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THE COMPARATIVE EFFECTS OF VERBAL INFORMATION, PASSIVE
OBSERVATION, AND ACTIVE OBSERVATION ON THE
ACQUISITION OF CLASSROOM MANAGEMENT SKILLS

A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE
UNIVERSITY OF HAWAII IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
IN PSYCHOLOGY
DECEMBER 1972

By
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ACKNOWLEDGMENTS

I would like to extend a most enthusiastic thank you to the many, many people who contributed to the present study. First, sincere thanks to the teachers and children who so patiently endured the ordeal of preparing the video-tapes, Mrs. Harolden Wakida, Miss Ann Dugdale, Mrs. Lynn Schutte, Mrs. Eleanor Mau, and Mrs. Margaret Uyehara, Clarence Pipkin, Joni Johns, David Kaneshiro, Julie McCann, Maile Uyehara, Cynthy Kim, John Hinazumi, Billy Clarke, Susan Auerbach, and Charles Sloggett. And may I express my appreciation to the Department of Instructional Resources, University of Hawaii, and their staff—especially Dr. Paul Snipes and Dr. Richard Sanderson—for their assistance in the film preparation.

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The four observers, Steven Miyake, Steven Choy, Wanda Cash, and Felicia Clarke, deserve recognition for their dependability and their reliable coding. And, of course, the four children who performed in the simulated classroom—Teri Warrinner, Jamie Warrinner, Robby Clarke, and Susan Auerbach, each merit accolades for their superb performances!
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And finally, may I express my appreciation to my husband, Dick, and my children, Dickie, Sheri, and Charles for their inexhaustible encouragement and endurance.
ABSTRACT

This experiment was designed to evaluate and compare four different methods for training teachers in the use of contingent attention and social approval in the classroom. The research had two major aims. The first was to evaluate the training effects of exposing subjects to a modeling film depicting various kinds of student-teacher interactions in the classroom. The second more important aim was to investigate the effects of directly manipulating the observer's attention in the modeling situation. Similar experiments were performed with two subject populations--University undergraduates and experienced teachers--who were exposed to treatments of Minimal Information, Lecture, Passive Observation and Active Observation. In addition to viewing a filmed lecture, subjects in the Active Observation condition were also exposed to filmed teacher-student interactions and required to record their observations in code.

Training effects were evaluated by observing subjects conduct class in a simulated classroom in which student behavior was programmed. The overall experimental results--similar for both subject populations--provided strong support for the experimental hypotheses. Subjects receiving a modeling experience in addition to receiving verbal information exhibited greater acquisition of contingency
management skills than subjects receiving only verbal information. More importantly, subjects whose attention was manipulated in the modeling situation demonstrated the greatest skill acquisition—greater than the Passive Observation subjects whose modeling experience was left uncontrolled. An unexpected finding, however, was that—when conducting class—before or without training, both teacher and undergraduate subjects gave an overwhelming amount of attention to inappropriate student behavior at the expense of appropriate behavior.

The implications for further research, for alternative explanations of consultation failures, for potential workshops, and for the development of a general training model were discussed.
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<th>Abbreviation</th>
<th>Meaning</th>
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<tr>
<td>A</td>
<td>Appropriate/cueing Behavior</td>
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CHAPTER I
INTRODUCTION

Considerable recent research has shown that when teachers systematically apply learning principles in the classroom, classroom management problems diminish (see Table 1). While the majority of these studies have used non-social reinforcers such as candy, toys, or special privileges, in many instances behavior changes have been brought about by systematic alterations in the teacher's social behavior (Allen, Hart, Buell, Harris, & Wolf, 1964; Allen, Henke, Harris, Baer & Reynolds, 1967; Hall, Lund & Jackson, 1968; Harris, Johnston, Kelley & Wolf, 1964; Harris, Wolf & Baer, 1967; Hart, Allen, Buell, Harris & Wolf, 1964; Madsen, Becker & Thomas, 1968; Reynolds & Risley, 1968; Thomas, Nielson, Kuypers & Becker, 1968; Valett, 1966; Walker, Mattson & Buckley, 1969).

As a result of this research, many behaviorally oriented clinical psychologists are placing greater emphasis on consultation to teachers as an alternative to individual counseling of problem students. Unfortunately, there has been little controlled research directed toward the development of effective and efficient ways to train teachers how to use contingent attention and social approval with their students. The importance of such research is particularly
### Table 1

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<th>Paying Attention</th>
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apparent to those professionals who have experienced frustrations and pitfalls in their attempts to impart these skills to teachers.

The usual manner in which consulting psychologists attempt to influence or modify teacher behavior is simply to give verbal suggestions. While verbal instruction is an indispensable aspect of any training program, it may not be sufficient in those situations where precise behavior change is desired. For example, Goodwin (1966) found that the use of lectures and discussions to train second-grade teachers in using operant reinforcement techniques in the classroom did not result in the use of these techniques by the teachers. All too often teachers have difficulty translating recommendations into appropriate action when confronted with an infinite variety of specific instances in the classroom.

In order to improve consultation methods, it may be fruitful to consider some of the techniques for training student teachers that have recently come into vogue. Traditionally, intern training programs for teachers have required interns to observe a master teacher in a regular classroom. This procedure has had certain limitations since interns are exposed to both good and bad teaching behavior with no way of knowing which behaviors should be imitated and which should not. The observation sessions are frequently long, difficult to schedule, and are occasionally boring. These shortcomings were partly remedied when in
1963 portable video-tape equipment became available. This technological advance led to the development of a teacher training program at Stanford University called microteaching (Berliner, 1969; Bush & Allen, 1964; Claus, 1969; Hinckley, 1969; M. Koran, 1969; Young, 1967).

In microteaching, a trainee teaches a small group of students for a brief period of about five minutes. These sessions are video-taped and immediately following the session the trainee and supervisor view a playback and critique the performance. Another group of students is then brought in and the same lesson is taught again. It might be noted that when observing a film of his own teaching performance, the trainee is being exposed to a model.

Target behaviors originally identified as important were such general teaching characteristics as clarity of presentation, pacing of the lesson, and beginning and ending a lesson. The rating of such teaching performances proved to be difficult, however, because it was imposed upon impressions about classes of behavior rather than on the actual behaviors themselves.

The advent of the technical skill approach to teacher training (McDonald, Allen, & Orme, 1966; Berliner, 1966) led to more precise definitions of competent teaching behaviors. Studies illustrating the definition of skills in behavioral terms included such behaviors as higher-order questioning (J. Koran, 1968; M. Koran, 1969; Claus, 1969; Berliner, 1969), reinforcement (McDonald, Allen, & Orme, 1966; McDonald & Allen,
1967), probing (McDonald & Allen, 1967; Orme, 1966), stimulus variation, silence, and nonverbal communication (Berliner, 1969). Studies have shown that trainees exposed to micro-teaching show greater acquisition of criterion skills than trainees exposed to traditional practice teaching methods (Acheson, 1964; Allen, McDonald & Orme, 1966; McDonald, et al., 1966; Orme, 1966).

Microteaching represents a complex set of behavioral techniques derived from Bandura's social learning theory, the core component of which is observational learning. Bandura (1971) quotes Reichard (1938) as noting that in many languages the word for 'teach' is the same as the word for 'show'. In fact, considerable research has shown that new responses may be learned, or the characteristics of existing response hierarchies may be changed, as a function of observing the behavior of others (Bandura, 1969, 1970). Explanations of how this change occurs is still a much debated issue. Bandura, for example, describes modeling as a separate learning process, taking the position that novel principles are needed when the emitted response does not occur immediately after the model's response. In contrast, Miller and Dollard (1941) and Gewirtz (1971) consider observational learning to be explicable in terms of basic, well-established S-R principles. Staats (1968) has also shown that observational learning can be explained by a
liberalized S-R theory incorporating verbal and imaginal mediators.

While the theoretical arguments are not the focus of the present research, it is important to noted that Bandura (1971) hypothesizes four main subprocesses of observational learning--attention, retention, motor reproduction, and motivation.

Of these four, the importance of attention has been acknowledged by all the major theorists of observational learning. Staats (1968), for example, states that:

. . . basic to an imitatational repertoire are the attentional behaviors that allow the child to sense the actions of another person, and the relevant stimuli that control the person's response. Two children could be in the same problem situation, see someone else solve the problem, and yet profit differently because one closely observed the action and the controlling stimuli for the action and the other did not. (p. 426)

Bandura (1970) has also stated the problem succinctly:

Simply exposing persons to modeled responses does not in itself guarantee that they will attend closely to them, select from the total stimulus complex the most relevant events, and perceive accurately the cues to which their attention has been directed. An observer will fail to acquire matching behavior at the sensory registration level if he does not attend to, recognize, and differentiate the distinctive features of the model's responses. Discriminative observation is therefore one of the requisite conditions for observational learning. (p. 16)

Despite the obvious importance of attentional factors, the experimental research has been concerned only with indirect attempts to manipulate observer attention. This has
been done in two ways, first by increasing the cue salience of the model, and second by labeling relevant aspects of the model's behavior.

In regard to a model's cue salience, Bandura (1969) has reviewed the literature confirming that:

models who have demonstrated high competence, who are purported experts or celebrities, and who possess status-conferring symbols are likely to command more attention and to serve as more influential sources of social behavior than models who lack these qualities. Other distinctive characteristics, such as age, sex, social power, and ethnic status, which are correlated with differential probabilities of reinforcement, likewise influence the degree to which models who possess these attributes will be selected for emulation. (p. 136)

Other investigators have attempted to manipulate observer attention indirectly by labeling relevant aspects of the model's behavior. For example, Claus (1969) and McDonald & Allen (1967) found that microteaching is more effective if criterion responses of the model are labeled than if criterion responses are not labeled.

There are, however, two laboratory experiments in which attempts were made to independently manipulate observer attention to modeled cues (Bandura, Grusec & Menlove, 1967; Gerst, 1971). Bandura, et al. exposed children to several complex sequences of behavior modeled on film. Some children merely watched, others labeled the behavior verbally, while others counted rapidly. The children who verbally labeled the modeled patterns reproduced significantly more matching responses than the other groups.
Gerst (1971) obtained similar results with college students who observed intricate hand movements taken from the alphabet of the deaf. Immediately after observing each modeled response, subjects engaged in one of four symbolic activities for a one minute period. One group was asked to imagine the response, one group was asked to verbally describe the specific response elements, a third group was asked to produce concise labels for the response (e.g., a pretzel-shaped response might be labeled as an orchestra conductor waving his baton), while the control group performed mental calculations. All groups of subjects who labeled the modeled behavior symbolically performed better than the controls when reproducing the modeled responses--both immediately after treatment and following a 15-minute period during which they performed a distracting task.

A third study in which an attempt was made to directly manipulate observer attention is particularly relevant as it was concerned with training experienced teachers in the application of learning principles. Kubany, Sloggett and Ogata (1972) described a six week workshop which incorporated information, modeling and roleplaying as training procedures for altering teachers' social behavior in the classroom. During the first 2-1/2 weeks of the program, the teachers were familiarized with the classroom application of learning principles via lectures, readings, movies and small group discussions. The second half of the workshop was conducted
in regular classrooms. The 36 teachers participating in the workshop were divided into nine teams of four members each, and each team was assigned to a different classroom. The teachers on each team rotated roles daily. On any given day, only two teachers conducted the class--one as master teacher, the other as teacher's aide. The third teacher unobtrusively observed the classroom proceedings from the periphery of the room, and the fourth teacher prepared curricula for the following day, when he or she would assume the role of master teacher. When functioning as master teacher or teacher's aide, the teachers were provided with the opportunity to roleplay or practice behaviors recommended during the didactic phase of the workshop. When functioning as observers, they were being exposed to a model--the master teacher.

As a way of directing attention to relevant aspects of the master teacher's behavior, the teachers were taught to observe certain teacher-student interactions and to record their observations in code. Furthermore, inter-rater reliability checks on a teacher observation codesheet served as a precise gauge for measuring the extent to which an observer had learned to discriminate between relevant and irrelevant behavior. It may be worthwhile to point out that when the teachers observed with the observation code, they were required to become active observers, continuously making discriminative judgments about the modeled stimuli.
The workshop teachers in the study by Kubany et al. (1972) were also given feedback on the quality of their teaching performances in group sessions which were held at the end of each teaching day. The freshly completed codesheets served as a vehicle for providing relatively immediate and objective feedback to the teachers.

Summaries obtained from the completed codesheets showed that every teacher met the preselected criteria of the workshop staff. Rates of praise and attention for appropriate behavior were very high, rates of attention to inappropriate behavior were very low, while criticism, loud desist commands, and other forms of negative attention were virtually never coded. Although the results themselves were impressive, definitive conclusions about the effectiveness of the training procedures could not be made. That is, Kubany et al. (1972) did not collect baseline or follow-up measures of the teacher's classroom behavior, and there was no way of unraveling the different contributions of information, modeling, coding, roleplaying, and it might be added, the incentive of course credit, which was also present.

AIMS AND HYPOTHESES

The present study had two specific aims. One was to identify the different contribution which information and modeling would make in training teachers to use contingent attention and social approval in the classroom. The other
was to investigate the effects of directly manipulating the observers' attention. Attention is a difficult concept to define (Mostofsky, 1970), especially as the term refers to multiple phenomena (Berlyne, 1970). In order to avoid the semantic issue, it is proposed to define attention operationally as accurate coding of the significant features of the model's behavior.

It was hypothesized that subjects given brief, explicit instructions on how to conduct class would perform closer to criterion than subjects in a no-treatment control group. It was also hypothesized that listening to a lecture including elaborate rationale and detailed examples would enable subjects to perform closer to criterion than those receiving simple, brief instructions. It was further hypothesized that exposing the subjects to models performing both the desired criterion responses and undesirable responses—clearly labeled as appropriate or inappropriate—would further enhance acquisition of the criterion responses. Finally, it was hypothesized that maximal training effectiveness would be achieved when the subjects were not only exposed to inappropriate and appropriate models, but were actually required to record their observations in code as they observed the modeling film.
CHAPTER II
THE EXPERIMENTAL STUDY

Section 1: The Materials for the Study

In order to explore the hypotheses stated in the previous chapter, it was necessary to devise certain novel materials and test situations. A video-taped lecture on contingency management in the classroom had to be prepared, a modeling film of teachers interacting with their pupils in a classroom situation was needed, a coding procedure which would adequately cover the teacher behaviors of interest had to be constructed, and finally, it was necessary to set up a simulated classroom in which the teaching behavior of the subjects could be observed.

The Lecture Film. The lecture was given by a qualified clinical psychologist and video-taped in a realistic setting in front of a small audience. The camera was focused only on the lecturer. The lecture lasted 45 minutes and the full text is given in Appendix A. Its content was focused on how the regular classroom teacher can influence student behavior by altering her social behavior. Recommendations were based, to a large extent, on experimental evidence obtained in actual classroom settings (O'Leary & O'Leary, 1972). For example, the psychologist recommended that teachers give the majority of their attention to students...
who are engaged in desirable behavior, that they give considerable attention to students who are working, but not asking for attention, and that, whenever possible, they socially reinforce (e.g., praise, pat) students for desirable conduct. In addition, the psychologist recommended that teachers ignore inappropriate student behavior as much as possible.

The Modeling Film. The modeling film was produced in a simulated classroom at the Instructional Resources Center at the University of Hawaii. This was the second film made so that many technical difficulties had been resolved. Three teachers and six children were recruited as actors to enact a variety of preprogrammed teacher-student interactions. All three teachers were in their early thirties and were of different racial extractions—Oriental, Hawaiian, and Caucasian. The students were three boys and three girls, ranging in age from nine to eleven, and were also of three different racial extractions, Oriental, Hawaiian, and Caucasian.

After a narrator briefly introduced the teachers and children, and described the classroom rules, there followed 44 15-second scenes showing the teachers interacting with the pupils in a variety of ways. In every scene one or more children behaved in an appropriate manner while one or more children behaved in an inappropriate manner—according to
the classroom rules. The scenes were presented in gradually increasing complexity. In addition, the scenes were presented in pairs, in that the children's behavior remained the same in two consecutive scenes; however, in one scene of a pair a teacher attended to appropriate behavior, whereas in the second scene of the pair she attended to inappropriate behavior. In half of the scene pairs, the teacher attended to appropriate behavior in the first scene, and in the other half she attended to appropriate behavior in the second scene of the pair. The order was randomized.

Five seconds after the end of each scene the film switched from the classroom to a close-up shot of a code sheet (described in the next section). The narrator then announced how the previous scene should have been coded and recorded the correct entry on the code sheet shown on the screen. (See Appendix B for text of narration.)

The Code Sheet. Although there are many classroom skills that teachers should have, this study was concerned with only two general skills—attending to appropriate child behavior and ignoring inappropriate child behavior. Extensive experience in classroom observation has shown that a child's appropriate behavior can fall into two gross categories: (1) on-task activities, and (2) attracting the teacher's attention in ways specified as appropriate by the teacher (e.g., quietly raising a hand). The former category
is labelled appropriate/not-cueing behavior and symbolized by a lower-case "a". The latter category is labelled appropriate/cueing behavior and is symbolized by a capital "A". Similarly, inappropriate behavior can be either (1) directed towards attracting the teacher's attention (calling out, coming up to the teacher, etc., if these behaviors are contrary to classroom rules) and thus labelled inappropriate/cueing behavior (I), or (2) it can be diffuse off-task activity (out of seat, not working, talking to other, etc.) and thus labelled inappropriate/not-cueing behavior (i).

The categories form the main divisions of the code sheet (see Table 2) but it should be noted that it is only the teacher's behavior that is coded and the coding method does not allow one to determine how much appropriate or inappropriate behavior the pupils are engaged in. If the teacher does nothing during the coding interval, no category is checked regardless of whether the students are behaving appropriately or inappropriately. It is only when a teacher attends to a child (as described in the code definitions--see Table 3) that the coder must decide whether the attention is directed towards a child who has legitimately attracted her (A), or who is unobtrusively behaving well (a), or who is trying to gain her attention by illegitimate means (I), or who is behaving badly (i). If the teacher attends to a group of students this is coded in a group (g) category. Furthermore, the affective quality of the attention can be coded;
Table 2
Teacher Attention to Student Behavior

Teacher Observed: __________________________ Date: __________________________
Observer: __________________________ Time: __________________________ to __________________________
Subject: __________________________

<table>
<thead>
<tr>
<th></th>
<th>APPROP</th>
<th>INAPPROP</th>
<th>GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cueing</td>
<td>Not Cueing</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>a</td>
<td>I</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>a</td>
<td>I</td>
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<tr>
<td>3</td>
<td>A</td>
<td>a</td>
<td>I</td>
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<tr>
<td>4</td>
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</table>
### Table 3

**Teacher Observation Code Definitions**  
*(Based on Rules in This Classroom)*

**DEFINITION OF TEACHER ATTENTION:** Teacher attention to student behavior occurs when—and only when—a teacher talks to student(s), touches student(s) or student(s) materials.

<table>
<thead>
<tr>
<th>Code Symbols</th>
<th>Categories of Student Behavior attended to:</th>
<th>Coded when teacher pays attention to student who is:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Appropriate - Cueing</td>
<td>cueing appropriately <em>(RAISING HAND QUIETLY)</em></td>
</tr>
<tr>
<td>a</td>
<td>Appropriate - Not Cueing *(&quot;Catching the Child being good&quot;)</td>
<td>behaving appropriately but <em>not</em> cueing the teacher <em>(WORKING QUIETLY)</em></td>
</tr>
<tr>
<td>i</td>
<td>Inappropriate - Cueing</td>
<td>cueing inappropriately <em>(TALKING DIRECTLY TO TEACHER WITHOUT PERMISSION)</em></td>
</tr>
<tr>
<td>i</td>
<td>Inappropriate - Not Cueing *(&quot;Catching the Child being bad&quot;)</td>
<td>behaving inappropriately, but not <em>explicitly</em> cueing teacher <em>(MAKING NOISE, NOT WORKING, OUT OF SEAT, TALKING TO OTHER STUDENT(S) WITHOUT PERMISSION)</em></td>
</tr>
<tr>
<td>g</td>
<td>group attention</td>
<td>coded when teacher lectures, instructs, praises or criticizes more than one student at the same time <em>(e.g., &quot;CLASS . . . CHILDREN . . .&quot;)</em> <em>(Behavior of the students is not taken into consideration when coding g).</em></td>
</tr>
</tbody>
</table>

| Supplemental Coding Symbols | |
|----------------------------| |
| + Positive Social Reinforcement | Added to other code symbols *(A, a, I, i, or g)* when the teacher's attention has a positive affective quality *(PRAISE, PHYSICAL PATS)* |
| - Negative - Harsh Reprimand | Added to other code symbols *(A, a, I, i or g)* when teacher's attention has a negative affective quality *(SCOLDINGS OR DESIST COMMANDS MADE IN RAISED VOICE, OR YANKING, PUSHING)* |
+ for positive and - for negative (precise definitions being given in Table 3).

