

# Outstanding Instructor Study...

## Evidence Indicates Student Evaluation Bias for Major

Alan Reeser

### Abstract

*The following study offers a more objective alternative for students to help identify outstanding instruction in colleges of agriculture. Results also reveal a student bias favoring instruction within the student's major. This bias may become significantly important when considering student evaluations of college instructors of agriculture.*

### Introduction

The Morrow Chapter of the Fraternity of Alpha Zeta, a scholastic agricultural honorary at the University of Illinois, annually selects an outstanding instructor in the College of Agriculture. Past procedure for this selection was essentially a nonrepresentative popularity contest conducted among the active members of Alpha Zeta at the Morrow Chapter. This process became the subject of considerable criticism from students, faculty, and administrators. In an effort to reduce criticism and enhance the credibility of this award, a selection process employing current scientific tools of instructional evaluation was devised to find the most worthy instructor.

This study helped to determine procedures that could be used by students for selecting an outstanding instructor in agriculture. Data collected also indicates evidence of student bias which may become important in the assessment of instructional evaluations, particularly where comparison is made between instructors within a department or between instructional programs within a college or university.

### Objectives

The purpose of this study is essentially two-fold. First is the objective identification of outstanding instruction in the College of Agriculture at the University of Illinois so it may be recognized and rewarded. The formal recognition of high quality teaching can serve as reinforcement and incentive for the continued improvement of agriculturally oriented education by faculty and administrators. The second purpose is to measure possible bias favoring instruction within the student's major area of interest compared to instruction outside

the student's major area of interest. The identification and further quantification of such a bias could be of significant value in teacher and course evaluation in Agriculture.

### The Process

The following procedure was developed in an effort to improve the process of choosing the outstanding instructor of the College. The student agricultural organizations, representative of all the departments in the College, were asked to nominate one or two deserving instructors from their field of interest. A total of 17 nominations, representing 12 departments in the College, were received. Class rosters from all the courses for the four most recent semesters of teaching were obtained for each nominee. Only the rosters from the four most recent semesters of teaching were chosen. This kept the sample size at a manageable level. It facilitated the process of contacting the students on these rosters as they would currently have campus addresses or would be recent graduates with home addresses in accessible files.

From the class rosters for a given instructor, 30 students were randomly selected to evaluate this instructor by questionnaire. The form used in this process was the Illinois Course Evaluation Questionnaire (CEQ Form 73). This form was chosen because it was readily available and widely used at the University of Illinois as well as other institutions, data processing and counseling services for the CEQ were easily accessible on this campus, and the statistical reliability of this form has been tested and proved. Thirty CEQ forms were prepared on each instructor and one was mailed to each of the 30 students selected to evaluate that particular instructor (Figure 1). Also included in the mailing were a list of the

ALAN REESER makes NACTA Journal history in this issue by becoming the first undergraduate student to submit a manuscript which passed the close scrutiny of three reviewers with recommendations to the editor that it be published. It is hoped that his effort might set a model for future efforts by other students. Alan is at the University of Illinois majoring in animal science with special emphasis in agricultural economics. He is a former chronicler of the Morrow Alpha Zeta chapter and is the 1974-75 recipient of the Burkett-Cunningham-Dennis Award, the highest award made by the national Alpha Zeta Foundation. He plans to do graduate work in Agricultural Economics.



**FORM 73 ILLINOIS COURSE EVALUATION QUESTIONNAIRE CEQ**  
 Measurement and Research Division, Office of Instructional Resources The Board of Trustees of The University of Illinois, 1972

**MARK:**  
 SA IF YOU STRONGLY AGREE WITH THE ITEM  
 A IF YOU AGREE MODERATELY WITH THE ITEM  
 D IF YOU DISAGREE MODERATELY WITH THE ITEM  
 SD IF YOU STRONGLY DISAGREE WITH THE ITEM

1. MARK ONLY ONE RESPONSE PER ITEM USING PENCIL ONLY. a) SA A D SD  
 2. ERASE CHANGED ANSWERS CLEANLY AND COMPLETELY. b) SA A D SD

**SAMPLE MARKS**  
 a) SA A D SD  
 b) SA A D SD

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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THE MAJOR INSTRUCTOR THE NAME AND NUMBER

PLEASE PRINT:

OPTIONAL ITEM SECTION II

DC 10-540 OPTICAL SCANNING CORPORATION

PLEASE FILL OUT THE OTHER SIDE

Figure 1 — Example of the Modified CEQ Form Used in the Study

Figure 2— Nominees for 1974 Outstanding Instructor Award

Code Number	Name	Department
01	Raymond N. Hanks	Animal Science
02	Frank C. Hinds	Animal Science
03	David Williams	Agr Ed
04	B. Jack Butler	Agr Eng & Mech
05	R. F. Espenschied	Agr Ed & Mech
06	John J. Hassett	Agronomy
07	Burt W. Ray	Agronomy
08	T. A. Hieronymus	Agr Econ
09	N. G. P. Krausz	Agr Econ (Law)
10	Gertrude Kaiser	Coop Ext Education
11	Del Dahl	Agr Comm (Ext)
12	Marvin Carbonneau	Horticulture
13	Gary L. Rolfe	Forestry
14	J. R. Lodge	Dairy Science
15	Dale Bauman	Dairy Science
16	Ray Woodis	Agr Comm
17	Jim Corbin	Animal Science

Figure 3 — Directions for Completing Enclosed CEQ FORM 73 (May be done in pen or pencil) (Complete only machine scored side)

Enclosed is a list of the instructors nominated for this award by the 14 Ag. Clubs on campus. By the name of each instructor is a two-digit code number and the department he or she works in. The code numbers are to be used in section 5, SPECIAL CODE (See top part of CEQ FORM 73).

