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ABSTRACT

A brief description is given of an ongoing comprehensive model of program evaluation that has as its major goal the improvement of teacher education. The creation of the Committee for Evaluating Teacher Education Programs (CETEP) was the result of a collaboration among three Canadian universities that developed a conceptual framework for evaluation of teacher education programs. The 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. A description is given of the results of the first study conducted by CETEP, a follow-up study of the graduates of Alberta's teacher education programs. The major problem addressed by the study was the limited amount of current information available to decision makers about the strengths and weaknesses of teacher preparation programs offered by Alberta universities. Eleven basic questions served as guides for designing the study and analyzing the data. The questionnaire was designed to obtain teachers' views on the significance of various components of their teacher education program. Open-ended questions on the strengths, shortcomings and desired changes in preservice preparation programs were also included. A summary is presented of the results of the study with particular emphasis on the questionnaire and interview results. The summary results are organized according to the eleven research questions that guided the development and conduct of the study. (JD)

EVALUATING THE EFFECTIVENESS OF ALBERTA'S TEACHER EDUCATION PROGRAMS IN PREPARING CLASSROOM TEACHERS

by

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TABLE OF CONTENTS

EVALUATING THE EFFECTIVENESS OF ALBERTA'S TEACHER EDUCATION PROGRAMS IN PREPARING CLASSROOM TEACHERS

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 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.

The purpose of this paper is two-fold: 1) to describe very briefly an ongoing comprehensive model of program evaluation which has as its major goal the improvement of teacher education, and 2) to present the results of the follow-up study which was the major focus of the model for the 1985-86 year.

DEVELOPMENT OF THE MODEL

The History

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 & 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.

The two-year development process involved approximately one-third of the Education faculty members at the University of Lethbridge, a number of consultants from British Columbia and Saskatchewan and a variety of visiting scholars. The final outcome was the conceptual framework shown in Figure 1.

The Conceptual Framework

Major influences on the group's thinking in developing the framework 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. The group was guided by a number of principles that it believed the 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.

Pre-Education/Selection	Program	Placement/Work Success
Academic qualifications - background - achievement Life experiences profile Communication skills - oral communication - writing competence Cognitive development - thinking and problem-solving skills - conceptual levels - learning styles Personal qualities and characteristics - human relations skills - self-efficacy beliefs - personality styles - values and beliefs Institutional requirements - specific courses/experiences	Certification requirements General education - context - courses Professional education - courses } Primarily ad-hoc - modules } and program- - practicums } specific research - context Personnel - student qualities as in Column 1, from a developmental perspective - characteristics and qualities of faculty and cooperating teachers - competence and qualities of graduates Resources and Facilities	Placement of graduates Effectiveness of graduates in relation to good teaching as determined by: - philosophical bases (values and beliefs) - views of experienced teachers - teaching effectiveness research - student learning and student growth - other paradigms School context research Professional growth and development

Figure 1: Conceptual Framework for Evaluating Teacher Education Programs

In addition to these guiding principles with respect to process, the group 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 - competence, placement, and effectiveness
3. faculty - expertise, and effectiveness
4. curriculum - courses, modules, practicums, integration of theory and practice, and
5. resources and facilities.

The resulting conceptual framework suggested for guiding the evaluation of teacher education programs is based on Turner's 1975 schema, but collapsed 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.

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 and cross-sectional research, allows for individual, group and collaborative research and can be fit into an administrative schema for decision-making.

The Creation of CETEP

Following the acceptance of the conceptual framework at the University of Lethbridge, the deans of the Faculties of Education at the University of Calgary and the University of Alberta were approached to discuss the possibility of collaboration among the three universities. Their positive response resulted in the creation of CETEP (Committee for Evaluating Teacher Education Programs), a tri-university committee supported by the Faculties of Education and charged with conducting research on various aspects of the

program evaluation model. Since the Committee's inauguration in 1985, three major studies have been proposed and funded.

The 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 study has been funded by the Social Sciences and Humanities Research Council of Canada, and data collection has begun.

Evaluating the Preservice Competence of Alberta Teaching Graduates

This study has been funded by Alberta Education. Its purpose 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 skills, content knowledge and personal qualities.

Teachers' Perceptions of Their Education Programs

The first study to be conducted by CETEP was a follow-up study of the graduates of Alberta's teacher education programs. The study was sponsored by the Cooperative Commiteee for Research in Teacher Education and was funded by Alberta Education and the Alberta Teachers' Association. The second purpose of this paper is to describe the results of that study.

Comment

There are, of course, a number of studies and projects occurring at individual institutions relating to the ongoing evaluation of teacher education. Two Alberta Faculties of Education are in the process of major program reviews. We hope that the framework provides some parameters for individual institutional review and evaluation. It is also our hope that when three universities collaborate on a number of studies with a common goal - the improvement of teacher education - the process and outcomes will have a synergistic effect and hence a greater impact.

TEACHERS' PERCEPTIONS OF THE EFFECTIVENESS OF THEIR TEACHER EDUCATION PROGRAMS

The discussion which follows is a very condensed version of a large study, the results of which are presented in four documents. A review of the literature on effective teaching and a review of goals and follow-up studies of Canadian teacher education programs are presented in Hawryluk (1986) and Hawryluk and Greene (1986). The results of both the questionnaire and the interview data are presented in considerable detail in Chapters 4 through 7 of the major report on this study (Miklos, Greene & Conklin, 1987). In addition a detailed analysis of the University of Alberta interviews is presented in Chapman (1986).

