ABSTRACT

              A study to determine to what extent course evaluation
reports provided by students serving on course liaison committees
accurately reflect the perceptions of the entire student body is
presented. A system of liaison committees composed of student
volunteers was developed at the University of Iowa Medical School to
meet regularly with course directors and provide ongoing feedback
during the course and a summary report to the course director and
curriculum committee at the conclusion of the course. The courses
taken by first year medical students in the fall semester were
selected for study. A questionnaire divided into three parts
accompanied the liaison report. Students were asked to evaluate their
general perceptions of the accuracy of student liaison reports,
evaluate the accuracy of the report itself after reviewing it, and
provide general recommendations regarding the use of student liaison
reports for the purpose of curriculum development. According to the
results, reports produced by the liaison committee: (1) are moderate
to very accurate in reflecting the ratings of the majority of
students; (2) would be acceptable to the majority of students as
adequate representation for making suggestions for course and
curriculum changes; and (3) will tend to have a somewhat positive
bias for courses in which there may be intense negative sentiment.
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AN ASSESSMENT OF THE VALIDITY OF STUDENT LIAISON COMMITTEE REPORTS

MARK A. ALBANESE, PH.D.
JAMES F. BALE, JR., M.D.
THE UNIVERSITY OF IOWA

Objective

To determine to what degree course evaluation reports provided by volunteer students serving on course liaison committees accurately reflect the perceptions of the larger student body.

Perspectives

Obtaining useful feedback regarding how a course is functioning at a time when corrections in the course can still be made is no small problem under the best of circumstances; and in the case of multi-disciplinary and multi-instructor courses is substantially more complicated. This probably accounts for why such formative evaluation is not often performed. Instead, post-course computer-processed summative evaluations are the most common form of course evaluation (Braskamp, Brandenburg, Ory, 1984). Among the limitations of such end of course evaluations are that they are obtained at a time when their only influence can be on future course offerings. Also, because of the computerization, student responses must be from a prescribed number of options. Although providing room for comments is recommended and commonly done, students usually limit their responses to the selection of one of the options. The sum effect is that, for most courses, once they are in motion, constructive changes are unlikely to occur until the next course offering.

In order to gather more timely and more detailed feedback from students, a system of liaison committees composed of student volunteers was developed at our medical school. The liaison committees meet regularly with course directors to provide ongoing feedback during the course and at the conclusion of the course provide a summary report to the course director and curriculum committee.

The use of student volunteers for such committees has proven to be necessary because of the extensive commitment students must make to the effort. Using random assignment of students to committees is not likely to produce committees with the degree of commitment to their task that will be obtained with student volunteers. Because the liaison committees are composed of volunteers and the feedback and reports they provide are heavily relied upon, the extent to which these reports reflect the opinion of the entire student body is a major issue. The purpose of this study was to determine to what extent student liaison reports accurately reflect the perception of the entire student body.

Method

The courses taken by first year medical students in the fall semester were selected for study. The courses evaluated were: anatomy, biochemistry, biostatistics, embryology, and histology. (To enable a frank discussion of the results yet maintain confidentiality, the courses will, hereafter, be referred to only by a randomly assigned number.) It was considered essential to the validity of the assessment of the accuracy of the reports that the students who are doing the evaluation should be able to review an actual report before making their judgments. Since these reports were fairly extensive, sometimes four or five pages of single spaced type, it would be too much of a burden to have each student evaluate all courses. It was also considered important that results from more than one course should be represented as the students comprising liaison committees varied by course. For these reasons, a multiple matrix sampling approach was adopted. This involved dividing the entire first year medical class (total $N = 178$) into five random groups (one group for each of the five courses taken during the semester). Each randomly determined group was assigned a different liaison committee report to evaluate.

