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# **University Program Assessments: Effects of graduates' personal factors**

## **Abstract**

*The use of follow-up graduate surveys is increasingly popular among institutions of higher learning as a means of improving services to students and of satisfying divergent institutional needs. The present study has examined effects of personal factors on the assessments provided by 293 graduates of the past five years in terms of the programs they completed and the university experiences they underwent in a small university in Western Canada. The analyses revealed that gender, marital status, particular degree programs completed, and individual academic achievement affected the assessment outcomes, leading the researcher to strike a cautious note in identifying what might be considered more pertinent and useful feedback versus that which may be regarded as less useful in providing on-going institutional improvement.*

## **Résumé**

*L'utilisation d'enquêtes de suivi auprès des diplômés afin d'améliorer les services aux étudiants et de combler des besoins divergents se répand de plus en plus dans les établissements d'enseignement supérieur. La présente étude examine les effets de facteurs personnels sur les évaluations fournies par 293 diplômés au cours des cinq dernières années relativement à leurs programmes d'études et aux expériences qu'ils ont vécues dans une petite université de l'Ouest canadien. Les analyses révèlent que le sexe, l'état civil, la nature particulière du programme d'études sanctionné par un grade et les résultats scolaires personnels affectent les résultats de l'évaluation. Cela amène les chercheurs à formuler des réserves lorsqu'il s'agit d'identifier ce que l'on pourrait considérer comme une forme plus pertinente et plus utile de rétro-information par rapport à une autre que l'on pourrait considérer comme moins utile aux fins de l'amélioration constante des établissements.*

An increase in public demand for accountability has had an impact upon institutions of higher learning across the country. Underlying such a movement is an environmental change from a period of affluence when higher education enjoyed almost unlimited support to the present decade of economic recession when the very survival of higher education is put to question.

In responding to this demand, universities and colleges have intensified their process of self-analysis. The parameter of these efforts, so far, has encompassed a wide spectrum of domains such as programs' utility (e.g., Barak, 1976; Conrad, & Blackburn, 1985), administrative efficiency (e.g., Gross, 1970), faculty productivity (e.g., Guba & Clark, 1978), teaching quality (e.g., Kuh, 1981), alternative program delivery (e.g., Snowden & Daniel, 1980; Guiton, 1982; Lam & Paulet, 1991), services to students (Reed & Bindone, 1975), attrition problems (Pantages & Creedon, 1978; Lam, 1984), and graduates' occupational and educational outcomes (e.g., Lam, 1983; Spaeth, 1979), to name a few.

Tracing the historical evolution of research on higher education, this institutional self-analysis represents the fourth and the most recent stage of work. The earliest institutional research focused on the comparison of prestige among schools and programs, generally known as the **reputational studies** (e.g., Hartnett, Clark, & Baird, 1978). Methodologically speaking, normative standards of quality were used to rank institutions.

In the second stage, research on higher education was characterized by the same objective but by a modified approach known as **objective indicators of quality** approach (e.g., Clewell, 1980; Fotheringham, 1978). Instead of using normative standards, *a priori* lists of criteria were adopted by individual researchers for rating programs.

In the third stage, typified by a group of studies termed **quantitative correlates of quality**, researchers modified the earlier approach through a series of statistical methods to distill a cluster of objective traits that reflect program quality (e.g., Gross, 1970; Guba & Clark, 1978).

All these three stages of work shared the same institutional motive of comparing and competing each other with the sole purpose of outshining each other so that they could draw distinguished scholars to join their faculties and quality students to their programs. Confident and self-assured, institutions of higher education seemed to be engulfed in the process of self-grandeur and insulated from the constituency they served.

The movement of accountability has rudely shifted the attention of the institutes of higher education from the indulgence of complacency to the rising force of consumerism. Students and graduates who had completed the institutional courses or programs were approached to provide feedback for comprehensive reviews (e.g., Finkler & Leach, 1978; Suchaer, 1985; Parrish & Hiatt, 1989).

