The Outcomes of the Use of a Structured Observation Scale in Supervising Secondary Student Teachers

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ABSTRACT

This study was undertaken to determine whether or not the structured observation of student teacher affects their performance. A Structured Observation Scals (SOS), as an instrument for student teaching classroom observation, and a Satisfaction Scale (SS), to assess the satisfaction with the observation techniques, were developed using the Delphi Technique. The cooperating teachers and the university supervisors in the experimental group used the SOS every time they made an official observation of a student teacher, while the control group used the traditional techniques. The student teacher performance was evaluated on the **Purdue Teacher Evaluation Scale** (PTES) prior to the end of the student teaching program. Satisfaction with supervisory observation was assessed on the SS.

It was found that the student teachers in the experimental group performed significantly better than those in the control group based on the **PTES** scores. Pupils and university supervisors in the control group rated student teachers differently. Interaction between the treatment and the raters was significant. Student teachers in the experimental group performed better than those in the control group as rated by cooperating teachers and pupils. It was concluded from analysis of overall satisfaction with classroom observation techniques that significant differences existed wiht the mean score of the control group being greater than the experimental group.

INTRODUCTION

In a teacher education program, the student teaching experience is a must for preparing persons for the teaching profession. In the transaction of applying theory to practice, the student teachers work with and are supervised by cooperating teachers and university supervisors. The student teacher performance is observed, evaluated, and guided by supervisors, during student teaching. There are many techniques of recording data during observation, such as videotaping, audiotaping, and hand recording. One or a combination of techniques for data collection often is utilized by supervisors. Notes on paper, a hand recording technique, is the resource to which supervisors turn most often (Goldhammer et al., 1980). One of the most difficult problems in note-taking is that the speed of our fingers in recording the events is slower than the speed of events and words assaulting our eyes and ears. Hence, all accurate and relevant data from observation cannot be obtained by note-taking. Turney and Robb (1971) stated that "... the observer should know what he is looking for in a given situation and should carefully record relevant data" (p. 144).

Because spontaneous teacher behavior is so complex, it is hard to obtain data that give an accurate description of teaching. Rater bias often is found as a factor affecting evaluation (Wilk et al., 1962). Therefore, a list of criterion statements is needed for objective, accurate, and relevant data to be recorded. The possibility of bias and the influence of the observer's attitude and/or

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values on the observation report should be recognized. There is a general lack of structured observation instruments or standardized observation scales for use in assessing student teaching. The initial problem of this study was to develop a Structured Observation Scale (SOS) as a instrument for recording classroom observation; and a Satisfaction Scale (SS) to assess the satisfaction of cooperating teachers, student teachers, and university supervisors with techniques for recording observation.

This study sought to ascertain whether or not the structured observation of student teachers affected student teacher performance. Specifically, the research sought answers to the following questions:

1. Does utilizing a Structured Observation Scale (SOS) make a difference in the student teacher performance ?

2. To what degree do cooperating teachers, pupils, student teachers, and university supervisors evaluate the student teacher performance differently ?

3. Is there any interaction effect between the observation techniques and the raters ?

4. Is there any difference between utilizing a Structured Observation Scale (SOS) versus using traditional observation techniques in terms of their effect on supervisory satisfaction ?

INSTRUMENTATION

Three instruments were utilized in this study: (1) the **Purdue Teacher Evaluation Scale** (PTES), (2) the Structured Observation Scale (SOS), and (3) the Satisfaction Scale (SS). The **PTES** was developed by Bentley and Starry (1975), designed to provide an objective method of collecting evaluation of teacher performance in a form which would be useful in programs of professional self-development. The SOS was

developed as the treatment in this study. The SS also was developed in this study to assess the degree of satisfaction with observation techniques. The content validity of both SOS and SS was confirmed by the consensus of Delphi panel members. The reliability of SOS and SS was tested by the method described by Hoyt and Stunkard (1952). A high reliability coefficient of both the SOS $(r = +0.96)$ and the SS $(r = +0.95)$ was found.

Procedure

The cooperating teachers and the university supervisors in the experimental group used the SOS every time they had an official observation with the student teachers. The cooperating teacher and university supervisor observed the student teacher in the same class a minimum of two times during the term. The student teachers were informed about the teaching competencies that they were expected to be able to perform. When possible, an oral feedback conference, based on the SOS, followed the observation.

While the student teachers in the experimental group were exposed to the SOS, the control group received traditional observation techniques. The supervisors in the control group proceeded with the same supervisory techniques they normally use.

