

Teacher Rating

Versus

Backgrounds of Enrollees

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The demand for accountability for results in college is a demand (for teachers and administrators) which calls for changes of such magnitude and nature as to warrant the term — “basic reforms” (7). Administrators tend to feel that evaluation of performance in research is easier than that for the performance in teaching endeavors. Should that be the case, and we are not convinced, more intense effort by the administrator should be made to study what makes a good scorecard system for teacher evaluation. To us teacher evaluation is a very complex process and much more careful and intense scrutiny must be made of a teacher’s performance before judgment is passed regarding his value in the total instructional effort in a teaching program. That some teachers have doubts about the capability or qualification of administrators and/or peers to judge good teaching is expressed in the quotation, “Peers and administrators tend to be unreliable evaluators of teachers. There is a growing interest in evaluating teachers by measuring student learning” (3). It is not unusual for a given teacher to be evaluated differently by students, peers, and by administrators (9). When an authoritative figure rates a group of subordinates, the rating will be more highly correlated with patterns of identification established by his own value system than with the actual evaluating criteria established beforehand (4). Rankings of teachers who produced the most student learning were unrelated to rankings made of instructors by their peers or supervisors (2).

Measuring faculty teaching performance is an extremely challenging and complex task, yet we must overcome this complicated challenge using persevering scrutiny. It appears that teaching evaluation must include: (a) a measurement of learning by the student (3), and (b) student reaction to and evaluation of both the teacher and the course. However, the authors feel that evaluation of student reaction must be examined carefully and with much more prevision than is now all too commonplace. It is this latter statement which this paper examines in greater detail.

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Materials and Methods

Chi Square tests of independence of both the overall teacher and course rating (5=highest; 1=lowest) of over 600 students enrolled in the Introductory Crop Science course during ten semesters, 1969-1974, inclusive, were run with various enrollee attributes, namely, (a) cumulative grade point index, (b) curriculum, (c) sex, (d) age, (e) class, (f) reason for enrollment in course, (g) class attendance and work input to justify credit. The possible association of the course rating with that of teacher rating was also studied. Both the overall teacher and course ratings and the various enrollee attributes listed above were analyzed using standard analysis of variance. Differences noted are significant at the 5% level.

Results and Discussion

Neither the teacher nor course rating was associated with the college cumulative grade point average of the student. This finding supports that of Guthrie (5).

The student course rating was associated with the area of study or curriculum in which the student was enrolled. (Figure 1) Further, Agricultural Engineering and Animal Science students rated both the course and teacher significantly lower than did Agronomy majors. Thus, for example, 3.95 (Agr.Engr.) and 3.96 (An.Sci.) are significantly lower than 4.28 (Agron.). To further em-

Fig. 1 The Teacher and Crop Science Course Ratings by Students in Different Curricula. (The decimated and associated non-decimated numbers are the rating and respective numbers of students. The unshaded and shaded bars are the teacher and course ratings, respectively.)

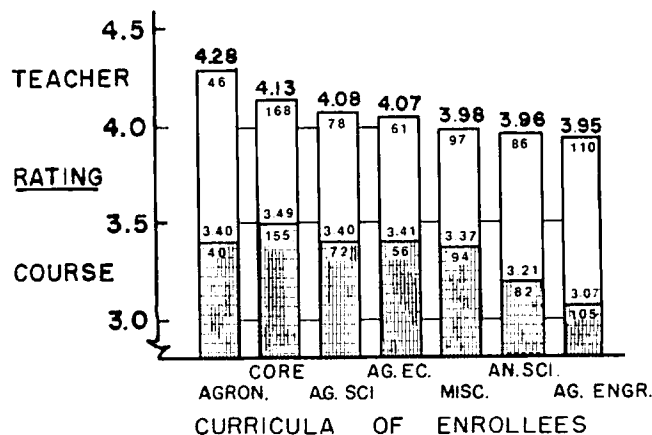
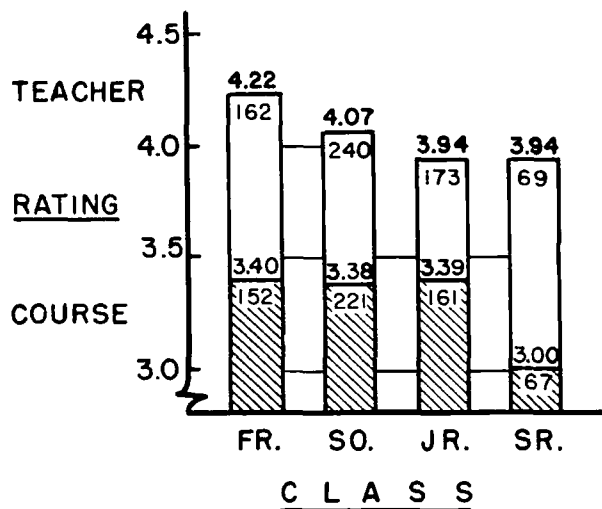


