

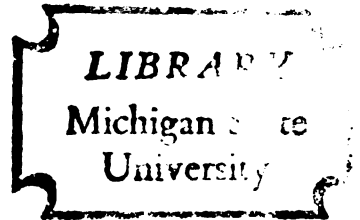
TEACHERS' JUDGMENT IN THE AREA OF
CLASSROOM MANAGEMENT

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ABSTRACT

TEACHERS' JUDGMENT IN THE AREA OF CLASSROOM MANAGEMENT

By

Myrtle Etsuko Yoshinaga

Teachers, both beginning and experienced, have felt frustrated and uncertain in handling discipline concerns of the acting-out youngster and the withdrawn youngster. The acting-out youngster impairs both the group's progress and his own functioning, while the withdrawn youngster only impedes his own classroom functioning. Teachers, traditionally, have access to a variety of information about the youngsters in their classroom and also a multitude of ways to handle misbehaviors. This information comes from neighborhood information, teacher lounge information, formal cumulative records, assessment tests and professional school workers' information. The techniques of handling misbehavior have ranged from very punitive methods to humanistic and supportive interventions.

The purpose of this investigation was to determine the responses and confidence levels of teachers, with varying amounts of experience and in-service training, to specific classroom incidents of an acting-out youngster

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and a withdrawn youngster. The choices from which the teachers decided were behavior formation strategies (reinforcement and modeling) and behavior elimination strategies (extinction and punishment).

This study was conducted with eight third, fourth, and fifth grade teachers without in-service training (group 2), and six student teachers (group 3), from the Highland Park City Schools. The eight teachers of group 1 attended seven or more behavior modification in-service training sessions. Total in-service sessions were 18. The eight experienced teachers who comprised group 2 were from another elementary school and had no previous contact with the in-service program or the investigator. The six student teachers were also housed in this elementary school. They were all from the Michigan State University Teacher Training program. T-scores, for differences of means, on the age, years of experience and number of professional courses completed were not significant at the .05 level for the two groups of experienced teachers. The t-score for differences of means was not significant at the .05 level for the number of professional courses completed between the experienced groups and the inexperienced group.

The questionnaire administered consisted of two case-studies, that of an acting-out youngster and of a withdrawn youngster. Each of the case-studies was divided into five distinct sections: classroom incident,

psychological history, school history, social history and a follow-up classroom incident. The psychological, school and social histories were systematically varied, for the study was interested in the increments of information and not whether particular information would bring about a change in the responses. The particular increments of information were based upon information found in 75 percent of the cumulative folders of 25 identified acting-out youngsters and 25 identified withdrawn youngsters. Selected experienced teachers, principals, and two special project teachers nominated these youngsters. They also judged the classroom incidents for their representativeness, appropriateness and sufficiency of information in relation to their experiences.

After each increment of information, the teacher was asked to make a choice from behavior formation strategies (reinforcement and modeling) and behavior elimination strategies (extinction and punishment). The stems were judged by two independent raters for 1) purity of strategy, 2) the feasibility of the strategies in relation to the incidents, and 3) the desirability of strategies in relation each other. The teacher was also asked to rate her confidence in the appropriateness of the particular decision.

This study hypothesized that generally the group of experienced teachers with in-service training would choose behavior formation strategies more frequently, and be more

confident about the appropriateness of their decision, than the contrast experienced group without in-service training and the inexperienced group of student teachers. It was also hypothesized that for all groups, the initial choice of strategy, based only on the classroom incident, would remain stable despite increasing amounts of information. The confidence level for all groups would increase as information increased. A final hypothesis involved the comparison of responses observed in the classroom and the questionnaire responses of the experienced group without inservice training. It was hypothesized that there would be a high degree of correspondence between the questionnaire responses after all the information was given and the most frequent classroom management strategy used by the teacher.

The data collected were primarily analyzed using analysis of variance procedures for a two-factor experiment with repeated measures. Six separate analyses were made for each of the two dependent variables, choice of strategies and confidence level. The Scheffe' method for post-hoc comparisons was used for testing specific hypotheses. Pearson product moment correlations were performed to obtain the correspondence level between the questionnaire responses after all the information was given and the classroom observations.

