Preliminary Evidence On The Relation Between Mid-Semester Instructor Feedback And Students' Perceptions Of Class And Instructor Variables*

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Abstract

Student evaluations of teachers (SETs) are commonly used in many universities as a measure of instructor performance. However, there is controversy regarding the validity of SETs. Research has identified and studied many variables that might affect students' ratings of teachers and their perceptions of the class environment, and the results are mixed regarding the relation among and effects of the variables. Obtaining mid-semester instructor feedback might affect how students perceive the instructor, especially if a particular concern is consistently identified and the instructor responds to the concern. Additionally, student performance might increase. Thus, mid-semester instructor feedback is one variable that might have a significant impact on SETs but it has gone unstudied. This paper contains the results of a study designed to determine the impact of mid-semester instructor feedback on student evaluations of the instructor and various variables of the class environment. The results indicate that students in classes that used the feedback (IF) did not perform better than students in classes that did not use the feedback (NIF); however, students gave higher ratings to the instructor and certain class variables in the IF courses than in the NIF courses.

1.0 Introduction

Student evaluations of teachers (SETs) are a widely used measure of instructor performance. Calderon and Green (1997) found that 95 percent of department heads used SETs to evaluate faculty teaching performance. SETs are used in promotion and tenure decisions, and in some instances may be the only measure of instructor performance. Although there is widespread use of teacher evaluations, there is debate over the validity and usefulness of them. Previous research has shown that many different variables might affect the rating an instructor receives, and that some of these variables might be beyond the control of the instructor. Additionally, different studies have found different variables to be related to the ratings an instructor receives, and some studies conclude that "other" variables must have influenced the student ratings. Wright et al. (1984) note that the influence of extraneous variables beyond the instructor's control reduces the validity of SETs; for example, Watkins (1994) found student nationality affected student ratings of instructors. Crader and Butler, Jr., (1996) suggest that teachers have less control over their ratings than is commonly believed. Yet Cashin (1988 and 1995) suggests that SETs are more reliable and valid than other measures of teaching effectiveness. This contradictory evidence adds further confusion and controversy to the use of SETs.

This paper presents the results of a study designed to determine if one of the "other" variables (mid-semester instructor feedback) has an effect on student evaluations of instructors and certain class variables. No studies of SETs in accounting courses empirically analyze mid-semester instructor feedback, yet it could have a significant impact the evaluations. This study analyzes student responses to 23 items on a teacher evaluation form

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as well as certain student demographics. Correlation analysis and tests of means are used to determine if mid-semester instructor feedback is related to (1) satisfaction in a specific accounting course, (2) student rating (evaluation) of the teacher in that accounting course and (3) other class variables. The results indicate that such feedback is related to student satisfaction in the course, students' ratings of the instructor and certain other class variables. The remainder of this paper is as follows. The next section reviews some of the literature about evaluations in general and then looks closely at studies dealing with the feedback. Next, the research method is described. The results section follows this. The paper concludes with an implications and conclusions section.

2.0 Literature Review

2.1 Student Evaluations In General

SETs are frequently used to evaluate instructor performance, and in some instances may be used exclusively (Green et al. 1994; Calderon et al. 1996). In review articles, Cashin (1995) and Rebele et al. (1998) indicate that numerous variables have been found to be related to, and to not be related to, the ratings students give instructors on SETs (e.g., student gender, student motivation, expected grade, student GPA, class size and time, year in school, etc.). Green et al. (1998) also note that numerous variables have been studied with conflicting results regarding how and if they affect student ratings on the SETs. In these reviews, mid-semester instructor feedback never is mentioned as a variable used in the studies.

In addition to variables that may correlate with student ratings of instructors, student evaluation forms may contain items that students cannot effectively evaluate. Calderon et al. (1996) suggest that the forms contain numerous items for which students have no adequate basis to make a judgment. Green et al. (1998) evaluate the content and face validity of SETs used in accounting departments of doctoral and non-doctoral granting institutions. They found that more than 60 percent of SETs include at least one item that requires students to make a judgment for which they have no basis, 30 percent do not contain demographic and contextual items, and 20 percent capture no information on certain variables of teaching effectiveness.

Whether students are consistent in the evaluation behavior also might affect the ratings in SETs. Bailey et al. (2000) evaluate the consistency with which students utilize information in evaluating different instructors and courses. They found significant differences between the models students used to evaluate instructors of different courses and different instructors of the same course. They suggest that other extraneous variables might be influencing students' evaluations.

