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Formative Evaluation Following BEd Program Revisions: Background and Insights

The value of ongoing evaluative feedback in undergraduate education programs is exemplified in this article, with a particular focus on program revision and the relevance and impact of contextual variables throughout the change process. Revision of the Bachelor of Education (BEd) program at the University of Alberta from a four-year to a "one plus three" delivery model is described, including the results of an initial formative evaluation of one component of the program. Points of consideration are suggested for others considering program revisions in faculties of education or other university faculties.

L'article explique la valeur qu'a une rétroaction continue dans un programme de baccalauréat en éducation. Une attention particulière est portée à la révision de programme et à l'importance des variables contextuels pendant tout le processus. On y décrit l'évolution du Baccalauréat en Éducation (BEd) offert par la University of Alberta, un programme de quatre ans qui s'est transformé en un qui est constitué de «trois ans + un». Les résultats d'une évaluation formatrice initiale portant sur une composante du programme sont présentés. Les auteurs proposent certains éléments à considérer avant d'entreprendre des révisions de programme au sein d'une faculté universitaire.

Introduction

Any description of changes to an undergraduate program in teacher education and subsequent evaluations of these changes can be better understood when one has a sense of the pragmatics and philosophy of the program and when changes are contextualized within the political and institutional environments of the time. Before 1996 the Bachelor of Education program at the University of Alberta encompassed a four-year BEd, a two-year After Degree BEd, and several five-year combined degrees programs. The conceptual and philosophical underpinnings of the program support a reflective practitioner model (Markham, 1999; Zeichner, 1996). Although the evolution toward this model began during the 1980s, it became more explicitly defined as a result of the work of the Faculty's Teacher Education Committee (TEC) a decade later. The TEC was struck in 1993 to undertake a critical examination of the current program and determine an appropriate model of program delivery for the

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undergraduate program. Initiatives from the TEC in support of the reflective practitioner model included more explicit integration of field experience and coursework across the program and efforts to have course instructors include components of reflection in coursework so that students would more meaningfully relate theory and practice.

At a time when the Faculty was proceeding with an internal review of the BEd through the work of the TEC, there were also external influences that dramatically affected the process of program revision. One such factor was the decision by University administration to reduce the four-year BEd program to a one-plus-three offering, with a required pre-professional year. In addition, the *Quality Teaching Standard* was issued by Alberta Education (now Alberta Learning) in 1996 as an operational definition of what is expected of Alberta teachers, including a list of related descriptors in terms of required knowledge, skills, and attributes (KSAs). The new program content was monitored to ensure coverage of the key competences identified by the provincial government.

The current discussion includes a description of the main revisions to the BEd program; results of the initial formative evaluation that focused on the Introductory Professional Term (IPT); and those contextual and evaluative factors that constrained, guided, and ultimately informed the evaluation. The formative evaluation provides an exemplar of the value of continual feedback from students in influencing positive program change. The discussion of external influences underscores the need for ongoing sensitivity to contextual influences. Both discussions encompass points of potential interest to others considering program change. They highlight the necessity of working within the boundaries of contextual constraints and the value of creating meaningful feedback mechanisms for students that can lead to relatively immediate action based on specific evaluative feedback.

Context and Process of Program Change

The mandate of the TEC was to survey relevant stakeholders, review the literature, and develop recommendations for program improvement and an appropriate model for the undergraduate program. One backdrop for the work of the committee was the strategic plan initiated by the University of Alberta administration in 1993 and outlined in a document entitled *Quality First* (1994). This strategic plan included specific restructuring proposals and had particular impact on the Faculty of Education. The initial proposal saw the reduction of the BEd from a four-year undergraduate offering to a two-year program, following two years of arts or science. Subsequent efforts on the part of the Dean and faculty members challenged the notion that a four-year BEd program could be appropriately compressed into two years. In May 1994, when the proposals from *Quality First* were considered at General Faculties Council (GFC), the two-year program proposal was defeated. However, the Faculty accepted what was seen at the time as a necessary compromise, and the TEC began to consider a one-plus-three program in which a student would complete a pre-professional year before entering the Education Faculty for the final three years of the BEd program. As would be expected, the efforts of the TEC became focused and redirected toward altering the format of the program to include all of the educational offerings in the final three years and accom-

modating a reduction in the number of credits in education coursework, also directed by General Faculties Council.

In terms of provincial considerations, the Government of Alberta released a policy position paper in 1996 entitled *An Integrated Framework to Enhance the Quality of Teaching in Alberta* (Alberta Education, 1996). The framework was an extension of a discussion paper that had been circulated widely to stakeholders, including the Alberta Teachers' Association and the College of Alberta School Superintendents. Included in it was a description of the *Quality Teaching Standard* and a number of key competences in terms of KSAs expected of BEd graduates (see Appendix A) as well as KSAs expected prior to permanent certification. In addition to influencing decisions on specific program or course content when program revisions were proceeding, the KSAs provided one predetermined framework for gathering evaluative feedback. For example, feedback from students provided a type of validity check as to whether the KSAs were understood and embraced by students, and as such extended this evaluation beyond what Koziol, Minnick, and Sherman (1996) describe as those that are too generic and "free from ... context" (p. 71).