The results indicated that there were significant differences in the confidence levels between groups. These

differences were found 1) in the acting-out case study with increasing increments of information and 2) comparing the acting-out and withdrawn cases after all the information was given. Comparisons using the Scheffe' post-hoc method revealed no significant comparisons. No significant differences across repeated measures of the choice of strategies were obtained. Because of this finding, the hypothesis of the stability of the initial response across increments of information was confirmed. Increasing level s of confidence with increasing increments of information was not supported. The teachers with in-service training did not differ significantly in their choices of strategies in either the acting-out case or the withdrawn case. After all the information was given, there were no significant differences in the choices the three groups made in either case.

The questionnaire responses of the teachers without in-service training were compared with actual classroom observations. Two 20-minute observations were obtained on different days. All the observations were done by this investigator. The correlations were 0.00 for the withdrawn case study and 0.1428 for the acting-out case study.

There is still much to be accomplished in assessing the variables in the area of classroom management. In-service and pre-service training programs would profit from any information that would help teachers to become more positive in handling their problems, to know how to

utilize more effectively the available information about the child, and to be more confident and consistent in their approaches.

TEACHERS' JUDGMENT IN THE AREA OF
CLASSROOM MANAGEMENT

By

Myrtle Etsuko Yoshinaga

A THESIS

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To my parents
who never lost faith in me,

And to my sister, Jean
who is sadly missed by all
who knew her.

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Particular appreciation is extended to my advisor and doctoral committee chairman, Dr. Harvey F. Clarizio. He has always been unselfish with his interest, time and support throughout my entire graduate career. His influence is evident, not only in the completion of this study, but also in my professional endeavors as a school psychologist.

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CHAPTER I

INTRODUCTION AND REVIEW OF THE LITERATURE

Purpose of the Study

Classroom management has been a continual concern of both beginning and experienced teachers. A teacher's effectiveness is often evaluated by the way she/he disciplines her/his class and how orderly her/his class is when they are visible to other teachers and administrators. Teachers viewed as weak in classroom management were perceived as having low status among their colleagues (Willower, et al., 1967; Groton, 1971). Moreover, several recent studies have shown that teachers seem to concern themselves more with classroom management than with instruction (Hoy, 1968, 1967). This seems to be especially true in urban classrooms where Deutsch (1960) has found that teachers spend about 80 percent of their time in discipline. Finally, mental health principles indicate that adequate classroom management is highly related to the students' learning and well-being.

Behavior modification has become a very popular means of effective classroom management. With this method teachers have been taught to specify behavior and to utilize the behavior modification strategies effectively and

consistently. Teaching is seen as more than an art or an intuitive profession. Much has been written about 1) these strategies and their uses, 2) the effectiveness of these strategies and 3) the ease of training persons, other than clinicians, in their use. However, little has been written about 1) how much current information a teacher utilizes in making a discipline decision and 2) how confident she/he is in the appropriateness of that decision. Related research has primarily been conducted on clinical judgment of clinical psychologists. Accuracy and confidence in clinical judgment by experienced and inexperienced clinicians have been assessed (Oskamp, 1965).

The general purpose of this study is to investigate the decisions teachers make regarding classroom discipline and their level of confidence in handling discipline problems. Specifically, this investigation asks teachers of varying degrees of experience and training to make decisions, choosing from various alternatives of behavior formation strategies (positive reinforcement and modeling) and behavior elimination strategies (extinction and punishment). Two case studies, that of an acting-out youngster and that of a withdrawn youngster, are presented. Each case-study consists of increasing increments of information about the child, i.e., social, psychological and school information. After each increment of information, the teacher is asked to make a decision and to assess her/his confidence in the appropriateness of that decision.

Review of Related Literature

Although the research is limited in the specific area of teachers' judgment and confidence in discipline decisions, background information and supporting evidence needed to be investigated in four broad categories. First, the empirical classification of children's behavior disorders is important in establishing a basis for the categories of the questionnaire. Second, supporting information from clinical studies lays the basis for the hypotheses of this study. Third, the value of in-service training must be determined to lend credence to some of the differences hypothesized between groups of teachers. Finally, a brief discussion of behavior modification strategies is necessary as they provide the basis of the options in the questionnaire given to the teachers. In each of these categories, only the most directly related studies will be included.

Classification of Behavior Problems

Teachers and other mental health related school personnel have been particularly concerned about being able to adequately sample and classify the behaviors of children considered deviant. Classifications are considered important because it is generally thought that assignment of a child to a category would generate useful information about the child. Certain treatments would be associated with particular categories of classification.

