
DIALOGUE / DIALOGUE

**The Next Frontier:
Graduate Education at a Distance**

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The difficulty in discussing the topic of the distance delivery¹ of post-graduate education is that inevitably one appears to antagonize different elements within the University community. On one hand the traditionalists often view distance education as the ultimate erosion of academic standards, whereas on the other hand distance education advocates see opposition to their cause as obstructionism and academic protectionism. This is an era when the great cries resounding through academe are "excellence" and "accessibility" and which, unfortunately, are often thought to be mutually exclusive.

The crux of this debate centres on the nature of the graduate studies and on how it differs, if indeed it does, from studies at the undergraduate level. There appears to be little philosophical opposition to the distance delivery of undergraduate courses; although, from a practical standpoint, there are courses and programs that are beyond the capacity of most institutions to deliver at a distance without the resources of institutions such as the Open University in Britain. However, there is a strongly held belief, certainly on the part of some Canadian academics, that there are intrinsic qualities about graduate education that militate against its delivery at a distance.

The elements of the argument against graduate courses at a distance are threefold. First, the provision of supporting resources, such as good library services off-campus, are more important and difficult to achieve at the graduate level than at the undergraduate level. Second, the direct exposure to and interaction with a faculty member at the "cutting edge" of the subject is judged to be a vital and necessary ingredient. Third, the live in-class interaction among graduate students is deemed to be an essential and differentiating element of studies at this level. Although there are undoubted truths about these arguments, they are truths within the context of a very traditional, ivy-clad model of graduate studies that deserves closet scrutiny in light of modern programs and resources.

Holmberg suggests that there are two different types of post-graduate study: "...either a widening or deepening of knowledge and insights related to or based on previous study which had led to a career" (Holmberg, 1981).

However, it is unlikely that a deepening of knowledge is unaccompanied by a widening and vice-versa. Consequently, it might be more useful to examine post-graduate studies from a slightly different viewpoint, that of whether its function is to discover or develop new knowledge and ideas or, alternatively, to propagate existing knowledge, albeit advanced and close to the mythical frontier.

Post-graduate studies, in which the main focus is the discovery of new knowledge, is the ultimate extension of the traditional university mandate of the pursuit of knowledge, and is what we generally associate with the traditional model of graduate studies. On the other hand, when the main thrust of post-graduate studies is the propagation of existing knowledge, then we are much closer to the area we usually think of as continuing education. Indeed, many programs that serve this function are designed to update the professional in the latest advances in his or her field. Typically, the types of post-graduate programs in the latter category comprise the taught Master's degree. Although there are substantial overlaps between these two versions of post-graduate studies, there are significant differences between their aims and, consequently, their requirements that merit consideration in the issue of the feasibility of post-graduate education by distance delivery.

The traditional knowledge-discovery version of post-graduate studies generally places great emphasis on the requirement of access to resources. Of paramount importance is the availability of library resources of various kinds, such as periodicals, archives, primary sources, and so forth. The search for new knowledge being unpredictable, the pursuing scholar must be unfettered in this quest and must have access to the tools of research. Clearly, for many distance education students in locations remote from such collections, most often found in university libraries, this is a barrier that cannot be overcome easily. Graduate courses and programs associated with the existing-knowledge version of post-graduate studies, however, often have lesser reference requirements, and a judicious selection and packaging of course materials can bring these courses within reach of all distance education students. Thus, the Open University's taught Master of Science in Mathematics provides "...the opportunity of studying topics in the general area of pure and applied mathematics via guided reading of suitable books" (Open University, 1987). In addition, there are reading guides and a number of newsletters as part of the course materials.