In column "a" of the special code section, the code number of an instructor is already given. You are to use rows 1 through 23 (left side of CEQ Form 73) to evaluate this instructor and the course or courses you took or are presently taking under his or her instruction.

Columns "b", "c", and "d" (special code) have been left blank and you are to use them as follows if applicable:

For column "b", select one of the instructors from the list (other than in column "a") that teaches within your major field of interest and code in his name. Use rows 24 through 46 (right side of CEQ Form 73) to evaluate this instructor.

For column "c", select one of the instructors from the list (other than in columns "a" and "b") that teaches outside your major field of interest and code in his or her name. Use rows 47 through 69 to evaluate this instructor.

Finally, from the list of the 17 nominees, choose the instructor who you think is the most outstanding and code his or her name in column "d".

17 nominees for the award (Figure 2) and a letter explaining the award with instructions for completing and returning the questionnaire (Figure 3).

A total of 510 questionnaires, 30 for each of the 17 nominees, were mailed to current students or graduates of the College of Agriculture, thus allowing a higher degree of student participation in the selection. Two-hundred-fourteen forms (42%) were returned but only 180 were used due to the lack of completeness or incorrect markings of some forms, giving a usable return of 35%.

The information contained on the questionnaires was used as follows. A rating given to an instructor by a particular student was determined by assigning a value of 1, 2, 3, or 4 to each of 23 responses on the CEQ form, where 4 was assigned to the most positive answer, 3 to the next most positive answer, and so on. The mean of the values assigned to each of the 23 responses was determined and used as one student's rating of a particular instructor. Obviously the upper and lower limits on this rating were 4 and 1 respectively. A rating determined from this procedure was obtained from items 1 through 23, 24 through 46, and 47 through 69 of each CEQ form used.

All the ratings taken from items 1 through 23 for a particular instructor were averaged to obtain the average rating for that instructor. The average ratings for

**Table 1 — Example of Four Evaluations of Each Instructor**

Instructor's name	Average rating for items 1-23	Number of Students responding	Average rating for items 24-46	Number of Students responding	Average rating for items 47-69	Number of Students responding	Weighted Mean	Responses received in column "d"
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items 24 through 46 were also calculated for each instructor, along with the average rating of each instructor for items 47 through 69. This procedure resulted in three different average ratings for each instructor. The weighted mean of the three average ratings for each instructor was calculated to obtain an overall mean for a particular instructor. The responses in column "d" of the Special Code on the CEQ form were tabulated for each instructor and were used as an additional aid in evaluation. The information determined above was then consolidated for presentation into a table (Table 1).

The data in Table 1 were examined and cutoff criteria established eliminating all but an arbitrary number of top nominees, in this case four. A committee composed of one faculty member, one graduate student, and one undergraduate student from the department of each top nominee was formed. The committee was provided with the information in Table 1 and an explanation of the entire process. After some discussion the committee then decided by elimination voting the recipient of the Outstanding Instructor's Award in the College of Agriculture. The results of the committee's decision were kept secret until the formal announcement and recognition of the recipient at an awards banquet.

### Evidence of Bias

It should be noted that items 24 through 46 and 47 through 69 on the CEQ Form 73 were used to obtain data for evaluating major versus non-major student bias in instructional evaluation, where items 24 through 46 were used to evaluate an instructor who taught within the student's major area of interest and items 47 through 69 were used to evaluate an instructor who taught outside the student's major area of interest. The question to be answered was whether or not students would give more favorable evaluations to instructors within their major field of interest as opposed to instructors outside their major field of interest.

The questionnaires provided information for 180 ratings (observations) for instructors within a student's major area of interest and 180 ratings for instructors outside the student's major area of interest. Each student provided one rating in each of the two categories thus eliminating differences among individuals. The nature of the question at hand lends itself to a one tailed paired-t comparison. The data indicate that student bias favoring evaluations of instructors within their major compared to instructors outside their major were significant at the 1% level. Means were 3.51 for instructors within their major and 2.62 for instructors outside their major.

### Conclusion

The procedure described in this article proved to be an effective means of selecting the outstanding instructor in the College of Agriculture at the University of Illinois. This process is not the ultimate solution for this selection, but it does represent considerable improvement over the controversial and subjective methods used in the past. The results of the test for bias, indicating a significantly higher evaluation of instruction within a student's major area of interest compared to evaluation of instruction outside the student's major area of interest, provide useful information when considering the results of the evaluation questionnaire. As an example, subjective consideration or qualification might be given to the evaluation ratings when comparing an instructor whose classes consist primarily of non-majors with an instructor whose classes consist primarily of majors. Also, high evaluations from students outside an instructor's field of study could indicate high quality teaching.

Conclusions are based on the results of only one study done on a rather small scale. The same procedures outlined in this article are being used again this year for the Outstanding Instructor selection in the College of Agriculture at the University of Illinois. If the results of this year's data concur with those presented here, further research in this area of student evaluation questionnaires may provide valuable information for their future design and use.

### Acknowledgements

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