The questionnaire accompanying the liaison report was divided into three parts. The first part asked students to evaluate their general perceptions of the accuracy of student liaison reports. This was to be completed before reviewing the actual report and was included partly as a check on the equivalence of the randomly determined groups. The

second part of the questionnaire asked students to evaluate the accuracy of the report itself after reviewing the report. The final section asked general recommendations regarding the use of student liaison reports for the purpose of curriculum management. Students responded primarily on a five-point rating scale or yes/no depending on the nature of the question asked. The surveys were distributed within six weeks of the end of the courses being evaluated. There were three follow up mailings to non-respondents.

In order to test differences between the groups in their response to the questionnaire, two types of analyses were performed. For questions with five options representing gradations of response, a one-factor analysis of variance was computed with means and standard deviations (SD) reported as descriptive statistics. Since a five-option question is likely to have scale properties that make it a questionable application of analysis of variance procedures, chi square analyses were also computed for such items. In cases where the two analyses did not lead to the same conclusion, both are reported. This served to ensure that any differences noted were not simply due to a violation of the scaling assumptions of analysis of variance while enabling the use of means and standard deviations as descriptive statistics instead of cumbersome distributional statistics. For yes/no questions only chi square procedures were employed with percentage of the sample selecting yes serving as the primary descriptive statistic.

Results

Response rates ranged from 72% to 80% for the five different randomly determined groups (N=26-28 out of 35 or 36 in each group). These were considered good response rates considering the magnitude of the task required of respondents.

The general perceptions of the accuracy of student liaison reports and student comfort with their use for course and curriculum decisions are shown in Table 1. These perceptions were fairly neutral with means ranging from 3.23 to 3.77 for the five groups and averaging 3.51 (1 = Not at All, 5 = Extremely Accurate). Student level of comfort with using the liaison committee reports as the primary source of student input regarding course

decisions was relatively high with from 50% to 75% indicating that their interests would be served. For making curriculum decisions, however, students were less comfortable with the liaison reports. The percentages indicating their interests would be served declined to between 38% to 61%. Differences between the five randomly determined sub-groups were not statistically different, suggesting that the groups were relatively similar in their pre-existing perception regarding the liaison committees.

Table 2 shows the results from part 2 of the questionnaire in which students rated the liaison committee report which accompanied the questionnaire. Mean scores ranged from 3.2 to 4.1 suggesting a moderate to very positive evaluation of the accuracy of the reports. The differences in ratings of reports from the different courses were, however, statistically significant (p < .01). This indicates that not all of the liaison committee reports were equally accurate. When asked to indicate how their own assessment of the course would compare with that of the liaison committee report, four out of the five groups indicated that on average their evaluations would be more negative. The differences among the groups in these ratings were statistically significant (p < .013). An examination of these results in terms of the number of students selecting each response found that even though the means tended toward one end of the scale or the other, a majority of the respondents indicated their own evaluation of the course would have been the same as the liaison committee report for four of the five courses. In the lone exception (course #2), 59% of the respondents indicated that their own evaluation would be more or much more negative. This particular course had a long history of student dissatisfaction and the report itself was one of the more negative.

In spite of this perception, 78% of the students evaluating course #2 report indicated that their views would be adequately represented if the liaison report was used as the primary source of student input regarding the course. For all courses, the percentages exceeded 50% (range 57 to 88%) indicating that overall, the liaison reports adequately represent the majority viewpoint of the entire student body. This suggests that liaison

committee reports reflect student opinions in direction and substance, but in cases of intense student dissatisfaction may tend to under-report the intensity of the dissatisfaction.

Results from the final section of the questionnaire (Table 3) asked students to indicate their general perceptions of the student liaison reports in view of having actually read a report. Regarding general curriculum decisions, the percentage who responded that their interests would be served if the liaison reports were relied upon increased from 50% before reviewing the liaison report to 70% after reviewing the report. In terms of accuracy ratings of the reports, the before and after means were almost identical. Thus actually reviewing a student liaison committee report had the effect of boosting student confidence in the validity of these reviews, although perceptions of the accuracy of the reports were not greatly influenced.

