

## **THE EFFECT OF INSTRUCTOR INFLUENTIAL TACTICS ON EVALUATION BY UNIVERSITY STUDENTS**

by

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### **INTRODUCTION**

The rating of university and college instructors by their students is by no means universally accepted among college staff (Weaver, 1960, p. 21). However, during the past ten years, teacher evaluation by university students has become increasingly important. Many university students are demanding the opportunity to evaluate their instructors. Many colleges and universities are using student evaluation as part of criteria for promotion, tenure, and salary increases. As of 1960, forty percent of institutions of higher learning were using some sort of student evaluation of instruction for this purpose (Rodin and Rodin, 1971, p. 1164). Because students spend more time with instructors than do colleagues or supervisors, they should have some input to evaluation (Guthrie, 1927, p. 176; Spencer and Aleamoni, 1970, p. 1). Also, the ability of one or two persons to evaluate an instructor leaves much to be desired, especially if they disagree on a particular point (Barr, 1961, p. 5).

On the other hand, even though students may know more about an instructor's instructional habits, they may be highly vulnerable to influence by the instructor and may be too immature to provide valid ratings (Aleamoni, 1974). Instructor influential tactics may be conscious or unconscious, subtle or outright.

### **STATEMENT OF THE PROBLEM**

The purpose of this study was to determine the effects of instructor influential tactics on the Illinois Course Evaluation Questionnaire (CEQ) ratings of instructors by Industrial Education and Technology (IET) students at Bowling Green State University (BGSU).

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## SUB-PROBLEMS AND HYPOTHESES

Sub-problem 1: To determine the effect of subtle influential tactics (verbal reinforcement) on the CEQ ratings of instructors by IET students at BGSU.

Research Hypothesis 1: There is no significant difference (.05 level) between the mean CEQ ratings of an instructor by students who have been subjected to subtle influential tactics and those who have not.

Sub-problem 2: To determine the effect of subtle influential tactics on the CEQ instructor sub-score ratings by IET students at BGSU.

Research Hypothesis 2: There is no significant difference (.05 Level) between the mean CEQ ratings of an instructor by students who have been subjected to subtle influential tactics and those who have not.

Sub-problem 3: To determine the effect of outright influential tactics (verbal and food reinforcement) on the CEQ ratings of instructors by IET students at BGSU.

Research Hypothesis 3: There is no significant difference (.05 level) between the mean CEQ ratings of the instructor sub-score questions by students who have been subjected to outright influential tactics and those who have not.

Sub-problem 4: To determine the effect of outright influential tactics on the CEQ instructor sub-score ratings by IET students at BGSU.

Research Hypothesis 4: There is no significant difference between the mean CEQ ratings of the instructor sub-score questions by students who have been subjected to outright influential tactics and those who have not.

## SIGNIFICANCE OF THE PROBLEM

Evaluation of instruction, regardless of who is evaluating, seems to be inevitable. Of the three vantage points for evaluation (supervisor, peer, and student [Swanson and Sisson, 1971, p. 66]) student ratings are the most frequently criticized. If student evaluation is to be used as part of the criteria for promotion, rank, tenure, and salary increases, the validity of students as judges of instructors should be researched.

## DEFINITION OF TERMS

**Subtle Influential Tactics:** verbal reinforcement and praise by the instructor. This consisted of approximately 3-5 minutes of positive statements such as "this class is one of the best I've ever had" (see Procedures) that were given to the students before the final exam and Course Evaluation Questionnaire.

**Outright Influential Tactics:** the same verbal reinforcement and praise by the instructor used in subtle influential tactics with the addition of pretzels, potato chips, and soda that could be eaten before and during the final examination and Course Evaluation Questionnaire.

## SUMMARY OF THE LITERATURE

Most research is supportive of student evaluation of courses and discounts concerns that many have about students as raters. Negative findings are generally based on small samples sizes. Well-designed and validated tests seem to benefit students, administrators, and faculty. Although some sources suggest that students are not mature enough to rate instructors and although others have conducted research which implies stability or maturity, the question of susceptibility of students to influential tactics has never been directly researched (Kerlinger, 1971, p. 353; Rodin and Rodin 1972, p. 1166).

