Notes and Comments — Notes et Commentaires

Teaching Improvement in Canada:
Data Concerning What and How. *

Recently, descriptions of needs assessment procedures (Biles, 1976) or means assessment data (Centra, 1976) have appeared. The purposes of this series of three surveys were to assess both the expressed needs of university teachers for teaching improvement (what) and the means of effecting such improvement (how). Teachers in Canadian faculties of education were the primary focus of the surveys because of access and the likelihood that they would be oriented to teaching and the terminology of teaching improvement.

Procedure

The first survey, previously reported (Nelson, Foster and Rattan, 1979), was included in a mailing concerning an upcoming association election to 480 members of the American Educational Research Association (A.E.R.A.) having Canadian addresses. It tapped background variables and expressed needs for teaching improvement. The second survey contained a slightly revised needs list ("handling student confrontations," rated consistently lowest, was replaced by "student counseling and student problems", and "use of audio visual media" was added to make a list of 8 needs). A list of 8 means for effecting teaching improvement, adapted from the work of Centra (1976) was added. The second survey was sent to all teachers and teaching assistants (N = 265) in the Faculty of Education of The University of British Columbia, one of Canada's largest education faculties. The third survey, identical to the second, was sent to 240 members of the Canadian Educational Research Association (C.E.R.A.) who were not also A.E.R.A. members or U.B.C. faculty members included in the first two surveys. Stamped addressed return envelopes were included with each survey form (campus mail envelopes for survey II) but no follow up requests were made.

Results and Discussion

There is remarkable agreement across the three surveys as to the relative position of the highest and lowest needs ranked in order of desired personal improvement. Table 1 lists the eight ranked needs by priority from each of the three studies and the breakdown of respondents by sex. In all three studies, "discussion techniques" were rated as most in need of improvement whereas "handling student confrontations" (survey I) or "student counselling and student problems" (surveys II and III) consistently received the lowest rank. It is not clear whether respondents were satisfied with their handling of student counselling or if it is generally a devalued activity. Likely a mix of both reactions produced the uniformly low ranking of this item. In the surveys (II and III) where the item appeared,

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Table 1

Ranks, Sample Size by Sex, and Median Priorities of Teaching Improvement Needs

Needs	Rank (Median) Survey: I	1 - highest priority II	III
Lecture delivery	5(4.5)	4.5(4.4)	5(4.6)
Discussion techniques	1(2.5)	1 (2.8)	1(3.3)
Organization of teaching resources (e.g. filing system)	6(4.6)	2 (4.0)	3(3.8)
Handling student confrontations (II, III student counselling & problems)	7(6.3)	8 (5.9)	8(5.9)
Evaluation & grading	3(3.9)	4.5(4.4)	6(5.0)
Group work	2(3.5)	3 (4.2)	2(3.7)
Independent study	4(4.1)	6 (4.8)	4(4.0)
Use of audio-visual media (II & III only)	-(-)	7 (5.6)	7(6.2)
Total returns N =	95	110	53 258
Females	15	34	8 59
Males	80	76	45 199
% return	20%	42%	22% 26%

"use of audio-visual media" was consistently second to lowest in priority for improvement – a somewhat surprising finding reflecting, perhaps, the (false ?) confidence which education instructors place in their use of media. "Lecture delivery," though probably the most widely practiced form of teaching in Canada (Sheffield, 1974) solidly occupies a middle position in the range of median ranks in each survey, although only "discussion techniques" and "group work" are always ranked ahead of lectures.

Most variable in rankings are "organization of teaching resources", "evaluation and grading" and "independent study". The U.B.C. survey was out of alignment with the two cross-Canada surveys on "independent study", reflecting perhaps, the relative deemphasis on this instructional mode there. U.B.C. teachers agree with C.E.R.A. members but strangely not with A.E.R.A. members in Canada on the relatively high importance of improving "organization of teaching resources". Some variability in rankings might be due to correlations with demographic characteristics of respondents.

Table 2 lists the background variables showing statistically significant correlations with ranked needs. Few of the correlations are high enough to allow meaningful interpretations. Two of the strongest correlations are between highest degree held and the needs to improve student counselling (survey II), and to improve lectures (survey I). Respondents holding doctorates ranked student counselling lower and lectures in greater need of improvement. These findings were not replicated across the other surveys, however.

Also among the higher correlations was a relationship (-.27) between years of university teaching experience and need to improve evaluation and grading (survey III). Another of the stronger correlations (.28) was observed between respondent age and improvement

Table 2

Statistically Significant Correlations Between Background Variables and Rated Needs for Teaching Improvement

Variable	Need	Survey: I	II	III
Age (+ = young)	Lecture delivery	-.17*		
	Discussion techniques	.21**	-.18*	.28**
	Organization		.16*	
	Evaluation & grading			-.26*
	Group work		-.20**	
	Independent study		.20**	
Gender (+ = male)	Evaluation & grading	-.21**		
	Independent study	.20**		
Highest Degree (+ = lower degree, e.g. M.A., M.Ed.)	Lecture delivery	-.26***		
	Discussion techniques	-.18*		
	Organization		-.21**	-.28**
	Student counselling		.31***	
	Use of audio-visual		-.18*	
Years Teaching at University (+ = longer)	Discussion techniques		-.16*	
	Organization		.19**	
	Evaluation & grading			-.27*
	Group work		-.18*	
		N = 95	N = 110	N = 53