Based on initial stakeholder survey results, the TEC had ascertained that most stakeholders were positive about the skills of University of Alberta graduates as they entered the teaching profession. Specific suggestions included increasing the focus on classroom management, assessment, and inclusive education, which were in line with student suggestions from other faculties of education at the time (DelGesso & Smith, 1993; Housego & Badali, 1996). The TEC members were aware that there was no agreed-on, single model of teacher education in Canada (Grimmett, 1998), and they realized that all preservice programs are directly influenced by contextual factors. The remodeled Bachelor of Education program, with a reflective practitioner orientation, encompassed contextual influences as well as an attempt to maintain historically successful elements of the program such as strength in content areas. The process of implementing the program change reflected a unique coming together of various department members across the Faculty to serve on committees formulating the new program model. Such cross-departmental input influenced decisions about translating the requirement to reduce the number of education credits in the program. It was possible to look for existing overlap in course content and increased efficiencies in delivering the content in a collaborative, cross-departmental manner. In addition, the distribution of required education credits among the four Faculty departments was negotiated such that each department would make an equitable contribution to the undergraduate program, including responsibility for some part of the field experience. New course development proceeded in areas such as student assessment, classroom management, inclusive education, technology in education, and ethics and law in teaching. Aligned with the reflective practitioner model there was also an emphasis on new ways to integrate theory and practice. One exemplar was an integrated term early in the program known as the Introductory Professional Term or IPT. This term included a full-time school experience of four weeks in the term, with courses "wrapping around" the school experience and providing a more meaningful opportunity for application of theory in the classroom and reflection about practice once the school placement ended.

Course content across professional terms such as the IPT and the Advanced Professional Term (APT), with a nine-week, full-time school experience, was planned with representation across departments, and as such the courses were more balanced in terms of student workload and evaluation times.

A unique initiative entitled the Collaborative Schools Initiative (CSI) was also a result of early planning efforts and encompassed the opportunity for cohorts of students to be placed in a school. The CSI also provided close working relationships between university and school personnel, opportunities for professional development for school personnel, a school coordinator who was a teacher as opposed to an administrator, and opportunities for collaborative action research projects.

Faculty commitment to the program model was also represented by the formation of a new Faculty committee, the Undergraduate Academic Affairs Council, with broad representation and a mandate to manage and evaluate the undergraduate program.

An outline of the BEd program requirements is presented in Appendix B. The final report of the TEC was submitted in July 1995, and in September 1996 the Faculty admitted students to the second, third, and fourth years of the new one-plus-three BEd program.

A Dean's initiative in 1996-1997 emphasized the development of strategies and instruments to evaluate the undergraduate program in a formative way. The initial focus became the IPT, typically completed during a student's first year in the Faculty of Education. The Associate Dean (Academic) and a former Associate Dean (Professor Emeritus) who had chaired the original TEC served as coordinators of the evaluation. Pilot study surveys were completed in terms one and two of 1997-1998, and surveys were refined such that a large-scale administration to both students and instructors in the IPT could be completed in the fall term of 1998. With both qualitative and quantitative data sources and input from experts in the Faculty in each of these domains, the formative evaluation had the potential to lead to relevant and important alterations in the delivery of the IPT. The substantive goal of the IPT evaluation was to obtain data for formative evaluation of this component of the BEd program in terms of the conceptual underpinnings and the pragmatics of the program. A secondary objective was to obtain information that might lead to improvements in the evaluative efforts pertaining to the IPT or other components of the teacher education program.

As a final note regarding the evaluation process, it must be recognized that most undergraduate programs involve heavy workloads for faculty members, support staff, and administrators, and thus evaluative efforts must be planned with efficiency in mind. In the case of the IPT evaluation, this planning proceeded with initial input and voluntary commitment from several faculty and support staff members across the Faculty. As mentioned, the coordination of the project became part of the role of one associate dean, working with a professor emeritus with expertise in the area of program evaluation (the latter involving a small stipend from the Dean). The instructors of selected large classes shared the responsibility of administering the questionnaires, and the data entry and quantitative data analyses were shared by two support staff members in the Faculty. Qualitative analyses involved the part-time employ-

ment of two graduate students supervised by the Director of the Centre for Research for Teacher Education and Development. Thus initial organizational efforts promoting "buy in" and support from individuals across the Faculty were essential, and typically met with interest and a desire to be included. Financial commitment included relatively small research stipends and a role taken by one administrator part time.

Methodology

The IPT was chosen for the initial focus of the evaluation because it was the first major component of the new one-plus-three program to have been fully implemented. Also the coordinators believed that it was important to generate some momentum early in the life of the evaluation project in terms of obtaining experience in both the technical and administrative aspects of the overall project. The earliest phases of the project served as pilot studies. The IPT evaluation process provided a prototype of the impact of contextual and other variables on program evaluation and change, and it revealed the responsiveness made possible through such formative processes.

The IPT evaluation had three distinct phases. The first, carried out during the September to December 1997 term, comprised the development of a student survey questionnaire, the collection of responses to the questionnaire from a sample of students in the IPT, the analysis of both quantitative and qualitative data, and the preparation and consideration of an informal internal report. The second phase, which was conducted during the January to April 1998 term, comprised the development of a revised version of the student questionnaire and a questionnaire for instructors, the collection of responses to the questionnaires from students and instructors, the analysis of both quantitative and qualitative data, and the preparation and consideration of a further internal report. Finally, in the third phase of the IPT studies, during the September to December 1998 term, a final revision of the questionnaire was developed for both students and instructors, the data were collected and analyzed, and a report was prepared and released for discussion and action (an interview component confirmed and extended the results, but is beyond the purview of this article. Also, it is the student feedback that is the focus of the current discussion). Pertinent findings of phase three are included in our discussions. The importance of noting a progression of phases in the initial evaluation efforts is to highlight the value of feedback and flexibility in finalizing a measurement instrument as well as in the interpretation of results. As exemplars, the changes that were made in the methodology over the three phases are described in terms of three aspects of the IPT studies: (a) the instrument; (b) data collection; and (c) data analysis. It is noteworthy that this process is in line with the overall Faculty vision of reflective practice, in allowing relevant feedback and thoughtful changes to guide the final review.

The Instrument

A questionnaire was used as the primary instrument in all three phases. In phase one, the questionnaire contained four sets of items as follows: (a) items seeking factual information about the respondents including program (Elementary or Secondary), subject area major, and the number of courses in which they were registered; (b) a number of Likert-scale items asking for

opinions about various aspects of the IPT; (c) a set of items asking for opinions as to how well the IPT had contributed to an understanding of the KSAs mandated by Alberta Education (wording presented to students was similar to that provided by Alberta Education); and (d) a set of items asking for open-ended responses to questions about the strengths, weaknesses, and suggested changes related to the IPT.