For additional information on the student rating of college teaching the reader is encouraged to study the article by Costin, Greenough, and Menges in the *Review of Educational Research* (1971).

## RESEARCH PROCEDURES

*Design of the Study*

The overall design of the study is summarized as follows:

First Quarter	Second Quarter
$RT_s \rightarrow M$	
$\frac{R \rightarrow M}{-----}$	
	$\frac{RT_o \rightarrow M}{R \rightarrow M}$

- R = Randomization
- T<sub>s</sub> = Treatment/Subtle Influence
- T<sub>o</sub> = Treatment/Outright Influence
- M = Measurement/Course Evaluation Questionnaire (CEQ)

Since there was no opportunity to randomly assign students to courses and instructors, existing classes were randomly divided into two groups. Half of each class was randomly selected as the treatment group and the other half of each class served as the control group. Ratings done by various experimental treatment groups were averaged and compared to the average of the control group.

The measurement instrument used in this study was the short form of the Illinois CEQ (Spencer and Aleamoni, 1970). The CEQ has been in use by the Department of Industrial Education and Technology at Bowling Green State University for the past three years. The CEQ has a reported reliability of .92 in its Manual of Interpretation (Spencer and Aleamoni, 1968 p. 11). The content validity and resulting sub-tests were developed by experts in the educational evaluation.

*Procedures*

The study was conducted at Bowling Green State University in the Industrial Education and Technology Department. The instructors who volunteered to participate in the experiment were graduate assistants who had full instructional responsibilities. In each case the instructor was teaching a lecture/laboratory class. The mean age of the twelve instructors was 23. All were working on master's degrees.

Classes included students from freshmen through senior standing. The majority of students were freshmen and sophomores. The total group of 204 student raters included approximately 60% Industrial Education and Technology majors and 40% non-majors. The total group was 85% male and 15% female.

During the last week of class, each class was randomly divided in half by the researcher. The graduate assistants were then told which was to be the control group and which was to be the experimental group. This eliminated instructor bias in choosing groups. During final examination week, the two groups met separately for examination.

In the first quarter of the experiment, instructors offered subtle oral reinforcement to the experimental group, while the control group was given the final examination in the normal fashion. The oral reinforcement was in semi-script form and read as follows:

The following is a list of statements that you may use or build upon as part of your oral influential tactics. Be as subtle as possible. These tactics should take place before the handing out of the final examination and CEQ. Limit yourself to 3-5 minutes of influence. Try to keep the atmosphere of the final examination as non-threatening as possible.

1. This has been one of my most productive classes.
2. The class has performed better than you realize.
3. This is one of the best classes I have ever had.
4. The class exhibited a mature attitude throughout the quarter.
5. The class worked very hard all quarter.
6. Your work has shown steady improvement.
7. I've enjoyed working with you during the quarter.
8. Relax and take your time during the final.

This procedure afforded graduate assistants opportunity to use personality to influence the group. The treatment was given before distribution of the final examination and was usually limited to the first 5-7 minutes of the examination period. The atmosphere of the examination was as non-threatening as possible.

The second quarter of the experiment was run identical to the first quarter with one exception. During examination time, instructors not only offered subtle oral reinforcements but also provided soft drinks, pretzels and potato

chips. Oral reinforcement was done at the beginning of the examination period and the students were allowed to drink and eat while taking the exam.

During each examination session, the CEQ was distributed to students and instructions were read by a student in compliance with departmental procedures. Experimental sections had an "A" placed after the course number and control groups, had a "B" after the course number.

Raw score results were tabulated for each CEQ. The means of the four groups were compared to determine if a significant difference existed between them. The means were compared through the use of "t" tests and interpreted at the .05 level of significance.

A comparison was also made on the questions concerning the instructor. Specifically, questions 3, 9, 10, and 22. The mean scores on the "sub-test" were compared in the same manner as the total CEQ mean.

### ANALYSIS OF THE DATA

The first hypothesis proposed no significant difference between the mean CEQ ratings of an instructor by students who had been subjected to subtle influence tactics and those who had not.

Results from the mean comparison of these receiving subtle influential tactics to the control group are contained in Table I.