The relationship with a supervisor or tutor is generally regarded as being a crucial element in the quality of post-graduate programs. There is, however, a wide variety of practices concerning the amount and frequency of interaction between the graduate student and the supervisor/tutor as well as the role played in the relationship. This varies from program to program and from

university to university and too often is dependent on the interest of the supervisor. Although the distance student might not have the immediate access to a supervisor/tutor that an on-campus student could expect to have, the advent of modern interactive technology should prevent it being a major inhibitor. The success of the external research degrees in Britain indicates the feasibility of supervision at a distance although efforts must be made to ensure good contact with the supervisor/tutor because, as Phillips points out, non-completion of higher research degrees is more related to feelings of isolation—"that nobody is interested" (Phillips, 1985).

The third element that enters discussions about post-graduate studies is the academic interaction among graduate students.

Although this is undoubtedly a highly desirable feature of on-campus graduate programs, ideally giving the students the opportunity to expose their ideas to the criticism of their peers, the reality is that not all on-campus graduate students have this opportunity because of low enrollments in many graduate classes.² Although the distance education version of a graduate program may not be able to parallel exactly the best kind of graduate seminar found in an on-campus program, the various technological conferencing capabilities now available to distance educators can provide a viable interactive experience for students.

Studying for post-graduate degrees at a distance is an accepted form of higher education in a number of countries outside of Canada. In Britain, the external research degree has been an acceptable qualification for many years. In more recent times, the Open University has offered higher degrees both by research and taught Master's degrees. In 1985, there were 1,000 students registered, 250 of whom were registered for the latter. In 1987, there were three taught Master's degrees available and others were being planned. The degree of interaction with tutors and the resource requirements varied for each degree.

Although the Master of Science degree in Mathematics appears to be totally sustainable at a distance, the Master of Arts degree in Literature requires access to University libraries and face-to-face sessions with tutors.

Holmberg (1981) cites a variety of examples of post-graduate education at a distance drawn from a number of countries (e.g., Sweden, Australia, East Germany) where the concept is no longer regarded as being particularly innovative. In the United States, the external degree is common although there are issues of accreditation with some institutions. With the advent of satellite and computer communication, the availability of many United States-based programs north of the border is becoming a reality facing Canadian institutions. The delivery of such United States-based courses is distinctly viable as illustrated by the recent successful distance delivery of a

graduate course in Occupational Therapy from South Carolina to Atlantic Canada, which included the collaboration of the Medical University of South Carolina, Dalhousie University and Memorial University of Newfoundland. However, as this practice becomes more common it will raise issues such as the access to a university's resources by students registered at another institution.

Graduate Studies at a Distance in Canada

In Canada, the acceptance of post-graduate education at a distance is more sporadic. A recent questionnaire that followed a telephone survey of Canadian universities and colleges revealed that few institutions have any involvement at the graduate level using distance education. The results of this survey are reported here.

Of the 52 institutions that responded to the questionnaire, only two appear to offer programs with any substantial component delivered by distance education. The University of Ottawa has a Master's of Education program for francophone students and has begun the offering of a Doctoral program in Psychology. However, both of these programs will require periods of study on campus. Similarly, Mount Saint Vincent University offers a Master's of Education in Reading and language by external study and this program also requires students to include some on-campus courses.

A number of institutions that responded to the questionnaire indicated that they offered individual courses at the graduate level using distance education techniques. Often these courses were not offered on a regular basis but depended on the interest of a particular faculty member. The vast majority of the courses offered were in the area of Education and the most common medium of delivery was teleconferencing (Table 1). Several institutions also indicated that they did deliver graduate courses off-campus using face-to-face instruction. These are not included in Table 1.

It was apparent from the responses to the questionnaire that, despite the present paucity of offerings at the graduate level by distance education, a number of institutions have a growing interest in designing graduate programs for distance delivery. Areas proposed included programs in Business, Education (including the area of Distance Education) and English, as well as individual courses in Nursing and Civil Engineering.