The results of studies above indicate that, at best, there are mixed findings regarding the effects of various factors on student ratings in SETs. The results also indicate that there might be many factors involved and that "other" factors might influence the students' ratings of teachers. It also is clear that the effect of mid-semester instructor feedback on ratings of instructors has not been studied empirically in accounting, and has not been studied in many business courses. The next subsection reviews studies addressing the feedback issue.

2.2 Studies Dealing With Feedback

There are a limited number of studies dealing with the effects of mid-semester instructor feedback on SETs and student performance in the class. Miller (1971) found that end-of-semester student ratings of teaching assistants (TAs) who had received feedback during the semester did not differ from end-of-semester ratings of TAs who had not received the feedback. However, Centra (1973) found that student ratings of certain instructor and class variables for instructors who used mid-semester feedback increased in subsequent semesters. He concluded that the instructor needs time to interpret the feedback and to change instructional practices.

Cohen (1980) analyzed 22 studies dealing with feedback (12 were unpublished) and found that 10 of the 22 reported significantly higher ratings for the instructor who used feedback during the semester. He also noted that student performance data were available in three of the studies (four comparisons), and in none of the comparisons were the performances statistically different.

Angelo and Cross (1993) note that focused feedback during the term helps the instructor make adjustments to improve teaching, but they do not empirically test this. Finally, Beard (1993) used classroom assessment techniques (including student feedback during the term) to evaluate the use of quizzes in class. She also did not empirically test to determine the effects of such feedback.

The assumption behind these studies is that: (1) the feedback leads to a change in instructor behavior; (2) this change leads to improved instruction; and (3) the improved instruction leads to increased student ratings of the instructor. An alternative model is possible. The change in instructor behavior (if the instructor changes said behavior) does not lead to an improvement in instruction, but rather, the students perceive that the instructor is more willing to listen to them. This perception makes the students feel that they are more involved in what is happening in the classroom, and these feelings of involvement lead to higher student evaluations of the instructor.

This second model is supported by various theories. Williams et al. (1988) note that one element of instructional quality is the existence of a positive relationship between the instructor and students. Babbar (1985) suggests that key elements of total quality management (TQM) apply to the teaching context just as they do to business. One aspect of TQM is employee participation and involvement. An instructor who obtains mid-semester feedback perhaps projects an image of someone who wants to have a positive relationship and who is willing to have his students involved with the overall learning process, and this helps to enhance the student-instructor relationship. This feeling of involvement and enhanced relationship could affect students' perceptions of instructor and classroom variables and could affect student performance. This is the basis of the research question in this study.

3.0 Research Method

This study is designed to determine the relation between mid-semester instructor feedback and (1) student ratings of instructors, (2) student ratings of other class variables, and (3) student performance. The instrument used is a SET form required of all school of business administration faculty at a mid-western university. Correlation analysis and tests for differences in means are used to analyze the data.

3.1 Questionnaire And Subjects

The questionnaire (SET) was administered to students in Federal income taxation classes of one professor. The SETs were administered during the last week of classes of the fall and spring semesters. Mid-semester feedback was obtained from half of the classes during the terms. Thus, one-half of the classes gave mid-semester feedback and one-half did not give the feedback.

The same professor was used to control for and test for the effects of obtaining feedback in and of itself. Any changes the professor made in his teaching behavior was done in all sections of the course, not just in the sections where the feedback was obtained. As such, if instructor quality improved then it should have improved in all sections and there should be no perceived differences in instructor quality. There also should be no significant differences in the students' ratings of the instructor and other class variables; nor should there be a significant difference in student performance. However, if the students who gave feedback feel more involved or feel like they have an enhanced relationship with the instructor then there may be significant differences in the students' ratings of the instructor and other class variables and in student performance of those students verses the students who did not give feedback.

The questionnaire contained 23 questions dealing with general variables of the class environment and the instructor. One of these questions specifically asks the student to rate the instructor and one asks the students about their satisfaction with the course. All questions used a five-point Likert scale, where 0 = strongly disagree and 4 = strongly agree. The values for the satisfaction question were 0 = very dissatisfied and 4 = very satisfied. Additionally, students were requested to indicate their gender, overall GPA, class standing, expected grade, and class time. Finally, the feedback variable was coded as 1 if no mid-semester feedback was obtained and 2 if mid-semester feedback was obtained. Table 1 contains the variables used in this study.