TABLE I  
COMPARISON OF THE CEQ AND SUB-SCORE MEANS OF THE  
EXPERIMENTAL GROUP RECEIVING SUBTLE INFLUENTIAL  
TACTICS AND THE CONTROL GROUP.

	Experimental Mean	Control Mean	D.F.	T
Total CEQ Score	80.590	71.600	119	4.1816*
Instructor Subscore	13.639	12.600	119	2.8100**

\* Significant at .001 level

\*\*Significant at .01 level

The total CEQ mean score of the experimental group increased by an average of 8.9 points (a score of 96 was possible) over the control group. A "t" test of means demonstrated a significant difference at the .001 level. Thus, the null hypothesis was tentatively rejected.

The instructor subscore for the experimental group also showed a gain over the control group. This was significant at the .01 level. This led to tentative rejection of the second hypothesis which projected no significant difference between mean CEQ ratings of the instructor subscore by students who had been rejected to subtle influential tactics.

The third hypothesis stated there would be no significant difference between the mean CEQ ratings of an instructor by students who had been subjected to outright influential tactics and those who had not. A comparison of these groups means can be seen in Table II.

TABLE II  
COMPARISON OF THE CEQ AND SUB-SCORE MEANS OF THE  
EXPERIMENTAL GROUP RECEIVING OUTRIGHT INFLUENTIAL  
TACTICS AND THE CONTROL GROUP

	Experimental Mean	Control Mean	D.F.	T
Total CEQ	78.6976	70.1428	83	3.2334*
Instructor Subscore	13.2558	12.3095	83	1.9137**

\* Significant at .001

\*\*Significant at .05

Results of the outright influential tactics (verbal and food) were much like those of the subtle influence (verbal). The experimental group increase of 8.5 points was close to the first group (8.9) tested. A "t" value of 3.2334 (D.F. 83) resulted in a significant difference at the .001 level. Thus, this led to tentative rejection of the third hypothesis.

The final hypothesis projected no significant difference between the mean CEQ ratings of the instructor subscore by students who had been subjected to outright influential tactics and those who had not.

As is shown in Table II, the instructor subscore was also similar to the previously reported subtle influenced group. At the .05 level a significance the final hypothesis was tentatively rejected.

Although there was a significant difference between paired experimental and control group means, it seemed appropriate to compare individual question means in order to determine whether the difference was situated in only a few questions or distributed throughout the test.

A "t" value for each question was found by comparing the item means. Table III contains the "t" values for each CEQ item.

As shown in this table, 20 of 24 questions had a significant difference between between means at the .05 level or more. This demonstrates that the point spread was distributed throughout the questionnaire. At no time did a question show a decrease. Because the increase was dispersed, it was assumed that the entire CEQ rating was affected by influential tactics.

## CONCLUSIONS AND RECOMMENDATIONS

The purpose of the study was to determine what effect, if any, influential tactics would have on the ratings of the Illinois Course Evaluation Ques-

TABLE III  
COMPARISON OF THE CEQ ITEM MEANS OF THE  
EXPERIMENTAL GROUP RECEIVING OUTRIGHT

	control mean	experimental mean	t value	significance
1. Overall, the course was good.....	3.20	3.42	1.841	no sig. diff.
2. The textbook was very good.....	2.53	2.70	1.151	no sig. diff.
3. The instructor seemed interested in students as persons.....	3.13	3.55	3.269	.01
4. More courses should be taught this way.....	2.96	3.30	2.464	.02
5. The course held my interest.....	3.11	3.44	2.445	.02
6. It was easy to remain attentive.....	3.02	3.38	2.669	.01
7. The course material seemed worthwhile.....	3.15	3.52	3.330	.01
8. Homework assignments were helpful in understanding the course.....	3.07	3.53	4.030	.001
9. The instructor had thorough knowledge of his subject matter.....	3.21	3.43	2.066	.05
10. The instructor encouraged the development of new viewpoints and appreciations....	3.09	3.42	3.088	.01
11. The content of the course was good.....	3.11	3.45	3.194	.01
12. The course increased my general knowledge.....	3.16	3.52	3.031	.01
13. The types of test questions used were good.....	2.78	3.05	2.001	.05
14. Held my attention throughout the course.....	3.00	3.35	2.935	.01
15. It was a very worthwhile course.....	3.07	3.49	3.721	.001
16. The way this course was taught results in better learning.....	2.94	3.32	2.815	.01
17. Material in the course was easy to follow.....	3.11	3.30	1.766	no sig. diff.
18. It was quite interesting.....	3.09	3.45	2.799	.01
19. I think that the course was taught quite well.....	2.93	3.31	2.757	.01
20. Excellent course content.....	2.89	3.27	2.968	.01
21. Generally, the course was well organized.....	2.91	3.05	1.026	no sig. diff.
22. The instructor exhibited professional dignity and bearing in the classroom.....	2.80	3.19	2.888	.01
23. The course was quite useful.....	3.09	3.50	3.237	.01
24. I would take another course that was taught this way.....	2.98	3.38	2.697	.01

