The effect of student evaluations of teaching on administrative personnel decisions at the Department of Psychology, University of Western Ontario, was investigated. In addition, the apparent impact of summative student evaluation of teaching upon faculty attitudes and faculty teaching performance was assessed. In the Department of Psychology, undergraduate student evaluations are obtained by a 10-item questionnaire that focuses mainly on expositional skills such as clarity, preparation, and use of examples, and includes a final overall effectiveness item. It was found that: student evaluations of teaching contributed significantly to decisions on faculty salary and tenure, but not to decisions on promotion to full professor; after 12 years of mandatory summative evaluation, faculty members continue to have generally favorable attitudes toward student evaluations of teaching and their use in administrative personnel decisions; and the mean level of teaching effectiveness of the Department of Psychology as a whole has improved substantially over the past 12 years, presumably due, at least in part, to the incentive and selection functions of summative evaluation of teaching. It is suggested that a fully effective teaching evaluation system must include both formative and summative components in order to effect the right combination of feedback, motivation, training, and selection needed to gain faculty acceptance and to produce significant improvement in individual and institutional performance. (SW)
Use of student instructional ratings in administrative personnel decisions at the University of Western Ontario

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Introduction

Recent surveys (e.g., Centra, 1977) indicate that nearly all North American universities now have some sort of plan for systematic evaluation of teachers and teaching, with formal student ratings representing the most common method of evaluation in current use. In most universities, teaching is evaluated for one or more of the following purposes: (1) to provide faculty members with diagnostic feedback which may lead to improved teaching performance - usually termed formative evaluation; (2) to provide data to be used in administrative decisions on faculty hiring, salary, contract renewal, tenure, and promotion - generally referred to as summative evaluation; and (3) to provide published information to be used by students in selecting optional courses.

Although there is little or no controversy about evaluation of teaching for purely formative purposes, or even for student use in course selection provided that faculty members participate voluntarily, the use of teaching evaluation data, and student ratings in particular, as a determinant of salary, tenure, and promotion decisions continues to be a matter of heated

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controversy, both in the professional literature and in the faculty coffee lounge. One aspect of this controversy is the question of whether teaching evaluations do in fact make a difference in personnel decisions. Some observers claim that, despite administrators' public pronouncements on the importance of teaching, teaching evaluations are all but ignored in salary, tenure, and promotion decisions. Other observers argue (usually in private) that considering the extreme fallibility of existing teaching evaluation procedures, teaching is already given far too much weight in the faculty advancement system! A second aspect of the controversy relating to summative evaluation of teaching has to do with the actual or potential effects of such a policy upon faculty morale, faculty-student interaction, and teaching performance itself. Advocates of summative evaluation (e.g., Hildebrand, 1972) argue that incorporation of teaching evaluation data into the faculty advancement system motivates faculty members to take teaching seriously and devote the time and effort needed to bring about improvement in performance. Opponents of summative evaluation (e.g., Scheck, 1978) contend that this practice causes anxiety, poor morale, and divisiveness among faculty members, and therefore is counterproductive as a means of improving performance. Furthermore, and perhaps of even greater concern, it is claimed that the use of student instructional ratings in administrative personnel decisions induces faculty members to raise grades and lower academic standards in an attempt to "buy" favorable evaluations from students.

The purpose of the present research was to investigate whether or not student evaluations of teaching have contributed significantly to administrative personnel decisions in the Department of Psychology, University of Western Ontario; and furthermore, to assess the apparent impact of summative student evaluation of teaching upon faculty attitudes and faculty
teaching performance. The University of Western Ontario was one of the first institutions in North America to introduce a mandatory campus-wide program of student evaluation of teaching for administrative purposes. Since 1970, Senate policy has required that evaluations of teaching be solicited from undergraduate and graduate students and from faculty colleagues, and that these evaluations be considered in decisions on faculty retention, tenure, and promotion. The specific procedures for soliciting student and colleague evaluations of teaching are left to the discretion of individual faculties and departments, as is the relative weighting of teaching, research, and service evaluations in personnel decisions. Contrary to the intention of Senate policy, most departments have failed to develop effective procedures for obtaining evaluations from graduate students and colleagues, with the result that nearly all documentation on teaching at UWO comes from undergraduate students. In the Department of Psychology, undergraduate student evaluations are obtained by means of a 10-item questionnaire which focuses mainly on expositional skills such as clarity, preparation, and use of examples, and includes a final "overall effectiveness" item. The questionnaire is administered annually in all undergraduate courses, with students responding anonymously, the instructor absent during the evaluation period, and evaluation results released only after final grades have been submitted to the Registrar. Copies of the evaluation results are sent to the instructor, the department chairman, the Dean, and, provided the instructor consents, to the University Students' Council for publication in an annual teacher evaluation booklet. Teaching evaluation results sent to the department chairman and Dean automatically become part of the documentation considered by department- and faculty-level promotion and tenure committees. The research reported here addressed three specific questions concerning the use of student evaluations
of teaching in administrative personnel decisions in the Department of
Psychology:

1. Do student evaluations make a difference in personnel decisions?

2. Are faculty members satisfied or dissatisfied with the use of
   student evaluations in personnel decisions?

3. Does the use of student evaluations in personnel decisions lead
to improvement in faculty teaching performance?

Impact of student evaluations upon personnel decisions

The question of whether or not student evaluations of teaching have
contributed significantly to administrative personnel decisions was
investigated separately for three different types of personnel decisions:
(a) awarding of annual merit salary increments, (b) granting of tenure, and
(c) promotion to full professor. In the case of salary adjustments, the
answer to this question is obviously affirmative, in that the policy of the
Department of Psychology is to weight teaching, research, and service
evaluations 40, 40 and 20% respectively in the determination of the merit
compartment of annual salary increments. Thus, depending on the apportionment
of merit and across-the-board components of the overall salary settlement,
good vs. poor student evaluations could make a difference of perhaps $200 to
$400 in a faculty member's salary increment, a difference which is, of course,
cumulative over subsequent years of employment.

Evidence that student evaluations of teaching have contributed
significantly to tenure decisions in the Department of Psychology is presented
in Figure 1, which shows a scatterplot of mean student instructional ratings
(5-point scale of "overall effectiveness"; averaged across courses and years)
and mean publication rates (weighted scale similar to that of Hoyt, 1974;
averaged across years) for 28 faculty members appointed to tenure-track-
positions between 1970 and 1976 who had either been granted tenure (N=16) or denied tenure (N=12) as of July, 1979. Faculty members who resigned after 5 or more years service without gaining tenure were classified as "denied tenure" for purposes of this analysis; whereas faculty members who resigned without tenure after 4 years or less, and faculty members for whom tenure was pending as of July, 1979 were omitted from the analysis. The mean teaching and research scores shown in Figure 1 were computed from the time of appointment to the time of a positive or negative tenure decision (or resignation). It may be noted in the figure, first, that teaching and research scores were statistically uncorrelated (r = .07) and therefore served as independent sources of information in personnel decisions; second, that student instructional ratings did indeed make a difference in tenure decisions, in the sense that the mean rating of faculty members granted tenure was significantly higher (t = 2.00, p < .05) than the mean rating of those denied tenure; and third, that student ratings contributed considerably less to tenure decisions than did rate of publication. In support of these conclusions, a stepwise multiple regression analysis showed that student instructional ratings accounted for approximately 12% of variance, rate of publication approximately 60%, and factors such as age, sex, and nationality a total of less than 3% of the variance in tenure decisions in the Department of Psychology between 1970 and 1979.

An analysis similar to the above showed that student instructional ratings did not contribute significantly (less than 2% of variance accounted for) to administrative decisions on promotion to full professor.

Faculty attitudes

Given that student evaluation of teaching do seem to make a difference, at least in salary and tenure decisions, one might ask whether faculty members
are happy or unhappy with this state of affairs. Although data on faculty attitudes are not available for the Department of Psychology per se, data are available for the Faculty of Social Science, which includes the Department of Psychology, and which uses teaching evaluation procedures similar to those of Psychology. Table 1 summarizes the responses of 126 Social Science faculty members (a return rate of approximately 58%) to selected attitudinal statements on student instructional ratings and their use in administrative personnel decisions. Faculty attitudes on these matters are perhaps best described as "mixed, but generally positive". As may be noted in Table 1, a clear majority (69%) of faculty respondents continued to support the idea of compulsory campus-wide evaluation of teaching for summative purposes, and a similar majority (61%) stated that student evaluations of teaching are acceptable for use in administrative personnel decisions. Furthermore, only 33% of faculty respondents felt that the use of student instructional ratings in personnel decisions causes "grade inflation", and only 12% felt that this practice leads to deterioration of faculty-student interaction. On the other hand, less than half (40%) of faculty members were "basically satisfied" with the 10-item student rating form used in the Faculty of Social Science; less than half (42%) believed that the student rating form provides diagnostic feedback useful for improvement of teaching, and less than half (44%) are in favor of placing increased weight on teaching in salary, tenure, and promotion decisions. On a more positive note, 73% of respondents stated that the Social Science student rating form provides valid information on certain aspects of teaching, and 93% agreed that it is within the realm of possibility to develop a "valid" student rating form. All in all, one gets the impression that although faculty members are not entirely satisfied with existing student evaluation procedures, they continue to be generally favorable to the idea of
using student instructional ratings for administrative purposes, and have not given up on the possibility of developing a more satisfactory student evaluation system.