Fig. 2 The Teacher and Crop Science Course Ratings by Students in Different College Classes. (The non-decimal numbers show the numbers of students. The unshaded and shaded bars are the teacher and course ratings, respectively.)



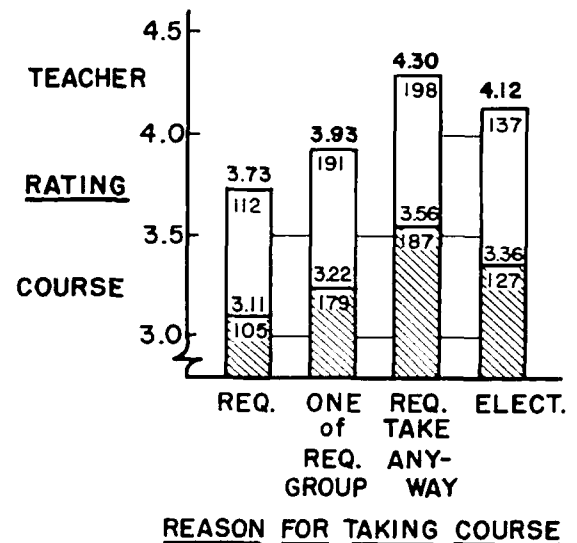
phasize the importance of this on the overall average teacher rating for all students (4.04) note that the total number of Animal Science and Agricultural Engineering students totals 196 whereas that of the Agronomy majors is only 46. Thus, the non-majors with low teacher rating averages (3.95 and 3.96) have about 4 times more (196 vs. 46) influence on the teacher rating than the majors with the highest teacher rating average (4.28). It should be noted that Agronomy-oriented students are unidentified in both the core and agricultural science curricula; however, students in these two areas rate the teacher relatively higher than do students in the other curricula. (The Core program is the basic program for the undeclared major — freshmen and sophomores — in the College of Agriculture. Agricultural Science is the general program which prepares students for research in agriculture; however, the students are not identified as to specialization area in this study.) Based on the above observations, the direct comparison of the average teacher ratings between departments appears to be unjustified because of the apparent biased opinions of students as the latter are identified in different departmental majors. Perhaps even less justified is the administrator who uses the overall university teacher ratings to compare the relative performances of teachers of the university. "It is common knowledge that different kinds of students respond to different kinds of teaching. No single teacher characteristic or set of characteristics guarantee teaching success in all situations with all students" (3).

The student ratings of the course and teacher in Crop Science were highly associated. This was an expected finding. However, there is a possibility that an instructor may be rated high in his teaching performance even though his course is rated low.

The teacher and Crop Science course ratings by students in different college classes is given in Figure 2. The teacher and course ratings of freshmen (4.22 and 3.40) were higher than those of seniors (3.94 and 3.00), respectively. The teacher rating of freshmen (4.22) was higher than that of either juniors or seniors (3.94). While the beginning Crop Science course is specifically aimed at freshmen and sophomores, the instructor would improve his rating as a teacher by students were he to deny junior and senior enrollment rather than being generous and allow late comers. Another implication is that a purely "teacher index based salary increase" would be higher if the course denies upperclassmen enrollment.

The association of the Crop Science teacher rating by students with the reason for taking the course is given in Figure 3. Perhaps the most striking cause for low teacher rating is strict course requirements for a degree. Notice that the average teacher rating (3.73) of the 112 students who enrolled in Introductory Crop Science because it was required was lower than for those who: (a) elected it (137 students with 4.12 rating), (b) would have taken it anyway even though required (198 with 4.30 rating), and (c) chose it as one of a required group (191 with a 3.93 rating). Notice the very high percentages of 1, 2, and 3 ratings coming from the students who take the Crop Science course because it is required in their curriculum; and, conversely, the higher component of 4 and 5 ratings coming from students who elect the course for credit. It appears, therefore, that teachers of Crop Science would improve their instructor rating by offering their course as an elective or as one of a strictly required group. Certainly a basic training in any discipline implies certain learning requirements and standards. We doubt that a course should be made an elective just to achieve higher instructional ratings nor that a course should be required just for the sake of its sacredness. Nevertheless the implications of strictly requiring a course in any

Fig. 3 The Association of the Crop Science Teacher Rating by Students with the Reason for Taking the Course. (The numbers of students participating in each reason rating is given.)



college study program, as it may affect the rating of an instructor by students, are to be respected by the precision minded administrator who seeks fair instructional evaluation.