Table 1 Instructor/Course Questionnaire

	Question*
1.	Instructor communicated performance expectations
2.	Instructor had high academic standards
3.	Students were challenged to think
4.	I learned more in this course than in other courses
5.	Instructor was well prepared
6.	Exams were challenging
7.	Regular attendance was important
8.	Instructor explained material clearly
9.	Students were free to ask questions
10.	Instructor displayed interest and enthusiasm toward materials and course
11.	Instructor dealt with questions effectively
12.	Instructor was available outside of class
13.	Time outside of class was helpful
14.	Course goals were clearly defined
15.	Course workload was greater than other courses
16.	Subject matter was interesting
17.	Exams were consistent with course goals
18.	Exams were returned on time
19.	Outside assignments were helpful
20.	Instructor was excellent
21.	Course was excellent
22.	Student received high quality instruction
23.	Student was satisfied with the course

*All responses based on a five-point Likert scale, where, for questions 1 – 22, 0 = strongly disagree and 4 = strongly agree, and for question 23, 0 = very dissatisfied and 4 = very satisfied.

4.0 Results

Previous research on SETs notes that different variables might affect the ratings. Correlation analysis and analysis of variance indicated that gender, overall GPA, class standing, and class time were not significantly correlated with the variables of interest. As such, Pearson correlation coefficients and tests of means are used to identify significant relationships between the variables.

Panel A of Table 2 contains the significant Pearson correlation coefficients between the feedback variable and the instructor and course variables. Student performance (as measured by expected grade) was not significant (and therefore is not shown). Mid-semester feedback was not significantly related to student performance in the course. However, student satisfaction with the course was significantly related to whether the students received feedback.

Panel B of Table 2 contains the means for student satisfaction ratings of the feedback and no feedback groups. The mean satisfaction rating for the feedback group was 3.523 and it was 3.073 for the no feedback group. The difference in means is significant at the .05 level. These results indicate that students who provided feedback were more satisfied with the course.

Students' ratings of the instructor also were significantly related to the feedback variable. The Pearson correlation coefficient was significant at the .09 level. The difference in the mean rating of the instructor was 0.361 (3.684 vs. 3.323), which is significant at the .09 level. Students who provided mid-semester feedback rated the instructor higher than those who did not provide the feedback, even though the quality of instruction was the same for all groups.

Table 2 Relation between Feedback and Certain Instructor and Class Variables*

Panel A: Pearson Correlation Coefficients

Variable	Pearson Correlation Coefficient	Significance Level
Instructor rating	0.209	.09
Instructor interest and enthusiasm	0.226	.07
Instructor dealt with questions	0.333	.01
Students free to ask questions	0.317	.01
Exams were challenging	-0.219	.08
Student satisfied with course	0.279	.05

Panel B: Means of Instructor Rating and Student Satisfaction**

Variable	Feedback	No Feedback	Significance Level
Instructor rating	3.684	3.323	.09
Student satisfied with course	3.523	3.073	.05

*Only significant variables presented in this table.
** Means are based on a five-point Likert scale, where, for questions 1 – 22, 0 = strongly disagree and 4 = strongly agree, and for question 23, 0 = very dissatisfied and 4 = very satisfied.

A review of Table 2 also indicates that four other instructor/class variables were significantly correlated with the feedback variable. Students in the feedback group rated the instructor as being more effective in dealing with their questions and also felt that more comfortable in asking questions than did the no feedback group. The feedback group also rated the instructor displaying more interest and enthusiasm for the course and the materials covered in the course than did the no feedback group. Finally, the feedback group felt that the exams were less challenging than did the no feedback group (again, expected grade was not significantly related to the feedback variable).

5.0 Implications And Conclusions

The results of this study indicate that mid-semester feedback does affect how students perceive the instructor and the course. Even though teaching quality was constant throughout all sections of the course, students who provided mid-semester feedback gave the instructor a significantly higher rating than did those students who did not provide the feedback. The feedback group also was more satisfied with the course and rated other class/instructor variables more highly than did the no feedback group.

The results clearly indicate that a formal feedback mechanism used throughout the semester can have a positive effect on students' perceptions of the instructor and the course. However, this effect occurs even though the quality of instruction remained the same for students in the feedback and the no feedback groups. Thus, if some instructors use the technique and others do not, then the results of the SETs may be misleading – they might not represent measures of differences in teaching quality. 🕮

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