The Simulated Classroom: The Children's Classroom Behavior. The two boys and two girls who performed as the pupils in the simulated classroom, were between the ages of 11 and 13, in grades six and seven. During each of the 30-second segments that a teacher-subject was to conduct class, the children were programmed to behave in very specific ways. This was achieved by training the children in advance. Familiarity with the scenes was aided by allowing the children to contribute to the writing and editing of the scenes, and to make suggestions from their own classroom experiences. They were able to learn their roles in only two 2-hour practice sessions. To insure accuracy in performance, however, they had their scripts for each scene typed on separate index cards which were concealed behind a name placard attached to their desks.

The children's behavior during each of the ten teaching periods is described in detail in Appendix B. During at least part of every 30-second teaching period, (1) at least one child worked quietly at his desk, (2) at least one child violated the classroom rules, but did not explicitly attempt to obtain the teacher-subject's attention (e.g., out of seat behavior), and (3) at least one child attempted to attract the teacher's attention in an inappropriate manner according
to the classroom rules (e.g., explicitly speaking or calling out to the teacher). During seven of ten teaching periods, one child attempted to attract the teacher-subject's attention in an appropriate manner (i.e., quietly raising hand). Thus, during every teaching period, a teacher-subject was given the opportunity to respond to appropriate and/or inappropriate pupil behavior. The teacher-subject could choose to pay attention to children who were on-task, off-task, or both, or, of course, not give any attention to any child. The children took turns behaving appropriately or inappropriately so that no one child was always on-task or always disruptive.

The children were also programmed to respond in certain ways when they received teacher attention. For example, if a teacher-subject told a child to stop misbehaving, the child would comply for a period of approximately five seconds and then resume his misbehavior—unless the teacher praised the child's compliance; if the teacher praised the child for complying, the child was programmed to remain on-task for the duration of the 30-second teaching period. The children were paid 50¢ per hour for their participation.

The Physical Arrangement of the Classroom. The University of Hawaii's Counseling and Testing Center Library was rearranged to resemble an actual classroom. Two rows of two desks faced a teacher's desk and chair, behind which was a portable standing blackboard. At one side of the room,
facing perpendicular to the students' and teacher's desks, was a narrow table with two chairs for the use of the outside observers. Paper, pencils, books, and other miscellaneous items were placed on the teacher's desk. Fifth grade mathematics books, paper and pencils were placed on each student's desk. A large white chart with red lettering was posted on the blackboard which read:

GOOD BEHAVIORS

IN SEAT
WORKING
QUIET
RAISE HAND IF NEED HELP

The Procedure for the Teacher-Subjects in the Classroom (Test Situation). When a subject was brought into the simulated classroom, the four children, who performed as the students, were seated quietly at their desks. Two adults, the outside observers, were seated at the side of the room, with their heads faced unobtrusively down. The experimenter led the subject to the teacher's desk and read aloud the following pretest instructions:

I would like you to imagine that you are in your own elementary school classroom. You are going to conduct class as a regular classroom teacher in our simulated classroom. I would like to introduce Teri and Susan, Jamie and Robby. You are to imagine that you are in your own classroom teaching your own students. I want you to behave toward these students in exactly the same way that you might behave if you were conducting your very own class. I would like you
to manage these children like you would manage children in your own classroom.

We will break your teaching period into ten short segments, each about 30 seconds long. Imagine that these segments are a sampling of events that might occur throughout a regular 45 minute class period.

You will receive written instructions prior to each 30 second segment. And here are your first instructions.

The subject was then given the following instructions on a written page as to what he or she was expected to do:

(Please print your name on the blackboard. Then read the following aloud.)

"Good morning class, my name is _________ and I am going to be your math teacher this morning. Before I give you your assignment and we get to work, it will be necessary for you to know what I consider to be appropriate and inappropriate behavior in my classroom. I would like to direct your attention to the chart on the blackboard (point to the chart) which lists the rules for appropriate behavior in this classroom. Good behaviors during math are: 1) children should be in their seats; 2) they should be working; 3) they should be quiet; and 4) they should quietly raise their hand if they need help. And now I am ready to give you your assignment.

(Please pause. Written instructions will now be handed to you. Class will "start" when you hear on the tape recorder, "BEGIN SCENE ...." Scene will end when you hear "END OF SCENE ....")

The tape recorder which announced the beginning and end of each 30-second interval was placed on the observer's table at the side of the room. In addition to the speaker's voice on the tape, there was a faint "click" recorded at the 15-second mark of each 30-second interval as a cue to the observers to proceed to the next cell on their codesheet. Five seconds prior to the beginning of each scene, the voice...
on the tape recorder announced, "Get ready for Scene__." Five seconds later the voice announced, "Begin Scene__", which was the cue for the subject to begin teaching and the children to begin acting their roles as students for that scene. At the end of the 30-second scene, the voice on the tape announced, "Stop Scene__", at which time the subject was given her instructions for the next scene and the children prepared their next act. The interval between scenes was 30 seconds.

Prior to the beginning of each of the ten scenes, the experimenter handed the teacher-subject an index card with the typed instructions for that scene. Prior to Scene 1, the teacher-subject was given the following written instructions:

Read aloud the following instructions, "Class open your books to page 66 and work problem A-0."

Following Scene 1, and preceding Scene 2, the subject was given the following written instructions:

Proceed through the following three steps:
1) Ask the class: "Can anyone tell me how much 7x8 is?"
2) Ask the class: "Now, can anyone tell me how much 9x7 is?"
3) After above, tell the class to "go back to work."

Immediately prior to Scenes 3 through 10, the subject was given the following identical instructions:

Your students are to be working quietly and independently at their desks.
Coding the Teacher-Subjects' Behavior in the Simulated Classroom. Two observers sat at the side of the classroom and coded every subject's test performance. Two male undergraduate students, majoring in psychology, acted as primary coders as part of their requirements for a Directed Research course for academic credit and the results were based on their observations. These observers were unaware of the details of the experimental manipulations and hypotheses. Two female students were also trained and served as co-observers in order to obtain reliability checks. Reliability checks were obtained on every subject.

The coders were trained by means of the modeling film which provided not only codable scenes, but also feedback as to how each scene should have been coded. The coders were able to demonstrate errorless use of the codesheet while observing the modeling film.

In the simulated classroom, agreements were counted when the two observers recorded the same code symbol in the same interval or adjacent interval during any given 30-second scene. Disagreements were counted when one of the observers recorded a code symbol in a given interval and the other observer did not. Reliability was calculated by totaling the number of agreements and disagreements and then dividing the number of agreements by the number of agreements plus disagreements. During Experiment I, reliability coefficients
ranged from .74 to 1.00 and averaged .84. During Experiment II, the reliability coefficients ranged from .74 to 1.00 and averaged .88. A copy of the codesheet used by the outside observers is presented in Appendix C.

Section 2: The First Experiment: University Student Subjects

The complexities of the procedures were initially of some concern. The cooperation and coordination of 12 people were necessary in order to run each subject. In order to expose any possible procedural problems it was decided to conduct a pilot study with undergraduate students from the University of Hawaii as subjects. Fortunately, the procedures went much more smoothly than anticipated—the children performed professionally, inter-rater reliability was more than sufficient, and there were no problems with the videotapes. Consequently, the pilot study was treated as an experiment in itself and the second experiment with teachers (see Section 3) was considered a replication.

Subjects. The original sample of 22 subjects who volunteered to participate in the study were students enrolled in an upper division psychology course at the University of Hawaii. The final sample of 18 subjects, nine males and nine females, excluded four persons who volunteered to participate but failed to appear for the experiment. For their participation subjects received one credit point toward their final course grade.
General Design. Subjects received the experimental treatments in groups of three to six persons, but were pre-tested and posttested individually. Subjects signed up for the experiment in one of four time periods. A maximum of six subjects were allowed to sign up in each period. The groups of subjects in each of the four periods were randomly assigned to one of four experimental conditions: (1) Minimal Information (MI), (2) Lecture (L), (3) Passive Observation (PO) and (4) Active Observation (AO).

In order to obtain an initial measure of teaching performance, each subject was asked to conduct a class—at which time several measures of teaching behavior were obtained. The subject was then exposed to one of the experimental treatments, immediately after which he was asked to teach the class for a second time. The dependent variables were the posttest scores and also the differences (change scores) between a subject's pretest and posttest teaching scores.

The experiment was conducted within the framework of a between groups, single factor, analysis of variance design—the single factor was type of training procedure, and the four levels of this factor were Minimal Information, Lecture, Passive Observation, and Active Observation.

Subjects were also measured on a variety of personality dimensions in an attempt to ascertain whether certain training procedures were more effective for certain types of individuals. A specially prepared semantic differential
(Osgood, Suci & Tannenbaum, 1957) was administered prior to the pretest and again after the posttests. A Teacher Opinion Survey (also especially prepared for the study), the Personal Reaction Inventory (Crowne & Marlow, 1964), and the P.E.N. Inventory (Eysenck & Eysenck, 1967, 1969) were administered prior to the posttest. The Teacher Opinion Survey and the semantic differential are reproduced in Appendix D.

**Procedure.** The experiment was conducted at the University of Hawaii Counseling and Testing Center. When subjects reported for the experiment, they were escorted by the experimenter to the Audio-Visual room--a carpeted, curtained, air-conditioned room equipped with facilities for showing videotapes. Chairs and floor cushions were available for sitting. When all subjects for one experimental session had arrived, they were given the following group instructions:

First of all, let me thank you very much for coming!
I would like to ask you not to discuss with each other any aspects of the experiment as we go along. You may talk to one another--but not about what you see or hear or read, and in addition, please do not, under any circumstances, discuss what went on today with the other people, either in your classes or among your acquaintances who are participating in the research. It is extremely important that they be as naive about what is going to happen as you are! I really appreciate your cooperation. Thank you.

The subjects were then asked to begin filling out the various questionnaires provided to them in individual folders--starting with the Teacher Opinion Survey and Semantic
Differential. The first subject who completed these two forms was asked quietly to come with the experimenter, while the other subjects completed the rest of the questionnaires. This subject was then exposed to the pretest situation.

The Pretest. When the subjects were asked individually to leave the Audio-Visual room, they were escorted to the simulated classroom which was located in an adjacent cottage. They were given no explanation except that they were going to have the opportunity to meet some of the children with whom the experimenter had been working. Upon arrival at the simulated classroom, the pretest teaching situation was carried out in the manner already described (Chapter II, Section 1).

After all subjects in a group had individually completed the pretest, they were exposed as a group to one of the four experimental treatments.

Minimal Information Condition (MI). These subjects did not view any of the films and were simply told what to do in the simulated classroom. The subjects in this condition were read the following instructions:

This time when you conduct class I would like you to pay attention to appropriate student behavior and ignore inappropriate student behavior, according to the classroom rules. Give your attention to students who raise their hands quietly and especially give lots of attention to children who are working quietly. Ignore students who are not working, who are talking to their neighbor, who are making noise, and who are out of their seats without permission. Do not scold anyone and praise children who get your
attention by raising their hands quietly and give lots of praise and physical pats to children who are working quietly.

**Lecture Condition (L).** The six L subjects were exposed to the 45-minute video-taped lecture on the application of learning principles in the classroom (see Appendix A).

At the end of the lecture each subject was asked to fill out a Lecture Rating Form (see Figure 2 in Chapter III).

**Passive Observation Condition (PO).** Subjects in this condition also viewed the entire lecture film. In addition, they viewed the 30-minute modeling film depicting various kinds of teacher-student interactions in a classroom.

When the observation-coding procedure was described during the lecture film, the PO subjects were also given copies of a codesheet and code definitions. When the modeling film was presented, however, the PO subjects were explicitly instructed not to mark their codesheet. They were given the following instructions:

"Although the film you are about to see will instruct you to code behavior, it will not be necessary. I simply want you to watch and listen. Please do not make any marks on your codesheet."

These instructions were repeated and subjects were asked if they had any questions.

**Active Observation Condition (AO).** The subjects in the AO condition also viewed both the lecture film and the classroom modeling film. In addition, the subjects in this
condition were instructed to observe and code each scene in the modeling film and to record the code symbols on the Teachers Observation Codesheet. They were instructed to stop coding each scene when the film narrator announced "end of scene," and were requested not to change any recorded responses after receiving feedback from the narrator. They were also instructed to code independently and not to compare their answers with those of the other subjects. The codesheets were collected at the end of the film.

**Posttest.** At the end of each treatment session, subjects were taken back, individually, to the simulated classroom and were read the following instructions:

Once again, I would like you to conduct class as a regular classroom teacher in our simulated classroom. Imagine that you are in your own classroom teaching your own students. This time, however, I would like you to conduct class in ways recommended in the film.

We will again break your teaching period into 10 short segments, each about 30 seconds long, and provide you with instructions prior to each segment. And here are your first instructions.

The subject then reread the Teacher's Instructions to the class (see p. 21) and the same ten scenes were repeated.

At the end of scene ten, the subject was thanked by the experimenter--and by the children in chorus--for participating in the experiment, and was then escorted by the experimenter to a small room adjacent to the classroom where
she again filled out the Semantic Differential, was given a short debriefing, and dismissed.

Section 3: The Second Experiment: Teacher Subjects

Experiment II was essentially a replication of Experiment I. However, there were several minor methodological differences between Experiment I and Experiment II which are outlined below.

1) Experiment II included a no-treatment control condition whereas Experiment I did not;
2) Subjects in Experiment II received only a post-test whereas subjects in Experiment I received both a pretest and a posttest;
3) Subjects in the MI condition in Experiment II received slightly different information than the subjects in the MI condition in Experiment I.
4) The subject population in Experiment II included certified teachers whereas the subjects in Experiment I were University students;
5) Subjects in Experiment II were offered money ($4.00 per subject) as an incentive to participate in the experiment whereas the subjects in Experiment I were offered points toward their course grade.

Subjects. The 70 original subjects were solicited from a variety of Education and Special Education graduate
courses being offered at the University of Hawaii. They were told that the experiment was concerned with training teachers in effective classroom management skills.

**General Design.** Groups of four to six subjects were randomly assigned to each of the five conditions. More subjects were included in the AO and PO conditions due to particular interest in the observational learning manipulations. Three subjects—one each from the MI, PO and AO conditions—were lost because they failed to keep their appointment for the experiment. The final arrangement of subjects was as follows:

- Control Condition (10 subjects)
- Minimal Information Condition (9 subjects)
- Lecture Condition (10 subjects)
- Passive Observation Condition (19 subjects)
- Active Observation Condition (19 subjects)

The greater number of subjects in this experiment as opposed to the previous one introduced an unexpected problem in the general design. It was felt that obtaining pre- and post-measures for such a large group would be too exhausting for the child actors. They had already performed their classroom routine 36 times, and it seemed more realistic and humane to require only 67 rather than 134 more performances. It was therefore decided to exclude the pretest measure, a decision which was supported by the fact that the groups in
Experiment I had very homogeneous pretest scores, and that preliminary analyses of the data revealed the pattern of results for the posttest measure to be much like that for the change scores.

Procedure. The procedures for the L, PO, and AO groups were exactly as described for Experiment I, with the exception that the pretest classroom experience was omitted. Experiment II added a control group and modified the MI group, which are outlined below.

Control Condition (C). When the no-treatment Control subjects arrived at the experiment, they completed the same questionnaires given to the subjects in Experiment I. Then, one at a time, without explanation, they were taken to the simulated classroom and given the same instructions for conducting class that the subjects in Experiment I received prior to the pretest. Following this experience, C subjects completed the semantic differential for a second time, and were then debriefed. They were offered the opportunity to observe the lecture film, if they so desired.

Minimal Instruction Condition. University subjects and teacher subjects received slightly different treatments in the MI condition. First, the University subjects were informed that they were going to "conduct class" immediately after receiving the instructions whereas the teachers were
simply told that the information concerned teaching behaviors which are associated with effective classroom management. Second, the instructions were read twice to the teacher subjects and only once to the University subjects. Third, the information given to the teacher subjects was somewhat more elaborate and more precisely reflected the essence of the information presented in the lecture. Last, the teacher subjects were given some rationale for the recommended procedures whereas the University subjects were not.

Upon entering the simulated classroom, MI subjects were given the following instructions:

I would like to describe to you ways of interacting with your students which are related to increases in productivity and decreases in classroom control problems.

You should pay attention to appropriate student behavior and ignore as much inappropriate behavior as possible. (Pause) As much as possible you, as a teacher, should ignore students who are not working, who are talking without permission, who are making noise, who are out of their seats without permission, and ignore students who try to get your attention in inappropriate ways. Do not harshly reprimand anyone in a raised voice. Give your attention to students who raise their hands quietly and especially give lots of praise and physical pats to children who are working quietly.

(Ask if there are any questions, and repeat above.)
CHAPTER III
RESULTS

The experimental results have been divided into three sections. Results of the classroom test situation are presented in the first section. The supplementary findings related to the personality and questionnaire measures, attitude change measures, lecture ratings, and coding scores are presented in the second section. Results of Experiments I and II combined are presented in Section 3.

Section 1: The behavior of the subjects in the classroom test situation.

All the data in this section refer to the teacher's behavior as coded by the observers according to the definitions on the codesheet. The six major response categories were A, a, I, i, the number of positive social reinforcements given for appropriate behavior (A+, a+, g+), and the number of positive social reinforcements given for inappropriate behavior (I+, i+). This latter rather incongruous category had to be included after observing the frequency with which it occurred.

Experiment I.

For each response category, both posttest scores and pre-posttest change scores were analyzed. The change score measure was obtained because of the possibility that there
would be substantial difference in the subjects' initial level of responding. The posttest scores were analyzed in order to determine the effects of the experimental treatment without consideration of subjects' pre-experimental level of responding.

Once these comparisons had been evaluated the remainder of the data was explored using a posteriori procedures. Kirk (1968) has described procedures for the combined use of a priori and a posteriori tests within the same experiment (pp. 113-114). Following the planned comparison analyses, a corrected $F$ test of significance was performed in order to examine the remainder of the data. The correction formula, as given by Kirk (1968) is as follows:

\[
F = \frac{(SS_{BG} - SS_{comp})^2}{df_{(K-1-2)}} \times \frac{1}{MS_{wg}}
\]

Where the corrected $F$ ratio was significant, Duncan's New Multiple Range Test (Duncan, 1955) was performed on all possible pairs of means except the AO vs PO comparison. An extension of Duncan's Test for the case of unequal number of subjects was utilized (Kramer, 1956).

The means and standard deviations for the posttest and change scores in each of the six coded response categories are presented in Table 4. Table 5 shows the rank order of
Table 4

Means and Standard Deviations of Posttest and Change Scores of University Subjects

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>a</th>
<th>I</th>
<th>i</th>
<th>A+/a+/g+</th>
<th>I+/i+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Minimal Information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post</td>
<td>6.33</td>
<td>1.15</td>
<td>3.33</td>
<td>2.52</td>
<td>11.67</td>
<td>4.16</td>
</tr>
<tr>
<td>Diff</td>
<td>1.33</td>
<td>0.18</td>
<td>2.33</td>
<td>1.53</td>
<td>-2.00</td>
<td>5.20</td>
</tr>
<tr>
<td>Lecture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post</td>
<td>6.83</td>
<td>1.33</td>
<td>6.71</td>
<td>3.66</td>
<td>8.33</td>
<td>3.72</td>
</tr>
<tr>
<td>Diff</td>
<td>3.00</td>
<td>1.41</td>
<td>5.33</td>
<td>3.45</td>
<td>-4.00</td>
<td>4.60</td>
</tr>
<tr>
<td>Passive Observation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post</td>
<td>6.80</td>
<td>2.17</td>
<td>8.40</td>
<td>3.91</td>
<td>7.60</td>
<td>2.70</td>
</tr>
<tr>
<td>Diff</td>
<td>1.80</td>
<td>2.39</td>
<td>7.40</td>
<td>3.85</td>
<td>-4.20</td>
<td>2.68</td>
</tr>
<tr>
<td>Active Observation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post</td>
<td>7.75</td>
<td>1.26</td>
<td>9.75</td>
<td>4.65</td>
<td>3.50</td>
<td>2.07</td>
</tr>
<tr>
<td>Diff</td>
<td>3.25</td>
<td>0.30</td>
<td>9.25</td>
<td>4.11</td>
<td>-7.75</td>
<td>2.06</td>
</tr>
<tr>
<td>Active/Passive Observation Combined</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post</td>
<td>7.22</td>
<td>1.79</td>
<td>9.00</td>
<td>4.04</td>
<td>5.78</td>
<td>3.15</td>
</tr>
<tr>
<td>Diff</td>
<td>2.44</td>
<td>1.94</td>
<td>8.22</td>
<td>3.84</td>
<td>5.78</td>
<td>2.95</td>
</tr>
</tbody>
</table>
performance of each condition on each of the five main response categories—those about which a priori predictions had been made. Subjects in the AO condition performed best—as predicted—on all five of the main response measures; subjects in the PO condition ranked second on three of five measures and third on the other two; subjects in the L condition performed third best on three of five measures and second and fourth on the other two; subjects in M1 condition performed worst on four response measures and second best on one. Table 6 shows that these ranks remain essentially the same when considering the difference scores.