Problem and Purpose

The major problem addressed by the study was the limited amount of current information available to decision makers about the strengths and weaknesses of teacher preparation programs offered by Alberta universities. Although the strengths and weaknesses could be assessed in a variety of ways, one important information source is perceptions of teachers who have graduated from those programs. Thus the project was designed primarily to address the question: To what extent do preservice preparation programs provide teachers with the knowledge and skills which are important for effective teaching? Eleven basic questions served as guides for designing the study and for analyzing the data. These are stated below.

1. What areas of knowledge and skills have been identified in the research literature as contributing to teaching effectiveness?
2. What are the results of research into the extent to which preservice preparation programs contribute to the develpment of knowledge and skills required by teachers?
3. What degree of importance for their specific teaching assignments do teachers assign to areas of knowledge and skills derived from the literature?
4. In the views of teachers, what is the potential contribution of preservice preparation programs to the development of teaching knowledge and skills?
5. What is the actual contribution of preservice preparation programs to the development of teaching knowledge and skills?

6. What are the relationships among program potential, program effectiveness, and the importance of knowledge and skills?

7. What contributions do various components of preservice preparation make to the development of teaching knowledge and skills?

8. What strengths and weaknesses do teachers identify in their preservice preparation programs?

9. What differences are there in the ways in which teachers in their first, third or fifth year of teaching assess their preservice preparation programs?

10. What differences are there in the assessments of preservice preparation by teachers who are graduates of different programs?

11. What suggestions do teachers offer for improving preservice preparation programs?

Study Design

This study was a cooperative task of representatives of the Faculties of Education in three Alberta universities. Thus each research question was assigned as a task force of the institutions. Questions one and two were addressed by means of literature reviews and a telephone survey of Canadian Faculties of Education. The results of these tasks served in part as the basis for the development of the surveys and interviews designed to address questions three through eleven.

Assumptions

The study was grounded in a number of assumptions, including the following:

1. Teacher education programs are intended to contribute to the development of knowledge and skills which are relevant to the tasks teachers are expected to perform in their work;

2. Teachers are able to discriminate among areas of knowledge and skills in terms of their relevance for effective teaching performance;

3. Teachers are able to judge the importance of different knowledge and skills as well as the extent to which they are competent in these areas;

4. Teachers are able retrospectively to judge the contribution which their teacher preparation program made to the development of areas of knowledge and sets of skills; and,

5. Teachers' perceptions are valid sources of data for evaluating preservice preparation programs.

Questionnaire Development

Since one of the objectives was to ground the study in research on teacher effectiveness, the literature review was used as the basis for the initial attempt to draft items. However, the research was judged to be too narrowly focused to serve as the main source of items for the questionnaire. Clearly, the valid items should be related also to the goals of teacher education programs.

A second thrust was, therefore, to review goals of teacher education programs in order to identify items that appeared to have potential for assessing preservice programs. Particular attention was given to relevant documents -- goal statements, program and course descriptions -- of Alberta teacher education programs to identify explicit or implicit objectives. Questionnaires which had been used in similar studies -- both in general follow-up studies and in program evaluations -- were also reviewed.

The preliminary work clearly indicated a need for a conceptual framework which would provide the basis for developing a sufficient number of valid items to permit sampling. The conceptualization which was developed identified nine clusters of activities or teacher roles. More specifically, teachers were viewed as persons, as skilled practitioners, as decision makers, as creators of learning environments, as participants in establishing human relationships, as learners, as specialists in the content and process of learning, as participants in curricular and educational change, and as professional educators. These categories were used by a number of teacher educators who developed 60 items which were thought to have potential for inclusion in the questionnaire. At this point 40 teacher educators representing the teacher education program at all three universities critiqued the items and suggested improvements and/or additions.

Selection of items for inclusion in the questionnaire was based on the dual criteria of the appropriateness rating and representativeness across the nine categories of teacher roles. Actual item selection was made by a small group of faculty members who engaged in critical discussions of the items and the suggestions made by teacher educators.

Through this process 40 items were selected. The objectives of the study involved asking three questions about each item:

1. How important is the knowledge, skill or understanding to your teaching position?

2. What is the potential of preservice preparation, as compared to experience, for developing the knowledge, skill or understanding?

3. How effectively did your preservice preparation program help you to develop the particular knowledge, skill or understanding?

Response scales were developed for each of the above questions. On importance, the scale ranged from *5 (high importance)* to *1(low importance)*. On potential or preservice programs, the scale ranged from *P* where preservice preparation is the main contributor to *E* where experience is the major contributor through three combinations of preparation and experience. The program effectiveness scale ranged from *5 (high effectiveness)* to *1 (low effectiveness*).

The study was also intended to obtain teachers' views on the significance of various components of the teacher preparation program. Seven components were defined which reflected groups or clusters of courses in each of the programs:

- courses taken outside of the Faculty of Education;
- curriculum and instruction courses;
- courses in educational psychology;
- courses in history, philosophy or sociology of education;
- courses in the organization and administration of education;
- practicum experiences; and,
- general interest courses

A scale ranging from *7 (highly significant)* to *1 (of limited significance)* was used. Space was provided in the questionnaire for comments on each component.

Three open-ended questions on the strengths, shortcomings and desired changes in preservice preparation programs were also included. The final section of the questionnaire dealt with background information relating to preparation program characteristics and information on the respondent's current teaching assignment which was intended for use in

describing the sample and analyzing the data.

