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ABSTRACT

This study determined the effects of the opportunity to acquire a questioning strategy related to content-oriented values clarification inquiry and investigated whether teachers given the same objective of incorporating values clarification into their on-going content-related lessons could do so without receiving training in an appropriate questioning strategy. The subjects for the study were 26 preservice teachers enrolled in a social studies methods course. The instrument used was the Social Studies Observation Record (SSOR). All subjects were asked to prepare for and teach a 15-minute lesson. Their second lesson, two weeks later, was related to the same topic. Eighth grade students from a local middle school participated in the microteaching. Graduate students collected the SSOR data. The observer-coder did not know the purposes of the study or which student had been assigned to either the experimental or control groups. The experimental group was provided with an instructional module describing a questioning strategy designed to enable them to attain their instructional goals of subject-matter learning and values clarification prior to teaching their second lesson. The results of the study indicate that the questioning strategy used does enable teachers to reach their goal of values clarification more often than instruction based upon a values clarification approach which does not focus on developing questioning strategies. (RC)

# The Results of a Study Designed to Help Affective Teachers Teach More Effectively

or

# Acquiring a Questioning Strategy in Order to Achieve Values Clarification Instructional Objectives: The Result of an Experimental Study



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## INTRODUCTION

Values eudcation, more specifically, values clarification, is presently one of the major movements in American education. While not completely neglected previous to the mid-1960's, values clarification has received widespread acceptance and emphasis in the past ten years. However, in spite of the popularity and inclusion of values clarification within the precollege curriculum, several interrelated problems have persisted regarding the entire spectrum of theories and activities associated with this instructional area. Among the major concerns are:

(a) the general inadequate level of training teachers have received in this area;
(b) the massive assortment of values-related curriculum materials provided to teachers who have little knowledge as to how to use them appropriately;
(c) the lack of reliable, tested, useable evaluation and descriptive procedures and instruments to measure values development and change in students; and,
(d) the lack of empirical evidence that teacher training procedures and sessions related to values clarification instructional objectives do result in observable changes in either teacher or student behaviors.

This study grew out of concerns similar to those listed above.

While values clarification has primarily been defined as an internal process, the activities and behaviors surrounding this process may take the form of external actions (Raths, et al., 1966; Simon et al, 1972). Casteel and Stahl (1973, 1975) have proposed one approach to values clarification in terms of specific observable student performance criteria. These authors have defined the process of values clarification as involving specific patterns of language students use and from which the teacher or observer may reasonably infer that the internal

| REALM | CATEGORY OF STATEMENT | FUNCTION* |
|---|---|---|
| I. Subject-Centered | 1. Topical | identifying the focus |
| | 2. Empirical | stating facts |
| | 3. Interpretive | assigning meaning |
| | 4. Defining | avoiding semantical confusion |
| | 5. Clarifying | elaborating ideas |
| II. Teacher Centered | 6. Infirming | seeking closure |
| | 7. Commentary | consolidating and structuring |
| | 8. Dissonant | identifying discrepancies |
| | 9. Interrogative | eliciting responses |
| | 10. Confirming | accepting |
| III. Man-Centered | 11. Preferential | assigning value ratings |
| | 12. Consequential | anticipating effects |
| | 13. Criterial | identifying the basis |
| | 14. Imperative | considering decisions |
| | 15. Emotive | expressing feelings |
| IV. Non-Verbal | 16. Silence | wait - time |
| | 17. Confusion | noise time |

*The functions as given are meant to be illustrative but not inclusive.

Figure 1: The Social Science Observation Record: An overview of functions.

process of clarifying values is occurring. Specifically, values clarification refers to desired, observable patterns of student verbal-oral statements, the occurence of which is used as the basis for inferring that students are objectifying, analyzing, and clarifying their values.

Three of the four phases of the values clarification strategy proposed by Casteel and Stahl are relevant to this study. The three phases are: (1) the Comprehension Phase; (2) the Relational Phase; and, (3) the Valuational Phase. Each phase may be defined in terms of categories of the Social Science Observation Record (SSOR) (See Figure 1). During the Comprehension Phase, students use

Insert Figure 1 about here

SSOR category 1 through 5 statements. During the Relational Phase, students use SSOR category 1 through 5 and category 13 statements. During the Valuational Phase, students use category 11 through 15 statements. Student statements in the form of groups of these categories of verbal behavior make up the performance criteria allowing the teacher to infer that internal values clarification is taking place. Hence, teachers desiring to incorporate values clarification objectives into their on-going units of instruction would expect to elicit from and to have students employ category 1 through 5 and especially category 11 through 15 statements during subsequent classroom discussions. As defined, the failure to hear these categories configurationally would indicate that students were not engaging in processes congruent with the clarification of their values.

