

Does a Student's Status as a Scholar Affect His Evaluation of Instruction?

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Abstract

Study indicates student's status as a scholar may affect his rating of instruction. Author suggests this variable should be recognized by instructors and administrators seeking to use student evaluations of instruction.

Opinions as to the usefulness of student evaluations of instruction are nearly as numerous and variable as the people expressing them. Some contend that these should have considerable influence on administrators' decisions concerning salary increases and promotions. Others are just as emphatic in saying that administrators should give student evaluations of instruction no consideration whatever in arriving at such decisions.

It seems likely that these two extreme points of view are held, respectively, by instructors who, by and large, receive favorable ratings by students and by those who receive generally unfavorable ratings. Undoubtedly, the "truth" about the value of student evaluations of instruction lies somewhere between the extremes. Student evaluations are not a panacea to all of the administrator's problems in assessing the teaching competence of his faculty members, nor are they completely worthwhile.

Evaluation Is Complex

Increasing demands, both internal and external, on colleges and universities for "accountability" are difficult to meet in the area of teaching because evaluation of teaching is an extremely complex and difficult problem. However, those engaged in research in education have given it a great deal of attention, as evidenced by the extensive review of Kulik and McKeachie (2). Student variables such as sex, age, grades, major area of study and general disposition toward instructors and instruction have been investigated as to their relationship with student evaluation of instruction.

From the review cited, it appears that general disposition toward instructors and instruction is most important with respect to within-class differences in ratings given by students, while the other student variables, are of trivial importance. However, related to the matter of grades, the reviewers concluded that

"...if the instructor teaches for the bright students, he will be approved by them and there will be a positive correlation between ratings and grades; if he teaches for the weaker students, he will be disapproved by the bright students and a negative correlation will be obtained..."

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Purpose

The primary purpose of the present paper is to report the results of a correlation study of limited data involving grades in general in the hope of encouraging others to undertake similar studies of more extensive data. From such studies, adjustment procedures might be devised for administrators to use in validly and "objectively" incorporating results of student evaluation of instruction into their ratings of teachers or the individual instructor might use this knowledge to better interpret apparent changes in the evaluation of his instruction by successive classes.

Many teachers have suspected that a student's opinion of various aspects of instruction is affected by the student's status as a scholar. Thus, a secondary purpose of the study reported here was to examine the limited data available to the author to determine if they contain any evidence to support the belief that the "better" a student is, the more "tolerant" he is of instructors and their instructional procedures.

Materials and Methods

Students, enrolled in eight successive classes in a basic genetics course instructed by the same person, anonymously completed standard Student Reaction to Instruction (SRI) forms. The number of students per class ranged from 32 to 62. The students in the classes were juniors and seniors who had completed from 90 to 135 quarter hours of course work prior to taking the course in question. Each student's cumulative grade-point average (GPA, 4 points for each credit hour of A, 3 points for each credit hour of B, etc.) was available to the instructor and was used as an indicator of level of apparent scholarship, that is, to array students as to "brightness" ("bright" being the adjective used by Kulik and McKeachie, 2).

Calculated from the data on these eight classes were coefficients of correlation between class mean GPA and class mean rating of various aspects of instruction. From the smallest class (32 students), it was possible to calculate coefficients of correlation between individual student's GPA and individual student's rating without destroying student anonymity since there were at least two students in the class having each GPA value represented.

Results and Discussion

The coefficients of correlation obtained are presented herewith in tabular form. The values shown are conventional product-moment correlation coefficients. It may be argued that neither of the variables involved in