Pilot tests were conducted with teacher educators, with 36 teachers enrolled in graduate classes, and with individual teachers. As a result of this pilot testing the number of items was reduced from 40 to 30. The final form of the questionnaire is shown in Appendix A.

Sample Selection

The purposes of the study called for the selection of a sample from among teachers who were graduates of Alberta teacher preparation programs and who were in their first, third or fifth year of teaching. Access to the population was through the records and files maintained by the Department of Education on certificated personnel in Alberta. The records are compiled on the basis of reports submitted by teachers and are updated annually.

The Student Records and Computer Services Office provided both a list of the names and addresses of teachers in the defined population as well as two sets of address labels. Numbers in the population were as follows: first year - 560; third year - 595; and fifth year - 855. In an effort to obtain as large a sample as possible, a decision was made to survey all first year teachers and equal numbers of teachers in their third and fifth years. Budgetary constraints required that the total distribution of questionnaires should be kept to approximately 1200. Consequently, random samples of 370 teachers in each of the third and fifth year categories were selected. The final number of first year teachers was 552 because complete addresses were not available for eight teachers.

Questionnaire Responses

Questionnaires were mailed in February of 1986; a follow-up letter was sent approximately two weeks later. In total, 523 completed questionnaires (40.5%) were received. A summary of the return rate by years of teaching experience is shown in Table 1. As is indicated in the table, the overall response rate was about 40 percent; however this represents a 26 percent sampling of the teacher population. The response rate for teachers in their fifth year of teaching was higher than that for teachers in their first or third year of teaching. In terms of percentage of the population represented by the respondents, these were as follows: first year - 38.0 percent; third year - 23.7 percent; and fifth year - 19.8 percent. Any generalizations from the results to all teachers in their first, third or fifth years of teaching are clearly biased in the direction of the responses of first year teachers.

Table 1

Distribution of Questionnaire Respondents
By Number of Years of Teaching

Years of Teaching	Number in Population	Number in Sample	Number Returned	Percent Return	Percent of Population
First	560	552	213	38.6%	38.0%
Third	595	370	141	38.1%	23.7%
Fifth	885	370	169	45.7%	19.8%
Total	2010	1292	523	40.5%	26.0%

Respondents identified the program from which they had graduated as one of the following: University of Alberta, Faculty of Education; University of Albe[illegible]aculté Saint-Jean; University of Calgary; University of Lethbridge; or other. Table 2 shows the number and percentage of respondents in each of these categories. Program patterns for the respondents indicated that 58 percent had entered and completed a B.Ed. Program as their preservice preparation; the remaining groups were equally divided between those who had transferred into a teacher education program or were after-degree candidates. Approximately 40 percent of the respondents indicated that they had pursued a secondary route, 35 percent an elementary route with specialization, and about 17 percent an elementary generalist route. These routes vary across institutions but for analyses purpose involving program routes respondents were defined as elementary (60%) or secondary (40%).

Table 2

Distribution of Respondents by Teacher Education Institution

Institution	Number	Percent
University of Alberta (Education)	327	62.5%
University of Alberta (Saint-Jean)	16	3.1%
University of Calgary	115	22.0%
University of Lethbridge	57	10.9%
Other	8	1.5%
Total	523	100.0%

Since more than 60 percent of the responses were graduates of the University of Alberta Faculty of Education, and only about 20 and 10 percent respectively were from the Universities of Calgary and Lethbridge, the results of the analysis reflect responses relevant to the University of Alberta program to a disproportionate degree. Although there should have been only graduates of Alberta programs among the respondents, eight indicated that they had received their preparation at other institutions. These were eliminated from the analysis; consequently, the number of responses included in the analysis was actually 515 rather than 523.

The most frequently mentioned subject area specialization area was English (125 times) followed by Special Education (96 times) and Social Studies (95 times). Least frequently mentioned were Early Childhood Education (60 times), French or other languages (56 times) and Fine Arts (47 times). Approximately 40 percent of the respondents taught at the kindergarten to grade 3 level, 17 percent at grades 4 - 6, 26 percent at junior high and 15 percent at senior high schools.

Interview Procedures

The questionnaire included a form on which participants could indicate their willingness to participate in a follow-up interview. In total, 224 respondents indicated a willingness to participate in interviews. The distribution of respondents by institution was

as follows: University of Alberta - 143; University of Calgary - 51; University of Lethbridge - 28; Other - 2. These figures represent approximately one-half of the respondents from each university. Forty-two teachers were interviewed; 15 of the interviews were conducted at the University of Alberta, 15 at the University of Calgary, and 12 at the University of Lethbridge. Fifteen of those interviewed were first year teachers; 12 were in their third year and 15 were in their fifth year of teaching. A total of 22 of the 42 teachers interviewed had graduated from the University of Alberta (all 15 interviews conducted at the University of Alberta were with University of Alberta graduates); 9 were from the University of Calgary, and 11 from the University of Lethbridge.

Data Analysis

All questionnaire data, including the responses to open-ended questions, were entered into a computer file and standard statistical packages were used in the analysis. The primary mode of analysis was to compute frequencies, percentages and means. Results were also displayed in cross tabulations to explore relationships among variables. Statistical tests were applied to establish whether or not differences or contingencies merited discussion. Both Chi-Square tests and analysis of variance were used as was considered appropriate by the nature of the data. However, there was no rigid adherence to the results of the tests; these were regarded mainly as guides rather than as a definitive basis for interpreting the results of the survey. Although mention is not made to statistical tests with reference to particular findings, all of the differences or relationships discussed do have a basis in statistical significance.