What the classroom teacher needs are ways of eliciting these categories of verbal statements from students. Two ways are immediately available for fulfilling this need. First, materials that have been deliberately designed to induce students to use these behaviors may be employed by the teacher. Second, the teacher may learn to use a questioning strategy deliberately designed to help them elicit from students these desired verbal responses. This research study focused on the second of these options.

The research design sought to give two separate groups of preservice teachers the same instructional objectives and to give one of these groups the opportunity to acquire a questioning strategy consistent with attaining its objectives. The study answers to the following questions:

1. Is the instructional module used as the Experimental Treatment sufficient to alter in positive and significant ways the verbal environment of the classroom?

2. Can teachers translate their instructional objectives into actual classroom verbal performances congruent with their objectives without utilizing an appropriate questioning strategy?
3. If significant differences do result from the Experimental Treatment, what are the implications of these findings for future research on and teacher training in the area of values clarification?

Four types of questions directly related to the three phases of values clarification presented above were described in the module serving as the Experimental Treatment. If preservice teachers who studied the module employed these four modes of questions, then their students would be expected to express more values clarification statements than would students of teachers who had been given the same instructional objectives but who had not received training in the four questioning modes. More particularly, since the four questioning modes would seek to elicit empirical, relational, valuing, and feeling student responses, then usage of SSOR categories appropriate to describing these forms of student responses would be greater among students of preservice teachers given instruction in these questioning behaviors. Conversely, since both the Control and Experimental groups were instructed to teach content-oriented values clarification lessons, then there should have been no difference between the verbal responses of their students within these lessons.

## HYPOTHESES

In order to determine the effects of the opportunity to acquire a questioning strategy related to content-oriented values clarification inquiry and to investigate whether teachers given the same objective of incorporating values clarification into their on-going content-related lessons could do so without receiving training in an appropriate questioning strategy, the following null hypotheses were tested:

1. There would be no significant differences between the percent of use of empirical statements made by microstudents of the Experimental and Control group subjects as measured by Category 2 of the SSOR.
2. There would be no significant difference between the percent of use of relational statements made by microstudents of the Experimental and Control group subjects as measured by Category 3 of the SSOR.

3. There would be no significant difference between the percent of use of valuing statements made by microstudents of the Experimental and Control group subjects as measured by Category 11 of the SSOR.
4. There would be no significant difference between the percent of use of feeling statements made by microstudents of the Experimental and Control group as measured by Category 15 of the SSOR.
5. There would be no significant difference between the percent of use of subject-centered statements made by microstudents of the Experimental and Control group subjects as measured by Realm I of the SSOR.
6. There would be no significant difference between the percent of use of man-centered statements made by microstudents of the Experimental and Control group subjects as measured by Realm III of the SSOR.
7. There would be no significant difference between the percent of use of extended subject-centered statements made by microstudents of the Experimental and Control group subjects as measured by Submatrix A of the SSOR.
8. There would be no significant difference between the percent of use of extended man-centered statements made by microstudents of the Experimental and Control group subjects as measured by Submatrix I of the SSOR.

## METHOD

### Subjects

The subjects for the study were 26 of 27 preservice teachers enrolled in a social studies methods course at the University of Florida. The 27th student was randomly dropped with the remaining 26 subjects randomly assigned to Experimental and Control groups (N = 13 subjects per group).

### Instrumentation

The Social Studies Observation Record (SSOR) (Casteel and Stahl, 1973) is an interaction analysis system designed to abstract and describe teacher-student verbal and non-verbal behavior during class discussion. The system was conceived and constructed as a theoretical model for planning, monitoring, and guiding classroom discussions, specifically those discussions directed towards values clarification and reflective thinking as aspects of subject-matter inquiry. The SSOR operationalizes an instructional theory relating student understanding and values clarification to on-going

content-centered teaching episodes. This instructional theory is identified and described in terms of the 17 categories, four realms, and 12 submatrices of the SSOR system. The approach to values clarification employed in this study and the student verbal responses to the four questions stressed in the training module serving as the Experimental treatment were associated with particular categories, realms, and submatrices of the system. Thus, the wywtem provides a conceptual model linking cognitive, affective, and management dimensions of social inquiry. In addition to its multi-dimensional descriptive power, the SSOR also described classroom discussion behaviors in terms of the functions of these behaviors within the context and circumstances of the particular lesson.

Procedures

All subjects were asked to prepare for and teach a fifteen minute lesson related to the topic they had used in developing unit and daily lesson plans for an in-class assignment. Their second teach, exactly two weeks from the first, was also related to the same topic. Eigth grade students from a local middle school were randomly selected from five American history classes taught by the same teacher and randomly assigned to groups of five for participation in the two weeks of microteaching.