There have been two competing viewpoints in regard to categories of behavior disorders (Lorr, 1961). The "class-model" viewpoint holds that all or nearly all symptoms must be present. The disorder is either present or absent. Variation in amount is not considered. Disorders are also considered mutually exclusive. The other viewpoint, the more recent "quantitative" model, holds that a group of symptoms constitute the disorder, and the number of symptoms present indicate the measure of the intensity of the disorder. The symptoms form a dimension of disorders and all individuals to a greater or lesser degree possess the disorder. This model also indicates that the dimensions are independent and a person can be a combination of dimensions (Quay, 1972).

Certain problems have been associated with the "class model." Where a "standard" system of categories is utilized, the main problem is the low agreement among clinicians on individual diagnosis (Quay, 1972, p. 38). Consistency of diagnosis over time is low. No reliability studies of diagnostic classification for children's behavior disorders have been reported. Reports from psychiatric clinics of diagnostic category placements (Rosen, Bahn and Kramer, 1964) indicate that about 70 percent of children are classified under the category "adjustment reaction." This category implies little more than that the child has some behavior problem.

It is generally thought that despite the number of clinical observations that may go into the construction of

a classification system, the interrelatedness of the symptoms that comprise a category cannot be simply assumed. The question of this interrelation is considered a statistical one (Quay, 1972). Application of statistical procedures to data collected under specified and varied conditions is an area in which more research needs to be done.

Dreger (1964) reported that precise classification is really the first step in the process of scientific diagnosis-therapy. In education, this would be the identification of the problem or disorder, which would be followed by prescribing the proper solution to the problem. Dreger (1964) has delineated distinct steps in a diagnostic-therapeutic process. Three are important for consideration in this study:

- 1) Gathering of accurate and comprehensive behavior descriptions and concomitant behavior-setting descriptions
- 2) Applications of the obtained descriptions to representative samples of specific populations
- 3) Determinations of interrelations among behavior descriptions, leading to basic dimensions of disorder.

Analysis of the Quantitative Approach

The quantitative approach isolates patterns of behavior that are statistically interrelated. Pioneers of this method were Ackerson (1942) and Hewitt and Jenkins (1946). Hewitt and Jenkins investigated 500 case records of children referred to a child guidance clinic. They rated

45 frequently occurring behaviors for their absence or presence in each of the case records. The purpose was to find which symptoms were intercorrelated. Three syndromes were identified and labeled: the unsocialized aggressive, the socialized delinquent, and the over-inhibited child.

The advantages of the quantitative approach include: 1) the dimensions are observable collections of behavior and 2) the behaviors can be objectively defined. This permits considerable interjudge reliability about the degree to which a child manifests the behaviors of the particular dimension. The disadvantages of this method are characteristic of the technique of factor analysis. First, a dimension cannot be identified 1) if it is not represented by the behavior traits in the analysis or 2) if there is no intercorrelation with some subset of behaviors. This criticism can be overcome by selecting deviant behaviors carefully for inclusiveness, and providing systematically varied samples of children. Second, the factors are considered dimensions of behaviors and not types of individuals. In the area of child disorders, the pathology will usually be discussed in terms of behavioral dimensions rather than types. The mental health professionals usually focus on those children who represent extremes of these dimensions. Third, the descriptive systems are factor analytically based. The results are influenced by the data collection method (ratings, observations, questionnaires) and the settings in which the data are collected. There is always

a risk in the use of the technique. Quay (1972) indicates that "it is the relationship of factorially derived dimensions of behavior, however measured, to etiological and treatment variables that give the dimensions psychological relevance" (p. 8). Finally, those with strong clinical orientation criticize the categories as oversimplified and lacking in dynamic quality (Anthony, 1967). These criticisms arise from certain theoretical predilections and suggest a careful inquiry into the effectiveness of the system in describing the child's behavior and in applying reliable judgments about the treatment and classification of this behavior.

Patterns of Behavior Problems

Peterson (1961) developed the problem behavior rating scale. This scale represented the most common problem behaviors of children referred to a child guidance clinic. In 1961, Peterson had teachers empirically rate 831 grammar school students on a problem check list. Factor analysis of the correlations of all the items resulted in two independent clusters. These he called "Conduct Problem" (aggressive behaviors) and "Personality Problem" (withdrawn behaviors). These two factors have appeared in a number of studies despite differences in subjects (clinic referrals, special education children, delinquents) and instruments used (checklists, ratings, referrals).