Interview results were analyzed and summarized by researchers at each institution. These results are incorporated into the discussion of the questionnaire results. In addition a detailed analysis of the University of Alberta interviews is presented in Chapman (1986).

Results

This paper summarizes the results of the study with a particular emphasis on the questionnaire and interview results. Any attempt to summarize large amounts of data results in eliminating much important information; in particular much of the richness of the interview data is lost. The reader is therefore referred to the study reports for elaboration and clarification. These summary results are organized according to the 11 research questions which guided the development and conduct of this study.

1. Areas of Knowledge and Skills Identified in Research As Contributing to Teaching Effectiveness

A review of research literature on teaching effectiveness was considered to be essential for the development of the questionnaire which was used in the major phase of the study. The intent was to ground the items included in the questionnaire in the research on teaching effectiveness to as great an extent as possible. The results of the literature review are presented in a separate report by Hawryluk (1986) which is part of the overall study. These results are not included in this paper.

2. Research on the Extent to Which Preservice Preparation Programs Contribute to the Development of Knowledge and Skills Required by Teachers

The review by Hawryluk and Greene (1986) of studies that could be classed as evaluations of teacher preparation programs revealed that not much has been done in this area. Few universities have initiated comprehensive, longitudinal, planned evaluations grounded in a conceptual model of what preservice programs attempt to accomplish or what contribution they make to the development of particular knowledge and skills. However, there have been numerous studies of programs which are specific to particular institutions. Predominant among these are follow-up studies of graduates. Follow-up studies have been criticized for their conceptual and methodological inadequacies, for the lack of sampling, and for the limited use to which the results are put by the instuutions which sponsor them (see, for example Katz et al, 1981). Clearly, such studies also have limited, if any, generalizability to different times or contexts.

Studies which have been conducted in Canada indicate that preservice programs tend to have a strong academic orientation. With respect to particular components, the practicum consistently emerges as the experience which is regarded as most valuable by teachers. Of the other contributions made by faculties of education, curriculum and instruction courses are generally assessed more favourably than are courses in other areas. Programs have been criticized by graduates for an insufficient emphasis on skill development in areas such as classroom management, communication, diagnosing learning difficulties, and specific curriculum development and implementation skills. More major concerns relate to the general fragmentation of the program and to the gap between theory and practice. Both the review of follow-up studies and a survey of the goals of teacher education programs served as a useful basis for questionnaire development. Specific attention was given to statements of the goals of the teacher preparation programs offered by Alberta universities to ensure that these would be reflected in the questionnaire. In

addition, a process of validation of items involving members of faculties of education was used during the questionnaire development stage. As a result of this approach, the items included in the questionnaire were judged to be representative of the types of knowledge and skills which could be used in assessing preservice preparation.

3. Degree of Importance for Their Specific Teaching Situations That Teachers Assign to Areas of Knowledge and Skills Derived from the Literature

The questionnaire which was developed included 30 items grounded in the research literature and in more general theorizing about areas in which teacher preparation programs might make a contribution to the knowledge, skills and understandings involved in teaching. Content of the items covered a broad range from having a general education and knowing the ethical standards of the teaching profession to using a variety of methods of instruction and assessing the social or emotional needs of students. Respondents were asked to indicate how important each of the 30 items was to them in their current teaching position, on a scale from *5 (high importance)* to *1 (low importance).*

All of the specific items were considered to be at least of moderate importance to teachers with most of them approximating high importance. Because so few respondents chose ratings of 1 or 2, these categories were combined with category 3 for analysis purposes. Table 3 presents the respondents' ratings ordered from highest to lowest in terms of the means. Rated highest in importance by teachers were skills relating directly to the operation of a classroom such as organizing, motivating, planning, communicating with, relating to, and evaluating students. Also rated very high by more than one half of the respondents were items such as diagnosing learner needs, using a variety of measures and strategies, managing, and helping students learn to love learning. Next highest were items relating to having a personal philosophy, making a commitment, evaluating personal effectiveness, having a broad general education, and so on. The third cluster of items shows increasing variation in responses; these items seem to be oriented more toward knowledge and understanding than toward specific skills or behaviors.

4. The Potential Contribution of Preservice Preparation To the Development of Teaching Knowledge and Skills

Respondents were asked to rate the same 30 items that they rated on importance, according to the potential of preservice programs for contributing to the development of that

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Table 4

Distribution of Respondents' Ratings of Potential Contribution of Preservice Program to Knowledge, Skills and Understandings (N = 515)

Knowledge/Skill/Understanding	Source of Learning: P or P/E	P=E	E or E/P
Understanding one or more subject areas in depth	70.6%	17.3%	12.1%
Knowing the ethical standards of the teaching profession	66.8	21.5	11.7
Having a broad general education	66.2	22.1	11.7
Knowing how children develop and learn	65.6	24.5	9.9
Understanding the legal aspects of one's work as a teacher	60.2	22.3	17.5
Having an effective command of the language of instruction	57.3	22.0	20.6
Understanding the organizational structure of the educational system	52.9	25.9	21.2
Using a variety of methods of instruction	45.6	30.7	23.7
Diagnosing student learning needs	40.3	26.3	33.4
Understanding social issues which have relevance for education	34.7	31.9	33.4
Planning on a daily and on a long-term basis	35.5	28.6	35.9
Selecting and developing suitable instructional materials	24.0	33.3	42.7
Evaluating student performance and progress	26.6	26.8	46.6
Motivating students and involving them in learning	19.4	35.8	44.8
Evaluating my effectiveness as a teacher	24.6	29.7	45.7
Organizing myself for teaching	23.5	27.1	49.4
Having a personal philosophy of education	18.7	38.0	43.2
Helping students develop as independent learners	23.2	29.5	47.3
Making the classroom a stimulating place for all students	18.7	36.8	44.5
Assessing the social and emotional needs of students	19.7	26.0	54.3
Making a commitment to one's continuing professional growth	14.4	33.3	52.3
Participating in the process of improving schools	13.4	27.0	59.6
Using community resources to support teaching and learning	11.9	28.5	59.6
Communicating effectively with students	12.9	27.1	60.0
Helping students acquire a love of learning	8.6	31.2	60.2
Managing the routine activities of a classroom	9.9	21.5	68.6
Relating to students in a supportive way	6.8	24.4	68.8
Communicating effectively with parents	6.0	16.8	77.2
Relating effectively to other teachers	5.7	15.3	79.0
Learning from one's own professional experience	3.2	11.4	85.4

