

THE EXPERIENCE OF DOING RESEARCH AT THE CEGEP LEVEL

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ABSTRACT. The focus of this presentation is on the nature of research at the cegep level. The benefits and difficulties of doing pedagogical and institutional research are briefly summarized. Various options for carrying out discipline related research in psychology are described and the pros and cons of various approaches such as class lab exercises, institutional funding and research grant funding are discussed. Concerns related to carrying out discipline related research which is funded by a research grant are noted and solutions to some of the difficulties with this process are proposed.

Pedagogical Research

The article by Paul-Émile Gingras (1985) on college level research summarizes in a concise fashion the status of research at the cegep level — certainly it reflects the reality of Dawson College where I teach. Much of the ongoing research at Dawson concerns pedagogical issues with mini-funding, volunteers, and, occasionally, with DGEC support. Like many others, I also have been involved in such research. Several years ago, Lillian Fox, one of my colleagues in the Psychology Department, and I conducted a study of the effects of test-retest examination procedures on knowledge of course material and examination anxiety (Fichten & Fox-Adler, 1972 ; Fichten & Fox-Adler, 1977). This type of research is very satisfying because one can immediately implement new techniques in one's courses with the assurance that the consequences will be beneficial. However, for many of us who do not come from an education background, once we have studied new techniques to help us better teach our disciplines, interest eventually pales.

Institutional Research

The second focus of cegep research according to Gingras is on institutional concerns. Again, the Dawson experience bears this out. In fact, my department has recently concluded a study entitled « Fac-

ulty perceptions of administrative decisions at Dawson College » (Selby/Viger Psychology Department Research Committee, 1984). The focus of this study, as of many other projects carried out at Dawson, is on organizational and institutional concerns. Such studies require the collaboration of many individuals and satisfaction comes from the possibility of improving various facets of academic life.

Discipline Related Research

While such projects are indeed the mainstay of cegep research, for many of us whose disciplines involve a heavy emphasis on research, as does my area, psychology, this is often not enough. We teach that research is exciting and leads to a better understanding of people. We describe many studies and try to instill in our students an appreciation of the process and value of the empirical approach. Yet, we rarely have the opportunity to do research in our own fields or to expose our students to the realities of the process.

Class lab exercises

One solution for many of us has been to conduct small laboratory exercises in class. While some of these are from laboratory manuals, on a number of occasions we improvise and design a lab exercise which is of specific interest to our students. Most of these lab exercises turn out to be exactly that — exer-

cises. But occasionally, the results of such a lab exercise turn out to be really interesting.

A few years ago Betty Sunerton, a colleague in the Psychology Department, and I were trying to teach our introductory psychology students about scientific method in psychology. We designed a lab exercise to answer the question « Are horoscopes really true ? » The findings of this lab exercise were interesting. Our students pressed us for additional information on horoscopes and we started to examine the literature (yes, there is one). Our search showed that no findings such as ours have ever been published. Our students kept pressing for additional information. Eventually, we conducted a series of lab exercises on horoscopes and astrologically based personality descriptions, much to our students' delight, I might add. The findings continued to be interesting. The lab exercise was so successful that we compiled a laboratory manual (Sunerton & Fichten, 1984 ; Sunerton & Fichten, 1983). Since the results were of interest to us as psychologists as well, we decided to present a paper on the topic at a Canadian Psychological Association convention (Fichten & Sunerton, 1982). It was well received. Someone suggested we should publish the findings. We decided to do so (Fichten & Sunerton, 1983) ; the experience of preparing a formal paper not only sharpened our research skills but also gave us the feeling that we were contributing to scientific knowledge and to our discipline.

In the process of developing these studies and the lab manual we found that the project had grown to the point that we could not continue the research without additional help and money. At this point one usually has two options : abandon the research project or seek funding and support. An « easy » first step is to request this assistance from the college or one of its committees which is charged with supporting research activity.

Institutional funding

I say easy in quotation marks because while such an approach has many positive features, it is by no means easy to do research in this way. I expect that many of you have chosen this route so I need not belabor the difficulties. Suffice it to say that because of the small size of such institutional funding one adopts a « do it yourself » approach, occasionally with the help of keen volunteers or minimally paid students who must be supervised very closely.

