Comparison of two formats for student evaluation of teacher effectiveness

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Abstract

Context: Student evaluation of faculty is an essential part of the academic process. The study was designed to compare two formats of student evaluation of teachers (SETs) with a view to determine the method with minimum bias. Aims: To compare student ratings of teacher effectiveness obtained from two different SET formats and determine factors contributing to the student bias. Materials and Methods: Faculty members of first professional were evaluated by MBBS students using a SET-I questionnaire already in use. Faculty perceived types of bias were documented using a separate semi-structured questionnaire. Based on this, a second SET-II questionnaire with Likert scale was designed and filled out by the same students as before. The faculty was apprised of the scores granted to them, and their acceptance of the preferred SET format was determined with the help of another questionnaire. Results: Ratings obtained from 71 students using both the SET-I and SET-II formats showed no difference. However, the level of students satisfaction with teacher effectiveness, compared with the total teacher score, indicated that when a score of the faculty was below 50%, the level of students satisfaction reduced considerably. The major causes of perceived negative bias identified were strictness, seniority, gender, classes taken, less interest in the subject, and lower student grades. SET-II was preferred by faculty but didn’t eliminate all bias factors. Conclusions: Although it was not possible to remove all causes of bias from the modified student questionnaire, the faculty perception of bias affecting the students rating seems to be largely ungrounded as there was no difference between the scores obtained.

Key words: Effectiveness, evaluation, student, teacher

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Introduction

Teaching is a complex process that involves the interweaving of content knowledge, pedagogy skills and knowledge and appreciation of the multi-faceted nature of students too, in the end, be able to point to evidence that learning has occurred.[1] Since the primary purpose of institutions of higher education is teaching, it becomes necessary to have a measure of teaching effectiveness. This can be carried out through a variety of ways such as student ratings, peer ratings, self-evaluation, videos, student interviews, alumni ratings, employer ratings, administrator ratings, learning outcome measures, and teaching portfolios.[2] Of the various procedures in place, student evaluation of teacher (SET) effectiveness is a significant method for assessing the teaching effectiveness of college teachers.[3,4] Despite this, student evaluations of teaching performance is still a controversial tool in the improvement of teaching quality.[5] Fundamentally, student evaluations of teaching serve two purposes. From a formative (or developmental) perspective, the evaluations can be used to provide...
feedback to faculty in order to help them to improve their teaching or alter lesson content. Evaluations may also serve summative (or administrative) purposes for organizational decisions regarding the faculty. The SET process is typically implemented by asking students at the end of the academic semester or year to rate the teaching effectiveness of their instructor by anonymously completing a questionnaire. The items included in such evaluation forms refer to various dimensions of perceived teaching effectiveness (e.g., the ability of the instructor to communicate clearly), as well as characteristics of the taught educational content. The completed questionnaires are analyzed by designated entities within the university, and the results are returned to the department administration and the instructor for review. Since student evaluation of faculty is an essential part of the academic process, the study was designed to compare with two formats of SETs with a view to determine the method with minimum bias. The study aimed to compare the student ratings of teacher effectiveness obtained from two different SET formats, determine different factors contributing to student bias, and established the preferred SET format with minimal perceived bias.

Materials and Methods

This research study was conducted at a medical college in the state of Uttarakhand, after obtaining due permission and clearance from the Institutional Research and Ethics Committee. Faculty teaching the MBBS students of first professional were evaluated. An ongoing method for student evaluation of teaching effectiveness using a marking questionnaire (SET-I format), was already in place. First-year medical students of the class of 2013, who had recently cleared the first professional examinations (n = 71) were assigned numbers 1–71 randomly. These students were administered the SET-I format as per routine protocol of the institute. Percentage scores obtained by the faculty using the SET-I format were calculated.

Using a semi-structured questionnaire the perceptions and acceptability of the faculty regarding the SET-I format were recorded. The types of bias, as identified by the responses of the faculty, were also determined from this feedback. Taking these into consideration, as well as other suggestions given by the faculty, a new questionnaire based on a Likert scale was devised (SET-II format). The SET-II format was also administered to the same MBBS students as before, and the rating obtained by the faculty from both formats was compared. The faculty was apprised of their obtained scores, and their acceptability of the preferred type of SET format was determined with the help of another semi-structured questionnaire.

Results

On comparison of the faculty ratings between the SET-I and SET-II formats, no significant difference was observed [Table I and Figure 1].

The percentage satisfaction of the students with the individual faculty as an effective educator is depicted in Figure 2 a comparison of the level of student satisfaction with teacher effectiveness with the total student ratings [Figure I], showed that with a decrease in total score of faculty below 50%, the level of student satisfaction reduced considerably. Over 78% of the faculty perceived that faculty friendliness with students was a major cause for positive bias. 71% felt that strict faculty would face a negative bias. 64% faculty felt that students would show positive bias toward senior faculty and those who had a number of classes. The opinion was equally divided for gender as a possible cause for bias [Figure 3]. Furthermore, the analysis of the responses obtained from the second faculty questionnaire showed that although they were satisfied that student bias would be less if the SET-II format were used, they still felt that some further modification of the format was required.

Table 1: Mean faculty ratings by two formats

| SET-I format | SET-II format | t       |
|--------------|---------------|---------|
| 72.47±14.99  | 71.46±14.75   | 1.4479  |

SET: Student evaluation of teacher

Figure 1: Comparison of student ratings from student evaluation of teacher-1 and student evaluation of teacher-2

Figure 2: Students perception of the faculty as an effective educator
Discussions

Research evidence shows that better teachers improve student outcomes. Although student ratings should serve as feedback to the faculty for self-improvement, many of them view the process as a matter of concern. There is a belief that these ratings reflect little more than popularity. This has been observed in the present study as well. The study made an attempt to address these issues by changing the format of the SET. However, it was not possible to eliminate all elements of perceived bias. The limitations of the study were the small sample size and the fact that it was conducted only for first professional faculty. The research was conducted in order to get some preliminary results that could be used as a direction for future researches in this field. Results from this study will be used for practical improvement of the existing questionnaires, as well as for working with students on their evaluation skills as participants in the appraisal of the educational process.

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Conflicts of interest

There are no conflicts of interest.

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