In both of the pilot phases specific questions in the Likert items were clarified and refined when students seemed to be responding too globally or with a wide variety of interpretations. For example, a question on the phase two Likert items asked students whether “coursework helped to integrate campus-based and school-based learning experiences,” whereas the revised question asked specifically whether “the university coursework during the first six weeks of the IPT provided me with valuable information which I could use within the four-week school placement.” By fine-tuning the items from two pilot studies, the coordinators felt confident that they were receiving valid input on the final version of the questionnaire. Throughout the three phases, the items about background information, the KSA items, and the open-ended items remained virtually unchanged.

Data Collection

In phases one and two, the questionnaires were delivered to undergraduate classes near the end of term, with response rates at approximately 30% and 50% respectively. Because it was left to the respondents to return the questionnaires at the end of class or later, it is likely that many students did not make the effort to return their feedback.

In phase three, a number of significant changes were made in the procedures for data collection. Student data were collected in one of the large IPT classes in which extremely good cooperation had been obtained from the course coordinator and instructors. Students were given time in class near the end of term to complete the questionnaire. Because the study complied with ethical standards, the students could turn in a blank or incomplete questionnaire if they wished. Information about the nature of the students’ programs is shown in Table 1 and includes responses from 77% of the total number of Elementary education students and 87% of the Secondary students. It was confirmed that the distribution of program types within the sample was quite similar to the distributions shown in student records.

Further analyses indicated that we had obtained a representative distribution of majors and minors across the Secondary program as well as a representative distribution of minors across the Elementary (generalist) program. Also, we determined that over 90% of our sample were full-time students in the IPT.

In phase three, with high rates of return, the representativeness of the samples, and the previous revision of questionnaire items, there was confidence that the data were valid. It was also recognized that the previous investments of time in phases one and two were vital elements leading to this confidence.

Table 1
Nature of Program by Route

Nature of Program	Elementary Route (n=226)		Secondary Route (n=291)	
	f	%	f	%
Four-year BEd (one plus three)	204	90.3	130	44.7
After Degree	18	8.0	118	40.5
Combined Degrees	3	1.3	41	14.1
Missing Data	1	0.4	2	0.7

Data analysis

The Statistical Package for the Social Sciences (SPSS) was used to determine means, standard deviations, and percentages for the demographic results, the Likert responses, and the KSA responses. For phases one and two, the open-ended responses were analyzed using a straightforward categorization and frequency count. In phase three, researchers from the Centre for Research for Teacher Education and Development in the Faculty analyzed these responses and provided a more comprehensive, thematic analysis, as follows. Each survey was read by a minimum of two researchers. The purpose of the initial readings was to establish themes that represented the meanings conveyed by the written comments. These themes were compiled for Elementary students and Secondary students separately. Where overlap existed in the group, themes were collapsed. In the next phase of the qualitative analysis, 150 surveys were selected on the basis of the written comments and their relationship to the identified themes. Initially, surveys were selected to represent Elementary students across minors such as language arts, social studies, special education, and music; and Secondary students in their majors such as math, social studies, and so forth. The 150 identified surveys were read and analyzed thematically by three researchers who selected quotations to represent the range of each theme. The original thematic analysis of all surveys provided the framework. New themes, plus the development of all themes through representative quotations, were completed in this second phase. In final analyses and discussion of the themes and representative quotations, it was agreed by the researchers that the themes cut across the Elementary and Secondary student responses and that it would be reasonable to combine the results. Seven themes resulted from this process.

Results

Data presented in Table 2 show the opinions of Elementary students on Likert-style items. Most students agreed that the first six weeks of courses assisted them in the field placement, and that conversely the field experience gave them valuable information to take back to university classes. Although the IPT received generally positive comments from these students, the three areas of concern included content overlap in courses, coordination of exams, and the assistance provided by the university facilitator.

Table 3 shows the opinions of students in the Secondary program. Again, there was agreement that the initial six weeks of coursework provided valuable

Table 2
Opinions About the Introductory Professional Term (IPT) from Students in Elementary Education (n=226)

	<i>strongly disagree</i> 1		<i>disagree</i> 2		<i>agree</i> 3		<i>strongly agree</i> 4		<i>Mean</i>	<i>SD</i>
	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>		
The university coursework during the first six weeks of the IPT provided me with valuable information which I could use within the four-week field experience placement. (n=224)	4	1.8	30	13.4	165	73.7	25	11.2	2.94	0.56
Assignments were coordinated across all my courses. (n=223)	22	9.9	50	22.4	129	57.8	22	9.9	2.68	0.79
Exams were coordinated across all my courses. (n=222)	32	14.4	76	34.2	88	39.6	26	11.7	2.49	0.88
Content across all my courses was well coordinated (there was little overlap in content across courses). (n=223)	32	14.3	95	42.6	79	35.4	17	7.6	2.36	0.82
Courses had appropriate workloads. (n=222)	9	4.1	35	15.8	157	70.7	21	9.5	2.86	0.63
Consulting with my university facilitator helped me better understand how my university coursework applied to classroom practice. (n=222)	62	27.9	70	31.5	72	32.4	18	8.1	2.21	0.94
Working with my cooperating teacher helped me better understand how my university coursework applied to classroom practice. (n=221)	11	5.0	41	18.6	105	47.5	64	29.0	3.01	0.83
The field experience provided me with valuable information that I can use in my university coursework during the final 3 weeks of the term. (n=222)	9	4.1	38	17.1	109	49.1	66	29.7	3.05	0.80
It appears that assignments will be well coordinated over the final 3 weeks of classes. (n=222)	24	10.8	43	19.4	118	53.2	37	16.7	2.76	0.86

Table 3
Opinions About the Introductory Professional Term (IPT) from Students in Secondary Education ($n=291$)