As certain comparisons were of particular interest, a priori analyses were performed on some of the data. For each response category, planned orthogonal comparisons were performed comparing the difference between the AO and PO conditions and comparing the difference between the observation conditions combined and the L condition.

**Teacher attention to appropriate/cueing behavior (A)**

This category was coded when a teacher-subject paid attention to a child who was attempting to attract her attention in an appropriate manner.

**Planned Comparison: AO vs PO.** On the change score measure subjects in the AO condition gave more attention to children cueing appropriately than did subjects in the PO
Table 5

Rank Order of Performance of Each Condition on Five Response Categories (Posttest Scores)

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>a</th>
<th>I</th>
<th>i</th>
<th>+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Observation</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Passive Observation</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Lecture</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Minimal Information</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 6

Rank Order of Presentation of Each Condition on Five Response Categories (Change Scores)

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>a</th>
<th>I</th>
<th>I</th>
<th>+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Observation</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Passive Observation</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Lecture</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Minimal Information</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>
condition--at a marginal level of significance ($t=1.34$, $df=1,14 \ p < .10$, one-tailed).

**Planned Comparison:** AO/PO Combined vs L. No significant difference was obtained between the observation conditions combined and the L condition on the A response measure.

**Analysis of Variance.** As shown in Tables 7 and 8, neither the posttest nor change score analysis of variance on the A response measure was significant.

**Teacher attention to appropriate/not-cueing behavior (a)**

This category was coded when the teacher-subject paid attention to a child who was working quietly.

**Planned Comparison:** AO vs PO. No significant difference was obtained between the AO condition and PO condition on the a response measure.

**Planned Comparison:** AO/PO Combined vs L. On the posttest only measure, subjects in the observation conditions combined gave more attention to students who were working quietly than did subjects in the L condition--at a marginal level of significance ($t=1.46$, $df=1,14 \ p < .10$, one-tailed). Similar results were obtained on the change score measure. Subjects in the combined observation conditions gave more attention to students working quietly than subjects in the L condition--at a marginal level of significance ($t=1.63$, $df=1,14 \ p < .10$, one-tailed).
Table 7
Analysis of Variance of Posttest Scores
For University Subjects Attention to
Appropriate/Cueing Behavior (A)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>4.44</td>
<td>1</td>
<td>1.74</td>
<td>0.70</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>14</td>
<td></td>
<td>2.50</td>
<td></td>
</tr>
</tbody>
</table>

Comparison AO vs PO 2.00
Comparison AO/PO Combined vs L 0.70

Table 8
Analysis of Variance of Change Scores
For University Subjects Attention
of Appropriate/Cueing Behavior (A)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>10.81</td>
<td>1</td>
<td>5.47</td>
<td>2.11</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>14</td>
<td></td>
<td>2.59</td>
<td></td>
</tr>
</tbody>
</table>

Comparison AO vs PO 4.67
Comparison AO/PO Combined vs L 0.67
Analysis of Variance. As shown in Tables 9 and 10 neither the posttest nor the change score analysis of variance on the a response measure was statistically significant.

Teacher attention to inappropriate/cueing behavior (I)

This category was coded when a subject attended to a child who was attempting to attract teacher attention in an inappropriate manner.

Planned Comparison: AO vs PO. On the posttest measure subjects in the AO condition gave significantly less attention to inappropriate/cueing behavior than did subjects in the PO condition, \((t = 1.89, \, df = 1, 14, \, p < .05)\). Subjects in the AO condition also gave less attention to inappropriate/cueing behavior on the change score measure, but this difference was only marginally significant \((t = 1.39, \, df = 1, 14, \, p < .10)\).

Planned Comparison: AO/PO Combined vs. L. On the posttest measure subjects in the observation conditions combined gave less attention to inappropriate/cueing behavior than did subjects in the L condition—the difference reaching a marginal level of significance \((t = 1.65, \, df = 1, 14, \, p < .10)\).

Analysis of Variance. As shown in Tables 11 and 12 only the posttest analysis of variance on the I response measure achieved statistical significance \((p < .025)\).
Table 9
Analysis of Variance of Posttest Scores
Of University Subjects Attention to
Appropriate/Not-Cueing Behavior (a)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>RESULTANT</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>99.50</td>
<td>1</td>
<td>64.31</td>
<td>4.38</td>
<td>14</td>
<td>14.68</td>
</tr>
<tr>
<td>Comparison AO vs PO</td>
<td>31.15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO Combined vs L</td>
<td>4.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 10
Analysis of Variance of Change Scores
Of University Subjects Attention
to Appropriate/Not-Cueing Behavior (a)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>RESULTANT</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>72.22</td>
<td>1</td>
<td>31.29</td>
<td>2.17</td>
<td>14</td>
<td>14.40</td>
</tr>
<tr>
<td>Comparison AO vs PO</td>
<td>33.33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO Combined vs L</td>
<td>7.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 11
Analysis of Variance of Posttest Scores
Of University Subjects Attention to
Inappropriate/Cueing Behavior (I)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS RESULTANT</th>
<th>MS WG</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>142.16</td>
<td>1</td>
<td>76.17</td>
<td></td>
<td>7.30*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14</td>
<td></td>
<td>10.44</td>
<td></td>
</tr>
<tr>
<td>Comparison</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AO vs PO</td>
<td>37.36</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combined vs L</td>
<td>28.63</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .025

Table 12
Analysis of Variance of Change Scores
Of University Subjects Attention to
Inappropriate/Cueing Behavior (I)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS RESULTANT</th>
<th>MS WG</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>72.22</td>
<td>1</td>
<td>29.85</td>
<td></td>
<td>2.08</td>
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<td></td>
<td></td>
<td>14</td>
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<td>14.37</td>
<td></td>
</tr>
<tr>
<td>Comparison</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AO vs PO</td>
<td>28.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combined vs L</td>
<td>14.37</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
results of Duncan's Test show that subjects in the AO condition gave significantly less attention to inappropriate/cueing than did subjects in both the MI condition (t = 15.11, df = 1,14, p < .01) and the L condition (t = 10.58, df = 1,14, p < .05).

Teacher attention to inappropriate/not-cueing behavior (i)

This category was coded when a subject attended to a student who was behaving inappropriately, as defined by the classroom rules, but not explicitly trying to attract the teacher's attention.

Planned Comparison: AO vs PO. On the posttest measure subjects in the AO condition gave significantly less attention to students who were misbehaving but not explicitly soliciting teacher attention than did subjects in the PO condition (t = 1.78, df = 1,14, p < .05).

Planned Comparison: AO/PO Combined vs L. No significant difference was obtained between the observation conditions combined and the L condition on the i response measure.

Analysis of Variance. As shown in Tables 13 and 14 neither the posttest nor the change score analysis of variance on the i response measure was significant.

Positive social reinforcement to appropriate behavior (A+/a+/g+)

This category included those instances when the teacher-subject's attention to appropriate behavior had a
Table 13
Analysis of Variance of Posttest Scores
Of University Subjects Attention to
Inappropriate/Not-Cueing Behavior (i)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>MS RESULTANT</th>
<th>MS WG</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>11.73</td>
<td>1</td>
<td>1.17</td>
<td>3.25</td>
<td>0.36</td>
<td></td>
</tr>
<tr>
<td>Comparison AO vs PO</td>
<td>10.27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO</td>
<td>2.63</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 14
Analysis of Variance of Change Scores
Of University Subjects Attention to
Inappropriate/Not-Cueing Behavior (i)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>MS RESULTANT</th>
<th>MS WG</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>59.66</td>
<td>1</td>
<td>17.64</td>
<td>19.03</td>
<td>0.93</td>
<td></td>
</tr>
<tr>
<td>Comparison AO vs PO</td>
<td>32.22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO</td>
<td>9.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combined vs L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
positive affective quality, i.e., verbal praise or gentle physical contact.

**Planned Comparison: AO vs PO.** No significant difference was obtained between the AO and PO condition on the + response measure.

**Planned Comparison: AO/PO Combined vs L.** On the post-test measure subjects in the observation conditions combined gave significantly more "positive attention to appropriate student behavior than did subjects in the L condition ($t = 2.18, df = 1,14, p < .025$). Similar results were obtained on the change score measure. Subjects in the combined observation conditions gave significantly more "positive" attention to appropriate student behavior than did subjects in the L condition ($t = 2.00, df = 1,14, p < .05$).

**Analysis of Variance.** As shown in Tables 15 and 16, the posttest analysis of variance on the + response measure achieved statistical significance ($p < .05$). The results of Duncan's Test showed that subjects in the AO condition gave significantly more positive attention to children behaving appropriately than did subjects in the MI condition ($t = 18.04, df = 1,14, p = <.05$).

Positive social reinforcement to inappropriate behavior (I+/i+)

This category was coded when a subject attended to inappropriate behavior in a positive manner (praise, gentle physical contact).
Table 15

Analysis of Variance of Posttest Scores of University Subjects' Positive Social Attention to Appropriate STudent Behavior (A+/a+/g+)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>MS RESULTANT</th>
<th>MS WG</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>233.88</td>
<td>1</td>
<td>125.01</td>
<td>5.52*</td>
<td></td>
<td>22.63</td>
</tr>
<tr>
<td>Comparison AO vs PO</td>
<td>1.68</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO Combined vs L</td>
<td>107.19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .05

Table 16

Analysis of Variance of Change Scores of University Subjects' Positive Social Attention to Appropriate STudent Behavior (A+/a+/g+)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>MS RESULTANT</th>
<th>MS WG</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>190.63</td>
<td>1</td>
<td>89.06</td>
<td>22.38</td>
<td>3.98</td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO Combined vs L</td>
<td>12.27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comparison AO vs PO 89.30
Planned Comparisons: AO vs PO. No significant difference was obtained between the AO and PO conditions on the I+/i+ response measure.

Planned Comparisons: AO/PO Combined vs L. No significant difference was obtained between the observation conditions combined and the L condition on the I+/i+ response measure.

Analysis of Variance. As shown in Tables 17 and 18, neither the posttest nor the change score analysis of variance on the I+/i+ response measure was statistically significant.

Experiment II

The means and standard deviations for the posttest and change scores for each of six response categories are presented in Table 19. Table 20 shows the rank order of performance of each condition on each of the five response categories about which a priori predictions had been made. As predicted, subjects in the AO condition performed best on each of these five response measures. Subjects in the PO condition performed second best on three of the five measures and third best on the other two. Subjects in the L condition performed third best on two of five measures, second best on two and fourth best on the fifth measure. Subjects in the MI condition performed fourth best on four of five measures and third best on the remaining one;
Table 17
Analysis of Variance of Posttest Scores of University Subjects' Positive Social Attention to Inappropriate Student Behavior (I+/i+)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>MS RESULTANT</th>
<th>MS WG</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>4.64</td>
<td>1</td>
<td>0.12</td>
<td></td>
<td>0.08</td>
<td>1.51</td>
</tr>
<tr>
<td>Comparison AO vs PO</td>
<td>3.76</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO</td>
<td></td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combined vs L</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 18
Analysis of Variance of Change Scores of University Subjects' Positive Social Attention to Inappropriate Student Behavior (I+/i+)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>MS RESULTANT</th>
<th>MS WG</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3.86</td>
<td>1</td>
<td>3.08</td>
<td></td>
<td>0.71</td>
<td>4.23</td>
</tr>
<tr>
<td>Comparison AO vs PO</td>
<td></td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO</td>
<td>0.51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combined vs L</td>
<td>0.22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A M</td>
<td>A SD</td>
<td>a M</td>
<td>a SD</td>
<td>I M</td>
<td>I SD</td>
</tr>
<tr>
<td>----------------</td>
<td>-----</td>
<td>------</td>
<td>-----</td>
<td>------</td>
<td>-----</td>
<td>------</td>
</tr>
<tr>
<td>Control (N=10)</td>
<td>3.70</td>
<td>1.16</td>
<td>1.40</td>
<td>0.31</td>
<td>11.70</td>
<td>2.26</td>
</tr>
<tr>
<td>Minimal Information (N=9)</td>
<td>5.33</td>
<td>1.87</td>
<td>3.89</td>
<td>4.59</td>
<td>10.22</td>
<td>3.48</td>
</tr>
<tr>
<td>Lecture (N=10)</td>
<td>6.20</td>
<td>1.13</td>
<td>8.00</td>
<td>3.59</td>
<td>10.60</td>
<td>3.44</td>
</tr>
<tr>
<td>Passive Observation (N=19)</td>
<td>6.79</td>
<td>1.03</td>
<td>7.89</td>
<td>3.56</td>
<td>4.53</td>
<td>3.36</td>
</tr>
<tr>
<td>Active Observation (N=19)</td>
<td>7.26</td>
<td>1.45</td>
<td>10.16</td>
<td>4.12</td>
<td>2.74</td>
<td>3.71</td>
</tr>
<tr>
<td>Active/Passive Observation Combined (N=38)</td>
<td>7.23</td>
<td>1.26</td>
<td>9.03</td>
<td>3.97</td>
<td>4.13</td>
<td>3.52</td>
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Table 20
Rank Order of Performance of Each Condition on Five Response Categories for Teacher Subjects

<table>
<thead>
<tr>
<th>Condition</th>
<th>A</th>
<th>a</th>
<th>I</th>
<th>i</th>
<th>+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Observation</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Passive Observation</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Lecture</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Minimal Information</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Control</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

subjects in the C condition performed the worst on all five measures.

The data were analyzed in exactly the same way as the data in Experiment I, except that in this case only post-test measures were available. Planned comparisons were made between the AO and PO conditions and also between the observation conditions combined and the L condition. The remainder of the data was evaluated using the a posteriori procedures described in Experiment I.

Teacher attention to appropriate/cueing behavior (A)

Planned Comparison: AO vs PO. No significant difference was obtained between AO and PO on the A response measure.
Planned Comparison: AO/PO Combined vs L. Subjects in the observation conditions combined gave significantly more attention to students who were seeking attention in appropriate ways than did subjects in the L condition (t = 1.77, df = 1, 63, p < .05).

Analysis of Variance. Table 21 shows that the analysis of variance performed on the A response measure is highly significant (p < .001). The results of Duncan's Test show that subjects in each of the four experimental conditions gave significantly more attention to appropriate/cueing behavior than did subjects in the C condition--each of the four comparisons being significantly different beyond the .01 level. In addition, subjects in each of the two observation conditions gave significantly more attention to appropriate/cueing than did subjects in the MI condition--both differences exceeding the .01 level of significance.

Teacher attention to appropriate/not-cueing behavior (a)

Planned Comparison: AO vs PO. Subjects receiving the AO treatment gave significantly more attention to students who were working quietly than did subjects receiving the PO treatment (t = 1.91, df = 1, p < .05).

Planned Comparison: AO/PO Combined vs L. No significant difference was obtained between the observation conditions combined and the L condition on the a response measure.
Table 21
Analysis of Variance of Teacher Attention to Appropriate/Cueing Behavior (A)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS RESULTANT</th>
<th>MS WG</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>94.76</td>
<td>1</td>
<td>1.75</td>
<td>49.37*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>62</td>
<td></td>
<td>86.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison</td>
<td>2.00</td>
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<td></td>
</tr>
<tr>
<td>AO vs PO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combined vs L</td>
<td>6.38</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .001

Analysis of Variance. Table 22 shows that the analysis of variance performed on the a response measure is highly significant (p < .001). The results of Duncan's Test show that subjects in each of the observations conditions and subjects in the L condition all attended to significantly more to students who were working quietly than did subjects in the C condition—all three differences exceeding the .01 level of significance. In addition, the subjects in both observation conditions and the subjects in the L condition performed better than subjects in the MI condition. The differences between AO and MI were significant beyond the .01 level while the differences between PO and MI, and L and MI were both significantly beyond the .05 level.
Table 22
Analysis of Variance of Teacher Attention to Appropriate/Not-Cueing Behavior (a)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS RESULTANT</th>
<th>MS WG</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>602.04</td>
<td>1</td>
<td>547.09</td>
<td>13.35</td>
<td>40.95*</td>
</tr>
<tr>
<td>Comparison AO vs PO</td>
<td>46.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO Combined vs L</td>
<td>8.15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .001

Teacher attention to inappropriate/cueing behavior (I)

Planned Comparisons: AO vs PO. No significant difference was obtained between AO and PO conditions on the I response measure.

Planned Comparisons: AO/PO Combined vs L. Subjects in the observation conditions combined gave significantly less attention to students attempting to attract teacher attention in inappropriate ways than did subjects in the L condition ($t = 5.38$, $df = 1.63$, $p < .001$).

Analysis of Variance. Table 23 shows that analysis of variance for the I response measure is highly significant ($p < .001$). The results of Duncan's Test show that subjects in each of the two observation conditions gave significantly less attention to inappropriate/cueing behavior than did
subjects in each of the C, MI, and L conditions. Each of these comparisons revealed differences that exceeded the .01 level of significance.

Table 23
Analysis of Variance of Teacher Attention To Inappropriate/Cueing Behavior (I)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS RESULTANT</th>
<th>MS WG</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>666.54</td>
<td>1</td>
<td>11.36</td>
<td>339.90</td>
<td>19.92*</td>
</tr>
<tr>
<td>Comparison AO vs PO</td>
<td>5.64</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO Combined vs L</td>
<td>321.00</td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .001

Teacher attention to inappropriate/not-cueing behavior (i)

Planned Comparisons: AO vs PO. No significant difference was obtained between the AO and PO conditions on the i response measure.

Planned Comparison: AO/PO Combined vs L. No significant difference was obtained between the observation conditions combined and the L condition on the i response measure.

Analysis of Variance. Table 24 shows that the Analysis of Variance performed on the i response measure is highly significant (p < .001).
Table 24

Analysis of Variance of Teacher Attention To Inappropriate/Not-Cueing Behavior (i)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>MS RESULTANT</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1030.14</td>
<td>1</td>
<td>11.80</td>
<td>85.80*</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1012.57</td>
<td></td>
</tr>
<tr>
<td>Comparison AO vs PO</td>
<td>0.27</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO Combined vs L</td>
<td>17.30</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

*p < .001

Results of Duncan's Test show that the subjects in the AO, PO, L and MI conditions all gave significantly less attention to inappropriate/not-cueing behavior than did subjects in the C condition (*p < .01). In addition, subjects in AO, PO, and L conditions also performed better than subjects in the MI condition. The differences between each of the observation conditions and the MI condition were both significant beyond the .01 level of confidence.

Positive Social Reinforcement to Appropriate Behavior

(A+/a+/g+)

Planned Comparisons: AO vs PO. Subjects receiving the AO treatment gave significantly more positive social...
reinforcement to appropriate behavior than did subjects in the PO condition \( (t = 2.59, \text{df} = 1, 63, p < .001) \).

**Planned Comparisons: AO/PO Combined vs L.** No significant difference was obtained between the observation conditions combined and the L condition on the + response measure.

**Analysis of Variance.** Table 25 shows that the Analysis of Variance performed on the + response measure is highly significant \( (p < .001) \).

Results of Duncan's Test show that subjects in the AO, PO, and L condition all gave significantly more "positive" attention to appropriate behavior than did subjects in both the MI and C conditions. Each of these comparisons revealed

<table>
<thead>
<tr>
<th>Table 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis of Variance of Teachers' Positive Social Attention to Appropriate Behavior ((A+/a+/g+))</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
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<th>RESULTANT</th>
<th>MS</th>
<th>WG</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>878.59</td>
<td>1</td>
<td>14.52</td>
<td>766.40</td>
<td></td>
<td></td>
<td>14.52</td>
<td>53.82*</td>
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<td></td>
<td>62</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO vs PO</td>
<td>93.63</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combined vs L</td>
<td>18.46</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

*\(p < .001\)*
differences that exceed the .01 level of significance. In addition, subjects in the AO condition gave significantly more "positive" attention to appropriate student behavior than did subjects in the L condition \( p < .05 \).