Correlations Between Student GPA and Student Ratings of Instruction

Aspect of Instruction Rated	Correlation between			
	Class Mean GPA and Class Mean Rating		Individual GPA and Individual Rating	
Topics covered (1-too many thru 5-too few) ³	0.82*	(0.27, 0.97) ²	0.35*	(0.00, 0.62)
Instructor's enthusiasm	-0.75*	(-0.95, -0.10)	-0.37*	(-0.64, -0.04)
Instructor's ability to stimulate learning	-0.71*	(-0.94, -0.01)	-0.36*	(-0.63, -0.01)
Content of text and reading materials	-0.68	(-0.94, 0.05)	-0.28	(-0.57, 0.08)
Interest of text and reading materials	-0.65	(-0.93, 0.10)	-0.23	(-0.54, 0.13)
Amount of work required out of class (1-too much thru 5-too little) ³	-0.15	(-0.77, 0.62)	-0.12	(-0.45, 0.24)
Clearness of test questions	-0.81*	(-0.96, -0.24)	-0.36*	(-0.63, -0.01)
Fairness in grading	0.14	(-0.62, 0.77)	0.10	(-0.43, 0.25)
Hardness in grading (1-too easy thru 5-too hard) ³	-0.88**	(-0.98, -0.46)	-0.37*	(-0.64, -0.02)
Overall value of course to student	-0.85**	(-0.97, -0.36)	-0.49**	(-0.72, -0.17)
Overall effectiveness of instructor	-0.72*	(-0.94, -0.03)	-0.43*	(-0.68, -0.10)

- 1 Correlations in the first column are those between class mean GPA and class mean rating, eight classes represented. Those in the second column are correlations between individual student GPA and individual student rating in one class of 32 students in which it was possible to use individual GPA without destroying the anonymity of students completing the questionnaire since there were at least two students in the class having each GPA value represented.
- 2 Values in parentheses are approximate limits of 95% confidence interval for the correlation coefficient estimated.
- 3 The rating scale for all other aspects was 1-excellent thru 5-poor.
 - * Probability of chance occurrence, P, $V0.05$
 - ** Probability of chance occurrence, P, $V0.01$

any of the correlations is normally distributed and that, therefore, rank correlations would be more appropriate than product-moment correlations. However, in the present case, general impressions one might gain from studying the correlations would be the same, irrespective of the type of correlation calculated.

Generalization on the basis of these correlations is certainly not justified since they were calculated from data provided by a small number of classes in a single course instructed by only one instructor. The extremely wide confidence intervals are the inevitable consequence of small numbers. We cannot have much confidence in any knowledge of magnitude of correlation which these values convey. However, in the case of the calculated values which are large enough to be declared significant ($P > 0.05$ or $P > 0.01$), we can have some confidence about the sign of the correlation.

Several of the correlations make it appear that the instructor teaches for the "bright" students. At least, that is the impression one might gain on the basis of the conclusion of Kulik and McKeachie (2) quoted earlier. The instructor in the present case contends that he "teaches for all students" with the intention that every student meet what might be considered to be above-average requirements as to scholastic performance, extra individual attention being given students whom the instructor senses to be in need of such attention. The fact that some students do not meet the requirements, since they receive a grade other than A, must be partly due to the instructor's failure to sense certain students' needs for extra individual attention. The correlations do indi-

cate that, in general, the better a student's GPA, the better were various aspects of instruction rated on the student's SRI form.

The largest correlations found (those ranging from 0.65 to 0.88 in the first column of correlations in the table and from 0.23 to 0.49 in the second column) were for cases in which the ratings were distributed over the 1 to 5 range of ratings with the highest frequencies being those of ratings of 1 and 5, while the four cor-

relations smaller than 0.2, concerned with amount of work required and fairness in grading, resulted from the ratings not being distributed over the 1 to 5 range but tending to be concentrated. In the case of amount of work required, the ratings were concentrated in the middle of the rating scale, the majority being 3 and no ratings of 1 or 5 being given. The ratings of fairness in grading were concentrated below 3 on the rating scale, only 1's and 2's being given. In other words, there seemed to be little variation in student opinion of these two aspects of instruction.

Some of the correlations in the first column of correlation in the table may, at first glance, seem surprisingly large as compared to similar correlations found in studies reviewed by Kulik and McKeachie (2), but it should be remembered that these seemingly large correlations are correlations between means. Such correlations, when resulting from a real relationship, will always be higher, often considerably so, than correlations between individual values within the groups from which the correlated means were calculated. The correspondence in levels of significance attained by corresponding correlations in the two columns of the table tends to strengthen the conclusion that the values followed by asterisks are indeed estimates of real underlying relationships worthy of attention in efforts to assess the instructor's effectiveness on the basis of student evaluations.

