.

policy in Canadian universities.

Students must not travel to Canada in the hope that they will be admitted, either directly or following studies in a secondary school, a college or another university, with qualifications inferior to those specified in this calendar.

Just as there are advantages at each university in having students from other provinces, so also there are advantages to Canadian students and faculty members in having a minority of students from other countries. They bring knowledge, a diversity of viewpoints, and a questioning of the comfortable assumption of the inherent superiority of our familiar ways of teaching and learning. Moreover, the acceptance of foreign students from underdeveloped countries is one of several ways in which we as one of the world's wealthiest countries can

give assistance to nations with a lower material standard of living.

We also are mindful of the great benefits that Canada has received in past decades and continues to receive from having Canadians attend foreign universities, especially for graduate education. In view of these considerations we believe there is a strong case for the Federal Government to provide grants for foreign students in such a way that universities and colleges do not have a financial inducement to discriminate against them.

III. ONE ASPECT OF THE PROBLEM OF EQUITY. Equity in admissions policies has many aspects. But most of them do not have implications that would require an amendment to the British North America Act. The Federal Government attempts to offset the disadvantages of residents in lower income provinces by providing equalization grants—which can be used for educational or other purposes. Some would argue that the role of the Federal Government in higher education should be much greater, and that an amendment is essential to achieve equity among differing income groups. We do not go this far, believing that the existing constitution is more flexible than is often realized in coping with such a difficult problem.

Here we are concerned with one limited aspect of equity — the degree to which private universities and colleges and their students have not been treated equally in terms of access to government financial support. When the Federal Government was providing grants on a per capita basis to accredited universities and colleges, it treated private institutions on the same basis as public. We understand that some provincial governments have been unwilling to do this.

Notre Dame University of Nelson, a private university in British Columbia, is an example of a university that has not received equal treatment in terms of grants with the three public universities of the province. If federal support for university and college education were withdrawn or significantly curtailed, apart from research grants, some private universities and colleges and their students might suffer.

We recognize that an amendment to the British North America Act cannot ensure that accredited private universities and colleges will be treated fairly in comparison with public institutions. In recommending an amendment to the Act on the grounds set out in earlier parts of this brief, we do favor an amendment that removes doubts about the validity of federal grants to private universities and colleges, and to their students.

We agree with the position taken by the Board of Directors of the Association of Universities and Colleges of Canada in their endorsation of a policy of non-discrimination against church-related colleges and universities

We propose an amendment to section 93 of the British North America Act. We do not wish to suggest a precise wording, since this would be the task of a legislative draftsman. Rather we affirm the following basic principle upon which such an amendment should be prepared.

Without derogating from the authority of provincial governments under section 93, the Federal Government has a constitutional responsibility for the financing of Canadian post-secondary education, including research. In accordance with this provision, the Parliament of Canada is authorized to:

- (i) provide grants for higher education to provincial governments;
- (ii) enter into agreements with provincial governments to provide current and capital grants to public and private universities, colleges and other post-secondary educational institutions in Canada;

(iii) make current and capital grants directly to public and private universities, colleges and other post-secondary educational institutions and research projects in any field;

(iv) provide scholarships, bursaries and loans to students at public and private post-secondary educational institutions.

AFTER THE RADICALS-WHAT?

By DON PALMER

President, Arts Undergraduate Society, UBC

The election of Stan Persky as President of the Arts Undergraduate Society in 1967-68 marked a distinct break in thinking about how the affairs of the AUS should be conducted. Under Stan* there was no charge for any activities of the Society — lockers, dances, speakers and meetings were open without charge to all students. In addition, Stan tried to cultivate the love culture.

This method of operation was not without its problems. In the ensuing two years more than 600 lockers in the Buchanan Building became unusable because students who were leaving did not remove locks. And because everything was free the Arts Undergraduate Society was happy but broke. Stan's successors fell far short of his achievements.

RESPONSIBLE STUDENT GOVERNMENT

This year a core of responsible and hard-working Arts students took over the leadership of the AUS. The following is a brief report on their accomplishments.

1. ACADEMICS. During registration week in 1970 the AUS sponsored a tremendously successful orientation program which involved more than 2,000 students. Tents, set up on the lawn in front of the Library, provided information on University and community services. Noon-hour bands were especially appreciated.

During the year the AUS has attempted to foster the establishment of course unions. We have found this idea to be relatively new to most students and further work needs to be done to consolidate unions and to acquaint other students with the basic philosophy of student participation on committees dealing with curriculum, teaching evaluation and tenure.

