This paper describes an ongoing comprehensive model of program evaluation which has as its major goal the improvement of teacher education. This project, developed at the University of Lethbridge (Alberta, Canada), is presented in four parts: (1) the process—how and why the project developed or is developing as it is; (2) the conceptual framework—the model within which the evaluation occurs; (3) implementation—specific evaluation projects within the conceptual framework; and (4) the administrative framework for facilitating utilization of the evaluation results. The evaluation model provides a focus for research discussions, a framework for designing collaborative projects, a basis for collecting and sharing common data, and an opportunity for sharing research findings.

Flexible enough to accommodate any teacher education program, it promotes longitudinal research; allows for individual, group and collaborative research; and can be fitted into an administrative schema for decision-making. Five evaluation projects utilizing the framework are briefly described: (1) selection and development of teacher education candidates; (2) teachers' perceptions of their educational programs; (3) the evaluation of the preservice competence of Alberta teachers; (4) becoming a teacher; and (5) alternative practicum experiences for education students. (PM)
IMPROVING TEACHER EDUCATION THROUGH PROGRAM EVALUATION

by

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Teacher education is a major industry in North America. Teachers comprise a significant portion of the work force and their impact on society cannot be overestimated. Recently there have been major criticisms of the educational system as a whole, and of teachers who are incompetent, and concerns about children who leave school without the basic skills. As a result of these criticisms teacher evaluation is receiving a high profile, particularly in Alberta where the Minister of Education has legislated mandatory evaluations of all teachers.

But what of the programs that prepared these teachers in the first place? How effective are they? One might have expected, given the enormous investment of dollars in preparing teachers, that teacher education programs would be evaluated regularly. This is simply not the case. Evaluation studies of teacher education programs are conspicuously absent in the literature on teaching and teacher education. This is not to say that there has been no research on teacher education (the literature contains hundreds of studies on various aspects and components of teacher education), but comprehensive evaluation studies designed to provide program planners and decision-makers with useful information are few and far between.

It is the purpose of this paper to describe an ongoing comprehensive model of program evaluation which has as its major
goal the improvement of teacher education. The project is different from others you will be hearing about (in fact, "project" is a misnomer); it has no defined beginning or end; it is clearly formative; it is fluid and multi-faceted and is constantly changing and developing. I think of it as being something like a spider web; when you touch one thread everything moves and changes; the bonds are delicate and easily broken, but they are there, and however tentatively, they do hold everything together.

I plan to describe this project in four parts:

1. the process - how and why the project developed or is developing as it is
2. the conceptual framework, or the model within which the evaluation occurs
3. implementation - specific evaluation projects within the conceptual framework, and
4. the administrative framework for facilitating utilization of the evaluation results.

THE PROCESS

The University of Lethbridge teacher education program has from its inception considered evaluation to be an integral part of its philosophy. Within a very few years of its beginning a major project known as QAULTEP (the Qualitative Analysis of the University of Lethbridge Teacher Education Program) had been established. (For a complete description of QAULTEP see Dravland and Greene, 1979 and Greene, 1981, Chapter 3). By 1982 the
QAULTEP data base contained over 400 bits of information on almost every student (N>1000) who had been through the program. Some 30 reports had been written about various aspects of the program and the system was considered to be one of few comprehensive programs for evaluating teacher education (McCutcheon, 1979; Peck, 1981, Note 1). A report written on the evaluation program describes a large number of projects conducted under its auspices (Greene, 1979). However, for a variety of reasons, primarily declining resources coupled with a perceived lack of impact of the QAULTEP studies, the project was halted in 1982. A Program Evaluation Committee was created and was charged with reviewing the model and recommending a new or revised system for program evaluation.

University committees are known to work with great speed and efficiency; thus by 1984 (two years later) the committee had presented The Faculty of Education Council with an administrative framework for evaluating the program (to be discussed later), and a tentative outline of a conceptual framework for program evaluation. The committee requested interested members to participate in the further development of the framework; the resulting program evaluation "group" consisted of almost one-third of the Faculty, indicating that this endeavor received considerable support and commitment. During the development process interested persons from programs in Saskatchewan and British Columbia participated in discussions and there was
consultation with and input from four visiting scholars. Finally, a Tri-Universities committee consisting of a representative from each of the three Alberta universities was created and has since begun to further develop and implement aspects of the model. (See page 16 for a listing of participants and consultants).

THE CONCEPTUAL FRAMEWORK

Time does not permit me to explain the rationale behind the framework which ultimately resulted from the group's deliberations. Major influences on the group's thinking were previous experiences with QAULTEP, developments and criticisms of previous evaluations (see for example Greene, 1984, pp.12-28) and recommendations of educational program evaluation leaders such as Turner (1975), Schalock (1980), Cooper (1980) and others. We were guided by a number of principles that we believed our framework should incorporate, namely:

1. it should be comprehensive, longitudinal and multi-faceted

2. it should incorporate a wide variety of research and evaluation designs and methodologies

3. it should be primarily internal; that is most of the evaluation should be done by members of the Faculty, but it should also allow for external evaluations

4. it should allow for and facilitate collaborative and cooperative research with other institutions

5. it should provide useful information for those responsible for making decisions about teacher education programs, and finally,
6. it should be possible, given the limited resources available.