Improvement in teaching performance

Although improvement of performance is supposedly not the primary goal of summative evaluation of teaching, there are at least three reasons for expecting that incorporation of student evaluations into the faculty advancement system should lead to significant improvement in teaching performance: (1) student ratings provide feedback which may be useful in diagnosing problems and developing more effective teaching strategies; (2) use of student evaluations for summative purposes provides faculty members with a tangible incentive for putting time and effort into improvement of teaching; and (3) use of student evaluations in tenure decisions provides a selection procedure whereby excellent teachers are more likely to be granted tenure and retained by the department (see Figure 1). As may be noted in Figure 2, there is clear evidence that the mean level of teaching effectiveness of the Department of Psychology as a whole (as indexed by student ratings) has in fact improved significantly over the years from 1970 to 1982. Unfortunately it is next to impossible with the data at hand to determine whether this improvement in teaching performance resulted from the feedback, incentive, or selection functions of summative evaluation, or perhaps from some combination of these factors. It is equally plausible that the results shown in Figure 2 are attributable, at least in part, to some totally extraneous factor, such as an increase over successive years in the "leniency bias" of subject instructional ratings. An interesting supplementary finding is that the mean teaching performance of faculty members who already had tenure in 1970 (N=12)
showed no corresponding tendency to improve over the period from 1970 to 1982. Another interesting finding, depicted in Figure 3, is that faculty members granted tenure between 1972 and 1977 (N=13) tended to improve steadily in teaching performance from the year of appointment to the year in which tenure was achieved, but thereafter showed a noticeable decline in student ratings, followed by a levelling-off and partial recovery. The latter results suggest that teaching experience and student feedback alone cannot account for the improvement in departmental mean teaching performance seen in Figure 2.

Whereas Cohen (1980) concluded that feedback from student ratings is not particularly effective in improving faculty teaching performance unless accompanied by expert coaching or consultation, the present findings suggest that student feedback is not particularly effective in improving teaching performance unless evaluation results are effectively incorporated into the faculty review and advancement system.

Conclusions

The results of this study indicate: (1) that student evaluations of teaching contribute significantly to decisions on faculty salary and tenure, but not to decisions on promotion to full professor, in the Department of Psychology, University of Western Ontario; (2) that after 12 years of mandatory summative evaluation, faculty members continue to have generally favorable attitudes toward student evaluations of teaching and their use in administrative personnel decisions; and (3) that the mean level of teaching effectiveness of the Department of Psychology as a whole has improved substantially over the past 12 years, presumably due at least in part to the incentive and selection functions of summative evaluation of teaching. Despite the common tendency to interpret formative and summative evaluation of teaching as mutually exclusive alternatives, the present research suggests
that a fully effective teaching evaluation system must include both formative and summative components. Formative evaluation used in isolation is unlikely to produce significant improvement in teaching because tangible incentives for improvement are lacking, as is the opportunity to select and retain excellent teachers. Summative evaluation used in isolation is likely to produce resentment in faculty members who receive poor teaching evaluations but have no avenues for improvement. Only when summative and formative evaluation are used in combination do we have the right combination of feedback, motivation, training, and selection needed to gain faculty acceptance and to produce significant improvement in individual and institutional performance.
References


Table 1
Faculty attitudes toward student instructional ratings and their use in administrative personnel decisions

<table>
<thead>
<tr>
<th>Statement</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The use of teaching evaluations in salary, promotion, and tenure decisions should be compulsory for all faculty members.</td>
<td>69</td>
<td>00</td>
<td>31</td>
</tr>
<tr>
<td>The use of teaching evaluations in salary, promotion, and tenure decisions motivates faculty members to put time and effort into improvement of teaching.</td>
<td>54</td>
<td>19</td>
<td>27</td>
</tr>
<tr>
<td>Student evaluations of teaching are acceptable for use in salary, promotion, and tenure decisions.</td>
<td>61</td>
<td>00</td>
<td>39</td>
</tr>
<tr>
<td>I am basically satisfied with the questionnaire used for student evaluation of teaching in my department.</td>
<td>40</td>
<td>12</td>
<td>48</td>
</tr>
<tr>
<td>The student rating form used in my department provides valid information on certain aspects of teaching.</td>
<td>73</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>The student rating form used in my department provides useful feedback for improvement of teaching.</td>
<td>42</td>
<td>23</td>
<td>35</td>
</tr>
<tr>
<td>The use of student ratings of teaching in salary, promotion, and tenure decisions leads to grade inflation and lowering of academic standards.</td>
<td>33</td>
<td>24</td>
<td>43</td>
</tr>
</tbody>
</table>
Table 1
continued

<table>
<thead>
<tr>
<th>Statement</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The use of student ratings of teaching in salary, promotion, and tenure decisions leads to deterioration of faculty - student interaction.</td>
<td>12</td>
<td>22</td>
<td>66</td>
</tr>
<tr>
<td>It is within the realm of possibility to develop a &quot;valid&quot; rating form for student evaluation of teaching.</td>
<td>93</td>
<td>00</td>
<td>07</td>
</tr>
<tr>
<td>The teaching evaluation system should be broadened to include sources of data other than undergraduate student ratings.</td>
<td>65</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>More weight should be placed on teaching evaluations in salary, promotion, and tenure decisions.</td>
<td>44</td>
<td>12</td>
<td>44</td>
</tr>
</tbody>
</table>
Figure 1. Scatterplot of teacher ratings and publication rates of faculty members granted tenure (N=16) and denied tenure (N=12) between 1970 and 1979.
Figure 2. Department mean teacher rating score for academic years 1969-70 to 1981-82.
Figure 3. Mean teacher ratings in three pre-tenure and four post-tenure years for 13 faculty members granted tenure between 1972 and 1977.