Peterson (1961) concluded that all children can be placed somewhere between these two dimensions. The deviant child is distinguished by the quantity of behavior problems rather than specific quality of behaviors.

Another important study in this area is the Behavioral Classification Project. The Behavioral Classification Project is trying to build a more adequate classification by using behavioral items with demographic and personal history variables. These items reflected parents' complaints to the Duval County Child Guidance Clinic (Dreger, et al., 1964).

Five clusters of behaviors are considered "types" of children with similar behavior problems. The five "types" most recognizable to parents and clinicians are:

- Cluster A. Relative mature, semisociable egocentricity
- Cluster B. Relatively immature, nonsociable, semisurgent egocentricity
- Cluster C. Sociable anxiety
- Cluster D. Semisociable, nonanxious, desurgent retardation
- Cluster E. Egocentric, antisocial aggressiveness.

Cluster E corresponds with Peterson's (1961) Conduct Problems and Hewitt and Jenkins' (1946) Unsocialized Aggressive Child. Cluster C matched Peterson's (1961) Personality Problem and Hewitt and Jenkins' (1946) Overinhibited Child.

Many research studies have used as their measuring instrument the Wickman's checklist (1928). In studies more

recently done, the attitudes of teachers and mental health workers have become more compatible. However, teachers still consider overt behavior problems more serious, while the psychologists consider withdrawal problems to be more severe (Ziv, 1970). In a study that was conducted based in part on Wickman's inventory and in part on teachers' recognition and attitude toward problem behaviors as reflected in actual referrals to Pupil Personnel Services, the primary concerns of teachers were with the withdrawn, the aggressive, and those with learning problems. The majority of referrals were for children with learning problems (Westbrook, 1970).

All statistical studies which attempt to classify behavior problems have shown the pattern involving aggressive behaviors (Hewitt and Jenkins, 1946; Peterson, 1961; Patterson, 1964; Quay, 1964; Quay and Quay, 1965; Westbrook, 1970). Some of the characteristics most frequently associated with this pattern are disobedience, disruptiveness, fighting, destructiveness, temper tantrums, irresponsibility, impertinence, jealousy, signs of anger, bossiness, profanity, attention seeking behavior, and boisterousness. The general trait is an active aggressiveness that alienates the child from his peers and adults (Quay, 1972).

The second pattern most frequently found in classification studies centers around withdrawn behaviors (Hewitt and Jenkins, 1946; Peterson, 1961; Patterson, 1964; Quay, 1964, Quay and Quay, 1965; Westbrook, 1970). The general

trait associated with this pattern is a marked withdrawal by the child from peers, adults and social activities. Some of the characteristics most frequently associated with this pattern are feelings of inferiority, self-consciousness, social withdrawal, shyness, anxiety in social situations, crying, hypersensitiveness, unhappiness, depression (Quay, 1972).

A third pattern has sometimes emerged and has accounted for much less of the variance of the interrelationships among problem behaviors. Also its meaning is less easily decided upon. This pattern involves preoccupation, lack of interest, sluggishness and laziness (Quay and Quay, 1965).

Boys were more frequently referred as having adjustment (withdrawn) problems and behavior (aggressive) problems than girls. These are in relation to a variety of reporting data from clinic referral, teacher reports, and rating scales (Peck, 1935; Eaton, E'Amico, Phillips, 1956; Beilin, 1959; Sparks, 1952; Dreger, 1964). The difference between boys and girls especially in regard to teachers' reports, is that teachers distinguish a different kind of adjustment for girls, and that different types of behaviors are identified with the maladjustments of each sex (Stewart, 1949). These result from teachers' expectations that boys and girls act in different and prescribed ways in our culture.