2. SERVICES. In this area we have achieved an outstanding record. A locker fee was reinstated in the current year because the demand for lockers far exceeded the supply and it seemed the only way to systematically keep the lockers clean and usable. In the current year 1,100 lockers were available to students, an increase of 600 over last year.

A bank of vending machines has been installed outside the AUS offices in Room 107 of the Buchanan Building. This is a new service which has proved very popular, especially after the Food Services Snack Bar in the Buchanan Lounge closes. Another service now provided for students is a copying machine in the Buchanan Building. We are considering installing a better model as soon as it is available.

Because of the increased involvement of the AUS in the affairs of the Faculty, it was found necessary to acquire more office space in the Buchanan Building. We are grateful to Dean Douglas Kenny, the head of the Faculty, who gave up rooms 163 and 164 in Brock Hall to the AUS. These added facilities have enabled us to publish a newsletter, *The Scroll and Moon*, three times since September, 1970. Only

 Stan Persky is now a graduate student and teaching assistant in UBC's Philosophy Department. limited man-power and finances have prevented us from publishing more often.

We have also undertaken the publication of an academic journal, *Thursday's Child*. The journal is the work of a few dedicated students and it is our hope that Arts students will support this venture.

The AUS program this year has not been a total success. The Arts Festival was not the success we would like it to have been, partly because we did not have the guidance of written records from previous executives and, in addition, a lack of financial resources limited our efforts. Next year's executive will have the benefit of our past experience and should be able to do a far better job.

While we have accomplished quite a bit, I do not feel that the services mentioned above are the total contribution that a student government can make. In accepting the responsibility for improving services and participating in academic decisions we feel that there is another aspect to student government, an aspect which I will call the radical perspective.

RADICAL STUDENT POWER REDEFINED

The way to be truly radical is to work the system and beat it. In the University we have two gigantic bureaucratic systems — the University administration and student government. To be truly radical we must make the system work for us as students.

The first thing we must do is to set our own house in order at which point we can make the University administration work for us. In order for student government to be effective the undergraduate societies must be strong. Small changes make big ones possible.

In the same way that Canada has one federal government and 10 provincial governments, UBC has a central government in the Alma Mater Society and

20 local governments — the undergraduate societies and student associations. The local governments at UBC must be financially independent so that they are free to initiate programs which are meaningful to their memberships. Meanwhile, the central government can concentrate on campus-wide issues and the provision of leadership and co-ordination of activities whenever necessary. As things stand now the AMS controls all student funds and, to a large extent, programs.

GUARANTEED INCOME --A RADICAL IMPROVEMENT

I have proposed to the Students' Council a guaranteed income for the local governments. Each undergraduate society would receive a basic grant of \$200 plus 40 cents for every registered student who is a member of the undergraduate society (the table below shows the grant that each undergraduate society would receive based on last year's enrolment.) The money will come out of the general student fee levy collected each September.

The proposal also entails a shift of responsibilities to the undergraduate societies. It is time that the local governments on the UBC campus ran their own affairs.

It is my feeling that most undergraduate societies on the campus have come of age and those that are still struggling to become strong must be encouraged to stand on their own feet. I am convinced that the financial proposal that I have made to the Students' Council will not only provide financial security but a moral stimulus to the undergraduate societies to be both responsible and radical. The amount reallocated to the undergraduate societies is relatively small in terms of the overall AMS budget. The dividends will be enormous.

AMOUNT

PROPOSED FUND ALLOCATION 1971-72

The table shows the allocation of funds to the nearest dollar under proposed By-law 11 for the academic year 1971–72

| | | | NUMBER OF | CONTRIBUTED |
|-------------------------------|------------|------------------|------------|--------------|
| UNDERGRADUATE | ALLOCATION | PROPOSAL - | STUDENTS | TO AMS @ \$9 |
| SOCIETY | 197071 | \$200 plus \$.40 | IN SOCIETY | PER STUDENT |
| Agriculture | \$ 150 | \$ 284 | 210 | \$ 1,890 |
| Architecture | Nil | 256 · | 139 | 1,215 |
| Arts | 750 | 2,445 | 5,613 | 50,517 |
| Commerce | Nil | 614 | 1,036 | 9,354 |
| Dentistry | Nil | 264 | 161 | 1,449 |
| Education | 865 | 1,470 | 3,175 | 28,575 |
| Engineering | Nil | 658 | 1,144 | 10,296 |
| Forestry | Nil | 293 | 233 | 2,097 |
| Graduate Students Association | Nil | 520 | 800 | 7,200 |
| Home Economics | Nil | 303 | 258 | 2,322 |
| Law | Nil | 446 | 614 | 5,526 |
| Librarianship | 50 | 235 | 88 | 792 |
| Medicine | 60 | 301 | 252 | 2,268 |
| Nursing | Nil | 292 | 230 | 2,070 |
| Pharmacology | Nil | 290 | 226 | 2,034 |
| Physical Education | Nil | 375 | 438 | 3,942 |
| Recreation | Nil | 247 | 118 | 1,062 |
| Rehabilitation Medicine | Nil | 250 | 124 | 1,116 |
| Science | 500 | 1,624 | 3,560 | 32,040 |
| Social Work | 125 | 263 | 157 | 1,413 |
| TOTALS | \$2,500 | \$11,430 | 18,576 | \$166,977 |