tionnaire (CEQ). The four null hypotheses stated that neither type of influential tactics (verbal or verbal with food) would affect instructors total or subscore rating by students. All four hypotheses were rejected when it was found that instructors were able to significantly influence ratings on the CEQ.

At first impression, rejection of the four hypotheses suggests that students are not valid raters of teacher performance. Whereas experimental group CEQ scores were significantly different from control groups scores, both groups agreed on a relative profile of an instructors' strong points and weak points. This held true for almost all questions. When questions from experimental and control groups were ranked and correlated, a Pearson correlation coefficient of .90 resulted.

That outright influenced group ratings were closely related to those subtly influenced group ratings would seem to suggest that although students can be easily influenced, influence has its limits.

As is shown in Table IV, the mean score increase for each question was about the same for all questions. Several exceptions were question 8 (home-work assignments were helpful in understanding the course), question 3 (the instructor seemed to be interested in students as persons), and question 15 (it was a very worthwhile course).

The researchers offer no explanation for the large difference in the ratings for items 8 and 15. It seems logical that the item "the instructor seemed to be interested in students as persons" (question 3), would be influenced more than any other.

Because CEQ ratings are usually compared to previously established decile norms by question, subscore or total means (Spencer and Aleamoni 1968, p. 10) the increase of the total group ratings were graphed for comparison. Norms were established in the middle 1960's and based on some 10,000 student ratings from universities across the country.

The graphs in Tables V and VI show that an instructor using influential tactics can raise his overall ratings and subscore and appear to have made in instructional technique when, in fact, he used only influential tactics. The total CEQ ranking in this study moved from the 5th decile (control group) to the 9th decile (influenced group).

An instructor who has been a poor performer for an entire quarter could significantly improve his CEQ rating over an instructor who offered no influential tactics and who was a better performer for the same period. Because they may be increased significantly by influential tactics, student ratings should not be used as a major input to promotion rank and salary increase evaluation, unless the evaluation of instructors by students is monitored. Unmonitored instructor or course evaluation can be a valuable tool to faculty who are interested in self-evaluation. If this was the only application and evaluation was not used as a rating device, one would not expect an instructor to use influential tactics. Because a growing number of institutions use instructor evaluations for promotion, rank, tenure, and salary evaluations, the question of influential tactics must be dealt with.