Judgment--Accuracy and Confidence

Little empirical research has been done to show how teachers' decisions and confidence in handling a classroom misbehavior are affected when information about the child increases. Supporting research comes from the area of clinical judgment. Clinical judgment is a complicated process. Holt (1970) outlines six steps in the role of clinical judgment. Three of them are applicable for this discussion. They are:

- 1) The analysis of the criterion or the study of what is to be predicted. In analyzing the "criterion," you are trying to decide what is the most meaningful measure of what you are predicting. This presupposes an understanding of the behavior in question and the circumstances under which it shows itself.
- 2) The situational and intrapersonal intervening variables. Those situational and intrapersonal intervening variables that are used in order to predict the criterion need to be discovered.
- 3) The measuring instrument. How appropriate the instruments are to the task is an important but neglected question.

These three are integral in the accurate prediction of behavioral outcomes. Clinical psychologists are trained specifically in assessing personality and not in making accurate predictions. Goldberg (1968) feels that there is no realistic opportunity for the clinical psychologist to improve his skills, because in clinical practice feedback is virtually non-existent. When feedback does occur, the long interval of time which elapses between the prediction and the feedback serves to ensure that the initial cue

configuration leading to the prediction has disappeared from the clinician's memory.

Clinicians have long held that with increasing amounts of information about the person, accuracy of clinical judgment would increase (Holt, 1970; Meehl, 1954; McArthur, 1954; Taft, 1955). This belief might be seen as a reflection of their training in clinical judgment. Oskamp (1965) however, found that increasing the amount of information did not increase the accuracy of clinical judgment. After the initial presentation of information, the clinicians formed their conclusions rather firmly. Answers were rarely changed. Additional increments of information served only to confirm the original judgment. He also found that when the information level increased, the clinicians' confidence level about the accuracy of their judgment increased. This increasing confidence rating shows that the judges become increasingly convinced of their own understanding of the case being presented. A similar pattern should be found in the groups of teachers. Their initial strategy decision should remain stable over the increasing increments of information.

With certain groups of workers, experience has been found to have an inverse effect on levels of confidence. The more experienced judges were less confident than the less experienced judges in the accuracy of their judgments. (Oskamp, 1965; Goldberg, 1959; Oskamp, 1962). This effect has been generally found in studies that require their

subjects to make specific judgments based on large amounts of information.

Ryback (1965), on the other hand, found that in situations where subjects experience similar tasks repeatedly, and where minimal feedback is provided, their confidence level about their performance increased in relationship to their exposure to the tasks.

The situations presented in Ryback's study were five questionnaires composed of ten items each comparing geometric measures of simple designs. Generally, without systematic feedback learning cannot take place, and accuracy or change of previous answers would not increase. However, experience with any task or situation would increase familiarity with the tasks. This familiarity with the components of a situation would reinforce and strengthen certain styles of performance and would manifest itself in higher confidence ratings. It would not imply greater accuracy of diagnosis or a more effective approach.

A teacher confronted with a discipline problem falls in this last group in that situations occur repeatedly but with minimal feedback about the appropriateness of strategy. Three factors lend support to this conclusion.

First, although the student involved in the problem situation changes, the categories of problems the teacher must deal with are limited in number. Frequently occurring problems are found to be those relating to infractions of classroom rules and routine, and failure to meet

school requirements (Peck, 1935; Driscoll, 1970). Problems such as these occur frequently, year after year.

Secondly, teachers show a preference for conceptual simplicity. They seem to display a distaste for rational analysis of what they are doing. Teachers adopt new ideas and techniques readily without thoroughly investigating the strengths and weaknesses. Techniques are abandoned if they are not successful in stopping immediately the misbehavior. Decisions are often based upon intuition, what "feels right," rather than upon an objective basis (Jackson, 1971). Because of this tendency, techniques that have proved successful with one youngster will be repeated with another youngster, without evaluation as to the effectiveness of the strategy for this particular youngster. The strategy that proved to be successful is used most frequently.

Third, teaching tends to be an isolating type of activity (Sarason, 1971). The teacher rarely receives feedback, either negative or positive, from administrators and/or other teachers.

The experienced teacher, and even more likely, the teacher who has experienced success in handling discipline problems, would probably be extremely confident in the decision she made. The success would be determined by the immediate stopping of the undesirable behavior. Feedback of the appropriateness of the strategy would be limited to this immediate "stoppage of behavior," and would not be evaluated by feedback from other teachers or administrators.