Of course there are also problems with access and expertise with computers. There is little if any secretarial help with typing of questionnaires, manuals, conference submissions, articles and the like. The photocopy budget usually turns out to be insufficient, and there is little, if any assistance with graphics, slides and figures. One learns to be resourceful.

In addition, there may also be a problem with finding funding to present the research at a conference as well. Last but definitely not least, because of our teaching schedules, we often work on the research in the evenings, on weekends and during holidays. The rewards of all this activity, other than intrinsic interest and the enthusiasm of one's students, are minimal. Given the costs and benefits of this kind of research, it is not tempting to continue doing this in the long run.

Research funded by a research grant

The alternative to this approach for those of us who are interested in doing research in our fields is to seek funding from a granting agency. This approach has many advantages but it too has its difficulties. The difficulties fall into the following headings : a) lack of recognition (or interest) by most organizations dispensing research grants of the realities of our teaching load, b) lack of experience with grant preparation and c) lack of experience by the teacher and by the college's administration with grant subsidized research.

Realities of cegep teaching loads. Most organizations which sponsor research are geared to universities. This means that a grant normally covers operating costs and some specialized pieces of equipment only. The university professors' teaching loads assume that they will be doing research — usually our university colleagues teach approximately three courses compared to our nine. Of course, since research activity is part of their job description, it is assumed that they will be doing the research during their « free » nonteaching time. We have no such « free » time. Therefore it becomes important that a granting organization have some mechanism available for providing released time for the cegep teacher in order to permit him/her to carry out the research.

In Québec we are fortunate that one of our major research granting organizations, FCAR, has recognized this need for released time by cegep teachers. FCAR has in the past shown itself in many ways to be very supportive of the cegep researcher. One of the key elements of this support is that the teacher

FAIRE DE LA RECHERCHE EN MILIEU COLLÉGIAL

Invitée à dire, à partir de son expérience personnelle, ce qu'il en est de la recherche en milieu collégial, Mme Catherine S. Fichten, professeure de psychologie au Collège Dawson, traite de l'orientation de cette recherche, évoque avec une remarquable simplicité les conditions dans lesquelles elle se pratique et les gratifications qu'elle permet, et fait certaines suggestions quant au cadre de fonctionnement et à l'aide dont pourraient profiter les chercheurs.

La recherche, telle que s'y adonne Mme Fichten, porte sur des questions surtout pédagogiques et qui concernent d'abord le collège lui-même où se fait la recherche ; elle exige aussi beaucoup de bénévolat et elle ne peut compter que sur de petites subventions. L'auteur souligne alors que la situation que vivent les enseignants-chercheurs au Collège Dawson correspond en tous points à celle que décrit Paul-Émile Gingras (1985) dans son rapport sur la recherche au collégial et que nous publions ailleurs dans ce numéro.

Pour ceux et celles dont le domaine d'enseignement puise abondamment à la recherche, des enquêtes pédagogiques et institutionnelles qui sont importantes en elles-mêmes ne peuvent suffire. Il existe chez l'enseignant-chercheur un besoin supplémentaire de découvrir et d'approfondir par la recherche des connaissances qui s'appliquent spécifiquement à la discipline enseignée. C'est pour cette raison que Madame Fichten s'est elle-même sentie obligée de s'impliquer.

Au début, l'auteur a fait de simples expériences en classe mais s'est retrouvée peu après avec le désir d'aller plus loin... À ce moment, la question des subventions est devenue pertinente. L'auteur constate que même avec l'aide financière du collège, le chercheur doit faire à peu près tout lui-même et ceci, bénévolement. Il est possible de se procurer des fonds provenant d'organismes de recherche mais, comme le souligne Madame Fichten, les formalités à remplir sont un travail long et complexe auquel ne sont pas du tout rompus les professeurs. Pour cette tâche, suggère-t-elle, ils auraient besoin

de plus d'aide de la part de leurs collègues respectifs et des organismes mêmes de subventionnement.