	<i>strongly disagree</i> 1		<i>disagree</i> 2		<i>agree</i> 3		<i>strongly agree</i> 4		<i>Mean</i>	<i>SD</i>
	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>		
The university coursework during the first six weeks of the IPT provided me with valuable information which I could use within the four-week field experience placement. ($n=290$)	15	5.2	51	17.6	195	67.2	29	10.0	2.82	0.67
Assignments were coordinated across all my courses. ($n=290$)	48	16.6	110	37.9	105	36.2	27	9.3	2.38	0.87
Exams were coordinated across all my courses. ($n=290$)	37	12.7	83	28.5	141	48.5	30	10.3	2.56	0.84
Content across all my courses was well coordinated (there was little overlap in content across courses). ($n=290$)	10	3.5	44	15.3	184	63.9	50	17.4	2.95	0.68
Courses had appropriate workloads. ($n=287$)	19	6.6	61	21.3	174	60.6	33	11.5	2.77	0.74
Consulting with my university facilitator helped me better understand how my university coursework applied to classroom practice. ($n=287$)	87	30.3	94	32.8	75	26.1	31	10.4	2.17	0.99
Working with my cooperating teacher helped me better understand how my university coursework applied to classroom practice. ($n=290$)	31	10.7	74	25.5	120	41.4	65	22.4	2.76	0.92
The field experience provided me with valuable information that I can use in my university coursework during the final 3 weeks of the term. ($n=286$)	20	7.0	58	20.3	113	39.5	95	33.2	2.99	0.90
It appears that assignments will be well coordinated over the final 3 weeks of classes. ($n=284$)	22	7.7	47	16.5	158	55.6	57	20.1	2.88	0.82

information for use in the field experience and that the school placement provided valuable information for the classes to follow. The Secondary students felt that the content of courses was well coordinated, but they did not see assignments as being coordinated across their coursework. Once again, students disagreed with the suggestion that consulting with the university facilitator assisted them in understanding how coursework applied to practice.

With reference to the first of three questions in this section of the questionnaire (which had independent response options), 83.6% of Elementary students and 77.3% of Secondary students reported that the number of assignments in each course was appropriate. (Response set included too high, too low, and appropriate). Although fewer than 3% of students reported the number of assignments as too low, the number was reported as too high by 12.4% of Elementary students and 17.9% of Secondary students.

The second question asked about the amount of one-on-one experience with children gained in the four-week field experience. (Response options included a lot, some, or none). Elementary students generally reported a lot of one-to-one student contact (78.3%), with 19.9% reporting some such contact. Only 55.7% of Secondary students reported a lot of one-to-one student contact, and 40.9% reported some contact. Responses to the eighth question revealed that 99.7% of Elementary students and 97.5% of the Secondary students had planned and taught more than one lesson during the field experience.

Responses to the third question, which pertains to placement of the four-week field experience in the IPT term, were of particular interest as this issue had become somewhat contentious in Faculty discussions, with the Elementary department more inclined to support placement at the end of the IPT and the Secondary department aligned with the potential advantages of having time for reflection following the four weeks in school. This difference of opinion was in the context of a Faculty initiative to align the IPT across departments such that the use of separate timelines was not a feasible solution. Results as presented in Table 4 indicate relative support for placement of the field experience at the end of term, but only by a small margin, particularly for Secondary students.

Ratings of Knowledge, Skills, and Attributes (KSAs)

Students rated the degree to which they felt the KSAs had been covered in each of their classes, including both university courses and the field experience course. Given the endorsement by Alberta Education and the Faculty of Education that such KSAs represent key competences for graduates of teacher education programs, the input from students in this section was considered vital for planning committees, course coordinators, and instructors in the Faculty.

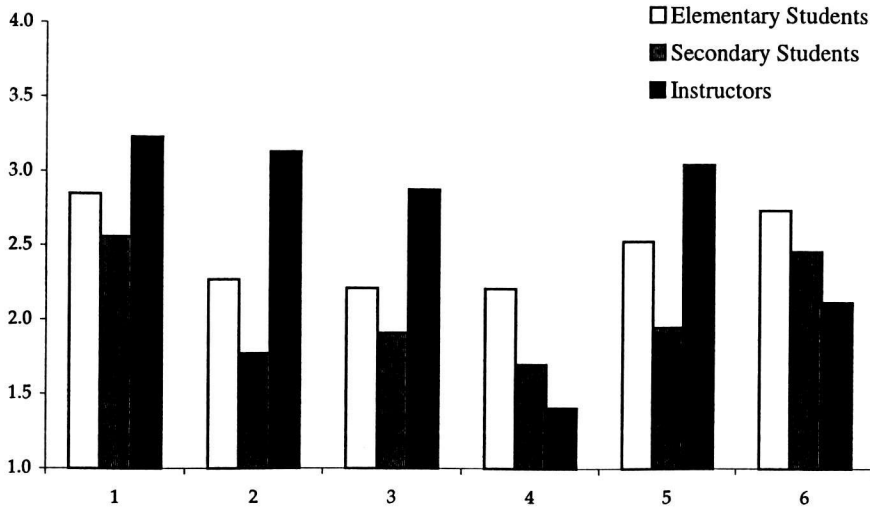
Although it was not an expectation that each individual course would cover each KSA to a particular level, it was expected that across all courses in this introductory term each KSA should be represented at a level of two or more given the range of responses including: 1 (not covered), 2 (minimally covered), 3 (moderately covered), and 4 (very well covered). The magnitude of the data from this section prohibits a comprehensive presentation. However, a summary of student feedback across the term indicated that both Elementary and Secondary education students most often rated the provision of KSAs as meeting or exceeding the criteria of a rating of 2.