**Positive Social Reinforcement to Inappropriate Behavior**

\( (I+/i+) \)

**Planned Comparisons: AO vs PO.** No significant difference was obtained between AO and PO on the \( I+/i+ \) response measure.

**Planned Comparisons: AO/PO Combined vs L.** Subjects in the observation conditions combined gave significantly less "positive" attention to inappropriate behavior than did subjects in the L condition \( t = 4.28, df = 1.63, p < .001 \), two-tailed.

**Analysis of Variance.** Table 26 shows that the analysis of variance performed on the \( I+/i+ \) response measure is highly significant \( p < .001 \). Results of Duncan's Test show that subjects in each of the observation conditions gave significantly less "positive" attention to inappropriate behavior than subjects in each of the L, MI, and C conditions. The differences between each of the observation conditions and both the L and C conditions were all significant beyond the .01 level of significance. The difference between each of the observation conditions and the MI condition were both significant beyond the .05 level.
Table 26

Analysis of Variance of Teachers' Positive Social Attention to Inappropriate Behavior (I+/i+)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
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<th>MS RESULTANT</th>
<th>MS WG</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>117.64</td>
<td>1</td>
<td>62</td>
<td>4.10</td>
<td>44.89</td>
<td>10.96*</td>
</tr>
<tr>
<td>Comparison AO vs PO</td>
<td>0.28</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Comparison AO/PO Combined vs L</td>
<td>72.46</td>
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</table>

*p < .001

Section 2: Supplementary Data

Experiment I

**Personality and questionnaire correlates.** None of the personality or questionnaire measures, nor the change scores of the semantic differential correlated significantly with any of the six response measures.

**AO Condition Coding scores.** The four subjects in the AO condition correctly coded a mean of 68 of 78 teacher-student interactions (87%). Out of a total of 44 scenes, these four subjects had completely correct coding in a mean 36 scenes (81%). There were no significant correlations between coding scores and any of the five response measures about which **a priori** predictions had been made.
Experiment II

Personality and questionnaire correlates. Table 27 lists the Pearson coefficients of correlation between each of the personality variables and several questionnaire response measures and each of the six classroom performance measures. For the teacher subjects, correlations of the individual difference measures and the six response measures reached significance in only 17 of 138 cases. Only four of the individual difference measures correlated with more than one response measure. Extroversion correlated negatively with attention to appropriate/not-cueing behavior (a) ($p < .05$) and negatively with social approval for appropriate behavior ($A+/a+/g+$) ($p < .025$). Teachers' ratings of control problems correlated negatively with attention to appropriate/cueing behavior ($A$) ($p < .025$).

Teachers' ratings of the amount of praise they give their students correlated negatively with attention to appropriate/cueing behavior ($A$) ($p < .05$), positively with attention to inappropriate/not-cueing behavior ($i$) ($p < .01$), and positively with social approval for inappropriate behavior ($I+/i+$) ($p < .05$).

Teachers self-rating of being permissive as opposed to being strict correlated significantly with all six response measures. Permissiveness correlated positively with attention to appropriate/cueing behavior ($A$) ($p < .025$),
Table 27
Correlations of Personality and Questionnaire Measures
With Teaching Response Measures

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>a</th>
<th>I</th>
<th>i</th>
<th>A+/a+/g+</th>
<th>I+/i+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychoticism</td>
<td>-.03</td>
<td>.05</td>
<td>-.05</td>
<td>-.07</td>
<td>.02</td>
<td>-.08</td>
</tr>
<tr>
<td>Extroversion</td>
<td>-.11</td>
<td>-.24*</td>
<td>.17</td>
<td>.10</td>
<td>-.28**</td>
<td>.11</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>.12</td>
<td>-.08</td>
<td>-.03</td>
<td>.03</td>
<td>-.01</td>
<td>-.12</td>
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</tr>
<tr>
<td>Personal Reaction</td>
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<tr>
<td>Inventory</td>
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<td>.03</td>
<td>-.02</td>
<td>.00</td>
<td>.02</td>
<td>.03</td>
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<tr>
<td>Ethnic Background</td>
<td>.11</td>
<td>.18</td>
<td>-.09</td>
<td>-.15</td>
<td>.10</td>
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<td>-.09</td>
<td>.19</td>
<td>.31***</td>
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<td>.24*</td>
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<td>Amount of inappropriate</td>
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<td>.04</td>
<td>.03</td>
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<td>.27**</td>
<td>-.23**</td>
<td>-.31***</td>
<td>.30***</td>
<td>-.29***</td>
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<td>.00</td>
<td>.02</td>
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<td>.08</td>
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<tr>
<td>Amount of control</td>
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<td>-.06</td>
<td>.11</td>
<td>.13</td>
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<td>.23**</td>
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</tr>
<tr>
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<td>-.09</td>
<td>.16</td>
<td>.15</td>
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<td>.06</td>
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<td>Prin-V-Prin observes</td>
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<td>-.04</td>
<td>.10</td>
<td>.09</td>
<td>-.11</td>
<td>.17</td>
</tr>
</tbody>
</table>

* p < .05    ** p < .025    *** p < .01

a see Appendix D for complete statements
attention to appropriate/not-cueing behavior (a) \( (p < .025) \), and social approval for appropriate behavior (A+/a+/g+) \( (p < .01) \). Permissiveness correlated negatively with attention to inappropriate/cueing behavior (I) \( (p < .05) \), attention to inappropriate/not-cueing behavior (i) \( (p < .01) \), and with social approval for inappropriate behavior (I+/i+) \( (p < .025) \).

**AO Condition Coding Scores.** The 19 teacher subjects in the AO condition correctly coded a mean of 72 of 78 teacher-student interactions (94%). Out of a total of 44 scenes, these 19 subjects had completely correct coding in a mean 36 scenes (81%). Coding scores did not correlate significantly with any of the six classroom performance measures.

**Lecture Rating.** Figure 1 shows the mean ratings on 11 dimensions of all teacher subjects who viewed and rated the Lecture film. Each dimension was rated on a seven point scale. The lowest rating was on the dull-exciting dimension \( (M=4.53) \) and the highest rating was on the incomprehendible-understandable dimension \( (M=6.68) \). The overall mean score was 5.82.

**Section 3. Experiments I and II Combined**

Experiments I and II were slightly different in ways that have already been described and thus it was appropriate to analyze the data from the two studies separately. However,
Please rate the lecture you just watched and listened to. Try to rate the lecture in comparison to other lectures (e.g., in classes or workshops) to which you have been exposed.

<table>
<thead>
<tr>
<th>Rating</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>_ Very Boring _</td>
<td>4.83</td>
</tr>
<tr>
<td>_ Poor _</td>
<td>5.10</td>
</tr>
<tr>
<td>_ Incomprehensible _</td>
<td>6.68</td>
</tr>
<tr>
<td>_ Impractical _</td>
<td>6.31</td>
</tr>
<tr>
<td>_ Very Vague _</td>
<td>6.49</td>
</tr>
<tr>
<td>_ Disorganized _</td>
<td>6.64</td>
</tr>
<tr>
<td>_ Strongly Disagree _</td>
<td>5.96</td>
</tr>
<tr>
<td>_ Meaningless _</td>
<td>6.28</td>
</tr>
<tr>
<td>_ Very Uninformative _</td>
<td>6.00</td>
</tr>
<tr>
<td>_ Dull _</td>
<td>4.53</td>
</tr>
<tr>
<td>_ Uninfluential _</td>
<td>5.17</td>
</tr>
</tbody>
</table>

Grand Mean 5.82
(N=67)

Comments

Figure 1. Mean Teacher Ratings of the Filmed Lecture
the pattern of results obtained was strikingly similar for the two subject populations so that the second experiment could be considered essentially a replication of the first. By combining the data it is possible to test the experimental hypothesis with an increased number of subjects. More importantly, it is also possible to study the differences or similarities in performance between the University subjects and the teacher subjects.

The means and standard deviations for the combined data are presented in Table 28. Table 29 shows the rank order of performance for each treatment condition on each of the five main response categories. It can be seen that the rank order of groups matches the predicted order perfectly on all five response categories. These relationships are depicted graphically in Figure 2.

The detailed comparison of the groups for each response category follows, with the basic layout of the data the same as for the two experiments separately. Planned comparison analyses were performed first, followed by the analysis of variance, which, when statistically significant, was followed by Duncan's New Multiple Range Test to determine the pairs of means which were significantly different. The data were analyzed by a 2-way analysis of variance, with four levels of treatment and two levels of subject population—University undergraduates and teachers. A corrected \( F \) ratio (Kirk, 1968) was used in those cases where planned comparisons were
### Table 28

Means and Standard Deviations for Teacher and University Subjects Combined

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>a</th>
<th>I</th>
<th>I</th>
<th>A+/a+/g+</th>
<th>I+/i+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Minimal Information</td>
<td>5.58</td>
<td>1.73</td>
<td>3.75</td>
<td>4.07</td>
<td>10.58</td>
<td>3.52</td>
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<tr>
<td>(N=12)</td>
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<tr>
<td>Lecture</td>
<td>6.44</td>
<td>1.2</td>
<td>7.31</td>
<td>3.61</td>
<td>9.75</td>
<td>3.61</td>
</tr>
<tr>
<td>(N=16)</td>
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<td></td>
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</tr>
<tr>
<td>Passive Observation</td>
<td>6.79</td>
<td>1.28</td>
<td>8.00</td>
<td>3.55</td>
<td>5.17</td>
<td>3.44</td>
</tr>
<tr>
<td>(N=24)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Active Observation</td>
<td>7.35</td>
<td>1.40</td>
<td>10.90</td>
<td>4.11</td>
<td>3.70</td>
<td>3.45</td>
</tr>
<tr>
<td>(N=23)</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Active/Passive</td>
<td>7.06</td>
<td>1.36</td>
<td>9.02</td>
<td>3.94</td>
<td>4.45</td>
<td>3.49</td>
</tr>
<tr>
<td>Observation Combined</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N=47)</td>
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</tr>
</tbody>
</table>
Table 29

Rank Order of Performance of Each Condition on Each of Five Main Response Categories

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>a</th>
<th>I</th>
<th>i</th>
<th>+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Observation</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Passive Observation</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Lecture</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Minimal Information</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
Figure 2. Attention given by all subjects to
1) Appropriate/cueing behavior (A),
2) Appropriate/not-cueing behavior (a),
3) Inappropriate/cueing behavior (I),
4) Inappropriate/not-cueing behavior (i),
and the number of intervals in which subjects gave positive social reinforcement to appropriate behavior (A+/a+/g+) and inappropriate behavior (I+/i+).
RESPONSE MEASURE

- CONTROL (TEACHERS ONLY)
- MINIMAL INFORMATION (ALL SUBJECTS)
- LECTURE (ALL SUBJECTS)
- PASSIVE OBSERVATION (ALL SUBJECTS)
- ACTIVE OBSERVATION (ALL SUBJECTS)

MEAN NUMBER OF INTERVALS CODED

RESPONSE MEASURE

A a I i A*/a*/g* I*/i*
performed, whereas the conventional $F$ ratio formula was used to explore the main effect due to subject population and the effect due to subject population by type of treatment interaction. Thus there are two analysis of variance tables presented for each response category.

**Teacher attention to appropriate/cueing behavior (A)**

**Planned Comparisons: AO vs PO.** Subjects in the AO condition gave more attention to students seeking attention in appropriate ways than subjects in the PO condition—the differences reaching a marginal level of significance ($t = 1.44$, $df = 71$, $p < .10$).

**Planned Comparison: AO/PO Combined vs L.** Subjects in the combined observation conditions gave significantly more attention to students who were seeking attention in appropriate ways than subjects in the L condition ($t = 2.15$, $df = 71$, $p < .025$).

**Analysis of Variance.** Table 30 shows that the analysis of variance performed on the A response measure—for the purpose of examining the training procedure variable—is not statistically significant.

Table 31 shows that the analysis of variance performed on the A response measure—for the purpose of examining the subject's population variable and possible interaction effects also reveals no statistically significant differences.

**Teacher attention to appropriate/not cueing behavior (a)**

**Planned Comparison: AO vs PO.** Subjects receiving the AO treatment gave significantly more attention to students
who were working quietly than subjects receiving the PO treatment \((t = 1.83, df = 71, p < .05)\).

Table 30

Analysis of Variance of Teacher and University Subjects Combined Attention to Appropriate/Cueing Behavior (A)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS RESULTANT</th>
<th>MS WG</th>
<th>F</th>
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</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>18.18</td>
<td>1</td>
<td>1.96</td>
<td>5.03</td>
<td>2.57</td>
</tr>
<tr>
<td>Comparison AO vs PO</td>
<td>3.89</td>
<td>71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO</td>
<td>9.25</td>
<td>74</td>
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</tbody>
</table>

Table 31

Analysis of Variance of Teacher and University Subjects Attention to Appropriate/Cueing Behavior (A)

<table>
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<tbody>
<tr>
<td>A</td>
<td>18.18</td>
<td>3</td>
<td>6.06</td>
<td>3.09</td>
</tr>
<tr>
<td>B</td>
<td>3.59</td>
<td>1</td>
<td>3.59</td>
<td>1.83</td>
</tr>
<tr>
<td>AB</td>
<td>1.59</td>
<td>3</td>
<td>0.53</td>
<td>0.27</td>
</tr>
<tr>
<td>WITHIN</td>
<td>131.49</td>
<td>67</td>
<td>1.96</td>
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<tr>
<td>TOTAL</td>
<td>154.84</td>
<td>74</td>
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</table>
Planned Comparison: AO/PO Combined vs L. Subjects in the combined observation conditions gave more attention to students working quietly than subjects in the L condition—the difference being marginally significant ($t = 1.53, \text{df} = 71, p < .10$ one-tailed).

Analysis of Variance. Table 32 shows that the analysis of variance performed on the a response measure for the purpose of studying the training procedure variable is highly significant ($p < .001$).

The results of Duncan's Test show that subjects in the AO, PO and L conditions all gave significantly more attention to students working quietly than did subjects in the MI condition. The differences between the observation conditions and the MI condition were both significant beyond the .01 level, whereas the difference between the L condition and the MI condition was significant at the 95% level of confidence. In addition, subjects in the AO condition gave significantly more attention to students working quietly than subjects in the L condition ($p < .05$).

Table 33 shows that the analysis of variance performed on the a response measure—for the purpose of examining the subject population variable and possible interaction effects—is not statistically significant.

Teacher attention to inappropriate/cueing behavior (I)

Planned Comparison: AO vs PO. Subjects in the AO condition gave significantly less attention to students
### Table 32

Analysis of Variance of Teacher and University Subjects Combined Attention to Appropriate/Not-Cueing Behavior (a)

<table>
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<tr>
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<tr>
<td>Comparison AO/PO Combined vs L</td>
<td>37.88</td>
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</table>

*p < .001

### Table 33

Analysis of Variance of Teacher and University Subjects Combined Attention to Appropriate/Not-Cueing Behavior (a)

<table>
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<td>90.02</td>
<td>5.89</td>
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<tr>
<td>B</td>
<td>4.15</td>
<td>1</td>
<td>4.15</td>
<td>0.27</td>
</tr>
<tr>
<td>AB</td>
<td>8.78</td>
<td>3</td>
<td>2.93</td>
<td>0.19</td>
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<tr>
<td>WITHIN</td>
<td>1024.65</td>
<td>67</td>
<td>15.29</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>1307.65</td>
<td>74</td>
<td></td>
<td></td>
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</table>
seeking attention in inappropriate ways than did subjects in the L condition (t = 5.31, df = 71, p < .001).

**Analysis of Variance.** Table 34 shows that the analysis of variance performed on the I response measure—for the purpose of examining the training procedure variable—is not statistically significant.

Table 35 shows that the analysis of variance performed on the I response measure—for the purpose of examining the subject population variable and possible interaction effects—also is not statistically significant.

**Teacher attention to inappropriate/not-cued behavior (i)**

**Planned Comparisons:** AO vs PO. No significant difference was obtained between the AO and PO conditions on the i response measure.

**Planned Comparison:** AO/PO Combined vs L. No significant difference was obtained between the observation conditions combined and the L condition on the i response measure.

**Analysis of Variance.** Table 36 shows that the analysis of variance performed on the i response measure—for the purpose of examining the training procedure variable—is statistically significant (p < .05).

The results of Duncan's Test show that AO and PO conditions both gave significantly less attention to students
Table 34

Analysis of Variance of Teacher and University Subjects Combined Attention to Inappropriate/Cueing Behavior (I)

<table>
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<td></td>
<td></td>
</tr>
<tr>
<td>AO vs PO</td>
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<td></td>
</tr>
<tr>
<td>Comparison AO/PO</td>
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</tr>
<tr>
<td>Combined vs L</td>
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</tr>
</tbody>
</table>

Table 35

Analysis of Variance of Teacher and University Subjects Combined Attention to Inappropriate/Cueing Behavior (I)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
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<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
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<td>A</td>
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<td>3</td>
<td>138.39</td>
<td>11.52</td>
</tr>
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<td>B</td>
<td>3.21</td>
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<td>3.21</td>
<td>0.27</td>
</tr>
<tr>
<td>AB</td>
<td>49.63</td>
<td>3</td>
<td>16.54</td>
<td>1.38</td>
</tr>
<tr>
<td>WITHIN</td>
<td>804.58</td>
<td>67</td>
<td>12.01</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>1272.60</td>
<td>74</td>
<td></td>
<td></td>
</tr>
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</table>
Table 36
Analysis of Variance of Teacher and University Subjects Combined Attention to Inappropriate/Not-Cueing Behavior (i)

<table>
<thead>
<tr>
<th>SOURCE</th>
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<td>42.59</td>
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<td>Comparison AO vs PO</td>
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<tr>
<td>Comparison AO/PO</td>
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</tr>
<tr>
<td>Combined vs L</td>
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<td>71</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

engaged in inappropriate/not-cueing behavior than did subjects in the MI condition—both differences being significant beyond the .01 level.

Table 37 shows that the analysis of variance performed in the i response measure—for the purpose of examining the subject variable and possible interaction effects—is significant (p < .005).

Across treatment conditions, University students gave significantly less attention to inappropriate/not-cueing behavior than did teacher subjects.
Table 37
Analysis of Variance of Teacher and University Subjects' Attention to Inappropriate/Not-Cueing Behavior (i)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>56.92</td>
<td>3</td>
<td>18.97</td>
<td>2.08</td>
</tr>
<tr>
<td>B</td>
<td>69.86</td>
<td>1</td>
<td>69.66</td>
<td>7.65</td>
</tr>
<tr>
<td>AB</td>
<td>41.89</td>
<td>3</td>
<td>13.96</td>
<td>1.53</td>
</tr>
<tr>
<td>WITHIN</td>
<td>611.60</td>
<td>67</td>
<td>9.13</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>780.27</td>
<td>74</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Positive Social Reinforcement to Appropriate Behavior
(A+/a+/g+)

**Planned Comparison: AO vs PO.** Subjects in the AO condition gave significantly more positive social reinforcement to appropriate student behavior than subjects in the PO condition (p < .001).

**Planned Comparison: AO/PO Combined vs L.** Subjects in the observation conditions combined gave significantly more social reinforcement to students behaving appropriately than subjects in the L condition (t = 2.29, df = 81, p < .025).

**Analysis of Variance.** Table 38 shows that the analysis of variance performed on the + response measure for the purpose of examining the training procedure variable is highly significant (p < .001).
Table 38

Analysis of Variance of Teacher and University Subjects Combined Positive Social Attention to Appropriate Behavior (A+/a+/g+)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>MS RESULTANT</th>
<th>MS WG</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>541.34</td>
<td>1</td>
<td>18.04</td>
<td>40.00*</td>
<td>256.08</td>
<td></td>
</tr>
<tr>
<td>Comparison AO vs PO</td>
<td>185.89</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO Combined vs L</td>
<td>99.37</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .001

The results of Duncan's Test show that subjects in the AO, PO, and L conditions all gave significantly more positive social reinforcement to appropriate student behavior than did subjects in the MI condition. The difference between each of the observation conditions and the MI condition were both significant beyond .01, while the difference between L and MI was significant beyond the .05 level of confidence.