Elle rappelle ensuite le modèle universitaire sur lequel, trop souvent encore, on veut aligner les subventions à la recherche collégiale. Contrairement à l'université, la tâche du professeur de collège ne prévoit pas de dégrèvement pour la recherche. Là-dessus, l'auteur souligne l'heureuse exception que constitue le FCAR dans sa façon de considérer les professeurs de collège.

Enfin, les mille et un tracas d'un milieu trop souvent dysfonctionnel. À titre d'exemples, l'auteur mentionne les problèmes d'espace qu'on peut rencontrer dans maints cégeps lorsqu'on veut faire de la recherche mais aussi les « dérangements » aux routines comptables, les problèmes d'utilisation de l'informatique, le manque de facilités techniques pour la présentation matérielle des rapports de recherches, les heures d'ouverture du collège, le soir, notamment, et en période de vacances, etc.

Mais, dit-elle aussi au terme de cette description, la recherche demeure éminemment gratifiante, même si elle est pratiquée dans ces conditions. D'abord, c'est stimulant au plan intellectuel et c'est même un bon antidote contre le « burn-out ». Puis, une pratique de recherche qui implique les étudiants ne pourra que faciliter les apprentissages et, partant, aussi l'enseignement du professeur.

Enfin, en payant un dernier tribut au FCAR qu'elle considère comme un organisme des plus compréhensifs du réseau collégial, l'auteure conclut en suggérant qu'on fasse mieux connaître le profit qu'il y a à faire de la recherche aux administrateurs de collèges, que les agences de subventionnement tiennent mieux compte des particularités de l'ordre collégial et de ses établissements et, enfin, que la DGEC en vienne à considérer la recherche comme un élément du mandat des collèges sinon de leurs professeurs.

may apply for and obtain « released time » which frees him/her to do research without loss of either salary or seniority. While cegep teachers are eligible to participate in all of FCAR's competitions, one of their programs, ACSAIR, was designed specifically with us in mind. The ACSAIR program and those responsible for its inception, such as M. René-Paul Fournier and Mme Andrée Gendreau, have truly permitted cegep teachers to start doing discipline related research. Another key element of the ACSAIR program is that the teacher need not possess a Ph.D. to apply. The administrators of FCAR are to be commended for recognizing that one's ability to do research is what is important rather than one's formal credentials.

Lack of experience with grant preparation. A second difficulty faced by the cegep teacher is that he/she has little or no experience with grant appli-

cation preparation. Most of us have never prepared such an application. Nor do we have many colleagues who have done so.

Several factors could help us to cope with this difficulty. First of all, it is helpful for the college to designate someone who is knowledgeable about research grants to help the teacher with : information about granting organizations, grant program objectives and requirements, and « grantsmanship » in general. At Dawson College we have been fortunate in having an administration which has been interested in faculty research. Both our Academic Dean, Julia Newell and our Dean of Arts, Silvia Lamb have been very supportive. One of the college's concrete manifestations of support has been the appointment of a research coordinator. We have been lucky indeed to have had Morna Consedine and later Maud Clément-Foucher doing this job ; they have *done much* to help.

An additional significant source of help is the grant brochure. These brochures, occasionally very long, should be read extremely carefully. Granting organizations and grant programs have differing objectives and goals and these must be respected. The grant documents also have to be prepared in accordance with a specified format. Some grant brochures also contain valuable suggestions concerning what types of information should be included in the application and the criteria to be used in the evaluation of the proposal. In this regard, FCAR's ACSAIR brochure has been particularly informative. FCAR has kept our lack of experience with grant preparation in mind ; the ACSAIR brochure contains a carefully detailed set of instructions on how to prepare a grant application as well as information on how the proposal will be evaluated.

Another thing to keep in mind is that one has to start preparing a grant application very early as it is a lengthy and time consuming process. A grant application resembles a thesis proposal. A thorough review of the relevant literature must be prepared and the methodology must be detailed. If your library is like ours, it is probably not well suited to this type of scholarly work. Advance preparation in the form of inter-library loans or access to a university library is necessary. A mundane but essential issue which must be addressed concerns the typing of the grant application. This is a major job and details such as who will do the work and who will pay for it must be planned in advance.