* $p < .05$
** $p < .02$
*** $p < .01$

of discussion techniques. This combination of variables was the only one significantly correlated in all three surveys. Both cross-Canada studies found younger respondents ranking discussions in higher need of improvement than older teachers. This trend, interestingly, was reversed at U.B.C.; this was not explained by age differences between samples. The A.E.R.A. respondents were slightly older than U.B.C. and C.E.R.A. subjects. The latter two groups reported the same median age group (30-39) despite the inclusion of teaching assistants the U.B.C. sample. Again U.B.C. faculty may be taken as some what atypical of their cross-Canada counterparts. Equally strong (-. 28) correlations appeared between highest degree held and reported need to improve organization in survey III, replicating the -. 21 correlation between these variables at U.B.C.; those holding doctorates reporting more of this need. The scattering of low but statistically significantly correlations was obtained with certain other background variables (rank, years of teaching public school) but no clearly interpretable patterns emerged.

Table 3 lists ranks and medians for improvement means from surveys II (U.B.C.) and III (C.E.R.A.). There is a very high correspondance between both overall and the median ranks assigned to the items across the two surveys (rho = .96). Whether at U.B.C. or elsewhere in Canada, our colleagues want to have workshops on teaching techniques and team teaching opportunities. They do not place much faith in master teaching awards (discontinued at

Table 3

Ranks and Median Priorities of 8 Teaching Improvement Means

Means for Improvement	Rank (Median) 1 = highest priority Survey: II	III
Circulate a newsletter on teaching improvement ideas	6(5.0)	5(5.0)
Provide funds for teaching	4(3.7)	3(3.1)
Weight teaching more heavily in personnel decisions	3(3.1)	4(3.6)
Hold workshops on teaching techniques with outside consultants and speakers	1(2.4)	1(2.6)
Have Master Teacher Award	7(6.6)	7(6.1)
Provide more team teaching opportunity	2(2.9)	2(2.9)
Provide more support services	5(4.9)	6(5.1)
Nothing beyond what is already done	8(7.9)	8(7.9)
	N = 110	N = 53

Table 4

Statistically Significant Correlations Between Background Variables and Rated Means for Teaching Improvement

Variable	Means	Survey: II	III
Age (+ = young)	Weight teaching more		.30**
	Provide team teaching		-.23*
Gender (+ = male)	Weight teaching more		-.23*
	Provide team teaching	-.24***	
Highest Degree (+ = lower degree)	Weight teaching more	.21**	
	Workshops/consultations	.27***	
	Provide more support services	-.27***	
	Nothing beyond present	-.16*	
Years Teaching at University (+ = longer)	Provide funds for teaching		.26*
	Hold workshops with consultants		-.22*
	Provide team teaching		-.40***
		N = 110	N = 53

* $p < .05$
** $p < .02$
*** $p < .01$

U.B.C. two years ago) and doing nothing beyond what is done already is in last place. Consistent with Centra's (1976) findings for U.S. campuses, newsletters were downrated in comparison to provision of funds for teaching improvement projects. No paired ranking was more than one adjacent rank apart nor more than .6 of a rank apart on median ratings.

There were eleven significant correlations between background variables and ranked improvement means as shown on Table 4, and no consistent patterns across the two surveys. The highest correlation observed in the entire study was for C.E.R.A. respondents, newer faculty ranking team-teaching as a means of improvement higher than those having more years of university teaching experience (-. 40). Also younger C.E.R.A. members, not too surprizingly, reported that weighting teaching more in promotion decisions would be a desired way to improve it. Again there were a few other correlations with other demographic variables reaching statistical significance but none of these hold interest for useful interpretation.

Conclusions

Respondents in these surveys rather consistently asked for improvement in discussion techniques and group work. They preferred the means of workshops with visiting consultants and more team teaching opportunities. Teaching improvement activities typically have proceeded from the strengths of those who would be improvers/consultants whether or not the clientele for such services preferred them. Teaching improvement offices/officers might ignore such preferences as reported here at their own risk.

The methodology employed here could be adapted to a more "fine grained" analysis of needs, e.g., questioning techniques, use of objectives, etc. (cf Donald, 1978). This study also might have included other areas (simulations and games, field studies, etc.) of teaching or other methods for improvement (microteaching, questionnaire feedback, etc.). However in open ended response blanks on the survey forms, although these and other items were mentioned by a few respondents, no consistant pattern of other needs or means emerged as being frequently listed.

The studies reported here are probably more suggestive than conclusive. However the strong suggestion remains that not just a needs assessment or some way of tapping preferred means of improvement but both are advised in undertaking organized teaching improvement activities. The data derived from such surveys taken together with the resources available provide a better base upon which to mount an improvement program than do reported needs, means, or available resources alone. The discrepancy between expressed needs of faculty members and the strengths or preferred activities of teaching service units (Donald, 1978) ought to one important consideration in the set up and operation of teaching improvement services.

It is probably incorrect to suppose that the data from nationwide surveys such as these will be entirely applicable at a particular local campus or faculty. Despite the observed consistencies in responses, U.B.C. faculty were sometimes in reverse alignment to the preferences of their cross-Canada colleagues. Similarily, changing times and the effectiveness (or lack thereof) of local teaching improvement services suggest that perceived needs and means probably require periodic updating. Though low in absolute value, the correla-

tions reported here suggest that (change in) demographic composition of faculty also might affect ranked needs and means, the what and the how of teaching improvement.

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