The inexperienced teacher, on the other hand, would be less confident than the experienced teacher. Her lack of experience in the teaching field and her insecurity about her competence in the area of discipline would account for this. Training programs talk about the area of discipline but rarely does a prospective teacher have a chance to practice discipline strategies and receive feedback about the effectiveness and appropriateness of them. Professors of education "stress the desirability of permissive pupil control, while 'discipline' as it is actually practiced in the public schools emphasizes the need for more authoritarian controls" (Hoy, 1968; Ausubel, 1961). The initial exposure to the classroom for these inexperienced teachers may be frustrating as they try to coordinate the demands of teaching, especially with regard to maintaining discipline of the classroom, and obtaining the learning goals of the school (Hoy, 1968). This period would not contribute to the confidence of the inexperienced teacher.

In-Service Training of Teachers

Educators increasingly are convinced that the teachers' education is only partially completed at graduation. Professional growth still needs to be enhanced.

A great majority of pre-service programs structure their academic courses and student teaching programs in about the same manner. Pre-service education programs offered at most colleges and universities emphasize three major areas:

- 1) The first emphasis is on curriculum content.

This category consists primarily of the subject matter that the teacher is expected to instruct the student. The material is usually transmitted in the form of verbal abstractions.

- 2) The second emphasis is on professional knowledge, which includes such areas as educational psychology, child and adolescent development, and educational evaluation. Most of this information is also transmitted in the form of abstractions. The teachers are then required to apply these abstractions to concrete educational situations. In many cases, teachers find it difficult to make this transfer, and as a result they are critical of the information as being useless.

- 3) The third emphasis is on classroom skills and behavior. Student-teaching is the major component in this area. Methods courses usually attempt to transmit these skills to the prospective teacher. A survey of teaching methods courses in four-year teacher education institutions found that lecturing and group discussions were most frequently used. Teaching again was considered mostly in verbal abstractions, and analysis of teaching

behavior was almost entirely lacking.

Student-teaching programs need to be evaluated. The vast majority of the programs do not focus on the development of specific behavior patterns, nor do they provide effective feedback required for efficient development of skills. A series of studies found that student teachers become more authoritarian and punitive as a result of their training (Borg, 1970).

In-service programs, on the other hand, cannot be described so uniformly as pre-service programs. Borg (1970) feels that the only generalization about in-service programs that can be made is that schools do very little, and what they do is poor. Most districts budget little or no money for such training, and limit themselves to a program of faculty meetings and/or one day institutes. The general focus of workshops and extension courses is on specific new curricular materials. He also feels that as a whole, little emphasis has been placed on teaching methods and/or new methods to use to advantage the new curriculum.

In-service programs generally are deficient in four areas:

1) Emphasis is on telling, rather than doing.

Rarely is the teacher taught the complex classroom skills through guided experience in the behavior itself.

2) Instruction is general rather than specific.

Most programs deal with vague generalities instead of dealing with systematic definitions and procedures for the learning of specific teaching skills.

3) Effective models are not provided. Even when a model is provided, rarely is the student told what to look for. A situation is rarely provided for the student to practice the teaching skills he has observed.

4) Effective feedback is not provided. The learner can progress much more rapidly if he receives feedback, both specific and immediate, about his performance. Typically, feedback, especially in regards to in-service workshops, has been a) too general and b) too threatening for many teachers (Borg, 1970).

Workshops are the most popular form of in-service training (Parker and Golden, 1952). Successful workshops frequently result in development of skills deemed to be important in teaching.

There have been numerous studies in the area of behavior modification that have shown that teachers do change their behavior after instruction. Acquisition of skills in the use of these strategies depends upon the immediacy of reward to the teacher. It has been concluded

that increased use of these strategies after instruction has resulted in improved behavior in the individual child or the group (Ullmann and Krasner, 1965; Hall, Lund & Jackson, 1968; Thomas, Becker and Armstrong, 1968; Hall, Panyan, Rabon and Broden, 1968; O'Leary, Becker, Evans and Saudargas, 1969; Buys, 1972). These studies were primarily in the form of the one-to-one consultation model. The main emphasis was to increase the skill of a particular teacher in relation to the prevailing classroom problem.

Most of these studies have focused upon increasing the reinforcement procedures of the teacher. Success with the procedures is usually reported. Continued performance by the teacher in the use of these strategies is rewarded by the subject's progress.