Table 4
Preference of Timing for the Four-Week Field Experience

	Elementary Students (n=226)		Secondary Students (n=291)	
	f	%	f	%
<i>When would you prefer the four-week field experience?</i>				
Within the IPT as it is now	59	26.1	108	37.1
During the last four weeks, at the end of the term	151	66.8	153	52.6
Other	14	6.2	22	7.6

Across all KSAs the ratings for the field experience course were particularly positive, and in many cases the ratings exceeded 3. As expected, considerable variability occurred across most other courses. For example, an extremely high rating occurred in the field experience course for its provision of an understanding that contextual variables affect teaching and learning. A similarly high rating occurred for the special education course in its provision of information as to how to identify and respond to variable student needs. In each case the content of the course clearly reflects the particular KSA.

As mentioned, an in-depth analysis of the KSA coverage in individual courses and also across the totality of the IPT provided valuable insights into student perception of the achievement of the KSAs. These data also provided the opportunity to compare the responses of instructors with those of students. Exemplars of this are presented in Figure 1 wherein selected responses for Elementary and Secondary students as well as instructors are presented graphically. Specific items were chosen here for the following reasons: their apparent relevance to an introductory professional term, the fact that respondent groups provided contrasting ratings, and to provide a representative sample across the breadth of question areas. It is of interest that across the IPT term instructors felt that coverage of contextual variables affecting teaching and learning was quite high (moderately to very well covered). On items pertaining to the Guides to Education and Programs of Study and also the purposes of planning, instructors once again suggested by their ratings that the KSA coverage were at a moderate level or above. In each of the former cases, however, student ratings were inclined to be closer to the "minimally well covered" level. Conversely, on items pertaining to students' knowledge of subject disciplines taught in Alberta schools and their knowledge of the importance of career-long learning, we have instances where instructor ratings and assumptions about KSA coverage are in fact lower than those of students. This type of analysis provides the opportunity for course planners and instructors to examine their objectives in terms of content goals and how well these objectives are borne out with students. In some cases the students may be achieving content understanding at a level even higher than that predicted by instructors, whereas in others an instructor may recognize a need to become



1. *Knowledge that contextual variables affect teaching and learning:*
 - How to analyze many variables at one time.
 - How to respond by making reasoned decisions about my teaching practice and students' learning.

The purposes of the Guides to Education and Programs of Study specific to my area of specialization:

2. *How to use these documents to inform and direct my planning and instruction.*
3. *How to use these documents to inform and direct my assessment of student progress.*
4. *The subject disciplines I teach:*
Input has initiated an in-depth understanding of subject disciplines taught in Alberta schools.
5. *The purpose of short-, medium-, and long-range planning:*
How to translate curriculum and desired outcomes into reasoned meaningful and incrementally progressive learning opportunities for students.
6. *The importance of career-long learning:*
 - How to evaluate my own teaching.
 - How to work with others responsible for evaluating teachers.
 - How to use the findings of evaluations to select and develop my own professional development activities.

Figure 1. KSA ratings for students and instructors.

more intentional in planning and delivering course content and perhaps in making this content more explicit to students.

Part four of the questionnaire included open-ended questions concerning strengths, weaknesses, and suggested changes for the IPT. Student responses extended and enriched the information shared in the quantitative section, and the seven themes identified through this analysis included organization of the introductory professional term, experiences in schools, experiences at university, identity, connections with people, connections between theory and practice, and future possibilities. An expansion of these themes is included in the following section.

Discussion

Initial feedback from students on the Likert-style items was encouraging, as it supported student perception of the integration of theory and practice over the IPT term (Table 2). As such it was also aligned with the goals of the program model and philosophy. Based on student feedback in other Canadian faculties of education (DelGesso & Smith, 1993; Ralph, 1994) and the discussions of the TEC, this integration was viewed as one of the most important elements of the revised BEd. The IPT encompassed a four-week school placement early in the program, and this placement occurred between weeks four and eight of the term. The intention to have course content applied in a meaningful way in the school placement, and to have the school experiences enrich the reflective learning on campus, appears to have been understood and appreciated by students. Because the specific questions pertaining to this area were revised after each pilot study, we are confident that student feedback was accurately reflecting their perceptions.

Several of the Likert items related to pragmatic issues such as content overlap in courses and concern regarding the coordination of exams and assignments of the courses that were "wrapped around" the four-week school placement. This feedback was unique to each of Elementary and Secondary students. Follow-up based on this feedback was immediate and straightforward because the evaluation coordinators were given the opportunity to meet with department chairs individually and to share the results with the Dean's Advisory Committee (consisting of chairs, associate and assistant deans, and directors in the Faculty). Chairs shared the information with faculty members even as the final report was being written. Most chairs and faculty members had played some role in course and program revision in the previous few years, and there appeared to be a Faculty-wide motivation to make the program as relevant and strong as possible. In addition, the formative and early nature of the feedback allowed chairs to bring instructors together to consider course content and scheduling issues early enough to have an impact the next term, rather than waiting for a formal summative report. Regardless of program model, this would seem a relevant way to strengthen an undergraduate program continually.

Other feedback from this section of the survey confirmed students' perceptions of an appropriate number of course assignments in the IPT. The Elementary students reported one-to-one student contact to a level deemed appropriate, and although Secondary students reported much less one-to-one contact, the level reported was also felt to be satisfactory given the nature and context of most secondary school classrooms. In a reflective practitioner model, where one strives for an effective balance between theory and practice, this is encouraging feedback to instructors and program developers.

As described above, the issue of placement of the four-week school experience remained somewhat controversial in the Faculty, with survey results revealing 66.8% of Elementary and 52.6% of Secondary students in favor of a move to the end of the term. Reasons for the latter included convenience of organizing child care, consistency of classrooms and exam schedules, and so forth. Although they had seen the value of an integration of theory and practice, the early-morning classes, perceived compression of material into the first

six weeks, and two “overall schedule changes” during the term made it difficult organizationally for students.