Theological Colleges to Combine

A new ecumenical theological centre will come into existence at the University of B.C. in 1971 providing a private member's bill is approved at the current session of the provincial legislature.

The new institution, to be known as the Vancouver School of Theology, will include both Anglican and Union College of B.C., two of the main centres in Canada training men and women for careers in the Anglican and United Churches.

The constitution of the new School, which has been approved by the Boards of both Colleges, has only one additional hurdle to clear, approval by the B.C. Legislature through the Private Bills Committee.

It is expected that the new School will come into existence when the bill receives Royal assent in the spring. At that time, both Anglican and Union Colleges will will be combined in the new School.

The move to create a single centre for theological education in B.C. is the result of a policy adopted by 6/UBC Reports/Feb. 11, 1971

the American Association of Theological Schools of favoring the concentration of theological education in 18 major institutions in the United States and Canada. The only centre favored in the Pacific northwest and western Canada is Vancouver.

UBC's Senate and Board of Governors have approved a proposal that the new School be affiliated with the University, in the same way that Anglican and Union Colleges have been affiliated with UBC in the past.

Under the terms of the Universities Act, Anglican and Union Colleges each appoint one member to the UBC Senate. The new ecumenical school, because it will combine the two Colleges, ultimately will appoint two members to the UBC Senate.

However, until the Universities Act is amended at some future date the new School will be represented on Senate by one voting member and one observer. The University Senate will name two of its members

to sit on the Senate of the new School when it comes into existence.

The continued affiliation of the new School with UBC points up another increasingly important facet of theological education, the marked trend of such education to become more closely related to university training.

The new Centre will provide facilities for training men and women for the professional ministry, advanced study of theology and research, instruction in theology for laymen, and would serve as an ecumenical centre for theological dialogue among persons of different disciplines and theological viewpoints.

Both Anglican and United College occupy land rented from the University on 999-year leases. The financing of both colleges is entirely independent of the University, as will be the financing of the new School.



TWO MEMBERS of UBC's Faculty of Education, Dr. Reid Mitchell, left, and Mr. Ben Whitinger, discuss a previously-recorded

micro-teaching performance by a student teacher. Dr. Mitchell believes the micro-teaching technique could be used to improve the quality of teaching by UBC professors. For details of the micro-teaching technique, see story below.

TV AIDS STUDENTS IN EDUCATION

By DORIS HOPPER
Assistant Information Officer, UBC

UBC's Faculty of Education is using television as a technique for improving teaching.

The technique could be used to improve the quality of teaching at the university level and to improve the performance of teachers already practising in schools, according to Dr. J. Reid Mitchell, the man who oversees the innovative program within the Faculty of Education.

The technique is called micro-teaching and includes videotaping of a teaching experience in miniature.

TEACHES LESSON

During in-class practice teaching sessions, a student teaches a lesson of five or six minutes to a group of his peers. The fledgling teacher's performance is videotaped and is later replayed. The camera never lies, and during the playback process the prospective teacher is brought face to face with his own teaching performance.

Dr. Mitchell believes, however, that the technique of videotaping teaching performances has possibilities for much wider application within a variety of different settings.

At the university level, for example, larger faculties could acquire their own videotaping equipment and use the technique to record a faculty member's teaching performance during a lecture for later evaluation by himself or by a committee of his peers.

Dr. Mitchell points out that in some areas of the United States teachers are submitting videotaped recordings of their teaching performance as part of their application for teaching positions in U.S. school districts.

"Learning to see yourself as others see you" can

be a powerful incentive toward improving teaching

"My own feeling is that teachers are actor-entertainers," says Dr. Mitchell, who believes that in order to hold the attention of a classroom a teacher must be a "salesman as well as an educator."

Dr. Mitchell acknowledges that the videotaped micro-teaching sessions do have their drawbacks. Some students, for example, knowing that they are "on camera," are overcome with self-consciousness.