One must also keep in mind that such a research grant has implications for the college. Therefore, administration and the department chairperson must be consulted about released time, space, equipment, availability of computer time and the like. If the research involves human subjects, a college research ethics committee must be consulted, and if it does not exist it must be formed. In these activities a supportive administration and a knowledgeable coordinator of research can be very helpful.

The tendency, in a fit of enthusiasm, to propose too many and/or overly ambitious projects must also be curbed. The project must be doable and one should always assume that Murphy's law (everything that can go wrong will) applies to research as well. However, having no norms or past experience with what is and what is not appropriate to carry out during a one year period, one can design and propose very ambitious projects. Unfortunately, once the commitment has been made, one must deliver on these

promises. To get a better notion of what is or is not realistic to propose, conferences where people have a forum to exchange ideas, problems and solutions, such as the Association québécoise de pédagogie collégiale (AQPC) or, in the case of psychologists the Association des Professeurs de Psychologie du Réseau Collégial du Québec (APPRCQ), can be helpful. A second source of help has been FCAR. After obtaining my first ACSAIR grant, FCAR in their attempt to educate college level researchers in grantsmanship asked me to sit on one of their grants juries for another competition. Participating in and observing others work on a grants jury has been a very valuable learning experience.

Lack of experience by the teacher and the cegep. Let's assume that one has successfully surmounted these hurdles and one has just received the good news that one has a grant. First joy and then despair — where does one start ?

The difficulties faced by the new grant holder are many. There is no pool of potential research assistants to choose from. If an assistant is needed, the grand holder must develop means of finding one. Once found, how does the assistant get paid ? Accounting and payroll departments do not have readily available mechanisms for this. The cegep teacher-researcher is a square peg in a round hole.

One also has to determine who will do secretarial work. The support staff at many of the colleges do not have research work as part of their mandate. Even when funds from the grant are available for this activity, there is often no one in the college who is able or willing to do typing for the grant. Another issue concerns where typing will take place and whose typewriter is to be used. Grants rarely provide funds for office equipment and the like.

What about research assistants — where will they be located. Space at Dawson College, as at many other cegeps, is at a premium. How do one's office mates feel about sharing their office with yet another person, one's research assistant ? What about storage and filing cabinet space ? Where will the apparatus and paperwork be housed ?

While the coordinator for research can be of help in resolving some of these difficulties, it must be recognized that he or she is not a miracle worker. The problems are fundamental and arise not only because of lack of experience by the cegep and by the teacher but because of the structure and mandate of the cegeps. More about this later.

Accounting procedures, timesheets and the like are also new to the grant holder. « Books » have to be set up and a working relationship with the accounting department has to be formed. Since grant subsidized research is a new type of activity to many colleges, again there are no established procedures. Accounting simply has one more task to do, generally without any increase in staffing. Often, the teacher-researcher's budgetary problems and concerns are given low priority. While the department chairperson, in our case Gary Clemence, and the research coordinator can be of considerable help in smoothing the way, it must be recognized that the problems are inherent because of the structure and mandate of the cegeps.

If one has actually coped with the problems noted above, and this may take months to accomplish I might add, one can actually get on with the research. Unfortunately, by this point the research may already be well behind schedule. Nights, weekends and holidays again.

Once the experimentation has been carried out, how does one analyze the data ? First of all, it helps to be handy with a calculator. But for many studies this is woefully inadequate. Access to a computer must be found. I expect that in most colleges both the mainframe and the micros are overburdened with the college's normal tasks (*i.e.* teaching and administration). Even once a computer has been located, who knows how to use it ? It is unreasonable to expect that the college math department's one or two overworked statistics teachers will undertake to help with data analysis for a grant. Again, one must be resourceful.

And finally, once the results are written for presentation at a conference or for submission to a journal, the matter of graphics arises. How to make good looking graphs ? What about slides ? Who is handy with Letraset and photoreproduction ? Again the college's graphics and audio-visual people may either not consider such work to be a part of their regular duties or they may not have the equipment or expertise to execute it. Again, resourcefulness is needed.