In addition to these guiding principles with respect to process, we believed that the evaluation of teacher education programs should include the evaluation of all of the following aspects:

1. students - selection and development
2. graduates - placement, competence, and effectiveness
3. faculty - expertise, and effectiveness
4. programs - courses, modules, practicums, integration of theory and practice, and
5. resources and facilities.

The resulting conceptual framework is shown in Figure 1. The model suggested for guiding the evaluation of teacher education programs is based on Turner's 1975 schema, but collapsed for our purposes into three categories: selection, program and work success. The specific items within each category are those suggested by experience and by recent research on teacher education as being the most important and productive. (References are available for each of the items, but have not been included in this paper; however, see for example Cooper (1980); Cruickshank (1984); Loadman, 1984).

The framework is not intended to be exhaustive or exclusive. Its major function is to provide a vehicle for communication among western Canadian teacher education institutions actively engaged or interested in evaluating their programs. It provides a focus
for research discussions, a framework for designing collaborative projects, a basis for collecting and sharing common data, and an opportunity for sharing research findings. It is flexible enough to accommodate any teacher education program and to be context-specific; that is, it can be adapted to fit the goals or philosophy of a specific teacher education program, but it also allows for the generalizability of research findings. It promotes longitudinal research, allows for individual, group and collaborative research and can be fit into an administrative schema for decision-making (see the University of Lethbridge schema in Figure 2).

Nor is the model intended to suggest that research would progress in a linear fashion from one category to the next. Rather, there are a number of possibilities: for example, data collected on students at entrance could be collected at various stages in the program to determine how students are changing and at what points in the program those changes are occurring; research on "good" or effective teaching, and school-based research on student learning could be used to guide program development, and there are endless other possibilities.

IMPLEMENTATION OF FRAMEWORK

It is obvious that no one, or even ten, evaluation projects can assess definitively the effectiveness of a teacher education program. Therefore the process being implemented at the
University of Lethbridge is to conduct specific projects within the overall framework, the idea being that each will contribute to improving teacher education, and that taken together their impact will be greater than simply a sum of the individual studies. This framework was developed only one year ago and there are presently at least five new evaluation projects underway. I'd like to describe some of these very briefly. The first three of these studies are being conducted cooperatively in all three Alberta teacher education institutions.

I - Selection and Development of Teacher Education Candidates

The purpose of this study is to assess and compare the characteristics and qualities of teacher education candidates admitted to the three Alberta teacher education institutions, and to assess the development of those qualities at various stages during the three different programs. This study fits primarily within the first two categories of the framework (Figure 1) but has implications well beyond the program itself.

The project will examine specifically the criteria used to select teacher education candidates, qualities and characteristics of students admitted to teacher education (e.g., life experiences, academic and basic skills, cognitive skills and personal qualities), developments in students with respect to these qualities, and differences within and among the Alberta programs relative to candidate characteristics and development.
The study is being conducted in the three Alberta teacher education institutions. A sample of 30 teacher education candidates at each institution has been selected on admission to the programs and is being administered a packet of instruments selected according to their technical quality, credibility, and usefulness as assessed from the teaching literature. The students will be tested again at intervals during the program and at exit from the program. Data analysis will be both descriptive and statistical, and both cross-institutional and longitudinal. The result will be a profile or profiles of Candidates on admission to the three institutions, and at various points during the various programs. Ultimately these profiles will be compared with those of effective teachers.

II - Teachers' Perceptions of Their Education Programs

This study, too, is a joint project of the three institutions but it has been sponsored and funded by Alberta Education and by the Alberta Teachers' Association. The purpose of this study is to provide evaluative information to teacher education programs by assessing graduates' perceptions of the effectiveness of their preparation for teaching. A survey instrument and an interview instrument based on the teaching effectiveness literature are being used to determine 1) how important teachers believe these skills, competencies and knowledge to be for teachers, 2) the potential contribution of preservice programs to the development of these skills and knowledge, and 3) the actual contribution of
their preservice programs to the development of teaching knowledge and skills. Comparisons are being made among first, third and fifth year teachers, and within and among the three teacher education programs.

III - The Evaluation of the Preservice Competence of Alberta Teachers

The third study being conducted by this group, again within the overall framework of program evaluation in teacher education, is a study of the competence of new teacher education graduates. This study, too, is being funded by Alberta Education. The purpose of this study is to develop and test empirically based methods and procedures for evaluating preservice teacher competencies. We have expanded the traditional definition of competence to include not only behavioral and performance skills, but also pedagogical and content knowledge and personal qualities. In addition to simply developing the procedures we intend to administer these to a sample of graduates at each university in order to develop profiles of the competence (as we have defined it) of newly graduated Alberta teachers.