Table 39 shows that the analysis of variance performed on the + response measure—for the purpose of studying the subject variable and possible interaction effects—is not statistically significant.
Table 39
Analysis of Variance of Teacher and University Subjects Positive Social Attention to Appropriate Behavior (A+/a+/g+)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>541.34</td>
<td>3</td>
<td>180.5</td>
<td>10.00</td>
</tr>
<tr>
<td>B</td>
<td>2.62</td>
<td>1</td>
<td>2.62</td>
<td>0.15</td>
</tr>
<tr>
<td>AB</td>
<td>31.62</td>
<td>3</td>
<td>10.54</td>
<td>0.58</td>
</tr>
<tr>
<td>WITHIN</td>
<td>1208.68</td>
<td>67</td>
<td>18.04</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>1784.27</td>
<td>74</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Positive Social Reinforcement to Inappropriate Student Behavior (I+/i+)

Planned Comparisons: AO vs PO. No significant difference was obtained between the AO and PO conditions on the I+/i+ response measure.

Planned Comparison: AO/PO Combined vs L. Subjects in the observation conditions combined gave significantly less social reinforcement to inappropriate student behavior than subjects in the L condition ($t = 4.00$, $df = 71$, $p < .001$, two-tailed).

Analysis of Variance. Table 40 shows that the analysis of variance performed on the + response measure—for the purpose of examining the training procedure effect—was not significant.
Table 41 shows that the analysis of variance performed on the + response measure—for the purpose of examining the subject and possible interaction effects was not significant.

**Table 40**

Analysis of Variance of Teacher and University Subjects Combined Positive Social Attention to Inappropriate Behavior (I+/i+)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>MS RESULTANT</th>
<th>MS WG</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>31.31</td>
<td>1</td>
<td>3.29</td>
<td>&lt; 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO vs PO</td>
<td>0.56</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison AO/PO Combined vs L</td>
<td>56.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 41

Analysis of Variance of Teacher and University Subjects Positive Social Attention to Inappropriate Behavior (I+/i+)

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>31.31</td>
<td>3</td>
<td>10.44</td>
<td>3.17</td>
</tr>
<tr>
<td>B</td>
<td>15.34</td>
<td>1</td>
<td>15.34</td>
<td>4.66</td>
</tr>
<tr>
<td>AB</td>
<td>21.94</td>
<td>3</td>
<td>7.31</td>
<td>2.22</td>
</tr>
<tr>
<td>WITHIN</td>
<td>220.54</td>
<td>67</td>
<td>3.29</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>289.13</td>
<td>74</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the absence of and prior to training the performance of teachers and University subjects was not very different.
For example, prior to treatment, University subjects gave attention to students who were working quietly in only 0.75 out of 20 observation intervals compared to a mean scores of 1.40 for the C subjects in the teacher group. These means are in sharp contrast to the posttreatment performance of AO subjects who gave attention to students working quietly in a mean 10.09 intervals. Similar, though reverse relationships were obtained on the attention to inappropriate behavior response categories. For example, University subjects gave attention to students seeking attention in inappropriate ways in 12.20 out of 20 intervals on their pretest compared to a mean scores of 11.70 for the teacher controls. These scores contrast dramatically with the posttest scores of AO subjects who attended to inappropriate cueing in a mean 3.70 interval. Figure 3 shows graphically that University subjects attended to inappropriate behavior at the expense of appropriate behavior. Subjects who received the AO treatment did just the reverse—attending to appropriate behavior at the expense of inappropriate behavior. Inspection of the data shows further that teacher control subjects actually gave more positive social reinforcement to inappropriate behavior than they did to appropriate behavior. Pretest University subjects and teacher control subjects did not differentially attend to the two kinds of inappropriate behavior.
Figure 3. Mean number of intervals out of 20 in which undergraduates on the pretest, teacher control subjects, and AO subjects on the posttest responded to: (1) Appropriate/cueing behavior (A), (2) Appropriate/not-cueing behavior (a), (3) Inappropriate/cueing behavior (I), (4) Inappropriate/not-cueing behavior (i), and the number of intervals in which subjects gave positive social reinforcement to appropriate behavior (A+/a+/g+) and inappropriate behavior (I+/i+).
The pretest performance of University subjects was significantly different than the performance of the teacher control subjects on two response dimensions. Teacher control subjects gave significantly more positive social reinforcement to both appropriate behavior ($t = 2.78$, $df = 26$, $p < .01$) and to inappropriate behavior ($t = 2.54$, $df = 26$, $p < .02$, two tailed).
Summary of results from the classroom test: Experiment I

The results obtained on the posttest and change score measures were very similar. In point of fact, the magnitude of the obtained differences was slightly larger overall on the posttest than the change score measure. The planned comparisons performed on the posttest data resulted in five significant differences compared to three on the change score measure. This finding is not surprising in view of the fact that there was very little performance variability (no individual differences) among subjects on the pretest. On the pretest every University subject attended to a great deal of inappropriate student behavior and very little appropriate behavior.

Pretest scores did not correlate significantly with posttest scores. The powerful attention eliciting "pull" of inappropriate student behavior on the pretest was probably the main reason for the absence of any significant correlations and also indirectly attests to the potency of the experimental manipulations.

As predicted, subjects in the AO condition had the best mean performance scores on all five main response measures. Planned comparisons between the AO and PO conditions showed
that AO subjects ignored significantly more inappropriate behavior than PO subjects--indicating that the coding manipulation added to training effectiveness. Furthermore, on all five main response measures subjects in the observation conditions combined performed better than subjects in the L condition. On the posttest measure the differences were significantly different on the social reinforcement to appropriate behavior category (A+/a+/g+) and marginally significant on the "attention to inappropriate/cueing" (I) and the "catch the child being good" (a) categories. Although the mean performance scores of subjects in the L condition were generally better than the scores of subjects in the MI condition, none of these differences were statistically significant.

Summary of results from the classroom test: Experiment II

As in Experiment I, subjects in the AO condition had the best mean performance scores on all five response categories about which a priori predictions had been made. Planned comparisons between subjects in the AO condition and subjects in the PO condition (who overall had the second best performance) revealed significant differences on two response measures--social reinforcement to appropriate behavior (A+/a+/g+), and the "catch the child being good" category (a).

Planned comparisons between the observation conditions combined and the L condition showed that subjects in the
observation conditions attended to significantly more appropriate/cueing behavior (A) and ignored significantly more inappropriate/cueing behavior (I) than subjects in the L condition.

A posteriori comparisons showed that subjects in each of the AO, PO, and MI conditions all attended to more appropriate/cueing behavior (A) than subjects in the C condition. While subjects in the AO and PO conditions also attended to significantly more appropriate/not-cueing behavior (a) than subjects in the MI and L conditions, the differences between MI and L were not significant.

The a posteriori comparisons also showed that subjects in each of the observation conditions ignored significantly more inappropriate/cueing behavior (I) than subjects in each of the C, MI and L conditions—which were not significantly different from one another. These dramatic differences suggest that simply telling a teacher to ignore students who are trying to obtain attention in inappropriate ways is a relatively ineffectual way of changing a teacher's behavior.

Subjects in the L and MI conditions were considerably more able to ignore the inappropriate behavior of students who were not explicitly cueing the teacher. Subjects in each of the AO, PO, and MI conditions ignored significantly more appropriate/not-cueing behavior (a) than subjects in the condition.
Subjects in the AO and PO conditions also ignored significantly more inappropriate/not-cueing behavior (i) than subjects in the MI condition, while the differences between MI and L were not significant. There were also no significant differences between the L condition and each of the observation conditions on the i response category. In sum, the L treatment was successful in training subjects how to ignore inappropriate student behavior only if the inappropriately behaving student was not explicitly seeking the teacher's attention.

Subjects in the AO, PO and L conditions all gave significantly more social reinforcement to appropriate behavior than subjects in the C condition; MI subjects did not. AO, PO and L subjects also gave significantly more social reinforcement to appropriate behavior than subjects in the MI condition. Finally, AO subjects also gave significantly more social reinforcement to appropriate behavior than subjects in the L condition.

An interesting finding of Experiment II emerged from an analysis of the response category of social reinforcement to inappropriate behavior (I+/i+). This category was coded whenever a subject attended to inappropriate student behavior in a "positive" manner—as with verbal praise or gentle physical contact. Planned comparisons performed on these data showed that, while there was no significant difference
between the two observation conditions, subjects in the L condition gave significantly more positive social reinforcement to inappropriate behavior than subjects in the observation conditions. (There were no differences between L, MI and C.) Whereas subjects in the L condition gave more social reinforcement to appropriate than they gave to inappropriate student behavior, the above results suggest that subjects in the L condition were less able to discriminate what kind of student behavior to socially reinforce than were subjects in the observation conditions.

**Summary of results from the classroom test: Experiment I and II combined**

Since the results of Experiment I and II were very similar, combining the data resulted in an increased number of significant differences between conditions and the rank performance order of each of the conditions on each of the six response measures matches perfectly the predicted order.

Fortunately, the comparisons between Experiment I and II do not present serious interpretation problems since there were no significant treatment by subject population interaction effects and University students performed significantly different than the teachers on only one response measure.

Planned comparisons between the AO and PO conditions showed differences reaching at least marginal significance
on four of the five response categories about which a priori predictions had been made. Compared to subjects in the PO condition, AO subjects gave more attention to students seeking attention in appropriate ways (A), gave more attention to students working quietly (a), ignored more inappropriate cueing behavior (I), and gave more positive social reinforcement to appropriate behavior (A+/a+/g+). Attention to inappropriate/not-cueing behavior (i) was the only response category on which the PO group was not inferior to the AO group.

Planned comparisons between the observation conditions combined and the L condition also revealed differences reaching at least marginal significance on four of the five main response categories. Compared to subjects in the L condition subjects in the observation conditions combined gave more attention to students seeking attention in appropriate ways (A), gave more attention to students working quietly (a), ignored more inappropriate cueing behavior (I), and gave more social approval for appropriate behavior (A+/a+/g+). Furthermore, subjects in the L condition gave significantly more positive social reinforcement to inappropriate behavior than the AO and PO subjects. As with the planned comparisons between AO and PO, attention to inappropriate/not-cueing behavior (i) was the only response measure on which no significant differences were obtained.
The *a posteriori* comparisons show that subjects in the L condition performed significantly better than MI subjects on two response measures. Compared to MI subjects, subjects in the L condition gave more attention to students who were working quietly (a) and gave more positive social reinforcement to appropriate behavior. Whereas subjects in each of the observation conditions ignored more inappropriate/not-cueing behavior (i) than did MI subjects, there were no significant differences between L or MI on the i response category.

Surprisingly, the performance of teachers was not very different from the performance of University students—both before or without training and after training. Prior to training, both teachers and students attended primarily to inappropriate behavior rather than appropriate behavior and both groups gave relatively little social approval—compared for example to post treatment AO subjects. Teacher control subjects differed from University subjects on only two response measures. Compared to results of the University pretest, teacher control subjects gave more positive social reinforcement to both appropriate (A+/a+/g+) and inappropriate behavior (I+/i+). One might say that teacher controls gave more "unconditional positive regard" to students than the University subjects did on their pretest.

Following treatment, teachers and University subjects differed on only one response dimension. Compared to
University subjects, the teacher subjects attended significantly more to children who were behaving in inappropriate ways, but not explicitly cueing the teacher. This observation must be interpreted with caution, however, since the University subjects received a pretest training experience whereas the teacher subjects did not, and the pretest experiences may have contributed to this effect. Assuming that the pretest had no effect however, the difference may have been obtained because many teachers have strong habits of "catching students being bad"—acquired through continuing efforts to maintain classroom control. The University subjects may have found it easier to follow the recommendations because they did not have to break a strong habit of "catching students being bad." This explanation does not account for why there was no difference between teacher and University subjects attending to inappropriate/cueing behavior (I), however.

Findings Related to Personality Data

None of the personality or questionnaire measures correlated significantly with any of the classroom response measures for the University subjects. For the teacher subjects, only four of the individual difference measures correlated significantly with more than one classroom response measure. The more extroverted teachers reported themselves to be the less attention they gave to children
who were working quietly and the less positive social attention they gave to appropriate behavior. People who score high on extroversion tend to be sociable and impulsive. Consequently, they probably were more responsive to children who were noisy and attracting attention than to children who were quiet and unobtrusive.

The more praise teachers reported giving their students the more attention they gave to appropriate/cueing behavior (A), the less attention they gave to inappropriate/cueing behavior (I), and the less social reinforcement they gave to inappropriate behavior (I+/i+). This pattern of correlations does not seem to be readily interpretable.

The more classroom control problems teachers reported having, the less attention they gave to children who were trying to attract their attention in appropriate ways and the more positive social reinforcement they gave to inappropriate behavior. These correlations are what one might expect, as less attention to appropriate behavior and positive attention to inappropriate behavior are probably associated with greater classroom control problems in the natural environment. Furthermore, while not significant, classroom control also correlated with the other four response measures in directions one might expect to be associated with classroom control problems. The more classroom control problems teachers reported having the less attention they gave to appropriate/non-cueing behavior (a), the less social
reinforcement they gave to appropriate behavior (A+/a+/g+), and the more attention they gave to inappropriate/cueing (I) and inappropriate/not-cueing behavior (i).

Inspection of the data in Table 27 shows that only one individual difference measure correlated consistently and significantly with every classroom response measure. The more permissive (compared to strict) that teachers rated themselves, the more closely they performed to criterion on all six dependent variables. Teachers rating themselves as strict attended to more inappropriate behavior, attended to less appropriate behavior, gave more positive social reinforcement to inappropriate behaviors, and gave less positive social reinforcement to appropriate behavior than subjects rating themselves as permissive. In other words, it appears that "strict" teachers would be more difficult to train in contingent attention and social approval than would "permissive" teachers. One might speculate that the reason for this is that teachers who are strict have strong habits of responding immediately to deviation, and thus find it more difficult to ignore deviation than permissive teachers. It would follow that the time and energy expended in attending to inappropriate behavior would detract from a teacher's time and energy to respond to appropriate behavior. Strict teachers may be occupied with preventing deviation at the expense of promoting prosocial behavior.
At first glance, it is surprising that so few personality and questionnaire response measures correlated with trainability. One possible explanation might be that the relative potency of the experimental manipulations overrode personality differences, and it might be noted that the experiment was concerned with skill acquisition—not skill utilization. Another very conceivable possibility, however, is that most of the personality and questionnaire measures employed in the present research did not tap relevant individual dimensions related to trainability in the application of learning principles.

The significant effects of coding modeled behavior

The major theoretical contribution of the present research is that the observer's behavior during exposure to a modeling film is an important variable in determining the influence of the film on his behavior.

The greater effectiveness of the AO treatment relative to the PO treatment was considered particularly impressive since the treatments varied in only one technical—though very crucial—aspect. Subjects in the PO condition were exposed to exactly the same procedures as the AO subjects except that they were instructed not to record their observations in code on the codesheet while observing the modeling film. The PO subjects were exposed to exactly the same information as the AO subjects and were given feedback
immediately following each modeling scene--indicating how that scene should have been coded had they been coding. It might be noted that research mentioned earlier showed that labeling relevant modeling cues adds to the effectiveness of observational learning (Claus, 1969; McDonald et al., 1966; Bandura et al., 1967; Gerst, 1971). Thus, the PO subjects received a relatively sophisticated modeling experience. Furthermore, PO subjects had the opportunity to code covertly had they chosen to do so--and if they had, their experience would have been almost identical to the experience of the AO subjects.

It might also be added that one of the difficulties encountered in the AO condition was in guaranteeing that subjects did not cheat while coding. Although it was not planned to monitor the subjects while they were coding, it proved by chance to be possible. There happened to be a crack between the video-monitor and wall casing which permitted the experimenter to unobtrusively observe the subjects as they viewed and coded the film. Unfortunately, there was some cheating and falsifying. Some subjects erased and changed their codings or marked their code after the narrator gave the correct coding answer. This may have contributed to the failure to find a correlation between accuracy in coding and performance in the classroom, and in some cases may have contributed to lower test performance scores than would have been obtained had cheating been controlled. In
spite of these factors, AO subjects performed better than PO subjects.

**Inappropriate behavior as a powerful controlling stimulus**

One of the most disconcerting but perhaps most important findings of the present research was that, when conducting class prior to or without training, every single subject attended to a great deal of inappropriate behavior and very little appropriate behavior. And the fact that there was little difference in performance between regular classroom teachers and University undergraduates was unexpected, to say the least.

An explanation for these surprising observations may be found in the proverb, "the squeaky wheel gets the grease" --which may be translated as follows: inappropriate behaviors provide a more salient signal, cue or stimulus than quiet appropriate behavior. This is especially true if the cue is aversive or disturbing, since there seems to be a natural tendency to respond to an aversive stimulus in an attempt to remove it.

The notion of cue salience to account for the behavior of pretest and control subjects may also be used to account for the finding that subjects ignored significantly less inappropriate/cueing behavior (I) than inappropriate/not-cueing behavior (i). Subjects apparently found it more difficult to ignore students actively seeking attention in
inappropriate ways than students engaged in inappropriate behavior, but not explicitly asking for attention. This difference should probably not be considered too surprising since people seldom fail to respond when spoken to. Consider the cue salience of a child calling out without permission: "May I go to the bathroom? . . . Mrs. Clarke, will you help me? . . . or "Can you check this?" as the child thrusts his paper six inches in front of the teacher's face.

A corollary of the "greasy wheel" phenomena may be that good behavior gets taken for granted. Note that prior to or without training, the students least likely to receive attention were the ones who were working quietly and appropriately--ironic since these were the children who were most deserving of teacher attention. In the natural environment, the real loser may be the child who spends much of the school day passively off-task but who never "bothers" (inappropriately cues) anyone.

**The verisimilitude of the simulated classroom**

Some of the comments made by subjects in both experiments about their experience in the simulated classroom are of interest. Nearly all subjects reported that they did not realize that the children had been programmed to behave as they did. When they were told this, they invariably expressed amazement at how well and how professionally the
children performed. Many of the teachers exclaimed how much the simulated classroom was like their own classroom.

It might be supposed that subjects being observed in a test situation would be under considerable social restraint (the obtrusive measurement effect--Webb, Campbell, Schwartz, & Sechrest, 1966). It is true that many of the teachers, when reprimanding the misbehaving children, rarely raised their voices. On the other hand, several observations suggest that once in the teaching situation the subjects behaved much as they would have, had they been in their own classroom. One teacher, in frustration, threw a heavy metal ruler between Susan and Teri as they argued with each other in Scene 3--potentially a very harmful behavior. Another teacher literally picked up each of the children in their chairs and faced them toward the four corners of the room. There were also occasional instances of children being pinched, or having their hair pulled. (Behavior of this kind was never observed in the University subjects.)

All in all, it was felt that the simulated classroom represented a close analog to a real classroom situation. Of course, many of the teachers might not typically use the same classroom rules as were specified for the simulated classroom. It was pointed out to them, however, that the designated rules were purely arbitrary and fairly rigid--the choice was meant to be illustrative and not dogmatic.
Implications of the findings for explaining consultative failure

The results of the present research may provide some insight to consultants who complain that teachers do not follow their recommendations and also to teachers who revert to using previous methods of classroom management because the recommendations "didn't work."

The only clear-cut difference between MI and C subjects was that subjects in the MI condition ignored more inappropriate/not-cueing behavior (i). When brief consultation fails, the major reason may be that minimal information may be insufficient to produce much teacher behavior change in the first place--perhaps one specific response but not a complex configuration of behavior. In fact, ignoring only some inappropriate behavior without increasing positive social reinforcement for appropriate behavior might even lead to an increase in inappropriate student behavior. Under these circumstances the teacher would probably stop ignoring the inappropriate behavior in short order in an effort to regain classroom control.

A second suggestive finding was that in 32% of the intervals in which subjects in the L condition delivered positive social reinforcement, the reinforcement was for inappropriate behavior. In contrast, only 8% of the positive social reinforcement delivered by AO subjects followed inappropriate behavior. Furthermore, subjects in
the L condition gave attention to inappropriate student behavior in almost as many intervals (49%) as they did to appropriate student behavior (51%). In contrast, 75% of the attention given by AO subjects was contingent upon appropriate behavior. These findings suggest that subjects in the L condition were trying to follow the training recommendations, but that they were less able than subjects in the observational conditions to discriminate what student behavior should and should not receive attention and social approval. To the extent that teachers give non-contingent attention and approval to their regular students, student behavior would not be expected to improve or change. For example, Hart, Reynolds, Baer, Brawley and Harris (1968) showed that a child's cooperative play behavior increased when teacher attention and approval were contingent upon cooperative play behavior, but that no increase in cooperative play occurred when the child received attention and approval at random intervals--regardless of her behavior. The less student behavior changes as a result of teacher behavior change the more probable that teachers will revert to previous teaching habits.