Faculty response to student feedback on this item was mixed, but it was generally felt that the feedback was indecisive and that indeed it was too soon to change such an integral part of the IPT. The importance of reflective time in preservice teacher education (Elliott, Dworet, & Harris, 1999) and the value of narrowing the theory-practice gap (Ralph, 1994) supported the Faculty’s decision to continue with the current IPT format. However, a subcommittee chaired by the Associate Dean (Undergraduate Student Services) continues to meet to discuss issues concerning the IPT, with particular attention to the placement of the four-week experience. Once again, the value of immediate, formative feedback is underscored if that feedback is received and acted on by Faculty administration.

One question to which both Elementary and Secondary students gave an unanticipated negative response concerned the role of the university facilitator. For both Elementary and Secondary students, it was generally reported that the university facilitator had not helped students understand the application of course content into the classroom. The ambivalence about or dissatisfaction with university input to field experience has been reported in other evaluative studies of BEd programs. In several cases students have reported that the university contact person did not make enough visits to the class (Bland & Hecht, 1997; Hardy, 1999; Lam, 1994), and in others the input of university personnel was criticized as being meaningless, confusing, inhibiting, inconsistent with respect to evaluation, and irrelevant (Hardy, 1999; Ralph, 1994). These areas of concern were expressed by some students in the IPT as comments on the questionnaire, with many students adding the suggestion that their university facilitators did not seem clear as to their own roles and responsibilities. Again, with early feedback to chairs and the Undergraduate Field Experience office, a plan was put into action the following term whereby all university facilitators would take part in specific workshops that focused on their roles in the new program model. Also, ongoing information and support was provided through peer support meetings for the facilitators. In addition to providing factual information to the facilitators, these opportunities allowed experienced facilitators to share with those new to the role. Such sharing was deemed important because the facilitators often have diverse backgrounds that encompass university faculty, retired teachers, graduate students, and sessional instructors. The value of reflective practice is underscored once more in this assessment process where quantitative and qualitative feedback from students can guide the specific actions taken to strengthen roles and responsibilities in the program.

Turning to the KSA feedback, overall ratings of the KSAs provided student and instructor confirmation of successful delivery of the mandated KSAs across the IPT coursework. Although courses had been carefully planned to this end, it was heartening to find that students recognized and appreciated this content. The KSAs specific to areas such as technology or special education were naturally given high ratings in the courses in each respective area.

Another useful source of feedback for course developers was the comparative feedback from students and instructors. As indicated in Figure 1 where

differential ratings are portrayed, instructors and departments could examine those courses where KSAs such as “coverage of contextual variables” were intended, and make their coverage more complete or explicit based on student feedback. It is indeed the case that instructors may not always have the information they need to determine whether the content as presented is sufficient in a given area, and information such as that in Figure 1 provides an extra check for understanding.

The analysis of the responses to the open-ended questions provided an extension of the more quantitative and pragmatic input, offering detail and explanation about why certain ratings were given. Of equal importance, the more personal and specific feedback from students informed us about the translation of our conceptual vision into action (that of a reflective practitioner model) and provided ongoing feedback about the success of our model in doing what was intended for our students. In this instance the feedback on many areas was mixed, but we received direction in areas such as the integration of theory and practice. As indicated in the following themes, for example, students were beginning to reflect on the role of a teacher as we had hoped they would in a reflective practitioner model, and indeed their first-hand experiences informed those thoughts meaningfully. Students reported that they felt they gained much knowledge to assist these thoughts as they observed teachers in school environments, and that they were sometimes informed “through negative examples” when university professors modeled distant styles and lecture methods.

The need for school and university personnel to be “on the same page” in terms of the value of integrated contributions came through as students described on one hand the occasional negative comments of teachers as to the academic content taught on campus, and on the other hand the lack of explicit focus in coursework about the practical translation of material into teaching children. The timing of an integrated four-week school placement, assumed to facilitate the integration of theory and practice in a reflective manner, became a question mark for Faculty consideration given the student responses, because they often used words like *confusing* to describe the experience of going back and forth to schools and the university. The final three weeks on campus were not playing out so as to support the vision of the program, because they involved more content presented in a compressed manner and not a time for thoughtful discussion of what had occurred in the schools. Overall, summarizing the feedback into common themes allowed the Faculty to examine issues that seemed to be common to most respondents and areas in the program that should receive attention.

The responses to the open-ended questions in phase three resulted in seven themes, as mentioned above.

Theme one: Organization of the IPT. The extreme diversity of opinion about the organization of the IPT is reflected in the following comments: “It is a huge disappointment coming back to university. I could have used a break. I’m physically, emotionally, intellectually exhausted.” “It is very important that we are able to come back and compare and reflect with other student teaching experiences.” Obviously students reported a range of experiences related to the

organization of the IPT, and both ends of the continuum were represented. Probably the only unanimous opinion was the wish that the IPT be longer!

Theme two: Experiences in schools. For both Elementary and Secondary students it became obvious that the field experience was a vital factor in shaping their preservice teaching experience and in helping them understand what it means to be a teacher. "I think that the four weeks that I spent in the school were more valuable than gold." "This is where I learned what my personal beliefs and goals were as well as my teaching style. It also helped me to realize that this is definitely the profession for me." In the schools students developed an understanding of their profession and of themselves. For some this was overwhelming, but for all it was a powerful experience.

Theme three: Experiences at university. Student responses reflected mixed feelings about on-campus experiences. At times students found coursework meaningful, and at times they struggled with pragmatic issues such as class size, workload, overlap, and evaluation procedures. There was at times an interesting discrepancy between respondents' personal experiences of their university teachers and the information being presented to them concerning multiple paths of learning and the need to meet multiple learning styles. "All of our classes were presented on Powerpoint and simply outlined the text." "Some of our professors are not really setting a good example of teaching strategies or methods for their students to follow." There was unanimous approval for presentations by guest speakers who were currently practicing or had recently practiced in schools. Several students felt that condensing coursework into six weeks prior to the field experience, followed by three weeks after the field experience, was confusing and chaotic. This was particularly stressful if students felt that the final three weeks, which were to have provided reflective time after a school placement, were used to "cram in more academic content."