And when do all of these activities take place ? Colleges often assume that once classes are over there is no longer any need to provide services, food, and the like on campus ; this is especially true of smaller campuses of multicampus cegeps. During summer « vacation » some campuses virtually close. Since for the first few years much of the research takes place

during nights, weekends and holidays, including summer and Christmas « vacations », this can be a real hardship.

The rewards. So now that I've mentioned some of the difficulties of doing grant subsidized research in the colleges, why would anyone in his/her right mind undertake to do this ?

First and foremost it is intellectually stimulating. For many of us who are old-timers in the cegep system the intellectual stimulation that comes from an active research program is exhilarating. The opportunity to contribute to one's field and to talk to colleagues at conferences who work in the same area are a marvelous antidote to « burn-out » and apathy. This has a strong impact on how one views one's discipline and on the enthusiasm with which one teaches a subject which can palpably be felt to be growing and evolving. Obviously, enthusiasm in a teacher is a valuable asset.

There are also other positive consequences for one's students. They can discuss and comment on the research if it is presented in the classroom. This shows them that research is not mere « book learning » but a real and vibrant component of the field. This understanding often helps facilitate students' understanding and appreciation of research described in their course texts.

In a number of cases, the students can participate directly in the research either as subjects or as assistants. Again, both of these activities help to expose students to the realities of research and to sensitize them to what to expect should they continue in the field.

I have been fortunate that in my discipline there is a course (350-999 Independent Readings and Research in Psychology) which permits students to work with a professor on a research topic of interest to both. Thus, it has been possible to expose some of my students to all aspects of research, including planning and designing experiments, preparing experimental materials, gathering and analyzing the data as well as making a written and/or oral presentation of the results. Indeed, two students who have done such projects with me in the past, Vicky Compton and Joanne Hines, have had their research published in major psychology journals (Fichten, Compton & Amsel, in press; Fichten, Hines & Amsel, in press). Because our jobs are first and foremost as teachers, it seems to me that those of us at cegeps who hold grants have been particularly careful to

ensure that our research has a beneficial impact on the education of our students.

What can be done to make it easier. For those who agree that the costs of doing grant subsidized research are worth the benefits for the teacher, his/her students, college and discipline, I'd like to make some long term suggestions about how to facilitate the process.

First of all, one may want to sensitize college administrations that the trouble of having teachers do research is worth the effort. But administrators are rarely in contact with the students and colleagues who experience and sometimes share the enthusiasm of the teacher-researcher. Instead, administrators are exposed to the troublesome and annoying problems I noted earlier. It is, therefore, not surprising that some cegep administrators may view research as an unnecessary evil. Those of us who have done grant subsidized research have an obligation to tell our administrators about the benefits.

Research granting agencies who wish to support cegep research can also recognize that problems unique to the cegep system exist and help the colleges cope with some of the difficulties. One concrete means of doing so would be to provide an institutional subsidy for each research grant awarded to a cegep. This money could help the college with office and lab space, office equipment, salary for a research coordinator, extra accounting staff and so on.

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Now that the cegep system has been in existence for a number of years, DGEC can also recognize the need for the intellectual renewal of an aging faculty by including research as an integral part of the mandate of a cegep. Not only are there benefits for the educational process but there are significant financial gains. Cegep level research can be a highly cost-effective means to generate scientific productivity in Québec. Cegep teachers obtain released time for scientific activity and productivity. No productivity, no released time next year. Thus cegep research could not only tap hitherto inaccessible research talent but could also be a very cost-effective means of stimulating research in Québec.

Another source of help with cegep research activity is holding meetings which permit cegep teacher-researchers to discuss issues, concerns, ideas and solutions in an atmosphere of collaboration and mutual support.

And finally, a big public vote of thanks should go to organizations such as FCAR which have not only recognized the need for scholarly activity in the cegeps but who have also encouraged, supported and educated teachers in the process of doing research and applying for grants. One only hopes that the experimental ACSAIR program will continue for many years to come.