The final suggestive finding was that subjects in the L condition were very proficient in ignoring the category of inappropriate behavior in which the student was not explicitly cueing (talking to) the teacher, but they attended to a great deal of inappropriate behavior which involved explicit cueing. This performance discrepancy may have some
important implications. Consider a classroom situation in which the teacher ignores all misbehavior if the students do not try to involve the teacher, but responds to every student who talks to her--regardless of topic or appropriateness. The teacher may find herself engaged in considerable non-task oriented conversation--which might be expected to be very aversive to her. Assuming that much inappropriate behavior--whether cueing or not-cueing--is directed toward obtaining teacher attention, the following sequence of events might be expected to occur. Inappropriate not-cueing behavior (i) might be expected to decrease (because it receives no teacher attention) while inappropriate cueing (I) might be expected to increase (because it does receive teacher attention). Thus the teacher may find herself unwittingly attending to just as much inappropriate behavior as previously--but of a different nature. She may then conclude that ignoring does not work and revert to her previous patterns of behavior.
The overall experimental results provide strong support for the original hypotheses. Subjects receiving a modeling experience in addition to receiving verbal information exhibited greater acquisition of classroom management skills than subjects receiving only verbal information. More importantly, subjects whose attention was experimentally manipulated in the modeling situation demonstrated greater skill acquisition than subjects whose modeling experience was left uncontrolled.

An important question that remains unanswered is, to what extent would the behavior change observed in this study generalize to the subject's own classroom? Future analog research of this kind would do well to determine the degree of generalization. On the other hand, the simulated classroom, one of the unique features of this study, has an unusual advantage over the regular classroom. The children's behavior was programmed and thus held constant for all trainees. When assessment of training takes place in such a classroom the effects of variability in student behavior on teacher behavior do not confound measures of training effectiveness. In a natural environment generalization test, variation in student behavior from classroom to classroom would influence the degree to which the teacher
implements the newly acquired skills. Also, whether or not a teacher continues to use the newly acquired skills (i.e., whether the results obtained would still be seen upon follow-up) is largely dependent on the reinforcement of improved class conduct. If her students' behavior do not change, or deteriorate, the teacher can be expected to revert to her old ways of managing the class. Therefore, a long term follow-up measure of teacher performance would be greatly confounded by the influence of intervening events, and not a fair reflection of treatment effects. This latter point is especially true as the skills imparted in this study are only one, albeit important, aspect of classroom behavior management. In difficult classroom situations additional techniques would be required, some of which were touched upon in the lecture film.

Another question, one which the present study was not designed to answer, is what constitutes an ideal teacher training procedure? Many of the subjects in the AO condition (and some subjects in other conditions), performed close to criterion in terms of ignoring inappropriate behaviors, attending to appropriate behaviors, and being very generous with positive social reinforcement. There were, however, some subjects in every condition whose performance left something to be desired. For example, some subjects ignored inappropriate behaviors but did not give much attention to children who were behaving appropriately. They simply sat
at the teacher's desk. Other subjects did a great deal of "catching children being good" but continued to respond to children calling out to them. These subjects may have profited from the addition of a roleplaying condition.

The literature in behavior change has shown the usefulness of a roleplaying and feedback experience (McDonald et al., 1966; Claus, 1969; Bandura, Blanchard, & Ritter, 1968; McFall & Marston, 1969). If the present experiment were to be implemented in a natural environment setting, the addition of roleplaying would be an obvious choice. However, it may be that roleplaying is necessary only for those subjects who do not, with less training, reach criterion performance in the simulated classroom. This suggests another very useful function of the simulated classroom. It provides a standardized environment for assessing the training needs of different individuals. Subjects failing to achieve criterion performance in the simulated classroom could then be provided with additional training.

A third limitation of the present research is that the three major modes of manipulating teacher behavior were not conceptually pure learning experiences. Rather, treatment procedures were chosen on the grounds of their being representative of standard ways of attempting to alter teacher behavior. For instance, the inclusion of the MI condition was considered worthwhile because, not infrequently, classroom management suggestions received by a teacher from
a consulting psychologist do not go far beyond a few sentences (e.g., "Give him a lot of praise when he is in his seat and ignore him when he is out of his seat"). The psychologist may listen to a teacher talk about a problem at length and then tell her what to do in not many more words than were included in the instructions given to the MI subjects.

Simply telling the subjects what to do, however, influenced their teaching behavior very little—perhaps because they could not understand or retain the instructions, perhaps because they could not translate the verbal instructions into specific classroom behaviors, perhaps because, in the absence of a rationale, they were not convinced that the instructions were worth following. The lecture provided the necessary rationale, but it also gave many concrete examples; occasionally the lecturer even modeled certain teaching behaviors. The modeling film also represented a complex learning situation. The teachers in the film did not just model desirable behaviors to be imitated; undesirable behaviors were also modeled and labeled. The problem of identifying the underlying learning or behavioral mechanisms is not unique to the study. Modeling as described in the experimental literature has come to refer to direct imitation of skills as well as the acquisition of new verbal and sensory mediating responses (Staats, 1968). Indeed, Bandura (1971) lists 13 loosely defined variables involved in observational learning.
Additional complications arise from the use of an additive design. The groups differed in type of training procedure, in gross amount of information received, and in the duration of the treatment. This arrangement matches the typical teacher consultation exercise, and it is certainly useful to have confirmed the limitations of precise instruction and general information as a way of teaching contingency management skills. However, the study cannot explain why the addition of a modeling experience had such a considerable impact. Subsequent studies should be directed towards teasing apart the underlying learning mechanisms involved in these various instructional procedures.

As one of the first experimental studies comparing different methods of teaching classroom management skills, this study focused more on the practical than the theoretical aspects. A number of the specially designed training materials seem to have widespread utility. For example, use of an observational coding procedure might be of value to trainers who supervise practice teachers. New teacher supervisors might code the classroom behavior of a practice teacher or teacher intern. After class, freshly completed codesheets could serve as a vehicle for providing objective, accurate, and relevant feedback to the trainees and make abstractions or value judgments unnecessary. For example, in cases where suggestions for improvement were indicated,
references to specific interactions recorded on the code-
sheet would impersonalize and objectify the criticism. In
addition, teacher interns could use the code when observing
the regular teacher, and thus learn to discriminate which
teaching behaviors should and should not be imitated. It
probably goes without saying that the psychologist might
also find the classroom observational coding procedure a
valuable tool in school consultation. Psychologists who
make classroom observations can observe with the code and
then use the completed codesheet as the basis for his dis-
cussion with and recommendations to the teacher. It might
also be worth adding that the interactions or teaching
categories would not have to be the same as used in the code
described in this research, but new teacher supervisors
or consultants would have to be able to define precisely
the teaching behaviors seen as desirable as a prerequisite
to developing a modified code.

The practical use of the simulated classroom as an
assessment device has already been discussed. It might
be mentioned, in addition, that pre-programming the children
to behave in specific ways in the simulated classroom enabled
the experimenter to observe teachers responding in a wide
variety of situations in a very short period of time. In
any one classroom in the natural environment one might have
to wait a considerable length of time in order to observe the
range of student behavior which took place in the simulated
classroom.
This was also one of the values of the coding film. The film depicted 44 different teacher-student interactions and exposed observers to a wide range of relevant behaviors. The coding film was used to train the four observers in the present study and proved to be a very efficient means of training observers who had no previous experience with behavioral coding procedures. It would have taken a great deal longer to acquire the necessary observational skills had training taken place in a regular classroom. The implication here is that a modeling plus coding film procedure has relevance for teaching people (e.g., para-professionals or teacher trainers) how to code behaviors.

Having all these materials assembled and having the training film in a more permanent form, it would be possible to organize a concise and economical training workshop for experienced teachers. Workshop teachers might receive the lecture, learn to code, and then view the classroom interaction film while simultaneously recording their observations in code. Following this, the teachers might take turns playing the roles of teacher, students, and outside observer. For example, teachers could easily play the roles of students using the same note card directions used by the students in the present study. After each 15- or 30-second interaction, the outside observers—the teachers not participating in the roleplaying—could provide the teacher who conducted the class during that period with objective feedback via responses
recorded on the codesheet. In this manner the consultant could arrange a simulated classroom atmosphere where he could respond and give advice about teaching behaviors, and the teachers themselves could practice new skills in a classroom atmosphere—without being bombarded with the multiple demands present in the regular classroom.

Finally, it should be stressed that although the present experiment was designed specifically for training teachers, the procedures employed may be relevant to training many different kinds of skills. The AO procedures—with its components of instruction, observation and coding—could form at least part of the basis of a general training model for a wide array of interpersonal skills, such as interview techniques or assertive behaviors, or even motor skills, such as playing golf or tennis. In training any skill, however, the challenge lies in specifying precisely the criterion behaviors—no mean task when human behaviors are so exasperatingly complex.
Hello teachers. My name is Dr. Edward Kubany. I'm a clinical psychologist. I have been actively working in the schools and am very interested in educational research. Today I'm going to talk to you about the application of learning principles in the classroom. A learning principles approach to behavior is one which has its origins in experimental psychology with its emphasis on objectivity and rigorous evaluation. In the past five years there has been an explosion of studies showing that learning principles can be successfully applied in classroom settings in ways that result in increases in classroom productivity and diminished problems of disruptiveness and deviant behavior. Today my discussion is going to focus on teacher-student interactions. I am going to describe ways in which you as teachers can relate to your students so as to minimize classroom control problems and maximize on-task working behaviors. The suggestions and recommendations that I'm going to make to you are based on findings of many, many well controlled experiments that have been conducted in actual classroom settings.

Before I get into discussing specific ways you can relate to your children, I would like to talk about a very, very important concept—the concept of reinforcement. Reinforcement is essentially synonymous with the term reward. However, there is a difference. A reinforcer would be considered as something that a student or anyone likes or wants. What is important about reinforcement is the effect that it has on behavior. Reinforcers strengthen behavior, and in fact, the term reinforcer and strengthener could be considered synonymous. Behaviors that are reinforced will tend to be repeated or tend to occur more frequently in the future than behaviors that are not reinforced. Let me give you an example to illustrate from the animal literature. You can teach an animal, let's say a rat, to press a lever if you give him a food pellet every time he presses the bar. Giving him a food pellet reinforces or strengthens the behavior or the habit of pressing the bar. The animal will be more likely to press the bar in the future than if you had not given him the reinforcement. The distinction between reinforcer and reward is important because sometimes we assume that we know what students like or want and we give them rewards. If it indeed is not something that they like or want, the reward will not function as a reinforcer, and will not strengthen
behavior. For example, if you gave a rat a penny every time he pressed the bar, he would not increase bar pressing. Money is not a reinforcer to a rat and you cannot assume what a reinforcer is to your students.

When we think of reinforcement, most of us think first of all in terms of non-social reinforcement such as candy, toys, special privileges, free time, or vacations. However, the teacher has at her disposal another incredibly powerful reinforcer--herself. Teacher attention, especially her approval or praise, can have an enormous influence on her students' behavior. In the language of the psychologist, teacher praise or approval or any kind of attention is called social reinforcement. And social reinforcement can and does have the same effect of strengthening behavior as do non-social reinforcers. I could easily cite to you, many, many studies which have shown that when teachers systematically give students praise and attention to certain kinds of behaviors, those behaviors are more likely to be repeated in the future than if they had not received that social reinforcement. The important point here is that the teacher has a very, very powerful tool of social influence at her disposal. The teacher who never praises or the teacher who sits behind her desk getting her desk work done while the children are working is wasting a very, very valuable resource.

Now there seems to be a widespread misconception that the meaning of praise or social approval is exhausted by the terms "good," "very good," or "fine"--terms which many teachers find sterile or mechanistic with overuse. Actually there are literally hundreds of ways in which a teacher can express social reinforcement to her students. Let me just give you a few examples to stimulate your thinking. I'm sure you could think of many more examples that you use in your classroom. Here are a few examples: "That's really nice," "Thank you very much," "Thank you for raising your hand, Charles. What is it?" "You've got it now," "That's quite an improvement," "Everybody's working so hard," "Much better," "It's a pleasure to teach when you work like this, class," "Thank you for sitting down," "Thank you for settling down," "Thank you for getting right to work," "I like the way Dickie is working," "Sherrie is waiting quietly," "Ken is paying attention," "You're on the right track now." And on and on. I'm sure you get the point.

There are also many non-verbal ways that a teacher can give social reinforcement to her students. For example an extremely powerful reinforcer for many, if not most, students is physical contact. And there is considerable evidence that physical contact may actually be a more basic or more primary reinforcer than verbal expressions of social approval. For
example, brief taps on the shoulders of your students as they are working quietly can have an enormous effect on their behavior. And from the point of view of the teacher, it is an extremely inexpensive way of reinforcing your children in terms of energy expenditure. The teacher can wander around the class, patting children without interrupting their work behavior and in fact be providing strong reinforcement for their work. There are other non-verbal ways of expressing approval and giving attention to students. Smiles, standing next to the child, or even a stare from across to the other side of the room can act as a reinforcer. Studies have shown that any kind of attention can be reinforcing, and can strengthen the behavior it follows. Just talking to a student, even scolding the student or criticizing him can in certain instances act to reinforce the behavior. I'm sure all of you are familiar with the concept of negative attention. Even negative attention may be better than no attention at all, and some children will work to obtain it.

Now what I'd like to do is to give you some tips on how to use your attention systematically in the classroom and to your greatest advantage. First of all which is obviously logical and follows to what I've been saying, most of you teachers could praise a lot more than they do.

TIP #1. Praise more often.

Even more important than how much a teacher praises is, when she praises her students. And what I'd like to do now to illustrate this point is to briefly describe a study which showed clearly that--when the teacher gives attention to her students--is infinitely important than how much attention she gives. In the first part of the study, trained observers sat in the back of the classroom and kept track of the amount of the time that a student was working. After determining generally how much the student was on-task, the teacher was asked to give lots of attention and lots of praise to the students--but only when he was working. The only time the student received the teacher's attention was during or immediately following acts of appropriate work behaviors. In the second experimental stage the teacher was instructed to give the child just as much attention, just as much praise--but this time it was to be given regardless of the student's behavior. The teacher was asked to give attention to the student at random intervals regardless of what the student was doing. The result of this study showed very, very clearly that study behavior, on-task behavior, increased only in the phase when the teacher gave her attention only when the student was working. When she gave her attention regardless of student behavior, study behavior did not increase. The point here is that it takes more than tender
loving care, and an all accepting permissive "I care about you" and "I love you" environment to improve your students' study habits.

TIP #2. Give the largest share of your attention to your students when they are doing things that they are supposed to be doing, when they're working, when they're on-task.

This leads to the third tip of how to use your attention--your social reinforcement--most effectively. Don't take good behavior for granted. Reinforce it. Let me give you some examples of student behavior that should be reinforced at least some of the time but which frequently are not. The most classic category of behavior that is frequently left unreinforced is when the children are working quietly but not asking for attention. This is the perfect time to catch the children being good. Give them the attention and the praise when they're doing what you want them to be doing, but not asking for attention. Now I'm sure most of you will recognize when the children are working quietly this is an excellent time for you to take a breather or get other work done. Furthermore, good behavior like this does not stand out while misbehavior does stand out. Good behavior like this is easy to ignore. It's not salient. Let me give you an example to illustrate the point. Consider putting a roast in the oven and setting your timer. Let's call the roast cooking as appropriate behavior. Let's call the bell ring when the roast is done as inappropriate behavior. What behavior is better at getting your attention --good behavior of the roast cooking or the misbehavior of the bell ringing? The point is that it's certainly not easy to change your habits and pay attention to the quiet good behavior. It's going to take a lot of effort on your part to become consciously aware of attending to students when they're being quiet, when they're doing what you want them to be doing. You're really going to have to keep a third eye open so you can occasionally give attention to these students who are working so nicely.

TIP #3. Don't take good behavior for granted. Catch your students being good.

For example, if you want independent seat work to increase in your class, you're going to have to reinforce it. Even further bringing this point home to you, I'd like to give you an example from the home situation. Take the young baby in the playpen. When he's playing nicely with his rattle, it's a good time for mother to go into the kitchen to have a cup of coffee or put her groceries away. She seldom gives him attention when he's playing nicely in the playpen. However, let him cry out and she's right into the room and she picks him up. Ironically, she ignored his
good behavior and gave him attention to crying behavior. Now even with students who are "always bad," "who never do anything I can reinforce him for" keep a third eye open for this child, too. Occasionally, this disruptive child will sit down even if it's out of exhaustion, and this is an excellent time to catch him being good. I recognize that this isn't easy. For example, is it easy to reinforce a child who all of a sudden starts to behave himself when five minutes ago he was swearing or standing on the teacher's desk? No, it's not easy, nevertheless, I recommend it. The second category of behavior that doesn't receive much reinforcement is obedience and compliance behavior in children. You ask them to do something and you expect them to comply without your saying thank you. We seldom ask our adult friends to do anything without saying thank you, but for some reason we expect our children, our students, to do so.

Reinforcement for compliance could go a long way in increasing the obedience of your students. Children who try to get your attention in appropriate ways frequently are the ones who don't get it. If one child is quietly raising his hand while you're doing something at the blackboard, while his next door neighbor calls out "Mrs. Jones," who's most likely to get the attention? The child who's inappropriately calling out or the child who is raising his hand? We suggest that you make a concerned effort to call on your children who are appropriately cueing you rather than the child who is calling for your attention in a very salient though inappropriate manner. Try to give your attention to the child who is raising his hand quietly rather than the child who is calling you.

Now it follows that if you can strengthen desirable behavior by reinforcing it, you should be able to weaken undesirable behavior by withdrawing or removing all sources of social attention, all sources of reinforcement.

TIP #4. Ignore as much inappropriate or undesirable behavior as possible.

Try to eliminate all sources of social attention to your students when they're engaging mildly in inappropriate behavior. What I suggest is that you ignore behavior that is inappropriate but is not so disturbing, so deviant or so destructive that you simply can't ignore it. Now what does ignore mean? Ignore means that the child is literally invisible. Dirty looks, standing next to the child, just looking at him from across the classroom is not ignoring that child. Ignore means that the child is invisible. Let me give you an example to illustrate. When I was
conducting my doctoral dissertation, I was working in a classroom and was carrying out my experiment with 6th grade students. Now there was one child who came to my experiment who was just as wild and destructive as you can imagine a child could possibly be and he was doing everything possible to get my attention. It was interesting in this particular example that every time he'd do something destructive, for example, pound the desk, he'd look toward me. Well, I could see what he was doing, but I was ignoring him and I was ignoring him so conspicuously that this child actually came up to me and went like this (lecturer waves hand in front of his face and appears not to see hand) and what did I do? I didn't see him; I saw the blackboard through the waving hand. And what was even more unbelievable was about 15 seconds later this child out of desperation, exhaustion or whatever sat down, and I walked over to him and touched him and I said, "That's much better, Steven." And what was kind of funny was that the child looked up at me in sheer puzzlement and amazement. That had probably never happened before. I ignored his inappropriate behavior and was quick to catch him being good.

Now how far can you go in ignoring inappropriate behavior? All I can say is probably you can ignore a lot more behavior than you think you can. And this ignoring can help to diminish inappropriate behavior, especially if you're making a concerted effort to give the lion's share of your attention to the children who are doing what you want them to be doing.

All right. But what do you do about behavior that is so upsetting, so disturbing or so destructive that you can't ignore it? The recommendation here is to impersonally remove the child totally from his social environment. Give him a period of brief isolation. This procedure is technically called time-out—in short, for time-out-from-reinforcement. The result of removing the child from the situation is to remove all sources of attention, not only the teacher's attention but the students' attention. Ideally a classroom would be equipped with a small room, sound-proofed with gray walls, a single little bench, and a small light with a lock on the door where you can put the child or ask him to go. If you have to, lead him into the room, do that but do it impersonally without getting angry and leave the child in the room for a period of 5 minutes. Set a timer so you won't forget about the child. After 5 minutes you let him back into the classroom where good behavior can be reinforced. Five minutes is plenty. To keep a child in isolation for longer than that period of time is for your benefit, rather than for his benefit. It gives you relief from his bothering you but doesn't serve to
further train him in terms of curbing his disturbing behavior. There are many, many studies that have shown that a brief period of social isolation can be extraordinarily effective in curbing very, very disruptive behavior. Now more practical for many of you teachers may be to have the child sit outside the classroom for a period of 5 minutes or in some cases you can have a child isolate himself in the back of the classroom. Most of you, if not all of you, are certainly aware of the dunce cap of the past where the child would have to go to the back of the room and sit in the corner with the dunce cap on. A perfect example of time-out from reinforcement and heartily recommended. It beats yelling. Now sending a child home for the day can also be used as an effective time-out procedure. However, this can be a two-edged sword. This procedure will only work if the child would rather be at school than be at home. If your class is not reinforcing enough for the child or if the things out in the community are much more reinforcing to him than the school environment, this procedure won't work. If he would rather be home or somewhere else than at school, he actually may become disruptive in order to be sent home.