FINDINGS

The student teachers in the experimental group performed significantly better than those in the control group based on the **PTES** scores (Table 1). A significant existed between pupils and university supervisors in rating of the control group of student teachers (Table 1). However, there were no significant differences among the rater groups in the experimental group. Interaction between the treatment and the raters was significant (Table 1), with ordinal

interaction among cooperating teachers, pupils, and student teachers; and disordinal interaction occurred between student teachers and university supervisors (Figure 1).

Student teacher performance was compared between the control group and the experimental group based on the rating of each rater group. Significant differences were found on total score of the PTES as rated by the cooperating teachers and the pupils, with the total means of the experimental group being greater than the control group (Table 2). Neither student teachers nor university supervisors evaluated the experimental group significantly different than the control group in student teaching performance.

It was found that there was significant difference in overall supervisory satisfaction with the mean score of the control group was greater than the mean score of the experimental group.

DISCUSSION

Based on the results of the analysis, the SOS had a significant affect on the student teacher performance. The finding is consistent with the findings of Repicky (1975), Nichols (1976), and Hodgson (1977) who measured the impact of a variety of feedback techniques on student teacher performance. In the process of this study, the cooperating teachers in the experimental group used the same structured observation instrument as did the university supervisors. Consistency of ratings of student teacher performance was found in the experimental group. This consistency of ratings could support the finding of this study that the SOS affected the student teacher performance. However, the result of this study is inconsistent with the finding of Petery (1974), who found that the observation instrument had no affect on

student teacher performance.

While the SOS affected the student teacher performance, the satisfaction with the use of this instrument was found to be less than the satisfaction with traditional methods. The halo effect (Courtney, 1982) is a bias that may occur in the process of an experiment. This effect could explain the contradiction in findings.

Implications

Since the use of the Structured Observation Scale (SOS) had a significant effect on student teacher performance, the following implications can be drawn from the findings. The effect may have occurred because the instrument was compiled from a consensus of experts on student teaching supervision. The expectations of prospective teachers were concluded from both cooperating teachers and university supervisors. The instrument provided the supervisors a rating scale and a space for open comments. Furthermore, using the same instrument by both the cooperating teachers and the university supervisors in classroom observation might produce positive effects of its use. The approach of this study might help supervisors acquire alternative techniques to improve a preservice program.

Satisfaction with the use of Structured Observation Scale (SOS) was lower than satisfaction with traditional observation methods. This might have been because there were many items to check and a lack of familiarity with the instrument. The space for additional comments might be too narrow. Furthermore, some areas at the secondary level, such as Agricultural Education and Physical Education, have most of their classes in a laboratory setting rather than a structured classroom setting.

Thus, procedures for teaching may differ from area to area. This might cause relun-

tance to use this instrument.

According to the frequency of the use of SOS on each item by university supervisors and cooperating teachers, the items on the SOS which were used less than 50 % were items 2, 13, 18, 19, and 20. This result would suggest for further consideration to revise the SOS.

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TABLE 1. Two way Analysis of Variance on the PTES Scores.

Source of Variation	df	SS	MS	F	p
Treatment	1	9.216.413	9.216.413	22.405	.001*
Raters	3	4.097.015	1.365.672	.3.320	.020*
Treatment X Raters	3	3.591.942	1.197.314	2.911	.034*
Residual	389	160.014.555	411.348		
Total	396	176.903.728	446.727		

* p .05. H_0 rejected

Table 2. A Student's "t" Test on the PTES Scores.

Raters	Control Group			Experimental Group			t	p
	n_1	$\bar{x}_1$	s_1	n_2	$\bar{x}_2$	s_2		
Cooperating Teachers	17	185.88	23.02	20	204.45	12.77	2.96	.007*
Pupils	150	189.52	21.98	150	200.60	21.24	4.44	.000*
Student Teachers	15	197.73	11.02	15	199.13	15.63	0.28	.779
University Supervisors	15	210.80	11.00	15	203.33	12.98	1.70	.100

* p .05. H_0 rejected

TREATMENTS AND RATERS INTERACTION ON THE PTES
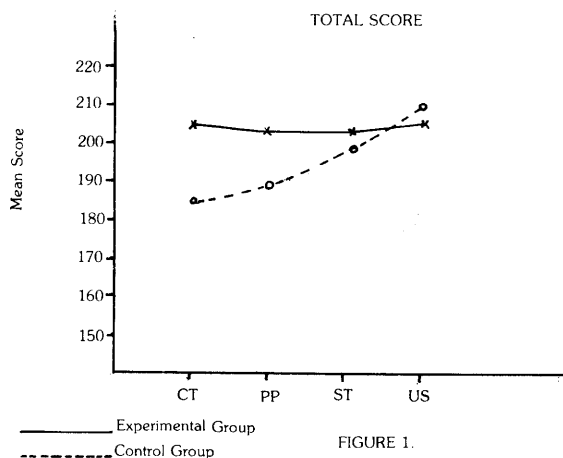## TOTAL SCORE

Experimental Group
Control Group

FIGURE 1.