"You get some people who almost freeze when they start. They know they are being taped and these people often have a basic nervousness," he said.

He argues, however, that even people who experience this problem are learning something valuable about their own reactions. Once such a problem has been identified, he said, it can more easily be overcome.

Dr. Mitchell said that the real handicap to the micro-teaching sessions is that teaching a small group of peers is not the same as the real live experience of teaching in a classroom. "In a sense there is a bit of role-playing," he said.

Dr. Mitchell believes, however, that the method's advantages far outweigh its disadvantages and that its real value lies in allowing evaluation of performances when the videotapes are rerun.

Dr. Mitchell believes that teachers should be encouraged to learn now to project their own personalities in a way that will command attention and that in order to do this they need to acquire many of the same techniques that are used by polished stage performers.

MOVE AROUND

"Varying the visual stimulus" is one technique which Dr. Mitchell described. More simply stated, that means "move around."

'A little dynamism in yourself generates

enthusiasm," he explained.

"Non-verbal cuing," or the use of facial or hand expressions as a means of enhancing communication, is another useful technique.

"Sometimes body movement or facial changes can be upsetting. Sometimes they are very effective. Often we are unaware of our own ideosyncrasies," said Dr. Mitchell, "but the videotape recordings help reveal us to ourselves.

"A smile on your face is the most important visual cue you can give, but some of our students never knew what it was to smile," Dr. Reid pointed out. "Maybe they are a little tight and afraid to relax, but we try to convince them that it is easier to smile than it is to frown because it involves fewer muscles," he

RESEARCH TOOL

The micro-teaching technique is being used by several other Canadian universities as well as universities in the United States.

The concept is based on some research work done at Stanford University by Dr. Dwight Allan who used the micro-teaching method as a research tool for identifying basic technical teaching skills such as verbal cuing, questioning skills and so on.

The method has been adapted by UBC faculty members as a reinforcement for teacher training and is also used here for evaluating method courses.

The treatment of subject material through the use of particular procedures is emphasized in methods courses and during playback it can be determined how effective certain materials such as graphs and charts are in reinforcing a lesson.

Micro-teaching experiences are occasionally taped in the Faculty of Education's educational television studios, but most often the seminars and methods courses are taped in the classroom using one of two portable videotape units supplied through the ETV studios.

New Media Centre Will Help Enliven Lectures

A new centre has been created on the campus which should help faculty members liven up lectures.

The Instructional Media Centre has been created through the amalgamation of previously existing audio-visual, photographic and printing facilities on the campus.

"Our major effort will be to work with faculty members to encourage the use of sophisticated instructional aids to help enhance lectures," said Mr. T.G.J. Whitehead, director of the new centre. He said that faculty members who have become aware of the new service have responded enthusiastically.

The President's Committee on Campus Communications Media has recommended that a major responsibility of the new centre should be the co-ordination of all existing audio-visual and video

OPINION

The following editorial, entitled "Citizenship Hysteria," appeared in Incubus, a publication of the Education Undergraduate Society. It was signed by Miss Janet McGregor, a fifth-year Education student and one of the newsletters editors.

Many campus voices have expressed concern about the citizenship of university professors and the loss of our "Canadian identity." As a result, a wave of paranoia has swept through faculty circles when hiring, promotion and committee appointments arise. Worried that immigrant status will jeopardize their chances for advancement, professors often look for jobs elsewhere, or failing this, succumb to the pressure to become Canadian citizens.

The majority of non-Canadian faculty members are well aware of the cultural differences between their country and ours and take pains to ensure that their course material, references, etc. are Canadian oriented, thus preserving whatever Canadian identity we may have.

However, a popular notion has developed in the high levels of university administration that administrators should give preference to Canadian profs — then look for good Americans, providing, of course, they are willing to take out Canadian citizenship!

Since when is citizenship a criteria of teaching ability? I am certain that if a survey were taken among Education students to evaluate the teaching competency of our professors, the Canadians overall would come out no better than American ones — indeed they might be rated considerably lower. Unquestionably the most popular professors in this faculty are non-Canadian. Campus-wide, non-Canadians seem to be more vital, enthusiastic people — and this is reflected in the courses they teach. I would suggest that they are an outgrowth of a more imaginative, innovative school system — particularly that of the United States

In Canada, on the other hand, we emerge complacently from a system that discourages and eventually sqeulches any spark of creative, independent thinking which may dare to shine through the sterile environment in which our minds are locked. Unfortunately, complacent children become teachers and professors, only to perpetuate this state of mind — stagnation.

We are doing a serious injustice to many valuable people by barring their admittance merely on the basis of citizenship.