different perspectives on the potential of preservice programs. Some prospective teachers expected the preparation program to provide them with a broad general education, and with the kind of orientation to teaching which will enable them to understand and cope with the variety of specifics in a particular teaching assignment. Others have an expectation that teacher preparation will provide them with practical, applicable skills that will enable them to deal directly with many of the demands of teaching.

Another source of variation in the judged potential of preservice preparation programs relates to time perspective. The teachers who fall into the first category described above expect an education that will serve them in the longer term. The teachers who expect the program to be more skill oriented, appear to have a shorter time perspective; they are interested in learning those things that will assure their *survival* in the first few months of teaching. The difference could be described in terms of the distinction which O'Neill (1986) makes between teacher education and teacher training.

Implicitly, teachers appear to see preservice preparation as having the potential to provide either a broader orientation or a narrower orientation to teaching. Depending on who is asked, preservice preparation will be seen as having the potential, perhaps even the obligation, to do one, the other or a combination of the two.

5. The Actual Contribution of Preservice Preparation Programs To the Development of Teaching Knowledge and Skills

Respondents rated the effectiveness of their teacher preparation programs on the same 30 items that were used to assess importance and potential, using a 5-point scale ranging from *5 (high effectiveness)* to *1 (low effectiveness)*. The mean response was calculated for each item, and the means were used to rank the items from relatively high to relatively low program effectiveness. The percentage distribution of responses across the five categories was also determined. For purposes of this report, responses 4 and 5 were collapsed as were responses 1 and 2. Results of the analysis are presented in Table 5.

On the whole programs were rated as being only moderately effective. The proportion of *high* ratings exceeded the total of all other ratings combined in only five items; more than one-third of the respondents rated the effectiveness of their programs *low* on 15 of the 30 items. Programs were seen to be most effective in helping teachers learn how children develop and learn; and in learning about their profession, their subject matter,

Table 5

Distribution of Respondents' Ratings of Program Effectiveness (N = 515)

Knowledge/Skill/Understanding	Effectiveness High	Mod.	Low
Knowing how children develop and learn	66.8%	25.2%	8.1%
Knowing the ethical standards of the teaching profession	52.8	32.3	14.9
Having a broad general education	53.6	32.6	13.8
Using a variety of methods of instruction	51.8	34.6	13.6
Understanding one or more subject areas in depth	51.9	27.6	20.5
Having an effective command of the language of instruction	44.6	37.3	18.1
Understanding the legal aspects of my work as a teacher	42.3	32.8	23.6
Understanding the organizational structure of the educational system	38.1	38.3	22.6
Having a personal philosophy of education	38.6	34.0	27.4
Planning on a daily and on a long-term basis	38.4	31.0	30.6
Selecting and developing instructional materials	34.8	38.2	27.0
Making a commitment to my own professional growth	34.7	32.5	32.8
Motivating students and involving them in learning	30.3	37.0	32.7
Understanding social issues which have relevance for education	29.4	42.4	28.2
Making the classroom a stimulating place for all students	30.1	35.0	34.9
Evaluating my effectiveness as a teacher	29.4	37.6	33.0
Organizing myself for teaching	28.1	35.9	36.0
Evaluating student performance and progress	28.6	34.4	37.0
Diagnosing student learning needs	28.6	34.4	42.4
Communicating effectively with students	23.3	34.4	42.3
Relating to students in a supportive way	22.4	38.4	39.2
Learning from my own professional experience	23.6	29.3	47.1
Helping students develop as independent learners	17.5	34.7	47.8
Using community resources to support teaching and learning	18.7	36.7	44.6
Helping students acquire a love of learning	17.5	34.7	47.8
Managing the routine activities of a classroom	21.5	29.1	49.4
Assessing the social and emotional needs of students	14.7	32.8	52.5
Participating in the process of improving schools	9.1	31.3	59.6
Relating effectively to other teachers	12.1	29.5	58.4
Communicating effectively with parents	11.6	20.2	68.2

the methods and language of instruction; and having a broad general education. Teacher education programs were seen to be least effective in areas of interpersonal skills and personal professional competence.

6. The Relationships Among Program Potential, Program Effectiveness, and the Importance of Knowledge and Skills

In order to explore the relationships among ratings of items and importance, potential and effectiveness, the 30 items were compared in terms of relative rankings in the three areas. The rank orders are consistent with those in Tables 3 to 5. In Table 6 the items are ordered from highest to lowest on the basis of program effectiveness. The table has been divided into three parts of 10 items each. These three groups may be viewed as indicating relatively high, moderate and low effectiveness respectively.