Very few of the institutions that responded to the questionnaire appeared to have developed policies, rules, or guidelines pertaining specifically to the offering of graduate programs or courses by distance education. Several universities indicated that they would not normally accept a graduate degree completed solely by distance education as comparable to a graduate degree completed by a student resident in a university. These institutions also said

that they restrict the number of distance graduate courses that may be included in a graduate program. Other universities indicated that although the content of the course is the prerogative of the Graduate Council, the mode of delivery is at the discretion of the department. Only one institution, Memorial University of Newfoundland, appears to have developed procedures that oversee the offering of graduate courses at a distance. The process involves the approval by a Distance Education Advisory Committee of the School of Graduate Studies and not the department offering the course. This Committee concerns itself with the feasibility of preparing the course and the availability of resources, both technical and logistical, as well as the approval of a development plan identifying the nature of the materials to be produced and scheduling its production.

Table 1

Institutions Offering Individual Courses at the Graduate Level
by Distance Education

Institution	Discipline	Medium of Delivery
University of Alberta	Education	Teleconferencing
University of Calgary	Education	Teleconferencing
Dalhousie University	Nursing	Print, Teleconferencing
University of Manitoba	Education	Teleconferencing, Print
Memorial University of Newfoundland	Education	Print, Teleconferencing
Université de Moncton	Education	Teleconferencing
University of New Brunswick, Fredericton	Education, Nursing	Television, Teleconferencing
Ontario Institute for Studies in Education	Education	Audio and Computer Conferencing, FAX and Print, also Audio and Video cassette
University of Regina	Education	Teleconferencing
Simon Fraser University	Education	Computer Conferencing, Telephone
University of Victoria	Education	Print, Video cassette, Audio-teleconferencing, Tutor-support

Most of the comments returned with many of the questionnaires supported the need for the development of graduate programs at a distance. One office of continuing education indicated that approximately one-third of all course inquiries centred around the availability of graduate courses at a distance.

Students who had completed undergraduate courses via distance education were frustrated when they found graduate courses not available. Other comments drew attention to the needs of many mature part-time students whose career demands made it impossible for them to be absent from home in order to satisfy a residence requirement. Further, the difficulty in obtaining suitably qualified instructors to teach off-campus made it important to pursue the development of distance education versions of graduate courses, particularly where there is a regional demand.

Although many of the comments indicated a distinct need for graduate programs and courses to be delivered at a distance, many of the respondents were concerned with the special requirements that are necessary. Among those most commonly mentioned were the provision of library resources, quality control, and financing. The latter point was mentioned often because the development and delivery of distance education courses and programs is generally more expensive than on-campus versions. One submission indicated that a requirement of *good* graduate programming was face-to-face student-supervisor interaction and queried whether this was in fact possible at a distance.

In some quarters, there is a tendency for Canadian universities to ignore the issue of graduate education at a distance and when it is discussed there often results a distinct polarization on campus; however, this is an issue that will not go away. The increasing demand by non-traditional students for access to the university, allied with increasing government pressure on universities for accountability to society's needs will force the university to re-examine what it can offer. In addition, the public's growing familiarization with new technologies gives distance educators powerful new tools that can expand the boundary of the university beyond its campus. Thus, in 1986, a master's degree was granted by the world's first satellite university, the National Technological University, based in Colorado. There are 22 co-operating institutions in the project including Georgia Tech, Purdue and the University of Alaska. By 1990, it is expected that 2,000 students will be enrolled in a Master of Science degree program delivered by interactive satellite technology.

The solution is, of course, for open constructive debate on the issue, free from hardened positions and internal politics—not an easy thing to attain within the university context. The debate is fraught with issues ranging from academic freedom to job protectionism and there are no simple solutions. Too often in universities, inactivity is deemed to represent sage wisdom and mature judgement. However, in the case of post-graduate education at a distance, inactivity will serve no one, least of all Canadian universities.

Notes

1. Distance education, in the context of this paper, does not include off-campus face-to-face instruction.
2. For example, a survey of graduate class sizes at Memorial University reveals that approximately a quarter of them have only one student registered, and if Education courses are deleted from the survey this figure is close to one-third.

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