The teacher and Crop Science course rating by students taking the course for different reasons is given in Figure 4. The average teacher rating by the students required to take Crop Science, 3.73, is lower than the averages, respectively, for those students who would have taken the course anyway even though it was required, 4.30, and for those who chose Crop Science as an elective, 4.12. Further, the average course rating by students who took Crop Science because it was required, 3.11, was lower than the average, respectively, for those students who would have taken the course anyway even though it was required, 3.56, and for those who chose Crop Science as an elective, 3.36.

The association of Crop Science teacher rating by students with class attendance is shown in Figure 5. The highest component of 4 and ratings came from students who attended class most regularly. Conversely, the highest components of the 1, 2, and 3 ratings came from students who missed class more than nine times per semester. The average rating for students who missed class five times or less (4.10 for 582 students) was higher than that for either of the other two higher absence rates, namely 3.81 for 52 students in the 6-9 absence class or 3.11 for the 9 students in the more than 9 absences group.

The Crop Science teacher rating was associated with the age of the student. (Figure 6) We indicated that underclassmen rated the teacher higher than upperclassmen (Figure 2). Figure 6 reflects this same tendency with the exception that those students beyond the normal age for even upperclassmen, that is, those over 24 years — there were only 10 — rated the teacher highest. However, the average rating for the 107 students in the 16-18 age group, 4.34, differs significantly only from the teacher ratings, 3.99 and 4.00, respectively, of the 488 students in the 19-21 age group and the 40 students in the 22-24 age group and not from the 4.60 rating of the 10 students in the above 24 age group.

That students' opinions and ratings of teachers are an important part of college instructional evaluation is not denied. As consumers of teachers' wares, students are in a favored position to evaluate the teacher and the course in the same sense that Aristotle proposed when he said "A guest is a better judge of a feast than is the cook" (1). However, the interpretation of the students' ratings of a course and the teacher must be influenced, at least in part, by the many factors which can affect the students' responses. It might be appropriate to add that at the University of Michigan, instructor friendliness was not correlated with clarity of presentation, course organization, interesting presentation, or overall value of the course (6). McKeachie (8) and Foth (3) concluded that teachers rated effective by students tend to be those teachers from whom students have learned the most.

Fig. 4 The Teacher and Crop Science Course Rating by Students Taking the Course for Different Reasons. (The decimated and associated non-decimated numbers are the ratings and the respective numbers of students. The unshaded and shaded bars are the teacher and course ratings, respectively.)

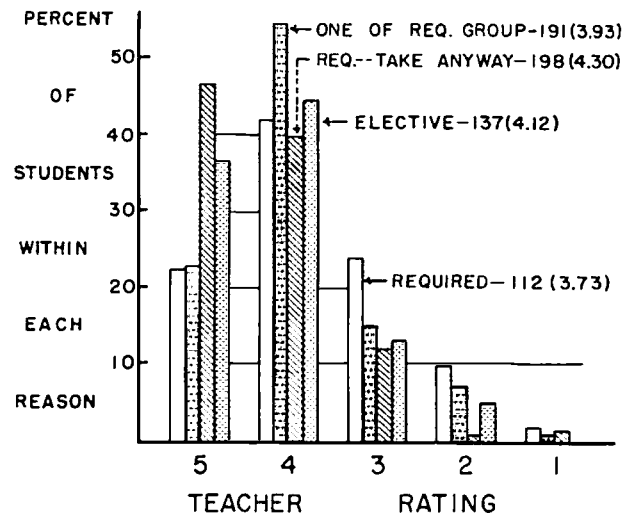
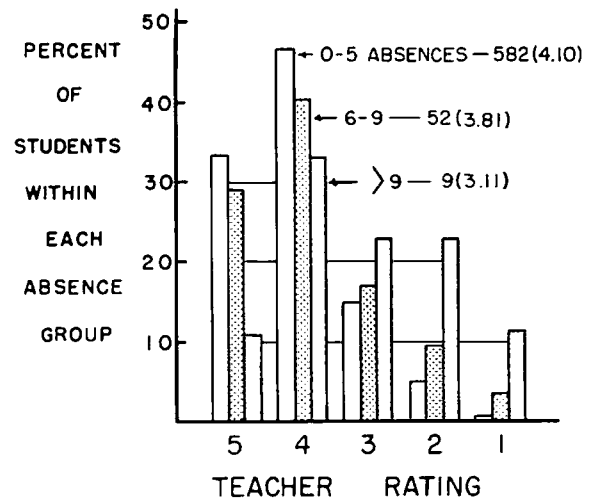