Now every once in a while children do some things that don't seem to warrant time-out; they're not severely disruptive. On the other hand, it bugs you enough that you don't want to ignore them. Under these circumstances I would recommend that you mildly reprimand your students. Mildly reprimand them and then when they comply, give them positive social reinforcement. Let me explain. Say for example a child is wandering aimlessly around the classroom, maybe he doesn't even know the assignment or know what he's supposed to be doing. Quietly go up to the child without raising your voice and give him a cue or a prompt. Tell him what you want him to do, say "Please sit down, John." And then when he does, reinforce him for sitting down. Another common example would be when two students are engaged in an extended conversation when they're supposed to be working. Go up to the students and ask them to get back to work and when they do, give them praise for it. Don't yell at the kids. They don't deserve this kind of attention. Give them a mild reprimand, a prompt or cue as to what they're supposed to be doing; and then when they do it, say thank you—give them a little reinforcement. A rule of thumb in how to deal with mildly or in general inappropriate behavior would be to try to ignore about 75% of inappropriate behavior. Perhaps 20% or maybe a little bit less behavior deserves your mild reprimand followed by social reinforcement, and only the extreme forms of deviant behavior, say 5% or less, deserves time out or social isolation.
Now it follows from what I've been saying that the emphasis has been to focus on the positive rather than to focus on the negative. Therefore I recommend to you teachers to drastically reduce the amount of negative attention that you give your students. Try not to yell, try to eliminate the demands of saying "don't," "not," "can't," "shouldn't." These behaviors fall in the category of verbal punishment. Examples would be "Sit down, class," "Get out of there," "Get back to work." And even on an individual level, such as "You can do better," "Ohhh," or "Don't you ever pay attention." The main reason that verbal punishment is so popular and so prevalent is that it has been used throughout the ages and has a very immediate effect on students' behavior. You yell "sit down" and they sit down. You yell "quiet" and they become quiet. You get an immediate but many times temporary effect on their behavior. Their sitting down or their keeping quiet is a very powerful reinforcer to you for behaving in this manner. However, there are several reasons why scolding and yelling desist commands made in a raised voice are not recommended. First of all, this kind of behavior on your part has a very successful short term effect on the students' behavior. But it doesn't have the same kind of long term effect on their behavior. Let me give you a couple of examples. There's one study in the literature that showed clearly the more times that the teacher told her students to sit down the more times they stood up. Only 3 weeks ago I was talking to a teacher of a 3rd grade class where a child had the habit of rocking his chair. She told me "Would you believe that I told him seven times during the period to stop rocking and he didn't stop?" It would have been better to ignore the rocking and those occasional times when he stopped rocking she could have "caught him being good." Second, verbal punishment can have negative side effects. The teacher who punishes a lot, who criticizes a lot becomes less likeable to her students and a less likeable teacher is one whose praise is less meaningful to her students. Put yourself in this situation. How would you feel about your principal if he frequently complained and criticized your work? Just think about that. Third, in some cases, punishment, verbal punishment, simply does not work. It is not effective in diminishing inappropriate behavior. In some cases, in some especially deviant students, this kind of attention can actually serve a reinforcing function and can actually strengthen their inappropriate, undesirable behavior. Furthermore, the more the teacher uses verbal punishment, the less effective it is likely to be. Children adapt to constant nagging, criticizing and complaining. They literally turn off their auditory receptors and begin not to hear the teacher when she's yelling and complaining. Last and very important, children do copy their teacher's behavior and the teacher who yells is bound
to have students who yell. So, instead of scolding the noisy child, praise the quiet ones. Instead of telling a child to get back to work, help the child sitting next to him who is working. Instead of yelling "Sit down," say "I like the way Mary is in her seat."

I'd like to make one last major point. I can't possibly overemphasize how important it is for you teachers to have very clear-cut rules for your children's behavior in the classroom. Clear-cut codes of conduct can go a long way to improving their behavior in the classroom. In other words, the children should know exactly what they're supposed to do. They should be told and know what behaviors are going to lead to social reinforcement, what behaviors are not likely to receive social reinforcement, what behaviors will be ignored, what behaviors will lead to social isolation. Tell your students how you are going to relate to them, what behaviors you're going to attend to, what behaviors you're not going to attend to. In fact, it would be an excellent idea for you to put a chart up in front of the room listing these behaviors. For example, you might have a chart in front of the room entitled "good behaviors" and under this the general behaviors for good conduct in your classroom, words such as "quiet," "in seat," "raise hand," and "working." These behaviors might be in red letters, flowers, nice things embroidered on the side to draw the children's attention. Keep the rules simple and to a minimum. You also might like to have another chart, another sign in black letters, entitled "time-out behaviors" including such behaviors as "hitting," "destroying property," "taking other's belongings" and "tantrums."

Now I'd like to summarize the essence of my presentation. If you want to increase desirable, on-task, productive student behavior, you should do essentially three things: (1) You should provide lots of attention and positive reinforcement for desirable behavior; (2) You should try to remove all sources of reinforcement which follow undesirable behavior; (3) Children should know the rules of the game. They should know what behaviors are going to lead to reinforcement and they should know what behaviors will not.

When you were conducting class earlier today, trained observers were recording the kinds of attention that you were giving your students, and also what kinds of student behavior you paid attention to and what kinds of student behavior you ignored. (Teacher subjects were told to disregard this statement as irrelevant). A completed codesheet showed us how much you engaged in recommended and non-recommended teaching behaviors. You should have a copy of the codesheet and a copy of the coding definitions on your desk in front of you. I would now like to describe the observation coding procedure to you and to explain and
discuss what we were looking for. First of all, the observer only marked something down on the codesheet when the teacher paid attention to a student or students. For example, if the teacher sat behind her desk throughout the entire observation period absolutely nothing would be recorded on the codesheet. Even if a student were standing on top of the desk, screaming at the top of his lungs, if the teacher ignored him nothing would be recorded on the codesheet.

Now let me tell you the observers' definition of attention. An observer considered a teacher to be paying attention to a student only if a teacher talked to the student, touched the student or touched the student's materials. I had said earlier that subtle forms of attention, such as facial expression, staring, and standing close to a student, are forms of attention, but these kinds of attention were too difficult for us to observe and interpret accurately. So for the purposes of our experiment, they were not included in our definitions of attention.

Now here is a picture of the codesheet and I will explain how it works. Each row represents an observation interval of 30 seconds. Whenever an observer saw a teacher paying attention to a student or students, the observer immediately marked down the nature of the interaction in code on the codesheet.

There are two kinds of general student behavior that a teacher can pay attention to. She can pay attention to appropriate student behavior as we recommend, or she can pay attention to inappropriate student behavior which we don't recommend. Now definitions of appropriate and inappropriate vary from classroom to classroom depending upon a particular teacher's rules and expectations in her classroom. For example, in one classroom the teacher may consider it permissible for her students to come up to her desk if they want her help. In others, if the children want the teacher's attention they are supposed to remain seated and raise their hand quietly. This was the case in our classroom.

First let me explain the appropriate category—which can be broken down into two sub-categories. The first category which I will explain is the Appropriate/Cueing--large A category. The code symbol A would be recorded when a teacher pays attention to a student who cues her appropriately. For example, the symbol A would be marked down if a child raised his hand quietly, and the teacher called on him. If the child had his hand raised but the teacher ignored him or didn't see the hand raised, nothing would be recorded.

Our next category is Appropriate/Not-Cueing, symbolized by the small letter a. This is the "catch the child being
good" category. We wanted to know how often the teachers would pay attention to students who were working and on-task but not asking for attention. Let me give you one example. The small a would be recorded if the teacher went up to a child who was working quietly at his desk and talked to him or gave him a pat on the back.

The A categories are recommended forms of interaction. When we observe the teachers, we like to see the A's being recorded—with special emphasis on the "catch the child being good," the small a, category.

Our second general category of student behavior is inappropriate behavior—which can also be broken down into two sub-categories. Let me discuss first the inappropriate/cueing—large I category. The symbol large I would be recorded if a teacher pays attention to a student who is cueing her inappropriately. For example, if a child calls out to a teacher from across the room and she answers him, the observer would record a large I. Or if the teacher directs a question to the class, and a student blurts out the answer without permission, the teacher's response to this student would also be coded I.

Our next category is Inappropriate/Not-cueing, symbolized by the letter, small i. This could be called the "catch the child being bad" category, and is coded if the teacher pays attention to a student who is passively off-task, misbehaving, making noise, talking to his neighbor—but is not explicitly or directly cueing the teacher. Now we recognize that sometimes when students misbehave, they may be indirectly trying to get the teacher's attention. But this is too difficult to observe and interpret accurately, so we considered all forms of misbehavior in the small i category—except those behaviors in which the students directly called out to the teacher. Let me give you an example. Small i would be coded if the teacher went to a student who was rummaging in his desk, and she told him to go back to work. Another example would be a teacher telling a child who's talking to another student without permission to quiet down. If this category is coded many times it means that the teacher is paying a lot of attention to inappropriate behavior. If nothing is coded in this category, and we would like to see this, that means that the teacher would be ignoring inappropriate behavior.

Our next general category is group attention—g. A g would be coded if the teacher paid attention to more than one student at the same time. Typically a g would be coded if the teacher were lecturing to her students, giving group instruction, but it would also include things as group praise. For example, "I like the way the class is working"—and group reprimands such as "Quiet down, class." This is
the only category in which the nature of the students' behavior is not considered in order to record something on the codesheet. It simply requires that the teacher pay attention to more than one student at the same time.

All right, let me tell you about our supplemental categories—plus (+) and minus (−). Pluses and minuses would be recorded only if one of the other five categories mentioned were also recorded. These categories refer to the emotional quality of the teacher's attention to her students. The plus (+) signifies that the teacher is paying attention to her students in a positive manner, giving them social reinforcement of praise, and it also includes physical pats or gentle physical contact. Let me give you some examples. If a teacher calls on a student who has his hand raised quietly, and praises him, this would be coded as large A+. If a teacher went up to a child who was working quietly at his desk and she praised him or patted him on the back, this would be coded as small a+. It's also conceivable, although it doesn't occur very frequently, that a teacher may pay attention to inappropriate behavior in a positive manner. For example, if a child blurts out an answer without permission but it's the right answer. It happens occasionally that the teacher says "That's right." In that case the interaction would be coded as large I+. Also, once in a while teachers pay attention to general misbehavior in a positive fashion. For example, if a child is out of his seat and the teacher goes over to the child, takes him by the hand, leads him back to the seat, the gentle physical contact would be considered positive and the interaction category would be coded as small i+. If the teacher praises the entire class, telling them they're all doing such a good job, the observer would record g+.

Now let me tell you about the negative category (−). This includes teaching behaviors when the teacher yells at the students, gives them harsh reprimands, gives them desist commands in a raised voice, and also includes pushing, pulling or yanking the student. Let me give you a few examples of this. A common example would be a child who blurted out something without permission to the teacher, calling her directly, and she scolds the child, saying, "I told you that's not the appropriate way to get my attention"—the interaction would be coded as large I−. A very frequent occurrence in many classrooms is when teachers simply catch the children being bad—talking to their neighbor, making noise, simply being passively off-task—and she scolds them, yells at them, or tells them to get back to work. Under these circumstances the interaction would be coded as small i−. What has probably happened in every single classroom at least once in a while
would be situations where the teacher scolds the entire class, such as "Class, quiet down; get back to work." Under these circumstances an observer would code the interaction as g-. It is also conceivable that a teacher can attend to appropriate behavior in a negative fashion. For example, a child may raise his hand quietly, the teacher calls on him; maybe the child asks a silly question, and the teacher scolds the child for asking such a silly question. The observer would simply record that as A-. And now visualize a situation where a child is working quietly at his desk and a teacher comes up to him and scolds him for something he did during recess a half hour earlier. The observer would record that interaction as small a-.

Now in any 30-second observation interval it is conceivable that more than one kind of interaction could occur. It's important to point out then that the observer would code as many interaction categories that actually occurred within that interval. On the other hand, if the teacher didn't pay attention to anyone throughout the entire interval, the observer simply drew a line through the row indicating that all behavior, appropriate and inappropriate, was ignored.

Now let me briefly describe what a completed codesheet would look like for a teacher who has followed my teaching recommendations perfectly. First of all, we'd like to see lots of recordings in the "appropriate" columns. We want to see the teacher calling on the students asking for her attention in appropriate ways. We would also like to see a great deal of "catching the child being good"; therefore we'd also like to see lots of small a's. On the other hand, we would like to see the teacher ignoring as much inappropriate behavior as possible. The fewer recordings that we see in the Inappropriate/Cueing and Inappropriate/Not-cueing columns, the happier we are because it's showing that the teacher is ignoring inappropriate behavior, not attending to students' behavior which does not merit teacher's attention. In addition we like to see lots of positive social reinforcement, physical contact, lots of A+'s. On the other hand, the category minus (-); we feel it is virtually never necessary to record a minus (-). You really never should have to resort to yelling at or harshly reprimanding your students. If we never record a minus (-), the teacher is doing a good job.
APPENDIX B
NARRATION OF MODELING FILM

All right, teachers, now we're ready to do some practice coding. But before we start, I'd like you to meet our teachers and students. Standing, I'd like you to meet Mrs. Schutte, our first teacher, and next to her our second teacher, Mrs. Uyehara, and seated at the teacher's desk, our third teacher, Mrs. Mau. And now I'll introduce the students. Closest to the bulletin board, I'd like you to meet Maile, and sitting next to Maile, I'd like you to meet Billy. Next to Billy, I'd like you to meet Susan, and directly behind Susan in the back row, I'd like you to meet John. Next to John, I'd like you to meet Cindy. Last but certainly not least, next to Cindy, I'd like you to meet Charles. Before I show you some illustrations of the categories on the codesheet, it will be necessary for you to know what the teachers in this classroom consider to be appropriate and inappropriate behaviors. Now this certainly may vary from classroom to classroom but notice the chart on the wall. This chart lists the rules for appropriate behaviors in this classroom. The teachers have posted this chart on the bulletin board in a conspicuous place so that all the children can see what they're supposed to be doing. Good behavior during reading: (1) The children should be in their seats; (2) they should be working; (3) they should be quiet; and (4) if they need help from the teacher, they should raise their hands quietly.

Now we're going to ask Mrs. Schutte to conduct class for a little while and I'm going to point out occurrences of the categories on the codesheet as they are observed to occur. Did you notice Mrs. Schutte direct her attention to the entire class? On the codesheet this would have been recorded under group attention as g. There, in addition to the group attention did you notice Mrs. Schutte pay attention to Maile who was cueing appropriately with her hand raised quietly? She also praised her. This would have been coded as appropriate cueing, large A and also + for the praise. Did you notice, by the way, that Mrs. Schutte ignored John who was blurting out the answer in an inappropriate manner? Now this time, Mrs. Schutte did pay attention to John, who was cueing inappropriately, and she also praised him for it. Therefore, this interaction would have been coded as inappropriate/cueing--large I and also +. At the same time all the children who were cueing appropriately with hands
raised quietly were being ignored. There, did you notice Mrs. Schutte catching Cindy being good and giving her a positive pat of positive social reinforcement? Cindy was working quietly, not asking for attention but Mrs. Schutte went up to her, talked to her and patted her on the back. This would have been coded as appropriate/not-cueing—small a+. At the same time Mrs. Schutte was ignoring Charles who was engaged in misbehavior. Now this time Mrs. Schutte did catch Charles being bad. She caught him in misbehavior and reprimanded him harshly. Therefore, on the codesheet this would have been coded as inappropriate/not-cueing—small i-. And at the same time all the other children who were working so nicely were being ignored. Now in that interaction, Mrs. Schutte attended to the entire class in a negative scolding fashion. This interaction would have been coded as g-. Well, the class got back to work and when they did, Mrs. Schutte praised everyone for their good behavior. This would have been coded as g+. Now, in that interaction, Mrs. Schutte mildly reprimanded Billy for tipping his chair. This attention would have been coded as small i—inappropriate/not-cueing. But after Billy stopped tipping his chair Mrs. Schutte was quick to praise him for sitting nicely. This action would have been coded as appropriate/not-cueing—small a+. Now in that interaction Mrs. Schutte did pay attention to Susan when she inappropriately cued the teacher by calling out. This would have been coded as large I—a mild reprimand. But when Susan complied and raised her hand the proper way, Mrs. Schutte quickly attended to her and gave her attention. This would have been coded as appropriate/cueing—large A. Now that time Mrs. Schutte caught John being good, gave him a pat and praise. This interaction would have been coded as appropriate/not-cueing—small A+. At that time, Cindy was passively off-task but was being ignored. Cindy seemed to get the message however and settled down, and when she did Mrs. Schutte was quick to catch her being good, too. This interaction would also have been coded appropriate/not-cueing—small a+.

Now, everyone, you are going to be given the opportunity to code teacher-student interactions. We are going to present scenes about 15-seconds long of the classroom proceedings. I want you to code the categories on the codesheet as soon as you observe them to occur. But remember you only record on the codesheet if you observe the teacher paying attention to a student or students. The children's behaviors alone are not sufficient to mark anything down on the codesheet. I would also like to remind you that it is possible for more than one category to be coded during a given 15-second scene. At the end of the scene, a sign will come up on the screen stating end of scene. During this period you may continue to make recordings on the codesheet for the scene you just finished observing, if you have not finished recording
already. However, as soon as the codesheet appears on the screen, stop recording. Do not make any further marks for coding of the previous scene. As you view the codesheet on the screen I will explain the correct coding responses of the previous scene.

Scene #1. In our first scene the teacher Mrs. Mau attended to more than one student as she gave instructions. You should have coded g and only g. Now move on to Scene 2.

Scene #2. Although several of the children were cueing Mrs. Mau in the appropriate manner with hands raised quietly, she did not pay attention to anyone. She ignored everyone. Therefore no code symbol should be coded in interval Scene 2. You should have drawn a line across the scene interval to show that no teacher-student interactions occurred during Scene 2. Move on to Scene 3.

Scene #3. Again several students were cueing the teacher appropriately. This time, however, Mrs. Mau did pay attention to one of the students, Susan, by calling on her. You should have coded large A. Now move on to Scene 4.

Scene #4. All six children were working quietly and independently. The teacher, Mrs. Schutte, busy at her desk, ignored their good behavior, taking them for granted. Nothing should have been coded in Scene 4 but a line should be drawn through the interval to show that no teacher-student interactions occurred. Now go on to Scene 5.

Scene #5. Again, all the children were working quietly and independently. This time, however, Mrs. Schutte caught Maile being good. She attended to her with a pat and praise. You should have coded a small a+. Now go on to Scene 6.

Scene #6. Charles was cueing Mrs. Mau inappropriately, calling out to her without permission. However, Mrs. Mau ignored his inappropriate cueing. Therefore, nothing should have been coded in Scene 6. A line should have been drawn across the row. Now go on to Scene 7.

Scene #7. Once again Charles was cueing Mrs. Mau inappropriately. This time, however, she paid attention to his inappropriate cueing and attended to his complaint. You should have coded large I. Scene 8 is next.

Scene #8. Here is a good example of ignoring inappropriate behavior. Billy and John were both off-task engaged in off-task conversation. But they received no attention from Mrs. Schutte. Therefore, nothing should have been recorded in Scene 8. You should have drawn a line through this row. Now move on to Scene 9.
Scene #9. Again, Billy and John were misbehaving. This time however Mrs. Schutte caught Billy being bad. She attended to his inappropriate behavior and told him to turn around and be quiet. You should have coded small i. Her raised voice made the quality of her attention negative so a minus (−) should have been added also. Scene 10 is next.

Scene #10. Susan was cueing the teacher appropriately with her hand raised quietly. On the other hand, Charles was cueing inappropriately by calling out without permission. Mrs. Mau chose to ignore the inappropriate cueing of Charles and instead attended to the appropriate cueing of Susan. You should have coded a large A. Scene 11 is next.