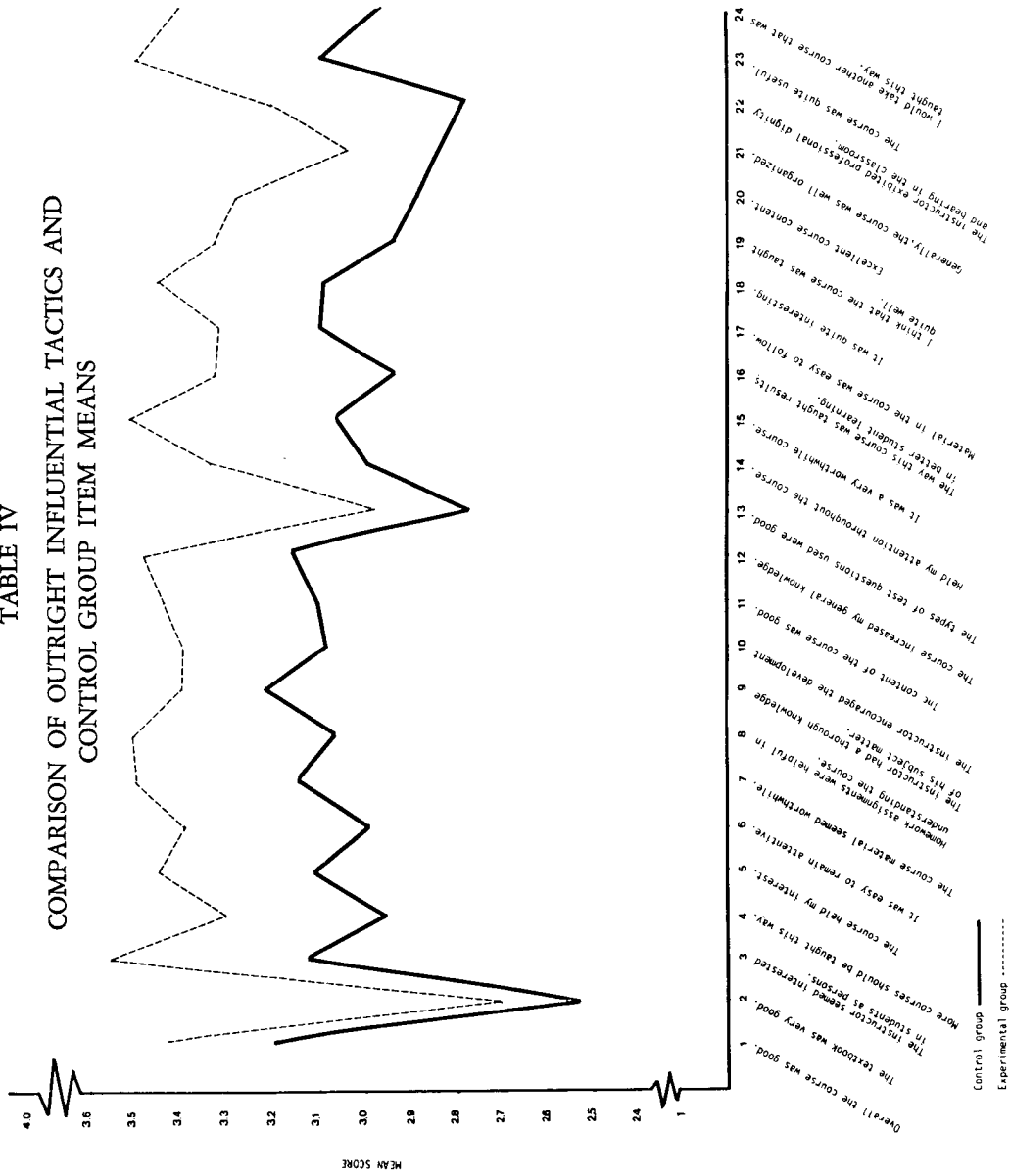
## RECOMMENDATIONS

The results of this study suggest rejection of the four stated hypotheses. Ultimate rejection of the hypotheses should not be considered until further research is made, using larger sample sizes and full-time faculty. Instructor/student age proximity may have influenced CEQ scores in this study, i.e., relationships may have been easy to influence.

Increased ratings might not occur if other course evaluation questionnaires were used. Educational administrators should be careful of the weight that



TABLE IV  
COMPARISON OF OUTRIGHT INFLUENTIAL TACTICS AND  
CONTROL GROUP ITEM MEANS



- 1 Overall the course was good.
- 2 The instructor seemed interested in students as persons.
- 3 The instructor was very good.
- 4 More courses should be taught this way.
- 5 The course held my interest.
- 6 It was easy to remain attentive.
- 7 The course material seemed worthwhile.
- 8 Homework assignments were helpful in understanding the course.
- 9 The instructor had a thorough knowledge of his subject matter.
- 10 The instructor encouraged the development of the course.
- 11 The content of the course was good.
- 12 The types of test questions used were good.
- 13 He held my attention throughout the course.
- 14 It was a very worthwhile course.
- 15 The way this course was taught results in better student learning.
- 16 Material in the course was easy to follow.
- 17 It was quite interesting.
- 18 I think that the course was taught quite well.
- 19 Generally, the course was taught excellently.
- 20 The course was well organized.
- 21 The instructor exhibited professional dignity and bearing in the classroom.
- 22 The course was quite useful.
- 23 I would take another course that was taught this way.
- 24 The instructor taught this way.