Two basic objectives seem to prevail in conducting graduate follow-up surveys (Southern Regional Education Board, 1980). One was to improve the services to students. Included in this category were improvement of the program quality, changing the mix of programs, and advising and counseling students. The other was to satisfy institutional needs. These entailed a more effective way of recruiting new students, justifying funding, and reporting to government and other external agencies.

In so saying, we are not denying the usefulness of assessments by our clientele, nor do we devalue the contribution such collective feedback make to on-going institutional self-improvement. Rather, as institutional researchers seeking accurate responses, they should not only be fully cognizant of individual idiosyncrasies, but digest and reflect the information obtained from graduates/students in light of their organizational contexts in order to distinguish between what is meaningful to the concerned institution versus what is less meaningful, what is valid versus what is biased, and what is generalizable versus what reflects individual particularities. In view of the growing popularity of institutional research that adopts the client feedback approach, the need for assessing the impact of graduates' background factors on their assessments on institutional programs and services becomes ever more pressing.

### **Purposes of the Study**

The purpose of the present study is to identify individual factors that have played significant roles in shaping the perception and assessment of several education programs offered by a small university in western Canada by their graduates. A major question governing the present investigation is: What are individual factors which significantly affect graduates' assessment of their program and university experiences?

### **Design of the Study**

This study has been extracted from a larger institutional research project undertaken by the writer. Primarily an *ex post facto* study carried out after the November Convocation, this institutional research examined the qualities of three programs offered by the faculty of education

of a small western Canadian university and was conceived after extensive examination of similar institutional research (e.g., Finkler & Leach, 1978; Lam, 1984; Parrish & Hiatt, 1989). Arising from the literature review were many aspects of graduate learning experiences on campus. Eight aspects of such learning experiences, considered most critical by the present researcher, were adopted for the study. These included: a) quality of the specific program that graduates completed; b) quality of classroom instruction; c) assignment counselling ; d) fairness of grading; e) relationship with professors; f) helpfulness of professors; g) helpfulness of supporting staff; and h) helpfulness of overall program advising.

Each of these aspects was assessed by one item in the questionnaire. Sample questions that solicited the responses of the graduates were: "What is your overall assessment of the education program?" and "How satisfied are you with the quality of instruction in the Faculty of Education?" Each question was accompanied by a five-point Likert-type scale ranging from 1, denoting either "very poor" or "very dissatisfied", to 5, indicating "very good" or "very satisfied" in a questionnaire distributed to the graduates from three programs over the past five years. Information on these items constituted the first set of data for the analysis.

Graduates' background factors and records were secured from the offices of the Registrar and Alumni. Of interest to the present researcher were: a) degree obtained; b) year of graduation; c) present occupation; d) years of working experience; e) location of work; f) gender; g) marital status; and h) grade point average of graduates' academic program.

While the list did not and would not exhaust all individual characteristics, there were specific reasons justifying the inclusion of these variables in the present study. Understandably, degrees (i.e., first professional degree, two-year certification program after the first general degree, and the second professional development degree) that graduates obtained affect the nature and quality of university experiences they had undergone. Years of graduation could be a key indicator of stability or change in terms of their university experiences and this would be of great importance to the institution reviewing and revising their programs. The types of positions that graduates held at the time of the survey (i.e., whether they were related to the university program or not) and the amount of their work experience inevitably affected how relevant the courses/program were and how receptive they were to the knowledge obtained from the university. The location of their positions (whether it was urban or rural) might affect their perception, in some way or another, of the meaningfulness of their higher education to their current career. Gender differences could register similarities and differences of campus

experiences to which male and female graduates were sensitive. Their overall academic achievement at the university, which registered both the amount of knowledge acquired as well as efforts graduates put into their programs, might likely affect graduates' self-image and their long-lasting impressions of various aspects of their university experiences. In short, it was possible to provide answers to the basic question raised in this study through proper cross references of personal background factors and individual graduates' assessments of their experiences in the small university.

Of the total population of 674 graduates in the past five years, 293 (or 43%) returned usable information. These included in the data analysis some 48% of B.Ed.(Ad.) graduates, 35% of the four-year B.Ed. graduates, and 46% of the fifth-year B.Ed. graduates. A breakdown of the sample by gender indicated that 64% were female and 36% were male, reflecting very much the typical ratio of female and male students attending education faculties.