Eight of the 10 highest ranking items on program effectiveness also ranked in the top group on program potential, suggesting that preservice preparation programs tended to be judged most effective in areas of knowledge, skills and understandings in which teachers expected them to make a substantial contribution. The greatest discrepancy between program potential and program effectiveness rankings (a difference of 10 ranks) was in relation to diagnosing learning needs. However the areas in which preparation programs are most effective tended to be of only moderate importance to teachers in their daily work. Table 7 lists the 15 items ranked highest in terms of importance. Only seven of these are among the top 15 on potential of program contribution. Many of those items ranked highest on importance are those about which one would assume that experience would make a substantial contribution; for example, communicating with and relating to students, learning from experience and developing independence. Nevertheless, several of these items are also included in the curriculum of preservice programs; for example, motivating and evaluating students and planning.

Caution must be exercised in interpreting these comparisons of program effectiveness with importance of items. All of the items were rated as being of importance - the range between highest and lowest is from very high to moderately high importance. Consequently, whatever contributions preservice preparation programs do make are in areas which are important to teachers. None of the items in this list to which pres rvice

Table 6

Items of Knowledge, Skills and Understanding Ranked on Program Effectiveness, Potential of Preservice Programs, and Importance to Teachers (N = 515)

Knowledge/Skill/Understanding	Ranking		
	Effec-tiveness	Program Potential	Impor-tance
Knowing how children learn	1	4	22
Knowing ethical standards	2	2	25
Having a broad education	3	3	21
Using a variety of methods	4	8	12
Understanding subject areas	5	1	23
Effective command of language	6	6	7
Understanding legal aspects	7	5	28
Understanding organization	8	7	30
Having personal philosophy	9	17	17
Planning daily and long-term	10	11	8
Selecting materials	11	12	11
Professional growth	12	21	18
Motivating students	13	14	2
Understanding social issues	14	10	27
Making classroom stimulating	15	19	9
Evaluating teaching	16	15	19
Organizing for teaching	17	16	1
Evaluating students	18	13	6
Diagnosing learning needs	19	9	10
Communicating with students	20	24	3
Relating to students	21	27	4
Learning from experience	22	30	5
Developing independence	23	18	14
Using community resources	24	23	26
Acquire a love of learning	25	25	13
Managing classroom routines	26	26	15
Assessing social needs	27	20	20
Improving schools	28	22	29
Relating to teachers	29	29	24
Communicating with parents	30	28	16

programs make a contribution could be considered as low in importance. They are low only in relation to items which teachers consider to be of even greater importance. Perhaps the implication here is simply that teacher education programs can't be expected to teach everything.

Table 7

Comparison of Fifteen Highest Ranked Items On Importance with Rankings on Program Potential and Effectiveness

Knowledge/Skill/Understanding	Ranking		
	Impor-tance	Program Potential	Effec-tiveness
Organizing for teaching	1	16	17
Motivating students	2	14	13
Communicating with student	3	24	20
Relating to students	4	27	20
Learning from experience	5	30	22
Evaluating students	6	13	18
Effective command of language	7	6	6
Planning daily and long-term	8	11	10
Making classroom stimulating	9	19	15
Diagnosing learning needs	10	9	19
Selecting materials	11	12	11
Using a variety of methods	12	8	4
Acquiring love of learning	13	25	25
Developing independence	14	18	23
Managing classroom routines	15	26	26

7. The Contributions Various Components of Preservice Preparation Make to the Development of Teaching Knowledge and Skills

Respondents were asked to rate the significance of the contribution made by various components of the preservice program to the development of knowledge, skills and understandings which are important to their work as a teacher. Comments were also solicited on each component, and interview comments frequently pertained to components of the program. Questionnaire responses were on a 7-point scale ranging from *7 (highly significant)* to *1 (of limited significance)*. The percentage of responses on each rating is presented in Table 8. Components are ranked in order from highest to lowest in terms of the mean rating.

Table 8

Distribution of Responses on Significance Ratings of Components of Preservice Preparation (N = 515)

Component	Significance Rating					
	7	6	5	4	3	2&1
Practicum experiences	67.0%	17.6%	7.3%	4.6%	2.5%	1.0%
Non-education Courses	24.0	20.8	19.0	11.5	8.8	15.8
General interest courses	13.7	21.9	28.0	19.1	9.1	8.2
Curriculum and Instruction	14.5	20.4	24.1	20.0	9.8	11.2
Educational Psychology	17.7	19.1	22.2	17.7	10.6	12.7
Educational Administration	6.5	13.3	18.2	27.2	16.2	18.6
Educational Foundations	2.7	5.2	8.8	16.5	20.7	46.1

All sources of data were consistent with respect to the importance of the practicum. Teachers rated this as the most important component of their preservice preparation program by a substantial margin over all other components. According to the comments, practicum experiences were rated positively because they were practical, provided direct contact with teaching, were clearly relevant to the work for which teachers are preparing themselves, and initiated the process through which teachers become socialized to the profession of teaching.

Non-Education courses and general interest courses were rated more favorably as components of preservice preparation than were courses offered in the Faculty of Education. These courses were viewed positively because they provide a general background for teaching and knowledge of the area of subject specialization.

Of the Education course component, Curriculum and Instruction and Educational Psychology courses were rated more highly for teacher preparation than were Educational Administration and Educational Foundations courses. Curriculum and Instruction courses were expected to provide experiences which are related directly to instructional tasks in the classroom. Teachers who experienced courses which they viewed as practical rated them more favorably than did those who regarded them as theoretical or idealistic. Those courses in which professors actually used instructional methods which were being advocated were rated more favorab han were those in which there was a discrepancy between theory and actual practice.