TABLE V  
 COMPARISON, BY ITEM, OF THE DECILE RATINGS  
 OF THE OUTRIGHT INFLUENTIAL TACTICS AND  
 CONTROL GROUP RATINGS.

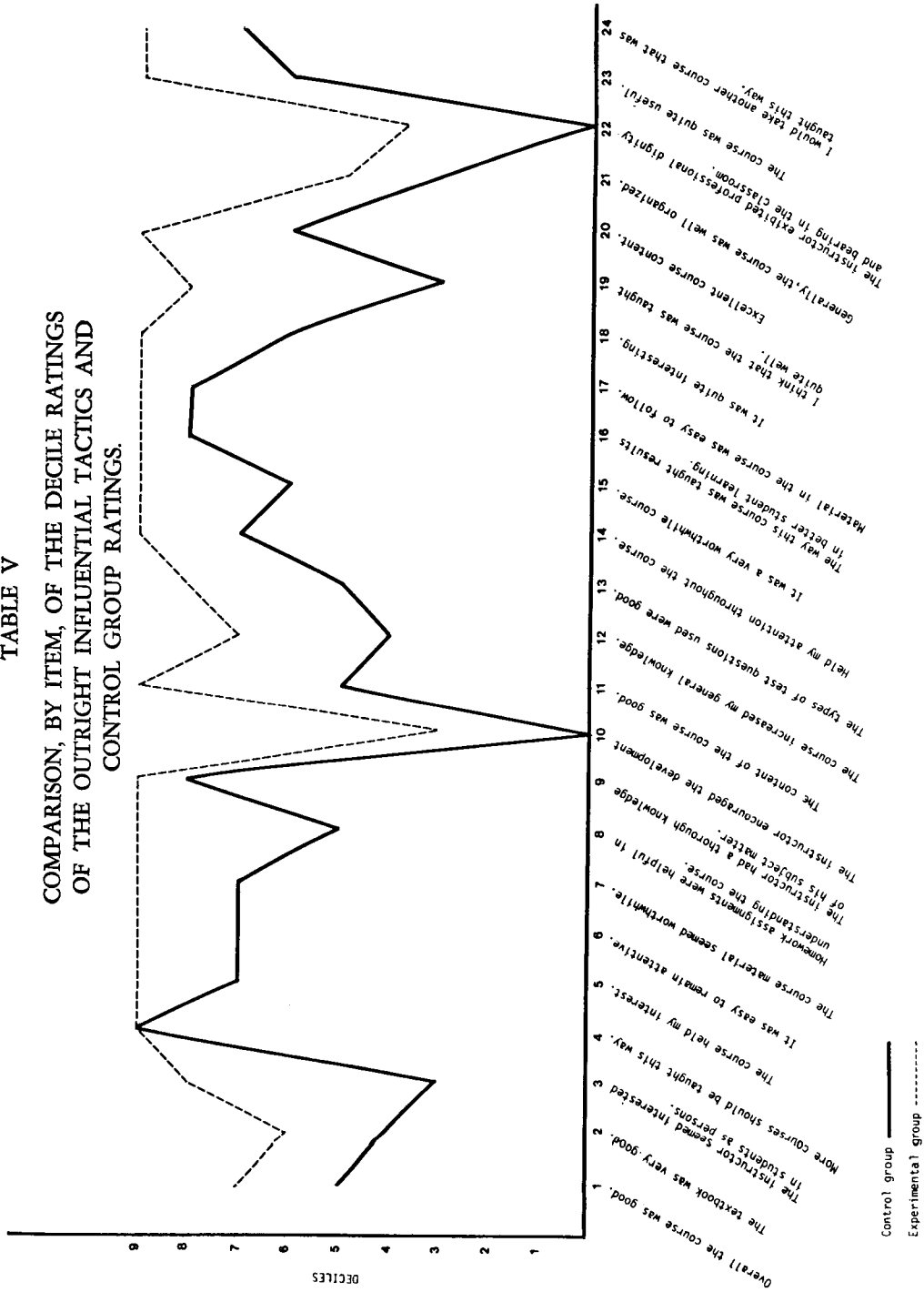
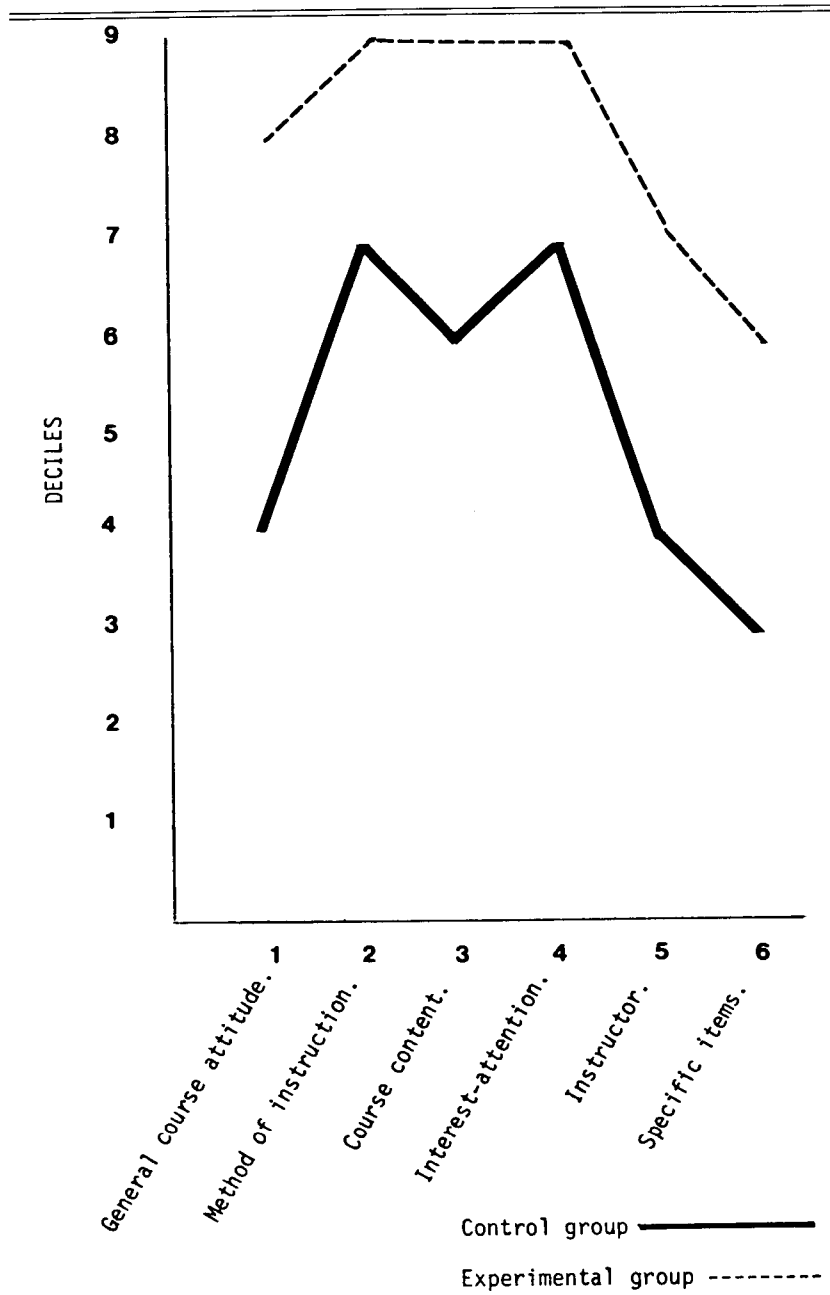


TABLE VI  
 COMPARISON, BY SUBSCORES, OF THE DECILE RANKINGS  
 BETWEEN OUTRIGHT INFLUENTIAL TACTICS  
 AND CONTROL GROUP RATINGS



is given to course evaluation questionnaires until further research is completed.  
Several other variables should be researched:

1. The effect of instructor influential tactics on evaluations using the 50 item CEQ.
2. The use of regular faculty members in the same type of experiment as conducted within this research.
3. The inclusion of questions which call influential tactics to the attention of the student.

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