While the return rate was low at first glance, such a rate was not unusual for most of the alumni surveys (Marsh, 1984) or social science research. The high mobility of the earlier graduates accounted for the failure to reach a greater number of graduates. Nonetheless, as a preliminary attempt to provide an empirical basis for an area that still awaits further clarification, the present study served some useful purpose.

A series of step-wise multiple linear regression analyses were employed to assess the relative importance of impacts graduates' personal factors had upon eight aspects of their university experiences.

### **Analysis of the Data**

Eight step-wise multiple linear regression analyses were carried out to identify graduates' key personal factors accountable for their assessments on different services the university provided and the experiences they had on campus (Table 1). Where the variables were nominal and ordinal, dummy variables were created prior to entry into the regression analysis. The results were discussed as follows:

#### ***Quality of education programs***

Reference to Table 1 showed that assessment of quality of an education program was much influenced by three factors: gender, marital status, and the degree completed by program graduates.

**Table 1**  
**Stepwise multiple regression analyses of the impact of personal factors upon graduates' assessment of their university experiences**  
 (Summary of sig. *F* ratios)

Independent Variables	Dependent Variables					
	<i>MR</i>	<i>R</i> <sup>2</sup>	<i>R</i> <sup>2</sup> change	<i>df</i> <sub>1</sub>	<i>df</i> <sub>2</sub>	<i>F</i>
<b>(A) Quality of Educational Courses</b>						
Gender	.19	.036	.036	1	235	8.90**
Marital Status	.24	.059	.023	2	234	5.78**
Degree	.28	.078	.018	3	233	4.78*
<b>(B) Quality of Instructional Process</b>						
Degree	.18	.033	.033	1	235	8.03**
<b>(C) Course/Assignment Counselling</b>						
G.P.A.	.14	.021	.021	1	235	5.18*
<b>(D) Fairness of Grading</b>						
G.P.A.	.24	.056	.056	1	235	13.97**
<b>(E) Relationship with Professors</b>						
G.P.A.	.20	.043	.043	1	235	10.61**
Gender	.25	.063	.020	2	234	5.04*
<b>(F) Helpfulness of Professor</b>						
Gender	.13	.018	.018	1	235	4.32*
<b>(G) Helpfulness of Staff</b>						
Gender	.23	.053	.035	1	235	13.16**

\*\*  $p < .01$

\*  $p < .05$

To detect how gender affected graduates' assessment of programs, it was found, through the cross-tabulation of raw data, that male graduates were more moderate in their assessment compared with female graduates whose responses tended to cluster around the two extremes of "highly positive" and "highly negative". Gender differences in terms of graduates' cognitive development and benefits from their university experiences have already been widely researched (e.g., Belenky, Clinchy,

Goldberger, & Tarule, 1986; Kitchener & King, 1981; Perry, 1970). However, no research to date has provided insight as to the patterns of responses detected here, nor are there any studies that shed light on the effect of marital status on graduates' assessment. Until a more in-depth follow-up interview pinpointing more precise causal factors is done, we have to accept a somewhat superficial interpretation of the present phenomenon in the context of factors extraneous to the present study, e.g., personal relevance, family support, and individuals' prior program interest.

In terms of degree programs, those who had completed a two-year teaching certification program were more positive to the quality of their programs than those who just completed their first degree or those who completed a second professional development degree. Reference to the group means of the three programs suggested that those who had secured the first degree and had completed the teaching certification were ones who were more satisfied with the quality of program than those who merely completed one degree or those who completed a second degree of professional development after serving in the education field for some time.

Most likely, those who had completed their teaching certification program but had yet to acquire much experience in the field had been better adjusted to the conditions of university study compared to the first-degree holders who might have entertained unrealistic expectations about the university, or those who had been away from the campus, experiencing some problems of readjustment to the university routines.