In this study, the workshop format and behavior modification strategies were used. Teachers who received the in-service training should demonstrate more positive behaviors in the handling of discipline problems than teachers without this particular type of in-service training. With more familiarity with the process of identifying and describing problems and presenting a plan for changing behavior, the teachers with in-service training should be more confident about their decisions when confronted with like problems.

Strategies of Classroom Management

The strategies and alternatives available to the teacher for handling discipline problems are numerous: psychodynamic, psychoeducation, life-space interviewing approach, the "traditional" approach of punishing all transgressors promptly, and the learning theory approach (Eddy, 1965; Clarizio, 1971). Stebbins (1970) found that the most frequently used strategy is the "technique of appeal." The teacher tries to establish conformity by simple reminders of classroom rules, calling to attention, reprimands for talking and/or admonitions to get back to work. If the behavior does not cease, or if the behavior is evaluated as detrimental to the student's learning, a scolding or an angry threat of expulsion is the alternative. These actions are usually said to be justified on the basis that they suppress the misbehavior quickly. Studies on punishment have shown that the effect of this type of negative teacher attention may in fact strengthen troublesome behaviors. The intensity of the reprimands is one of the significant factors in changing of behavior and the lasting influence of the change (O'Leary and Becker, 1969). Coping strategies have undergone some changes. Stendler (1949) found that a large percentage of teachers who responded to statements describing various behavior patterns of elementary school children said that talking to the child (or moralizing) and adjusting the classroom work were the best ways of dealing with behavior problems. The

contrasting group of mental health workers felt that finding the cause of the child's behavior was the best way of dealing with the problem. The same statements were used by Porter (1959) and his teachers responded: take punitive measures (17.3%), talk to the child (19.9%), adjust the work (23.7%) and study the child (17.9%). Herman, et al. (1969) found striking differences from the previous studies. Teachers were found to be reluctant to deal with pupils' problems by taking punitive measures. An appreciable increase in trying to change behavior by adjusting the environment was rated. These adjustments involved assigning of work or offering opportunities for success and self-reliance. Teachers were strongly supportive of this method of responding to the timid or shy child or the one prone to be dependent.

Behavior Modification Approach

The learning theory or behavior modification approach seems most conducive to narrowing the gap between theory and classroom disciplinary practices for the following reasons: 1) this approach is consistent with the teacher's role as setter of society's standards, 2) it offers practical and definable suggestions for classroom problems, and 3) it enables the teacher to realistically contribute to the educability and mental health of her students (Clarizio, 1971). Hewitt (1968) feels that behavior modification helps the teacher fulfill the role of a learning specialist. Bijou (1966) concludes that if a

child fails, one cannot categorically explain the failure in terms of the child's deficiencies, but must also consider the inadequacies of the teacher.

Behavior modification may be defined as the use of learning theory principles to change behavior. Behavior modification is structured and systematic. It 1) emphasizes the identification and description of the problem behavior, 2) identifies the contingencies that reinforce the undesirable and desirable behavior(s), and 3) suggests conditions necessary to modify the behavior. The purpose of the behavior modification procedure is to replace the negative behavior with a positive behavior. This behavior should be defined in objective and measurable terms.

Four strategies of intervention were emphasized in this study. The strategies fall in two basic categories. They are:

I. Behavior Formation Techniques

A. Positive Reinforcement.--Presentation of a powerful and desirable stimulus that serves to establish and/or maintain the strength of the desired response, e.g. praise, tokens, feedback.

B. Modeling.--A condition where after observing a model demonstrating a pattern of behavior:

- 1) the new pattern of behavior that previously did not exist in the child's behavioral repertoire is acquired by the observer.

- 2) inhibiting responses are either strengthened or weakened in the observer as a result of the consequences experienced by the model, or
- 3) previously learned responses in the same general category are facilitated to occur (Bandura, 1969).

II. Behavior Elimination Techniques

A. Extinction.--The decrease and eventual disappearance of a response learned under conditions of reinforcement, when the reinforcement is withdrawn. The reinforcement need not be positive for a response to be learned and maintained.

B. Punishment.--A condition where a learner shows a decrease in behavior presumably due to the actual infliction of pain, e.g., spanking, pinching, or the withdrawal of a pleasant stimulus, e.g., losing a privilege, missing an outing.

Summary

Little empirical research has been done in the specific area of teachers' decisions and confidence in handling classroom misbehavior when information about a child increases.