STRUCTURED OBSERVATION SCALE (SOS)
For Classroom Teaching

Classroom Teacher _____ Date _____

School _____ Lesson Topic _____ Period _____

Rated by _____ Cooperating Teacher ___ University Supervisor
(Check one)

Circle the rating for each statement that most nearly describes the student teacher's performance in classroom teaching. If it is not applicable, leave blank.

Competencies	Excellent	Good	Average	Fair	Poor	Comments
1. Prepares lesson plans consistent with long range plan.	5	4	3	2	1	
2. Interrelates parts of unit plan.	5	4	3	2	1	
3. Prepares and organizes materials for lesson.	5	4	3	2	1	
4. Sequences learning tasks.	5	4	3	2	1	
5. Introduces and implements daily plans meaningfully.	5	4	3	2	1	
6. Connects each lesson with previous day's lesson.	5	4	3	2	1	
7. Establishes and achieves reasonable objectives.	5	4	3	2	1	
8. Employs a variety of effective teaching methods and strategies appropriate to the content and student level.	5	4	3	2	1	
9. Utilizes teaching aids appropriately.	5	4	3	2	1	
10. Asks questions that are clear, concise and appropriate to class level.	5	4	3	2	1	
11. Provides appropriate student feedback.	5	4	3	2	1	
12. Gives attention to individual needs.	5	4	3	2	1	
13. Modifies lesson appropriately for special needs students, if they are in that class	5	4	3	2	1	
14. Demonstrates ability to motivate students.	5	4	3	2	1	
15. Has a command of subject matter.	5	4	3	2	1	
16. Makes assignments clearly.	5	4	3	2	1	
17. Gives clear and concise directions.	5	4	3	2	1	
18. Uses a variety of appropriate evaluation methods.	5	4	3	2	1	
19. Analyzes and interprets results of tests.	5	4	3	2	1	
20. Summarizes each lesson.	5	4	3	2	1	
21. Starts and ends class on time.	5	4	3	2	1	
22. Encourages interaction of student and teacher.	5	4	3	2	1	
23. Develops a positive classroom environment.	5	4	3	2	1	
24. Develops good and professional student-teacher communication.	5	4	3	2	1	
25. Controls discipline problems.	5	4	3	2	1	
26. Gives attention to the safety of the classroom.	5	4	3	2	1	
27. Uses English appropriately and accurately.	5	4	3	2	1	
28. Pitches voice at pleasant level.	5	4	3	2	1	
29. Has general good appearance.	5	4	3	2	1	
30. Is energetic, enthusiastic and optimistic.	5	4	3	2	1	
31. Demonstrates adaptability.	5	4	3	2	1	
32. Displays confidence and maturity.	5	4	3	2	1	
33. Anticipates and assumes responsibility, is reliable.	5	4	3	2	1	
34. Has a positive attitude toward constructive criticism.	5	4	3	2	1	
35. Has a sense of humor.	5	4	3	2	1	

Signature _____ Date _____
Student Teacher

Distribution : White - Student Teacher, Yellow - Cooperative Teacher, Pink - University Supervisor, Goldenrod - Researcher

SATISFACTION SCALE (SS)

This scale is to be used to evaluate whether the technique used to observe student teacher's classroom performance fulfills the expectations, needs, and/or demands of the student teacher, the cooperating teacher, and the university supervisor.

Circle the rating for each statement that most nearly describes its appropriateness for evaluating satisfaction with classroom observation technique.

The classroom observation technique used by

(check one) ○ cooperating teacher...

○ university supervisor...

HIGH --- LOW

	5	4	3	2	1
1. Helped clarify expectations related to the classroom teaching of the student, teacher.	5	4	3	2	1
2. Assisted student teacher to accomplish goals.	5	4	3	2	1
3. Established effective communication among student teacher, cooperating teacher, and university supervisor	5	4	3	2	1
4. Established positive rapport among student teacher, cooperating teacher, and university supervisor.	5	4	3	2	1
5. Provided adequate feedback to student teacher on technical subject matter.	5	4	3	2	1
6. Provided adequate feedback to student teacher on instructional methods.	5	4	3	2	1
7. Provided adequate feedback to student teacher on teaching competencies.	5	4	3	2	1
8. Provided opportunity to deal with problems specifically and openly.	5	4	3	2	1
9. Provided timely supervision.	5	4	3	2	1
10. Made student teacher feel more comfortable to accept constructive criticism.	5	4	3	2	1
11. Helped conference culmination toward objectives.	5	4	3	2	1
12. Overall rating of classroom observation technique used in student teaching supervision.	5	4	3	2	1