Theme four: Identity. With only a few exceptions the school placement was experienced as the highlight of the IPT term. Difficulty arose for many students with the return to university coursework, and this seemed to relate to the students' new identity as a teacher. "It's hard to come back as a student after you have been acting as a teacher for a month." "Coming back to class was difficult—you have an active role as a teacher but as a student at the university, you have a very passive role." Often it was the experience as a teacher that allowed students time to pause and reflect on their developing identity and their identity as a professional teacher.

Theme five: Connections with people. The identity or sense of self discussed in theme four cannot be isolated from context. The context for IPT students is both the university and the schools, and when little connection is felt between the two a sense of two solitudes develops. Conversely, when connections are highlighted, the sense of an integrated, connected community of learners and teachers is evident. "The field experience taught me what cannot be learned through the university. Relationships that you build with your students, rapport with staff and students." "Having other student teachers in the same school was a huge benefit because we were able to discuss amongst ourselves what was happening in the school and how things were going." "I enjoyed being able to come back to university and share my experiences with others

and hear about others' experiences." Relationships between student teachers and between student teachers and their cooperating teachers were important during the practicum and after. One role that was questioned in the student surveys was that of the university facilitator, whose role was apparently misunderstood in some cases, and criticism pointed to an apparent lack of attention or input. Although not universal, many concerns were voiced regarding the university facilitator's role.

Theme six: Connections between theory and practice. Students experienced school as the place to practice the art and craft of teaching. Their experience of university was more often that it was a place apart, dealing much more with the theory of teaching. This notion of separateness appears through the student surveys: "The field experience is absolutely the most useful because it is real-life learning and applying as well as observing. It is not just textbooks and lectures." "The field experience was like a self-contained learning situation. What we were being asked to do back on campus seems a little irrelevant." At times students were frustrated when they could not be placed in a specific setting related to their minor subject. One of the most disturbing sets of feedback from several students was that many cooperating teachers actually reinforced the notion of disconnectedness from the university by suggesting that the information taught at universities was either unrealistic, idealistic, or too complex to be useful. On return to campus for the final three weeks of classes some students were able to connect events in schools with what they had learned in the university. "My practicum was very informative and gave me a lot of ideas to use in the future as well as in writing papers, etc." "The actual experience and hands-on training allowed for more insight and knowledge for return on campus. It is easier to relate to certain topics from the text and the instructors' lectures."

Theme seven: Future possibilities. Students contributed their thoughts and wishes for future possibilities and potential improvements to the IPT term. Initially students were appreciative of the opportunity to provide their input and stressed the importance of a student voice in program planning. Exemplars of their comments included the following: "I'd suggest pairing students with the teacher for the whole term to communicate via phone or e-mail—a 'real' teacher to discuss ideas/issues with." "I think meeting back at the university once a week would have given more consistency between everyone's experience and encouraged more communication about what we're expected to do."

Reflections and Future Research

The process in which the Faculty of Education at the University of Alberta has been engaged during the past few years has felt somewhat evolutionary with respect to both the undergraduate program and the evaluation project that we describe. The two evolutionary processes have been mostly parallel, but at some key times they have been closely intertwined. Each process has influenced and been influenced by the other, especially during the period of designing the evaluation and more recently as the results of the IPT studies have become useful as a basis for ongoing program revision.

If there is something to be learned from our experience, it is, in a nutshell, that program development, and in this case program implementation, should

be accompanied by a parallel and continual evaluation process. We are convinced that if the evaluation activities had been left to a later date—perhaps after the full program had been implemented and had been running for two or three complete cycles—both the program and the evaluation would have suffered.

The efforts of the TEC underlined the fact that program development and improvement involve a multifaceted process influenced by a variety of factors. As such, program quality is better served by ongoing, meaningful, formative evaluation than the traditional summative evaluation process. Such formative efforts provide a vehicle to study the pragmatics of a program or part of a program through students' opinions of workload, course content and sequence, the value of various combinations of university and school experiences, and so on. They also provide attention to the theoretical and conceptual model for a program. For example, in this case it became apparent that students had mixed, but certainly not always positive, perceptions concerning the successful integration of reflective practice as a part of their experience. Program revisions on the basis of careful attention to student comments and feedback provided opportunities for program evolution, rather than the "exit survey" strategy only, which often provides only a generic evaluation.

In the context of student feedback several directions emerged for extending the research focus into other specific areas. For example, the notion of teacher mentors that was raised in the qualitative feedback could itself be the basis for an area of investigation and certainly fits within a reflective model. Similarly, pilot cohorts could be established, with weekly meetings on campus or at the school, as opposed to single callback sessions, and different roles for the university facilitators could also be piloted. Thoughtful feedback from students following program revisions can provide a direct avenue to creative research directions, large or small.

Including instructor as well as student feedback broadened the base of knowledge by allowing comparative analyses as exemplified in Figure 1. Future researchers may wish to take advantage of feedback from a variety of stakeholders and participants in a program to extend the breadth and depth of input and guide decision-making with even more confidence.

Reflections about the parallelism between the undergraduate program itself and the evaluation project we describe above led us to suggest three principles for effective evaluation. These are put forward not necessarily as claims about our own work, but as guidelines for those in other similar situations who are considering the evaluation of a new program. The principles are:

1. The evaluation design should be *custom-made* to fit the program in its natural environment. The corollary to this principle is that generic models for evaluation design are likely to be of only general utility (Koziol et al., 1996). They are necessary as "pre-flight check-lists" to make sure that nothing important is neglected in the design, but unsatisfactory in terms of accounting for the special features of local, particular contexts. Local knowledge of the particular program in its own special environment adds the information needed for a custom-made rather than a one-size-fits-all design.

2. There should be frequent *communication* between the evaluation project personnel and the program personnel at all stages of both processes. This, of course, is the intertwining we spoke of above. Information about the evolving content of the program will guide the design and operation of the evaluation project, just as the evaluation results guide the revision of the program.
3. Continual attention should be paid to ensuring that the evaluation has *impact* on the program in terms of changes in its content and delivery.