None of the studies reviewed by Kulik and McKeachie (2) included a variable comparable to the GPA used in the present study. Most previously reported studies of relationship between student achievement and student rating of instruction were concerned with student achievement in only the course in which instruction was evaluated. For obvious reasons, student evaluations of instruction are usually anonymous with respect to individual student variables. Large numbers of classes are required to make such correlations meaningful and significant. Dubin and Taveggia (1) performed a reanalysis of

nearly 100 comparative studies and showed a lack of evidence for any differences in student evaluation of instruction which could be attributed to differences in student achievement in the particular courses in which instruction was evaluated by students. In contrast, the results of the present study provide some evidence that students' overall level of scholarship, as reflected by achievement in all courses, has some bearing on their evaluation of instruction in the course providing the present data.

Summary and Conclusions

The correlations from the present study appear to support what many teachers have suspected, *viz.*, that a student's opinion of various aspects of instruction is affected by the student's status as a scholar. Since student GPA's are a matter of record, the instructor should, at the beginning of a course, give some attention to the average GPA of the students enrolled and let this information guide him in planning instructional procedures for that offering of the course to make it as valuable as possible for that particular group of students as a whole, and individual GPA's should be used as a guide in determining the amount of individual attention to give, with as much subtlety as possible, to individual students in the class. Also available to the instructor are grades earned in prerequisite and related courses which also can provide some guidance to the instructor in planning for his instruction of a particular class.

Before having undertaken the study described here, the author was confused by the lack of consistent trends from term to term in student ratings of various aspects of his instruction. He has made a practice of carefully reviewing the summaries of the SRI (Student Reaction to Instruction) conducted in his classes. After studying the latest results of student evaluation, he has deliberately made efforts to change his instructional procedures in ways which would seem likely to result in improved student opinion. Realized improvement has appeared somewhat inconsistent and "spotty" on the basis of unadjusted student ratings. However, when class mean ratings are adjusted to remove from them variation attributable to regression on class mean GPA (for those aspects of instruction in which class mean rating was significantly correlated with class mean GPA), a slight but consistent improvement in student opinion is reflected by the adjusted ratings.

Of all evaluations of a teacher's performance, student evaluations are easiest to obtain. Student evaluations have certain advantages over ratings by col-

leagues, administrative superiors or the teacher himself. Students are the consumers for whom the teacher's product is intended. They observe his performance on a "day in and day out" basis, and this constant exposure is believed by many observers to more than offset the possible disadvantages of lack of age and experience on the part of students. The author shares this view and believes that student evaluations of instruction should be given serious attention by administrators and by the teacher himself in current evaluation of instruction and in planning for improvement.

References

1. Dubin, R. and T. C. Taveggia. *The teaching-learning paradox: A comparative analysis of college teaching methods*. Eugene, Oregon: The University of Oregon, 1968.
2. Kulik, J. A. and W. J. McKeachie. The evaluation of teachers in higher education. The University of Michigan. To appear in: *Review of Research in Education*, Vol. 3. Kerlinger, F. N. (Ed.). (Cited with the permission of the authors.)

Report of the NACTA Teacher Recognition and Evaluation Committee Lincoln, Nebraska, June 23, 1974

1. First, thanks to my committee members for the help they have given me this year. Without their help the committee's work would never have been done.
2. The membership must continue to nominate or have nominated outstanding teachers for NACTA's teaching awards. It takes effort, but most worthwhile things take effort. As the result of many persons' efforts the following individuals were recognized:
 - a) Dr. Donald A. Emery, North Carolina State University, Ensminger-Interstate Distinguished Teacher Award.
 - b) Dr. Robert J. Selkirk, California State University, Fresno, NACTA Teacher Fellow.
 - c) Dr. Robert R. Shrode, University of Tennessee, Knoxville, NACTA Teacher Fellow and NACTA Southern and Puerto Rico Regional Distinguished Teacher Award.
3. The initiation of NACTA's Teacher Fellow Award last year helps to meet one of NACTA's goals—recognition of good teaching by being able to recognize more than a single individual. It also insures outstanding nominations of the coveted Ensminger-Interstate Distinguished Teacher Award. Still under investigation is an annual monetary award for the top Teacher Fellow of each region.
4. Regarding the charge from the Executive Committee to investigate a possible award for meritorious service to NACTA and/or teaching, the committee recommends the approval of a NACTA Distinguished Educator Award for meritorious service to Agriculture Education through any or all of the following: NACTA, Teaching, Education research, Administration, etc. with implementation for 1975 depending on approval of specific criteria regarding the award at September's Executive Committee meeting.