The observation period included the first and third weeks of the three-week study with the treatment sessions held during the second week. An advanced-graduate student already trained in coding and recording in live settings collected SSOR data on a three-second interval. Using Scott's method for computing coefficient of coder agreement or reliability scores, mean between-observer scores of .94 for realms, .90 for categories, and .84 for submatrices and mean within-observer scores of .97 for realme, .93 for categories, and .86 for submatrices were obtained. The observer-coder did not know the purposes of the study or which students had been assigned to either the Experimental or Control groups.

Upon entering the microlab, each subject was introduced to a group of five microstudents and reminded that the lesson was not to extend beyond fifteen minutes. While some subjects were cut off at the end of the fifteen minute time period, most completed their lessons in less than the allotted time.

Treatment

During the second week, the 26 subjects were separated into their respective groups for their between-teach treatment. The placebo treatment given to both groups consisted of a ten-page reading on the importance of values clarification as an instructional objective (see Simon, et al., 1972, pages 13-22). Following the reading and a short question-and-answer period, the Control group subjects were

dismissed with instructions to incorporate values clarification into their list of instructional objectives for thier second microlesson. The same procedure was followed for the Experimental group except these subjects were provided an instructional module describing a questioning strategy designed to enable them to attain their instructional goals of subject-matter learning and values clarification. The module described four questioning modes directly related to the three phases of values clarification presented above. The 40-page self-instructional module identified and described four types of questions and provided frequent opportunities for each subject to fill-in missing segments of sample questions. Examples of the types of student verbal responses each of the four questions was designed to elicit were presented. The two-hour time span for the treatment was selected because it represented the 'typical' length of time teachers have available during inservice workshops to learn a new instructional approach. Since no pressure was applied to force these subjects to study or even use the questioning strategy, the Experimental treatment was aptly described as 'an opportunity' to acquire an instructional strategy. Again, the lack of effort to coerce subjects to study or use these four questioning procedures closely approximated conditions existing within many inservice workshops. After two hours, all materials were collected from the Experimental group subjects as had been done earlier with materials distributed to the Control group. The following week the 26 subjects taught their second lessons.

## ANALYSIS

Analysis of covariance, with the pretest SSOR score of each subject serving as the covariate, was used to test the hypotheses. Although subjects were randomly assigned to Experimental and Control groups from an intact group, covariance analysis was selected to control statistically any initial differences which may have been present and to gain 'precision' in the posttest scores. The assumption of the 'robustness' of the covariance procedure was accepted. The alpha level chosen was the .05 probability level for significance.

### Results

While eight null hypotheses were examined, posttest differences between the verbal behaviors of the microstudents of the Experimental and Control group subjects allowed for the rejection of three hypotheses. Significant differences were found in:

(1) the use of valuing (preferential) statements by the microstudents (Hypothesis 3);
(2) the use of man-centered statements by the microstudents (Hypothesis 6); and,

(3) the use of extended man-centered statements by the microstudents (Hypothesis 8).

Non-significant results were found in:

(1) the use of empirical statements made by the microstudents (Hypothesis 1);
(2) the use of relational statements (interpretive statements) made by the microstudents (Hypothesis 2);
(3) the use of feeling (emotive) statements made by the microstudents (Hypothesis 4);
(4) the use of subject-centered statements made by the microstudents (Hypothesis 5); and,
(5) the use of extended subject-centered statements made by the microstudents (Hypothesis 7).

Tables 1 and 2 illustrate the raw and adjusted mean scores and the analysis of covariance statistical data for each of the eight hypotheses tested. An F-value of 4.28 (df 1,23) was needed

Tables 1 and 2 about here

to reject each hypothesis.

## DISCUSSION

Although only three of the eight hypotheses were rejected, the fact that all three were the 'affective' components of the values clarification model is, in itself, important. Given that both groups were instructed to incorporate values clarification objectives into their second teach, then, of the eight areas encompassed by the hypotheses, these three should have had the least degree of difference among the student responses. In addition, with the Experimental group also receiving training in two content-oriented questioning modes, i.e., empirical and relational, one might anticipate that if differences had occurred between the two groups, they would have been found in this component of the teaching model as well. However, this 'cognitive' difference did not develop. This is significant. These data suggest that the Experimental group teachers held their own in the 'cognitive' components while significantly increasing the 'affective' participation of their microstudents.

These data also suggest that teachers who have as one of their instructional goals the clarification of student values may not be able to realize their instructional objectives unless they have some training in the use of a questioning strategy designed to assist them achieve their goal. In other words, just because a teacher desires to reach an instructional goal of values clarification in no way guarantees that that goal will be realized. These data appear to suggest that teachers need instruction as to specific types of questions that are related to realizing their values clarification and content-centered goals. The questioning strategy introduced in this study not only enabled teachers to elicit and permit more student 'affective' statements but did so without a decrease in the more 'cognitive' aspects of the discussion.