Comments (use back) : _____

FREQUENCY OF THE USE OF SOS ON EACH ITEM BY
COOPERATING TEACHERS
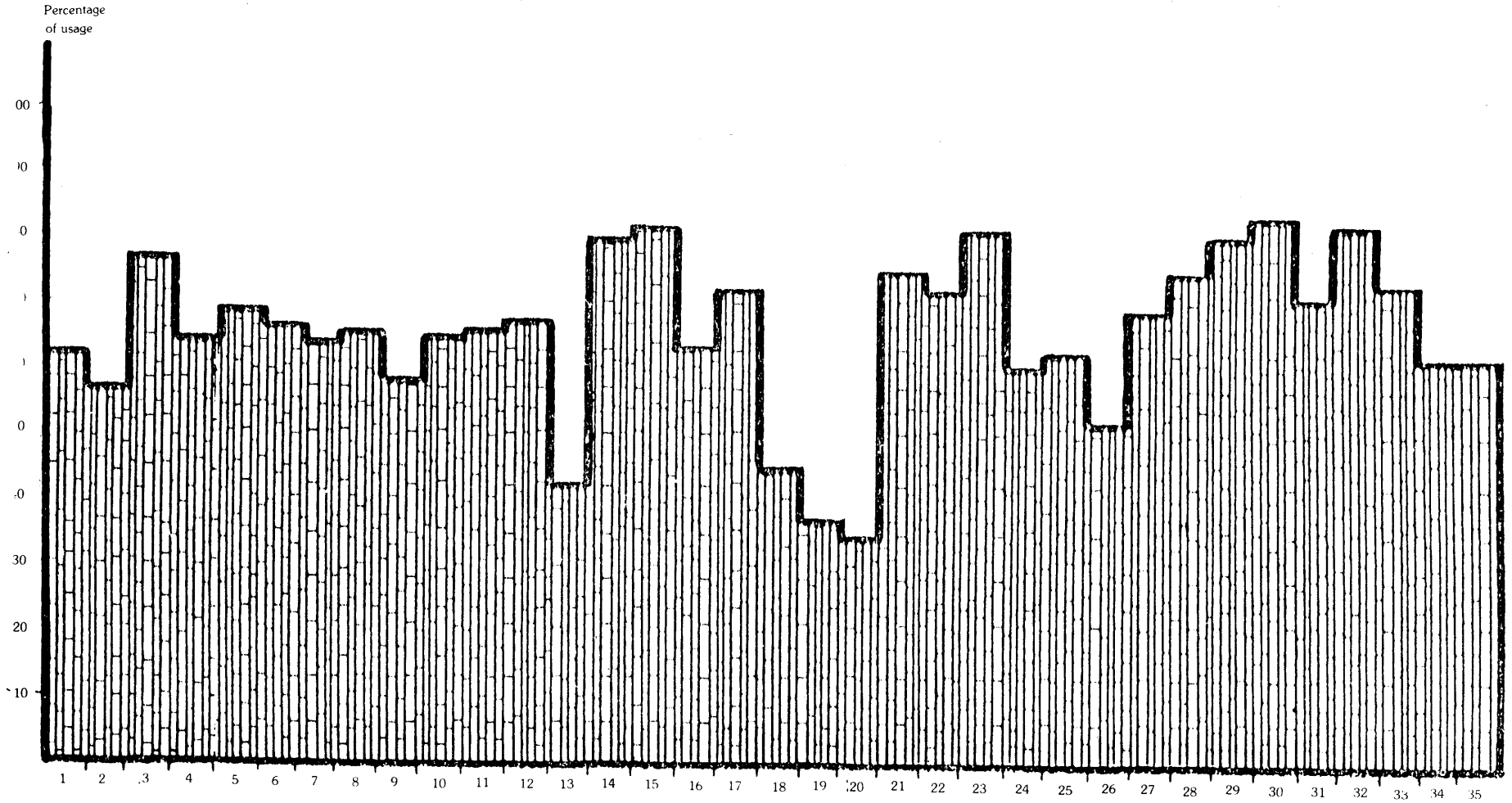
FREQUENCY OF THE USE SOS ON EACH ITEM BY
UNIVERSITY SUPERVISORS

Percentage
of usage

Items