Educational Importance

Student liaison committees composed of volunteers offer a convenient and readily accessible source of student input regarding ongoing or planned course activities. This study was conducted to determine to what degree information obtained from these volunteer groups accurately reflects the opinion of the larger student body. Based on this study, it can be concluded that the reports produced by the liaison committee: 1) are moderate to very accurate in reflecting the ratings of the majority of students, 2) would be acceptable to the majority of students as adequate representation for making suggestions for course and curriculum changes, and 3) will tend to have a somewhat positive bias for courses in which there may be intense negative sentiment.

TABLE 1

QUESTIONNAIRE PART I RESULTS: GENERAL PERCEPTIONS REGARDING LIAISON COMMITTEE REPORTS

I.   1.   In genera!, how accurately do you think the liaison committee reports reflect the perceptio·is of your entire class?

(1 = Not at all, 2 = somewhat, 3 = moderately, 4 = very, 5 = extremely)

Course #	N	Mean	SD
1	26	3.23	.76
2	25	3.32	1.03
3	24	3.75	.94
4	26	3.77	.76
5	24	3.50	.78
TOTAL	125	3.51	.88

$F_{(4,120)}$ = 2.04, p < .09 (There were 10 no opinion responses omitted from this analysis)

2.   Percentage of students who responded that their interests would be served if liaison committees were relied upon as the primary source of student input regarding:

Course #	N	a) Individual Courses % Yes	b). Overall Curriculum % Yes
1	28	68%	43%
2	27	70%	38%
3	26	65%	50%
4	28	75%	61%
5	26	50%	58%
TOTAL	135	65.9%	50%

$X^2_{(4)}$ = 4.25, p< .38 $X^2_{(4)}$ = 3.86, p< .426

TABLE 2

Questionnaire Part II Results: Assessment of Actual Liaison Committee Reports

II. 1. Degree of agreement with the comments and recon.mendations contained in the report. (1 = Not at all, 2 = Somewhat, 3 = Moderately, 4 = Very, 5 = Extremely)

Course #	N	Mean	SD
1	28	3.21	.92
2	27	3.63	1.01
3	25	4.12	.88
4	28	3.89	.74
5	26	3.65	.89
TOTAL	134	3.69	0.93

$F_{(4,129)} = 3.86, p < .0054$

2. How would your own evaluation of the course compare with that contained in the attached report? (1 = Much more positive, 2 = More Positive, 3 = Same, 4 = More Negative, 5 = Much More Negative)

Course #	N	Mean	SD
1	28	3.32	.67
2	27	3.67	.62
3	24	3.04	.46
4	28	2.89	.63
5	26	3.08	.74
TOTAL	133	3.20	.68

$F_{(4,128)} = 6.16, p < .0001$

TABLE 3

QUESTIONNAiRE PART III: POST REVIEW GENERAL PERCEPTIONS

III. 1. **Regarding** general curriculum decisions such as course sequencing and student evaluation methods, would your views be adequately represented if liaison committee reports were relied upon as the primary source of student input?

Course #	% Yes
1	53.6
2	77.8
3	76.9
4	66.7
5	76.9
TOTAL	70.1

$X^2_{(4)} = 5.72, p < .221$

2. After reviewing the attached liaison committee report, how ˜ccurately do you think the reports reflect the perceptions of your entire class?

Course #	N	Mean	SD
1	24	3.08	.72
2	27	3.33	.78
3	24	3.92	.78
4	28	3.68	.72
5	25	3.48	.82
TOTAL	128	3.50	.80

$F_{(4,123)} = 4.26, p < .0029$

REFERENCE

Braskamp, L.A., Brandenburg, D.C., Ory, J.C. (1984). <u>Evaluating Teaching Effectiveness</u>
<u>A Practical Guide</u>. Beverly Hills: Sage Publications, Inc.