In summary, the questioning strategy used in this study does work to enable teachers reach their goal of values clarification more often than instruction based upon a values clarification approach which does not focus on developing questioning strategies.

TABLE 1

Analysis of Covariance of Percent of Behaviors Described by Components of the SSOR Between the Experimental and Control Groups

| Hypothesis Number | Source | df | MS | F |
|---|---|---|---|---|
| 1 | Between | 1 | 6.98 | 0.38 |
| | Within | 23 | 18.35 | |
| 2 | Between | 1 | 0.06 | 0.00 |
| | Within | 23 | 42.97 | |
| 3 | Between | 1 | 8.98 | 5.08* |
| | Within | 23 | 1.77 | |
| 4 | Between | 1 | 0.38 | 0.31 |
| | Within | 23 | 1.23 | |
| 5 | Between | 1 | 18.73 | 0.22 |
| | Within | 23 | 84.59 | |
| 6 | Between | 1 | 131.80 | 9.44* |
| | Within | 23 | 13.97 | |
| 7 | Between | 1 | 49.20 | 1.02 |
| | Within | 23 | 48.41 | |
| 8 | Between | 1 | 37.16 | 10.83* |
| | Within | 23 | 3.43 | |

*$p < .05$, ($F = 4.28$)

Table 2

Raw and Adjusted Mean Scores for Percent of Behaviors Described by Components of the SSOR for the Experimental and Control Groups

| Hypothesis Number | Group | Pretest $\bar{X}$ | s.d. | Posttest $\bar{X}$ | s.d. | Adjusted Posttest $\bar{X}$ |
|---|---|---|---|---|---|---|
| 1 | Exp. | 4.78 | 3.08 | 4.46 | 4.48 | 5.00 |
| | Cont. | 7.52 | 5.99 | 4.46 | 4.70 | 3.92 |
| 2 | Exp. | 12.92 | 7.52 | 14.38 | 8.47 | 13.90 |
| | Cont. | 10.31 | 7.34 | 13.52 | 5.06 | 14.00 |
| 3 | Exp. | .29 | .70 | 1.66 | 1.73 | 1.66 |
| | Cont. | .34 | .64 | .49 | .62 | .49 |
| 4 | Exp. | .50 | .60 | .69 | 1.40 | .69 |
| | Cont. | .56 | .56 | .44 | .64 | .45 |
| 5 | Exp. | 19.68 | 9.08 | 22.71 | 11.71 | 22.76 |
| | Cont. | 19.66 | 9.85 | 21.11 | 7.81 | 21.06 |
| 6 | Exp. | 2.56 | 2.66 | 7.56 | 4.97 | 7.85 |
| | Cont. | 3.64 | 3.49 | 3.56 | 2.78 | 3.27 |
| 7 | Exp. | 5.11 | 3.91 | 9.17 | 8.30 | 9.45 |
| | Cont. | 6.02 | 5.32 | 6.96 | 6.32 | 6.68 |
| 8 | Exp. | .76 | 1.58 | 3.05 | 2.87 | 3.27 |
| | Cont. | 1.31 | 1.41 | 1.05 | 1.06 | .84 |

## CONCLUSIONS AND IMPLICATIONS

In regards to the major concerns of this study as pointed out early in the introduction, this study:

(a) suggests at least one way the level of training teachers in values clarification can be made more adequate;

(b) suggests at least one way teachers can utilize the values related curriculum materials they have available more effectively;

(c) introduces a reliable, tested, and useable descriptive procedure and instrument to measure values development and changes in students; and,

(d) provides empirical data and research evidence that teacher training procedures relative to values clarification instructional objectives can result in observable changes in both teacher and student behaviors.

Finally, the results of this experimental study suggest that teacher educators who desire to assist teachers inlearning ways to achieve their values clarification goals should include in their training sessions some instruction regarding specific questioning strategies that will enable teachers to secure their objective without losing the content level of student responses. For those teachers who desire to allow the materials to work for them towards implementing this goal, the teacher need ways of developing such materials that are designed to ensure these results. One approach to developing teacher-made materials which will in fact elicit these behaviors has been provided (Casteel and Stahl, 1975). However, these authors suggest that the questioning modes introduced here are also important following the use of these teacher-made materials to ensure that students comprehend, find relevant, and assign value to vital aspects of these materials within the content-centered classrooms in which they teach.

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*These materials are available free of charge by writing Dr. J.B. Hodges, Director of the Laboratory School. Mention where you heard about these materials. Zip code is 32611.

**These materials cost $1.30 which includes postage. Zip is 32611.