Educational Psychology courses were viewed favorably because they contributed to developing understandings of students and of learning styles. Favorable assessments increased when application to the classroom context was demonstrated by the instructor. A portion of the respondents regarded Educational Administration courses as relevant and practical; however, overall assessments were reduced for a variety of reasons related primarily to the nature of the content of the courses. The majority of respondents did not see the relevance of Educational Foundations courses for preparation as a teacher. Favorable assessments were related to the contribution which courses make to general knowledge and to personal development.

8. Strengths and Weaknesses of Preservice Preparation Programs

The strengths and weaknesses of preservice preparation programs were addressed both through open-ended questions in the questionnaire and through the interviews. Responses were content analyzed and are discussed extensively in the major report. That report also contains extensive and illuminating quotations from interviews, which space limitations preclude from including here. In general, teachers perceive that the major strength of preservice preparation programs is practicum experiences; Curriculum and Instruction courses follow in second place. There is considerable diversity in views of teachers about other strengths of the programs.

Practicums were described as a strength because they provide students with the type of experiences which they know they will need in the classroom. Most appreciated the opportunity to have "hands on" experiences, to acquire a store of ideas about teaching, and to develop confidence in themselves as teachers. Curriculum and Instruction courses were also rated favorably because, generally, they were viewed as being practical. As students, teachers learned those things which they could apply in the practicums and later in their own classrooms.

Those students who experience good instruction regarded the quality of their professors as a strength of the program. Good instructors know how to teach and know what teaching in the schools is like. They are able to help students prepare themselves for teaching by serving as role models and by exemplifying sound instructional practices.

In general, the major shortcomings of the preparation programs are related to the heavy emphasis on what teachers described as theory and the limited opportunities which preservice programs provide for developing the skills required in teaching. Teachers reported that when they began to teach they encountered numerous problems or unknowns. In retrospect, they wished that they had been better prepared for those encounters. The substance of university preparation seems to be far removed from the realities of classroom teaching, according to numerous participants in the study.

Shortcomings were also perceived in the general organization of the program: courses were not sequenced appropriately, practicum experiences were not placed at the optimum point, assignments were time consuming and trivial, integration of content within and across components was lacking, and some mandatory courses were of questionable value. To some teachers, the logic behind the structure was not evident; completing a teacher education program was little more than taking a required number of discrete courses. The separation of theory and practice was a theme which pervaded discussions of specific shortcomings. Courses which provided little knowledge that teachers could relate to their classrooms were described as too theoretical; their place in the program was questioned. Professors who were "out of touch with the reality of the schools" were perceived to be a weakness in the program.

9. Differences Among First, Third and Fifth Year Teachers

There were relatively few differences among first, third and fifth year teachers in their assessments of the importance or effectiveness of preservice programs. Differences were somewhat more apparent when teachers with four or fewer years of experience were compared with those who had more than four years. Teachers with no more than four years of experience attached greater importance to the following items: motivating students; helping students acquire a love of learning; using a variety of methods; helping students develop as independent learners; assessing social and emotional needs; knowing how children develop and learn; using community resources; and understanding social issues.

With respect to effectiveness, among the items on which first-year teachers were more positive about their preparation were the following: assessing social-emotional needs of students; evaluating students; understanding the organization of the educational system; understanding legal aspects of education; knowing the ethical standards of the teaching profession; developing a personal philosophy and making a commitment to continuing professional growth.

The reasons for the differences between teachers in their first year and those in their third or fifth year are difficult to identify. However, comments made by third and fifth year teachers about certain aspects of their programs suggested that at least some of the differences may be due to recent changes in preservice programs.

10. Differences Among Graduates of Different Programs

For purposes of this question *program* is defined in terms of whether teachers entered and completed a four-year B.Ed. program, transferred into Education, or completed an after degree program. Other types of programs included elementary or secondary routes and particular subject area specializations. The combination and interaction of these characteristics in teachers confounds the interpretation of results. Nevertheless, on several of the items teachers who initially entered a four-year teacher preparation program - as compared to those who transferred into education or completed after-degree programs - rated their program as being more effective. These items included: knowing how children develop and learn; using a variety of methods; motivating students; understanding social issues; making the classroom a stimulating place, diagnosing learning difficulties; communicating effectively with students; relating to students in a supportive way; helping students develop as independent learners; and assessing social and emotional needs of

students. On no items did after-degree program graduates rate their programs more effective than teachers who initially entered a four-year preparation program (see Table 10).

There also seemed to be some differences with respect to orientation related to grade level. Perhaps without too much distortion, the orientations might be described as being toward either elementary or secondary teaching. These orientations are related to the types of programs teachers pursue and to the ways in which they assess those programs. Teachers with the elementary orientation tended to rate programs more favorably on various items related to classroom instruction. In contrast, teachers with a secondary orientation rated programs more positively on developing an understanding of subject areas as well as on planning and organizing for teaching.

Although the data permitted some comparison of perceptions of programs across institutions, the researchers concluded that the inadequacies in the design of the study and in the data would render any conclusions highly tentative. Also, public comparisons among institutions could lessen the potential benefits and impact of the study. Consequently, results of that analysis are not included in this report; rather each institution is expected to examine its own data in the context of its program(s).