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equipment on campus.

"Such equipment has been acquired on an ad hoc basis by various faculties and frequently sits idle," Mr. Whitehead explained. "Once the equipment has been co-ordinated, it can be put to better use by all faculties. Also, some of the equipment now in existence is not compatible and we hope through co-ordination to ensure compatibility in the future."

The centre's own portable videotape equipment is available for microteaching encounters both on and off campus. One imaginative use to which the equipment has already been put is the videotaping of a simulated earthquake. The quake was a graduate student research project in civil engineering.

The centre also has a variety of audio-visual equipment available for loan to faculty, including 16 mm. and 8 mm. film projectors, tape recorders, slide projectors and overhead projectors.

In addition the centre maintains a catalogued collection of approximately 2,000 instructional films which can be used to supplement lectures. Qualified librarians are available to assist in obtaining any other film that a faculty member may want for temporary use. A further 200 films can be made available by the centre for use by off-campus community organizations and schools.

The photographic section of the new centre includes a graphic arts department which can produce printing plates for offset presses. The department can reproduce any kind of copy that a faculty member may wish to use in illustrating a lecture, including photographs, line cuts, graphs and charts.

In addition, the photographic section can assist faculty in the production of color or black-and-white slides and of overhead transparencies.

A further responsibility is maintaining progress



MR. TOM WHITEHEAD

shots of all buildings under construction on the campus for the Special Collections Division of the Library.

Two professional photographers are available on an assignment basis for photographs of a public relations nature and are responsible for free photographic portraits of all faculty members. The department will also supply passport photos at a minimum charge. Faculty members are reminded that faculty portraits should be updated every two or three years.

Last but not least among the new centre's services is a small duplicating section which consists of an offset press and a highly sophisticated Xerox. The Xerox can produce quality theses which will be accepted by all University libraries and the centre expects to be able to provide virtually same-day service.

The Instructional Media Centre is located in the old Extension Department huts on the East Mall opposite the Cunningham Building and can be reached at 228–4771.



CANADA'S Minister of Communications, Hon. Eric Kierans, speaks today at 12:30 p.m. in the Hebb Theatre on UBC's East Mall on Canada's communications satellite program. Talk is sponsored by UBC's lectures committee.

Bus Routes Alter

B.C. Hydro will make some changes in existing campus bus routes Friday (Feb. 12) designed to improve connections to Vancouver and relieve congestion at intersections on Wesbrook Crescent and University Boulevard.

Bus route A from Hastings St. in downtown Vancouver will approach UBC via University Boulevard and return via the same route after terminating at the East Mall loop.

Presently the A bus returns to the city via University Boulevard only after travelling to the loop at the north end of the Main Mall via Wesbrook Crescent, Chancellor Boulevard and Crescent Road.

Bus route B, which approaches UBC via Chancellor and returns to the city via University Boulevard after stops at the Main and East Mall loops, will follow the same route as in the past. Service, however, will originate at Broadway and Granville St. on a regular basis instead of from the Blanca and Chancellor loop on a random basis, as in the past.

Bus route C, which approaches UBC via Marine Drive from 41st and Granville, will follow the same route as in the past but service will originate at 41st and Oak St. on a continuing basis.

EMPLOYMENT

Continued from Page One

be possible for many students to be still able to teach in B.C. on a letter of permission. $^{\prime\prime}$

In addition to the intensive survey of students graduating from the Faculty of Education, Student Services has compiled information on students who received other types of bachelor's degrees in 1970.

The following list shows the number of 1970 UBC graduates currently registered for employment with the Office of Student Services as compared with the total number of 1970 graduates in each discipline (in brackets). Students Services notes that while probably not all graduates seeking employment are registered with the placement office, the number registered represents a reasonable index.

| Engineering Physics | 2 | (| 14) |
|---------------------------|----|----|-------|
| Chemical Engineering | 2 | (| 39) |
| Civil Engineering | 1 | (| 44) |
| Electrical Engineering | 4 | (| 57) |
| Geological Engineering | 0 | (| 17) |
| Mechanical Engineering | 2 | (| 43) |
| Metallurgical Engineering | 0 | (| 7) |
| Mineral Engineering | 0 | (| 8) |
| Commerce | 5 | (| 199) |
| Agriculture | 2 | (| 50) |
| Home Economics | 0 | (| 78) |
| Law | 1 | (| 140) |
| Physical Education | 2 | (| 59) |
| Forestry | 1 | (| 51) |
| Nursing | 0 | (| 49) |
| Arts | 45 | (1 | ,011) |
| Science | 27 | (| 513) |