Our experience has taught us that the time for greatest concern about impact is the transition after one evaluation report has been completed and efforts are underway to prepare for the next phase of the overall evaluation plan. At this time the attention and resources of the evaluators may be focused exclusively on "tooling up" for the next project, when in fact work should be done on following up the recommendations in the just-completed report. In this instance, as a result of meetings with the department chairs and three appearances at the Dean's Advisory Committee, we were able to facilitate attention to the role of the university facilitator, including a series of workshops and group meetings in the following term that clarified roles and responsibilities of the university facilitators. Instructors in many instances met to coordinate assignments and exams and to discuss potential overlap of content. As a result of the visibility of the actions based on the IPT evaluation, anticipation and cooperation about the subsequent Advanced Professional Term (APT) evaluation have been much stronger.

In conclusion, we suggest that the results of the evaluation of the IPT are of possible interest to teacher educators elsewhere and that our experiences at the University of Alberta, distilled into the three principles of *custom-made* designs, continual *communication*, and continuing emphasis on ensuring *impact*, are useful reminders to researchers and practitioners.

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Appendix A
Knowledge, Skills, and Attributes for Interim Certification
Alberta Education, 1996

Holders of interim certification understand:

- that contextual variables affect teaching and learning. They know how to analyze many variables at one time, and how to respond by making reasoned decisions about their teaching practice and their students' learning;
- the structure of the Alberta education system. They know the different roles in the system, and how responsibilities and accountabilities are determined, communicated and enforced, including the expectations held of them under the *Certification of Teachers Regulation* and their school board's teacher evaluation policies;
- the purposes of the Guides to Education and Programs of Study germane to their areas of specialization. They know how to use these documents to inform and direct their planning, instruction and assessment of student progress;
- the subject disciplines they teach. They have completed a structured program of studies through which they acquired an in-depth understanding of content knowledge in one or more areas of specialization or subject disciplines taught in Alberta schools;
- that all students can learn, albeit at different rates and in different ways. They know how (including when and how to engage others) to identify students' different learning styles and ways students learn. They understand the need to respond to differences by creating multiple paths to learning for individuals and groups of students, including students with special learning needs;
- the purposes of short-, medium- and long-range planning. They know how to translate curriculum and desired outcomes into reasoned, meaningful, and incrementally progressive learning opportunities for students. They also understand the need to vary their plans to accommodate individual and groups of students;
- students' needs for physical, social, cultural and psychological security. They know how to engage students in creating effective classroom routines. They know how and when to apply a variety of management strategies that are in keeping with the situation, and that provide for minimal disruptions to students' learning.
- the importance of respecting students' human dignity. They know how to establish, with different students, positive professional relationships that are characterized by mutual respect, trust and harmony;
- that there are many approaches to teaching and learning. They know a broad range of instructional strategies appropriate to their areas of specialization and the subject discipline they teach, and know which strategies are appropriate to help different students achieve different outcomes;
- the functions of traditional and electronic teaching/learning technologies. They know how to use, and how to engage students in using these technologies to present and deliver content, communicate effectively with others, find and secure information, do research, word-process, manage information, and keep records.

- the purposes of student assessment. They know how to assess the range of learning objectives by selecting and developing a variety of classroom and large-scale assessment techniques and instruments. They know how to analyze the results of classroom and large-scale assessment instruments including provincial assessment instruments, and how to use the results for the ultimate benefit of students;
- the importance of engaging parents, purposefully and meaningfully, in all aspects of teaching and learning. They know how to develop and implement strategies that create and enhance partnerships among teacher, parents and students;
- that student learning is enhanced through the use of home and community resources. They know how to identify resources relevant to teaching and learning objectives, and how to incorporate these resources into their teaching and students' learning;
- the importance of contributing, independently and collegially, to the quality of their school. They know strategies whereby they can, independently and collegially, enhance and maintain the quality of their schools to the benefit of students, parents, community and colleagues;
- the importance of career-long learning. They know how to evaluate their own teaching, and how to work with others responsible for evaluating teachers. They know how to use the findings of evaluations to select and develop their own professional development activities;
- the importance of guiding their actions with a personal, overall vision of the purpose of teaching. They are able to communicate their vision, including how it has changed as a result of new knowledge, understandings and experiences; and
- that they are expected to achieve the Quality Teaching Standard, i.e., providing students the best possible opportunity to learn.

Appendix B

Outline of Requirements for the "One Plus Three" BEd (U of A)

	<i>Elementary (*120 credits)</i>		<i>Secondary (*120 credits)</i>
*27	Non-Education elements including Language/Literature, Math, Social Science, Natural Science, Fine Arts, Physical Education, Health, and Computing.	*36	Major courses Courses pertaining to a student's major are often partially built into the pre-professional year.
*6	Education Core I Initial field experience Introductory Ed Psych	*6	Education Core I (same)
*15	Introductory Professional Term (IPT) Coursework in introductory methods, special needs, classroom management, and assessment, "wrapped around" a four-week school placement.	*15	Introductory Professional Term (IPT) (same)
*15	Education Core II Curriculum and instruction Coursework (C & I)	*3	Ethics and Law in Teaching
*15	Advanced Professional Term (APT) Course in Law and Ethics in Teaching, and one C & I course, preceding a nine-week school placement.	*15	Advanced Professional Term (APT) C & I courses pertaining to the major, followed by a nine-week school placement.
*18-21	Minor Courses Students choose a specialty or minor, within the "generalist" elementary program.	*18	Minor Courses

Formative Evaluation Following BEd Program Revisions

*Elementary (*120 credits)*

- *18-21 Non-education courses
- *3 Open option

*Secondary (*120 credits)*

- *9 Non-education courses
- *6 Education options
- *3 Open option
- *6 Language/Literature requirement
- *3 Computing requirement