### *Quality of instruction and program advising*

Only one factor, i.e., degree programs completed, emerged to be statistically significant (Table 1). Close scrutiny of the responses from graduates of the three programs revealed that the patterns repeated themselves as in the case of assessing the quality of program. Those who had their first degree and completed their professional training were far more satisfied with the quality of instruction and program advising than the first-degree holders and those who came back to finish a second degree after a period of absence from the university.

Aside from repeating the explanation that has been tentatively advanced for interpreting the findings related to "quality of program", one can postulate that memory of specific courses and program advising tends to be diffused over time so that only the global impression about the program experiences remains vivid.

### ***Assignment counselling and fairness of grading***

Graduates' own academic performance was the major factor accounting for the degree of satisfaction with the counselling and grading systems provided by the faculty members (Table 1). Not unexpectedly, graduates who performed well in courses tended to be positive toward the counselling provided and were more satisfied with the grading system in place than those who performed less well.

Different interpretations exist in the literature regarding such a phenomenon. To some (e.g., Blass, 1980) the significant relationship between students' satisfaction with grading and their own performance represents a biased product of cognitive balancing processes on the part of the students rather than reality-based evaluations of teacher competence. In other words, the strong correlation between grades and evaluations are clearly not due to an objective assessment of teachers' qualities but rather to a need for reciprocity in interpersonal evaluations, which can be considered as part of Heider's (1958) balance principle.

On the other hand, the hypothesis that instructors need only give high grades and demand little work of students to be evaluated favourably is dismissed by Marsh (1980, 1984). Baird's work (1987) further supports the fact that students rate instructors according to how much they believe they have learned rather than according to their anticipated grades.

While students' ratings are results of multidimensional factors (Marsh, 1984), it would seem beneficial for the institution to have the faculty members and staff to reflect more objectively how they can improve their grading system and counselling services so as to improve the overall university experience of the students.

From another perspective, it seems apparent that the conceptual distinction drawn by Astin (1973) between cognitive and affective outcomes of post-secondary education can be breached when the relative levels of cognitive outcomes (as reflected by average grades) can easily be translated into favourable or unfavourable affective reactions. The cognitive and affective dimensions of Astin's taxonomy (1973) are therefore empirically related and intertwined.

### ***Relationship with professors***

Two factors emerged to be significant: grade point average and gender (Table 1). Reference to the response patterns indicated that those



who had done well exhibited a more positive relationship with their professors than those who did poorly. At the same time, from additional comments given by the graduates, it seemed evident that female graduates expressed a stronger need and sensitivity to amiable faculty-student relationship.

That there was a causal relationship between students' academic achievement and their relationship with professors is indeed interesting as students' performance could affect their assessment of faculty-student relationships. Alternatively, the latter was seen as a motivator for students toward higher performance.

That female students showed a greater sensitivity to relationships with their professors seemed to substantiate current findings from a large pool of research comparing men and women students. Hall and Sandler (1982), for instance, attributed this greater sensitivity to the inequities found in the traditional learning environments where assertive speech, abstract styles, and competitive interchanges are masculine characteristics. Sadker and Sadker (1986) reported that usually women received less, and lower-quality, attention from their professors. Belenky, Clinchy, Goldberger, and Tarule (1986) interpreted such a phenomenon from the perspective of academic and social integration of women where women's experience has been one of exclusion from the world of authority, leading them to avoid competition and isolation, and thereby becoming less involved in faculty-student classroom interaction and in the overall academic integration during their university years. All these necessitate faculty members to pay greater attention to gender differences in terms of learning and interpersonal interaction.

### *Helpfulness of professors and staff*

In both aspects of "helpfulness of professors" and "helpfulness of staff", gender was found to be the only significant factor (Table 1). Reference to the raw data showed that female graduates provided more positive feedback (i.e., higher mean scores) in both aspects than their male counterparts.

Given that female students were found to exhibit a higher need and sensitivity to a positive and supportive relationship with professors in the earlier section, and given that they were found to express a more positive feedback to the helpfulness of professors and staff, we can conclude that female students are either more sensitive to the nature of interpersonal relationships or more prone to be content with whatever support that their instructors and supporting staff give them.