With respect to effectiveness of program components, generally speaking, teachers with an elementary orientation, who are in their first year of teaching and who have no more than four years of teacher education rate practicum and educational psychology courses more positively. Teachers who pursued a secondary route and who have more than three years of experience gave more favourable ratings to courses taken outside the Faculty of Education.

11. Suggestions for Improving Preservice Preparation Programs

The major suggestions for improving preservice preparation was to provide more practicum experiences and to begin them earlier. A more practical or applied orientation to other aspects of the program would also be viewed as an improvement. In general, teachers would improve programs by ensuring that teachers are better prepared for the realities of teaching. They would inject more of a *how to do* emphasis into preservice preparation. Some aspects of the practicum could also be improved, according to teachers. These include better selection and preparation of cooperating teachers, better monitoring of the practicum placements and greater involvement of faculty consultants or associates in the practicum.

A number of teachers proposed higher standards for admission and greater selectivity of candidates for teaching as a way to improve programs. A few proposed a major redesign; however, there was not evident consensus on what major changes should be introduced. The majority of teachers were supportive of addressing specific areas in which they saw possibilities for improvement.

Conclusions

A number of general conclusions follow from the results of this study.

1. Prospective teachers bring different orientations and expectations to preservice teacher preparation programs. They experience programs differently; and they evaluate them in marginally different ways.

2. The philosophy underlying preservice preparation programs is not understood by prospective teachers. Indeed, the "programness" may not be evident to students; they may merely select courses in accordance with certain requirements.

3. Virtually every aspect of a teacher preparation program is viewed positively by some teachers and negatively by others; sources of satisfaction and dissatisfaction vary widely from person to person.

4. Teachers expect to obtain a general education through courses taken outside of the Faculty of Education and an orientation to the practical aspects of teaching through work within the Faculty.

5. The expectation which teachers have for acquiring a general education is fulfilled to a greater extent than is the expectation to become introduced to practical aspects of teaching and to learn specific teaching skills.

6. Many teachers are interested in improved preservice preparation programs and have a wide variety of suggestions to offer as to the improvements which should be considered.

7. The close integration of theory and practice is viewed as an ideal which should be pursued in the interests of improved teacher preparation programs.

8. Education professors can make an important difference in the quality of the preparation experienced by teachers; professors of education are themselves expected to be exemplary teachers.

More specific conclusions are either implicit or explicit in the summaries to the various sections of the report.

Recommendations

Most of the findings and conclusions which result from this study will not be new to teacher educators. However, the lack of novelty should not be the basis for disregardng the views which teachers have about their preparation programs. Indeed, to have certain strengths mentioned again could serve as reason for accentuating or emphasizing certain desirable practices in preservice preparation. Shortcomings on which there is a measure of consensus as well as suggestions for ways in which preparation programs might be improved could serve as a point of departure for considering program change.

At the same time, there is reason to be cautious about relying too heavily on retrospective assessments by teachers of their experiences as a basis for reform in teacher education. Other factors must also be considered. Rather than presenting a list of specific recommendations, there are only two recommendations to conclude this report. The first raises some questions; the second suggests continued attention to developing a knowledge base for program improvement.

The following questions are directed to teacher educators and to those who have an interest in the education of teachers with the recommendation that they be given serious consideration.

1. Which areas of knowledge, skill and understanding are and should be primarily the responsibility of teacher education programs, and which the responsibility primarily of the teaching profession?

2. How might teacher education programs make explicit the goals of the program and their philosophical orientation toward teaching?

3. How might the integration of theory and practice which teachers wish to see in preservice programs be achieved?

4. To what extent should the Education component of preservice preparation be made more practical and more significant to a teacher's day-to-day responsibilities?

5. Are earlier practicums and longer total time allocated to practicums feasible and desirable?

6. What should be done to change or improve the content of preservice programs which teachers regard as low in relevance?

7. How might the teaching of Education courses be vitalized or revitalized?

8. What contribution might preservice programs make to preparing teachers more adequately for the first year of teaching?

9. What contribution might preservice programs make to preparing teachers more adequately for a long-term career in teaching?

10. How might selection practices, both prior to admission and during the preservice program, be improved?

11. What provisions might be made to accommodate the variety of expectations which prospective teachers have for preservice preparation programs?

Consideration of these and other questions suggested in the report may serve as a basis for examining long-standing issues associated with the design of the preservice teacher education programs. They may be helpful not only within faculties which offer teacher education programs but might also be used in a more general dialogue with all of the other participants in the education of teachers: government, other parts of the university and the teaching profession.

The second recommendation is predictable; all studies of this nature end with the recommendation for more research. However, not to make the recommendation leaves the impression that research has limited potential for contributing to the improvement of teacher

preparation programs. The members of the Project Team would not wish to leave that impression. We hope that this general survey will interest other researchers in defining studies to address specific questions about teacher preparation programs.

Final Statement

The study presented in this paper was one of three which the Tri-University Committee on Evaluating Teacher Education Programs has undertaken. The results of this particular study have already had a significant impact in Alberta: the Alberta Teachers' Association has discussed the study at various levels; the Cooperative Committee for Research on Teacher Education, which comprises representatives from the teachers' association, Alberta Education, Alberta Advanced Education and the education faculties, is sponsoring a full-day seminar at which this study, its implications and various groups' reactions to it, will be the major focus; and at least two of the Faculties are seriously considering its implications for their own program reviews.

We do not expect to answer all of the serious questions facing teacher educators; we cannnot even address all of the issues. We hope that this study, along with others being conducted by CETEP, and other individual studies, will add some important information to the growing concerns facing teacher educators.

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