Scene #11. Once again Susan was cueing the teacher appropriately while Charles was cueing inappropriately. This time Mrs. Mau ignored the appropriate hand raise and attended instead to the inappropriate calling out of Charles. You should have coded a large I. Go on to Scene 12.

Scene #12. Several of the children were working independently and appropriately while Cindy was off-task, rummaging at her desk. Mrs. Schutte chose to ignore the children working appropriately and gave her attention to Cindy. You should have coded a small i. Move on to Scene 13.

Scene #13. Again several students were working quietly while Cindy was off-task. This time, however, Mrs. Schutte ignored Cindy and instead attended to Billy who was working quietly and independently. You should have coded small a. Go on to Scene 14.

Scene #14. Maile was cueing Mrs. Mau inappropriately but Mrs. Mau refused to attend to her inappropriate cueing. Instead she caught John being good and attended to him as he worked quietly. You should have coded a small a. Now let's move on to Scene 15.

Scene #15. Once again Maile was cueing Mrs. Mau in an inappropriate manner. This time however Mrs. Mau did attend to her inappropriate behavior. Therefore you should have coded a large I. Scene 16 is next.

Scene #16. Several of the children were cueing appropriately by raising their hands quietly. Mrs. Schutte ignored them. Instead she attended to Billy who was cueing inappropriately. Mrs. Schutte scolded Billy for calling out. You should have coded large I for this attention and a minus (−) for its negative quality. Scene 17 is next.
Scene #17. Again several of the students were cueing the teacher appropriately while Billy was calling out inappropriately. This time however Mrs. Schutte chose to ignore the inappropriate cueing of Billy and instead called on Susan, praising her for her appropriate cueing. You should have coded a large A and also a plus (+) for the praise. Go on to Scene 18.

Scene #18. Susan was making disruptive noises. But Mrs. Mau preferred to ignore her; instead, she chose to catch Charles being good. She reinforced him positively with pats and praise as he worked quietly and independently. You should have coded small a+. Scene 19 is next.

Scene #19. Although just about everyone but Susan was working quietly, Mrs. Mau chose to give Susan her attention. Mrs. Mau caught Susan being bad and scolded her harshly for her disruptive behavior. Therefore, you should have coded a small i and a minus (-) for its negative quality. Move on now to Scene 20.

Scene #20. Mrs. Schutte called on Susan who was cueing appropriately with hand raised. She also praised Susan for her answer. Therefore, you should have coded a large A+. Charles who gave the right answer but in an inappropriate manner was ignored. Move on now to Scene 21.

Scene #21. This time Mrs. Schutte ignored the children who were raising their hands quietly in an appropriate manner. Instead she attended to Charles who was cueing inappropriately in a loud voice. Mrs. Schutte even praised him once he got her attention. You should have coded a large I and also a plus (+). Next scene is number 22.

Scene #22. John was off-task but Mrs. Mau chose to attend to his inappropriate behavior. And her touching him gently was positive social reinforcement. You should have coded a small i and also a plus (+) for its positive quality. The other children who were all working quietly were ignored. Our next scene is number 23.

Scene #23. Once again John was off-task. This time Mrs. Mau ignored him. Instead, she caught Susan being good and praised her warmly. You should have coded a small a plus (+). Now move on to Scene 24.

Scene #24. Mrs. Schutte ignored the children who had their hands raised quietly. She preferred to give her attention to the child who was misbehaving. She caught Cindy being bad and scolded her. You should have coded a small i and also minus (-). Now move on to Scene 25.
Scene #25. This time Mrs. Schutte ignored Cindy's off-task playfulness. Instead, she called on Charles who was cueing appropriately and she praised him. You should have coded large A and also plus (+). Now go on to Scene 26.

Scene #26. Mrs. Uyehara scolded the entire class in a harsh group reprimand. Therefore you should have coded g-. While the misbehaving children in the back row were scolded, so were the children in the front row who were all on-task. Scene 27 is next.

Scene #27. This time Mrs. Uyehara praised the children in the front row who were all quietly on-task. She caught them being good. Therefore, you should have coded g+. Did you notice that the misbehaving children in the back row were ignored? Scene 28 is next.

Scene #28. Mrs. Schutte caught Billy being good and praised him. You should have coded small a+. Susan who was passively off-task was ignored; but after Susan went back to work, Mrs. Schutte decided to praise the whole class because everyone was working quietly. This should have been coded g+. Now let's move on to Scene 29.

Scene #29. Mrs. Schutte caught Susan being bad and scolded her in a raised voice. Therefore, you should have coded small i-. The well-behaved children didn't get any attention. Scene 30 is next.

Scene #30. Mrs. Uyehara was giving group instruction which should have been coded as g. Maile who asked for her teacher's attention in an inappropriate manner—as defined by the rules of this classroom—was conspicuously ignored. Now move on to Scene 31.

Scene #31. Again Mrs. Uyehara was giving group instruction which should have been coded as g. Then Mrs. Uyehara took her attention away from the group and gave it to Maile who was asking for attention in an inappropriate manner. This interaction should have been coded as large I. Our next scene is number 32.

Scene #32. As the class worked quietly, their good behavior was taken for granted and ignored. When they finally started to act up, however, they did get attention—Mrs. Schutte scolded the group. Therefore, you should have coded g-. Now move on to Scene 33.
Scene #33. This time Mrs. Schutte did not take good behavior for granted. She caught the entire class being good and praised them for working quietly and independently. This should have been coded as g+. Scene 34 is next.

Scene #34. Mrs. Uyehara was busy with desk work and was not tuned into Charles when he was cueing appropriately. When Charles violated the cueing rule, however, Mrs. Uyehara did attend and gave him a harsh reprimand for calling out without permission. Therefore, you should have coded the interaction large I-. Scene 35 is next.

Scene #35. Even though Mrs. Uyehara was busy with desk work, she was tuned in enough to notice that Charles needed help and was cueing appropriately. Her attention to him should have been coded a large A. Now move on to Scene #36.

Scene #36. Mrs. Schutte caught John being off-task and she quietly asked him to get back to work. You should have coded this as small i. Now go on to Scene 37.

Scene #37. This time Mrs. Schutte ignored John but decided to catch his next door neighbor being good. Mrs. Schutte praised Cindy for working quietly. John took the hint and went back to work himself. Mrs. Schutte was quick to catch him being good and praised him. Both of these interactions should have been coded as small a+. Scene 38 is next.

Scene #38. Billy's inappropriate cueing was ignored. When Mrs. Uyehara attended to Maile's appropriate cueing Billy got the hint, however, and decided to raise his hand quietly. The teacher was quick to respond to him with praise. Both of the interactions in this scene should have been coded as large A+. Our next scene is number 39.

Scene #39. This time Billy's loud inappropriate cueing was successful in obtaining his teacher's attention, and Mrs. Uyehara even positively reinforced Billy's inappropriate behavior. Therefore, the scene should have been coded as large I+. Did you notice that Maile's appropriate hand raise was ignored? Now let's move on to Scene 40.

Scene #40. Mrs. Schutte mildly reprimanded John's inappropriate cueing. This should have been coded as large I. But at least she attended to him with praise when he complied with her request, and this latter interaction should have been coded as large A+. Scene 41 is next.

Scene #41. This time Mrs. Schutte scolded John for his inappropriate cueing which should have been coded as large
Did you notice that John's compliance was completely ignored? Now move on to Scene 42.

Scene #42. Mrs. Uyehara mildly reprimanded Charles for his active misbehavior. This should have been coded as small i-. But at least she caught him being good and praised him after he settled down, complied with her request, and went back to work. This latter interaction should have been coded as small a+. Go on to Scene 43.

Scene #43. Mrs. Uyehara caught Charles being bad and scolded him loudly. This interaction should have been coded as small i-. Did you happen to notice that Charles was ignored after he complied with the teacher's request and went back to work? Our last scene, number 44, is next.

Scene #44. Mrs. Schutte moved around the class, catching individual children being good, giving them praise, physical pats, social positive reinforcement. These interactions should all be coded as small a+. Then Mrs. Schutte praised the entire class and this last interaction should have been coded as g+. This ends our coding film.
SCRIPTS OF THE TEN SCENES USED IN THE
SIMULATED CLASSROOM TEST SITUATION

Scene 1

Teacher
Read aloud the following instruction: "Class, open your books to page and work problems ."

JAMIE
After teacher tells you to work problems 1-10, get your comic from next table and start reading it. If teacher scolds you, say, "I don't like arithmetic!" Then start working, write to 5, then pick up comic and start reading it again.

TERI
After teacher tells you to work problems, call out "Mrs. , I don't have any paper! Can I have some?" If teacher ignores you, repeat question. If she gives you some go to work. If teacher tells you to raise your hand, do so.

ROBBY
Work quietly throughout scene.

SUSAN
Work quietly at your desk throughout the scene.
Scene 2

Teacher

Proceed through the following 3 steps:
1) Ask the class: "Can anyone tell me how much 7x8 is?"
2) Ask the class: "Now, can anyone tell me how much 9x7 is?"
3) After above, tell the class to "go back to work."

JAMIE

After teacher asks a question raise hand to answer. Wave hand calling out, "I know, I know!" If she calls on you answer "56" for question 1 and "63" for question 2. Go back to work when teacher tells you to.

TERI

As soon as scene begins take out your purse, dump contents and begin going through contents. If teacher calls on you look puzzled and say, "Huh?"

ROBBY

When teacher asks a question blurt out loudly the answers! Answers are: "56!"
"63!
go back to work when teacher tells you to.

SUSAN

After teacher asks a question raise hand quietly to answer. Answer: "56, boy, that's easy!"
"63, that's easy!"
go back to work when teacher tells you to.
Scene 3

Teacher

Your students are to be working quietly and independently at their desks.

JAMIE

When Teri and Susan begin fighting, call out loudly, standing up, "Mrs. __________, Teri and Susan are fighting!" "It's a fight, it's a fight!" If teacher ignores you call out again louder. If she tells you to be quiet, do so.

TERI

When Susan grabs your ruler, fight back saying, "No, it's mine, you can't have it!" Continue fighting. If teacher questions you about it, tell her it's yours and you want it!

ROBBY

Work quietly, write to 20, raise hand. If teacher calls on you, ask, "Can I have another piece of paper?" If she gives you one, go back to work.

SUSAN

As soon as scene begins, turn to Teri, grab her ruler and say loudly, "That's my ruler, I want it!" Continue argument. If teacher questions you about it, tell her, it's yours and you want it back! "It's mine, Mrs. __________, she can't have it!"
Scene 4

Teacher

Your students are to be working quietly and independently at their desks.

JAMIE

When scene begins, Robby will come over to you and show you a funny picture. Laugh about it. Then stand up and call loudly to teacher, "Mrs.__________, can I work my problems on the blackboard?" If she says "Yes" go to board. If she says "No," ask again. If she says "Yes" to Susan, sigh and say, "Ah, she always gets to do it!"

TERI

Work quietly throughout scene.

ROBBY

When scene begins get out of seat and go over to Jamie and show him your funny picture. Laugh about it. Stay by Jamie's desk. If teacher tells you to sit down, do so, write to 5 and get up again.

SUSAN

Work quietly, write to 20, raise hand. If teacher calls on you, ask "Can I work my problems on the blackboard?" If she says "Yes," do so. If she says "No," go back to work.
Scene 5

Teacher

Your students are to be working quietly and independently at their desks.

JAMIE

Work quietly throughout scene.

TERI

When scene begins tip your chair back and put your feet up on chair in front of you. If teacher tells you to stop it, do so for count of 5 then start tipping again.

ROBBY

When scene begins, write to 20, then raise your hand. If teacher calls on you ask, "Can I go to the bathroom?" If she says "Yes," get up and leave room until scene ends.

SUSAN

When scene begins, write to 4, then raise up from chair and call out loudly, "Mrs. _______, can I go to the bathroom?" If she ignores you call out again and again until end of scene. If she says "Yes," leave the room. If she says "No," write to 5 then raise up and ask again.
Scene 6

Teacher

Your students are to be working quietly and independently at their desks.

JAMIE

When scene begins, go up to teacher with paper and ask her, "Is this right, Mrs.______?" If she ignores you, follow her around asking again and again. If she answers you go back and sit down and work.

TERI

Work quietly, write to 20, raise hand. If teacher calls on you ask her "Will you check and see if this is right?" Have problem ready.

ROBBY

When scene begins get up, go to blackboard and begin drawing. If teacher tells you to sit down, so do and write to 5, then get up and go back to blackboard.

SUSAN

Work quietly throughout scene.
Scene 7

Teacher

Your students are to be working quietly and independently at their desks.

JAMIE

After Robby shoots 1 paperwad, say out loudly, "Mrs. __________, Robby is shooting paperwads!" If she ignores you say it again and again unless she stops Robby from doing it. If she tells you to be quiet do so. Write to 10, then say, "Robby's still fooling around with paperwads!"

TERI

Work quietly throughout scene.

ROBBY

When scene begins throw 4 paperwads. Do not hit anyone. If teacher ignores all 4 paperwads, write to 5, then start making paperwads. If teacher tells you to stop it, do so for count of 5, throw 2 more paperwads, then stay off task by quietly making more paperwads.

SUSAN

Work quietly throughout scene.
Scene 8

Teacher

Your students are to be working quietly and independently at their desks.

JAMIE

Work quietly, write to 20, raise hand. If teacher calls on you, say, "Mrs.__________, will you please tell Susan and Teri to stop talking? I can't concentrate!" If girls are quiet, wait until they start talking, then raise hand.

TERI

When scene begins, turn to Susan and begin talking about what you are going to do after this is all over. If teacher tells you to be quiet, do so for count of 3, then start talking to Susan again.

ROBBY

When Susan and Teri start talking to each other, write to 10, then call out "Mrs.__________, will you tell Susan and Teri to stop talking? I can't concentrate!" If teacher ignores you, repeat the question. If she answers you go back to work.

SUSAN

When Teri starts talking to you, carry on conversation, talking one at a time. If teacher tells you to be quiet, do so for count of 3, then go back to talking to each other.
Scene 9

Teacher

Your students are to be working quietly and independently at their desks.

JAMIE

When scene begins, start whistling and stare off into space. If teacher tells you to be quiet, do so and write to 5, then start whistling again.

TERI

When scene begins, write to 4, then call out "Mrs., I can't do this—it's too hard!" If she tells you to be quiet, do so, write to 4, then call out once again. If she helps you then go back to work.

ROBBY

Work quietly throughout scene.

SUSAN

Work quietly throughout scene.
Scene 10

Teacher

Your students are to be working quietly and independently at their desks.

JAMIE

Work quietly throughout scene.

TERI

Work quietly throughout scene.

ROBBY

When scene begins, write to 4 then call out "Mrs. I'm getting tired, can't we do something else?" If she ignores you, repeat question again and again. If she suggests any other activity say, "No, I don't like that either!" If she tells you to continue working, do so, write to 5 and complain again.

SUSAN

When scene begins, tip back in chair and tap desk with ruler. If teacher tells you to be quiet, do so for count of 5, then tip and tap again.
APPENDIX C - CODESHEET

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APPENDIX D

QUESTIONNAIRES

Dear Teachers,

Please complete all of the following questionnaires. Upon completion of the experiment I will either return to your classes to personally explain the nature of my study, or provide you with a printed explanation. And if you then have any further questions please feel free to contact me personally.

Thank you in advance for your participation and cooperation!

Mahalo,

/s/ Barbara Sloggett

BS:why
Name:

Date: Time:

Ethnic Background:

Age:

How long have you lived in Hawaii?

How long have you been teaching?

What grade do you teach?

What school do you teach in?
TEACHER OPINION SURVEY

Name:
Date:

Instructions
Please answer the following questions by placing a check-mark in one of the spaces on the scale beneath each question. If your response agrees with the phrase at one end of the scale place your mark at that end. If your response is neutral, that is both sides of the scale are equally associated, place your mark in the middle space. For some questions the middle space represents a point half-way between the two ends, and these are marked "average."
How do you feel about Glasser's teaching methods?

Very negative ___:___:___:___:___:___ Very positive
Unfamiliar with these methods ___

How do you feel about Montessori teaching techniques?

Very negative ___:___:___:___:___:___ Very positive
Unfamiliar with these techniques ___

How do you feel about Behavior Modification?

Very negative ___:___:___:___:___:___ Very positive
Unfamiliar with Behavior Modification ___

How do you feel about traditional-formal methods of teaching?

Very negative ___:___:___:___:___:___ Very positive

How much do you praise your students?

Virtually never ___:___:___:___:___:___ Very much average

How many times in an average day do you praise your students?
Please estimate: __________

How much do you reprimand your students?

Virtually never ___:___:___:___:___:___ Very much average

How many times in an average day do you reprimand your students?
Please estimate: __________

How much inappropriate student behavior do you ignore?

None ___:___:___:___:___:___ All average
How would you rate yourself as a teacher?

Very permissive ____ ____ ____ ____ ____ ____ Very strict average

How much does classroom noise bother you?

Not at all ____ ____ ____ ____ ____ ____ Very much average

How do you think your students feel about you?

Very negative ____ ____ ____ ____ ____ ____ Very positive average

How do you feel when the Principal, Vice-Principal, or other official comes in and observes you in your classroom?

Very relaxed ____ ____ ____ ____ ____ ____ Very anxious average
The purpose of this study is to measure the meaning of certain things to various people by having them judge them against a series of descriptive scales. In taking this test, please make your judgments on the basis of what these things mean to you. On the first page you will find a situation to be judged and on the second page a second situation to be judged. Beneath each are a set of scales. You are to rate each situation on each of these scales in order.

Here is how you are to use these scales:

If you feel that the situation at the top of the page is very closely related to one end of the scale, you should place your check-mark as follows:

- fair X:__:__:__ X:__:__:__: unfair
  or
- fair __:__:__:__:__:__:__:__:__:__:__:__:=: unfair

If you feel that the situation is quite closely related to one end of the scale (but not extremely) you should place your check-mark as follows:

- strong __:__:__:__:__:__:__:__: weak
  or
- strong __:__:__:__:__:__:__:__:__:__:__:__: weak

If the situation seems only slightly related to one side as opposed to the other side (but is not really neutral), then you should check as follows:

- active __:__:__:__:__:__:__:__:__:__: passive
  or
- active __:__:__:__:__:__:__:__:__:__:__:__: passive
The direction toward which you check, of course, depends upon which of the two ends of the scale seem most characteristic of the thing you're judging. If you consider the situation to be neutral on the scale, both sides of the scale equally associated with the situation, or if the scale is completely irrelevant, unrelated to the situation, then you should place your check-mark in the middle space:

safe ___:___:___:X:___:___:___ dangerous

IMPORTANT: (1) Place your check-marks in the middle of spaces, not on the boundaries:

___:___:X:___:___:X:___
this not this

(2) Be sure that you check every scale for every situation. Do not omit any.

(3) Never put more than one check-mark on a single scale.

Sometimes you may feel as though you've had the same item before on the test. This will not be the case, so do not look back and forth through the items. Do not try to remember how you checked similar items earlier in the test. Make each item a separate and independent judgment. Work at fairly high speed through this test. Do not worry or puzzle over individual items. It is your first impressions, the immediate "feelings" about the items, that we want. On the other hand, please do not be careless, because we want your true impressions.
A CHILD IN YOUR CLASSROOM IS WORKING QUIETLY AND INDEPENDENTLY AT HIS DESK. YOU IGNORE HIM.

unimportant ___________________________ important
reassured ___________________________ scared
worthless ___________________________ worthwhile
meaningful ___________________________ meaningless
loose ___________________________ uptight
strained ___________________________ refreshed
comfortable ___________________________ uncomfortable
uneasy ___________________________ at ease
necessary ___________________________ unnecessary
nonessential ___________________________ essential
purposeful ___________________________ purposeless
tense ___________________________ relaxed
A CHILD IN YOUR CLASSROOM IS TALKING OUT LOUDLY WITHOUT YOUR PERMISSION. YOU IGNORE HIM.

important ___:___:___:___:___:___:___ unimportant

scared ___:___:___:___:___:___:___ reassured

worthwhile ___:___:___:___:___:___:___ worthless

meaningless ___:___:___:___:___:___:___ meaningful

uptight ___:___:___:___:___:___:___ loose

refreshed ___:___:___:___:___:___:___ strained

uncomfortable ___:___:___:___:___:___:___ comfortable

at ease ___:___:___:___:___:___:___ uneasy

unnecessary ___:___:___:___:___:___:___ necessary

essential ___:___:___:___:___:___:___ nonessential

purposeless ___:___:___:___:___:___:___ purposeful

relaxed ___:___:___:___:___:___:___ tense
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