Specific Tasks. This project has been written in terms of tasks rather than questions. These tasks include the following:

1. To perform a search of the literature for the purpose of investigating which skills, behaviors, and qualities are generally associated with preservice competence in graduate teachers.

2. To determine from the research literature what methods
and procedures are used for the assessment of the skills in (i) above.

3. To determine what, if any, screening for preservice competence occurs at Faculties of Education in Canada.

4. To compile a tentative battery of empirically based methods for administration to a sample of graduating B.Ed. candidates in Alberta.

5. To administer the battery to a sample at each university.

6. To perform statistical analysis on the results of the administration for purposes of determining a profile or profiles of the preservice competencies of Alberta education graduates.

IV - Becoming a Teacher

This study is specific to the University of Lethbridge and is primarily a research project. Nevertheless the results will have implications for the program and it fits well within the overall framework. The purpose of the study is to determine and examine the personal and program influences on the career development of teacher education candidates. A sample of 15 candidates who had just been admitted to the program were selected at random and agreed to be interviewed once each semester for the duration of the program and for three years after they leave the university. The methodology for this study is qualitative and emergent; it is also fascinating because of the richness of the data. I have gained the trust of these people and am able to obtain rich information about factors that affect their decisions, components of the program that create stress, sources of support, how various program components affect their thinking and so on. This
study will add richness to the profiles of students developed from the more quantitative studies on selection and development of candidates.

V - Alternative Practicum Experiences for Education Students

A study which fits clearly within the second category of the overall framework is being conducted by a group of those faculty members who, for pedagogical and practical reasons, decided to offer an alternative to the usual practicum experience for students in the first "professional semester" of the education program. A rationale was developed and a case made to the Faculty to offer two paired-placement experiences in one school, rather than the usual single placement in two different schools, for one group of students in Professional Semester I. A study was designed to collect data by means of surveys, interviews, logs and direct observation, on the effectiveness of the alternative procedures and on teachers' and students' perceptions of the experience. The results of this study will then be used in making decisions about practicum experiences for education students.

IV - OTHER STUDIES

The projects just discussed are those that clearly "fit" within the conceptual framework of program evaluation. However, to return to my spider web analogy there are strands which seem to escape the boundaries and to be only tangentially a part of the
web. For example, there are a number of studies underway which evaluate teaching effectiveness or examine some aspect of teaching, which have obvious implications for the education of teachers but which don't directly address our program. Similarly, there are regular and frequent experiments with different delivery systems, different arrangements of course offerings and so on. These are often evaluated only informally and decisions continue to be made on the basis of hunches and casual observations. We have attempted to come to grips with some of those issues through the administrative framework for our program evaluation project.

THE ADMINISTRATIVE FRAMEWORK

In March of 1984 the Faculty of Education Council approved an administrative framework for enhancing the possibility that the results of evaluation studies will be used in making program decisions (see Figure 2). The model outlines the procedures to be followed by the originsrs of any study, whether formally designed or simply an ad-hoc experiment, which is likely to have implications for the teacher education program. The second aspect of the flow chart addresses the area of Faculty studies, for example studies in which data are collected from all students to address issues of concern to the Faculty as a whole.

It is entirely likely that the three studies currently underway on the selection, development and competence of teacher education
candidates may result in decisions about data to be collected from all students, perhaps on admission to and exit from the program. However, given our experience with the QAULTBP project and with a large data base we felt it prudent this time to begin studying samples of students before investing significant resources only to find we were addressing the wrong variables. It is too early to determine how effective the administrative framework will be. Projects are being registered with the Program Evaluation Committee and communication within the Faculty has improved. The real test will be in the dissemination and effect of the results of the various evaluation projects.

CONCLUSION

The University of Lethbridge Faculty of Education is a small Faculty that likes to think big. When seen on paper a project such as the one described appears reasonable and manageable and even useful. We'd like to believe that it is all of those things. But there are still many problems. In spite of the fact that many faculty members were involved in the design, very few are involved in the implementation, simply because their research interests lie elsewhere. Committees are often inefficient and the administrative feedback mechanism has not been tested; indeed the mechanism may well prove ineffective as faculty members are not accustomed to reporting their research results to a committee. The human resources required to maintain a project
such as this are extensive. To date the momentum continues because of the commitment of the Dean and one or two others who believe strongly in the importance of program evaluation; a change in personnel could change all of that. Nevertheless we believe we have started something worthwhile. We believe that we can improve our teacher education program through this project. After all, if we weren't optimists we'd be out of business by now.
REFERENCES


REFERENCE NOTES

PARTICIPANTS AND CONSULTANTS IN THE
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Figure 1: Variables Suggested for Inclusion in a Comprehensive, Longitudinal Program Evaluation Mode

Note: This is a preliminary draft only
IBEMENTEP is an acronym for Issue-based evaluation model for the teacher education program.

FIGURE 2: Administrative schema for the University of Lethbridge

MLG: Doc. 40