Fig. 5 The Association of Crop Science Teacher Rating by Students with class Attendance. (The number of students participating in the three ratings for three attendance frequencies is given.)

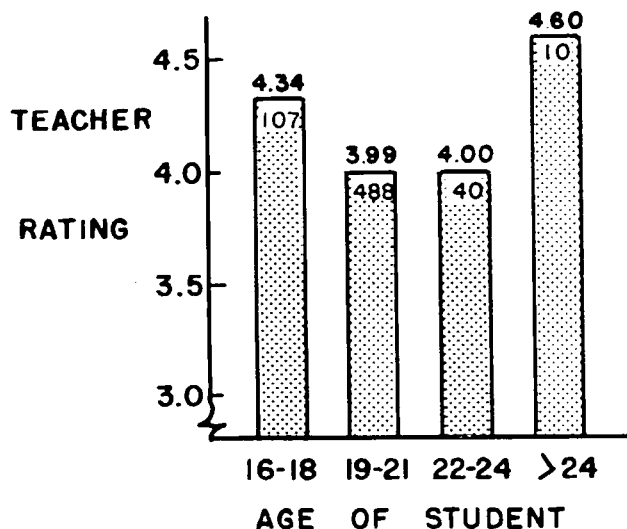


That teacher and course evaluation is an easy task is by no means implied by this paper. However, the data presented herein points out some of the many implications of the possible influences of a teacher and a course rating, as each may be influenced by the nature of the students in a specific course taught by a specific teacher who seeks a more precise and just evaluation by staff who are concerned with teaching.

Conclusions

While student rating of the teacher and course in Introductory Crop Science at the University of Illinois is a vital and important part of instructional evaluation, the interpretation of the students' ratings of the course and

Fig. 6 The Association of Crop Science Teacher Rating with the Age of the Student. (The decimaled and associated non-decimaled numbers are the rating and respective numbers of students.)



teacher by an administrator should reflect recognition by the latter that such ratings are significantly influenced by various attributes of the enrollees as follows:

- (1) Agronomy majors rate the course and teacher significantly higher than do Agricultural Engineering or Animal Science majors; and the latter two groups are a large component of the total enrollment in the course.
- (2) Students required to take Crop Science rate the course lower than those who elect the course for credit. The implication is that an instructor's rating with a high component of students taking the course as required might not be justifiably compared with the instruc-

tor rating of another course which has a high component of elective students.

- (3) Freshmen rate the teacher and the Crop Science course higher than juniors and seniors.
- (4) The Crop Science teacher rating is associated with class attendance — students with high attendance rated the course highest.
- (5) The Crop Science teacher and course rating were highly associated with each other.
- (6) The use of administrators of generalized overall university teacher and course ratings per se to compare the teacher and instructional performances of the teachers directly with each other, without careful and discriminatory guidelines based on the attributes of the students in their classes and the specific rating profile and place a given course has in the program of study, is certainly discouraged and perhaps even very unjust.

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INVITATIONAL PAPER

What Price Evaluation?

Max S. Marshall

Many years ago a medical student, president of his class, finished our course with a carefully computed rating of D. The rank was obviously in error, as wild a price mark as some of those at the nearest grocery. The mark did not match the man. With all its biases, immediate human judgment was a certain improvement on the mechanized alleged value.

The next time around we shifted gears. On the opening day we agreed to guarantee a B for everybody, adding

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that the bottom might fall out for anyone who did not make a reasonable effort, and to discard price marks entirely, none on work done, on our records, and so far as possible none in our heads. The results were startlingly pleasing, and in 1931 this was a novel idea. No longer turned in to be stamped with price marks, notebooks seen at benchside were genuine and improved. Examinations had been dropped, but students wanted them back to test themselves, read for comments, not code marks.

Despite pressures, we chose never to go back to those estimates of value. They were not needed for transferring students, probations, dismissals, scholarships,