## General Observations and Conclusions

Of the eight background factors identified for the present study, only four are found to be significant in accounting for the variations of graduates' assessment on various university experiences and services. If we examine the pure causal relationships (statistically expressed by the R-square change), we should take note that the overall effects these background factors exerted are moderate. Within such a limitation, however, their implications and ramifications for institutional research still warrant further discussion and exploration.

While still cognizant of the general premise that students and graduates are the most knowledgeable individuals to provide meaningful feedback to the institution, the present research establishes a greater awareness about the effects of extraneous factors such as personal characteristics and performance that can subtly affect students' assessments.

In their evaluation of programs, courses, and services provided by the sampled university, graduates are much influenced by such factors as gender, marital status, degree programs completed, and academic achievement. Within this parameter, feedback from graduates regarding program quality, interpersonal relationship, and general university experiences could be coloured by individual characteristics and academic attainment. It is important for researchers to be cautious in interpreting such feedback in developing some empirical basis for guiding an on-going institutional development and improvement.

Confined to our immediate findings, there is a need to segregate significant individual background factors into two categories: those that are **readily useful** for institutional self-correction and improvement, and those that are **less readily useful** for that purpose.

Falling into the first category are gender and degree programs completed. Research at elementary, secondary, and lately post-secondary levels reveals that gender is a very important factor in terms of rate of maturation, learning styles, interpersonal relationships, and cognitive development. With such gender research, we should become aware of the need for offering more individualized learning, counselling, and guidance for students of different genders. While most institutions of higher learning have already put in place affirmative policies of one type or another, there is a rising need to be gender-sensitive in our policies and program/course delivery. Perhaps, strengthening support and counselling services to female students, and more workshops for faculty members to ensure that they are more aware of the gender-based differences in the

learning process, would be a starting point to reverting the culture of the university that is not gender-sensitive.

Specifically, at the class level, it seems that there is a greater need to pay attention to the academic and social integration of female students (e.g., Chodorow, 1978; Gilligan, 1982; Straub, 1987), learning styles associated with gender differences (e.g., Baxter Magolda, 1988; Kolb, 1984; Zelazek, 1986), and inequities in the learning environment (e.g., Belenky, Clinchy, Goldberger, & Tarule, 1986; Hall & Sandler, 1982; Sadker & Sadker, 1986). It is through a systematic analysis of these key factors that the quality of university teaching can be improved and that the gender inequities in cognitive development associated with sex-biased culture and traditions of higher education (e.g., Baxter Magolda, 1988; Kitchener & King, 1985) can be minimized.

Likewise, experiences provided by different degree programs are legitimate areas of concern to institutional research. If experiences provided by one program are superior to others, institutional researchers need to know the areas of the program's strengths, and explore mechanisms to improve other programs to achieve a more desirable outcome. Teaching faculty members of different programs need to get together on a periodic basis to exchange "successful experiences" to maximize mutual learning. Indeed, these are some observations that should provide useful directions for institutional self-reflection.

On the other hand, there are some individual factors, notably, students'/graduates' marital status and academic achievement, that should be put into a category generally considered of "less readily useful" for institutional self-directed improvement. Much remains to be explored regarding why marital status could be a factor affecting graduates' assessment. On the other hand, there are multidimensional factors explaining how students' ratings can be affected by their academic achievement. Given that students who do not do well tend to be more critical of the courses and programs that they have taken, to be harsher in assessing the faculty members who give them poor marks, the concerned administrative/academic units at the university should seek ways of reaching out to those who seem to be operating at some disadvantages. More faculty-initiated individualized counselling and orientation must certainly be in place for assisting students of different programs to adjust. Greater opportunities for students to have input in course content, delivery patterns, and assessment should all be tried to accommodate divergent learning styles and progress rates.

In view of the fact that sample size of the present study is relatively small, that the aspect of university experience scrutinized is re-

strictive, that effects of graduates' background factors on their experience are all moderate, and that some phenomena identified in this study require more in-depth investigation, further studies in this important domain must be undertaken to ensure that the utility and full potential of institutional research can be materialized.

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