The purpose of this study is to investigate teachers' decisions regarding the use of various disciplinary techniques and determine their level of confidence in applying these techniques to the problems of an acting-out

youngster and a withdrawn youngster. The teachers were asked to make decisions from choices of behavior formation and behavior elimination strategies. Three groups of teachers were sampled: 1) an experienced group with in-service training in behavior modification, 2) an experienced group without in-service training in behavior modification, and 3) an inexperienced group of student teachers. After each decision, the teachers were asked to rate how confident they were in the appropriateness of their decision making.

Four broad categories were reviewed. First, the empirical classification of children's behavior disorders established a basis for the categories used in the questionnaire. All statistical studies which attempted to classify behavior problems have shown the patterns involving aggressive behaviors and withdrawn behaviors. A second important area relates to supporting research from clinical judgment. Clinicians have long held that with increasing amounts of information about the person, the accuracy of clinical judgment would increase. Oskamp (1965) found that increasing the amount of information did not increase the accuracy of clinical judgment. However, the level of confidence about the accuracy of their judgment increased with increasing amounts of information. In analyzing the teaching situation, it was found that teachers' behavior in relation to discipline choices would differ from that of clinical judgment. The teaching situation was likened to

situations where subjects experience similar tasks repeatedly and where minimal feedback is provided. The third area of concern is in-service training of teachers. Much has been written in the area of behavior modification. Teachers have changed their behavior after instruction, and continued performance by the teacher in the use of these strategies is rewarded by the students' progress. The final area concentrated on the particular strategies--positive reinforcement, social modeling, extinction, and punishment.

The results of this investigation should provide information on teachers' judgments, given increasing amounts of information, and the confidence levels in relation to their decisions. The findings should be of interest to pupil personnel workers. Implications for pre-service and in-service training programs are important.

CHAPTER II

METHODOLOGY

Overview of the Study

The main purpose of this study was to investigate the decisions teachers make regarding classroom discipline and their level of confidence in handling discipline problems. Specifically, teachers of varying degrees of experience and training were asked to make decisions from choices of behavior formation and behavior elimination strategies. Two case studies, that of an acting-out youngster and that of a withdrawn youngster, were presented. Increments of information regarding social, psychological and school factors were furnished. After each increment of information, teachers made their choice and assessed their confidence in the appropriateness of that decision.

This investigation was conducted in the Highland Park City Schools. Highland Park City has some unique characteristics that need to be described. It is surrounded by Detroit and is totally urbanized. The working pattern of the city is as follows: 33.7 percent work in manufacturing-industrial jobs; 40.6 percent work in white collar occupations; and 18.3 percent work for governmental agencies.

The median income of families is \$8,716 (Bureau of Census, April 1972). The Detroit Free Press (1973) reported that Highland Park has the lowest median family income of the 40 surrounding metropolitan municipalities. Families receiving less than poverty income constitute 14.5 percent of the population, and of this, 32.1 percent are receiving public assistance income. The elementary schools' population, which constitutes 5.9 percent of the total population, is 97.3 percent Black. The median for school years completed, of persons 25 years old and older, is 11.2. The Michigan Department of Education reported that in 1971-1972 Highland Park City Schools spent \$911.70 on instruction per pupil. This compares very favorably with Detroit, which spent \$744.35 per pupil on instruction. Highland Park City also has the highest crime rate in the country for cities of its size (Detroit Free Press, 1973). On the 1972 Michigan assessment tests given to about 326,000 fourth and seventh graders, the Highland Park City fourth graders tested had an average basic skills score of 42.7 and were ranked in the first (lowest) percentile. The seventh graders had an average basic skills score of 41.7 and were also ranked in the first percentile. This means that about 99 percent of other Michigan fourth and seventh graders posted higher scores than the Highland Park youngsters (State Journal, 1972; Local District Results, 1972).

Hypotheses

Based on the review of literature presented in Chapter I, it was generally assumed that the group of experienced teachers with in-service training in behavior modification (group 1) would more frequently choose behavior formation strategies (reinforcement and modeling) and would be more confident about the appropriateness of their decisions than a contrast group of experienced teachers without in-service training (group 2) and an inexperienced group of student teachers (group 3). It was hypothesized that for the three groups, the initial choice of strategy based only on the classroom incident would remain stable despite increasing amounts of information. The confidence level would increase as information increased.

The responses on the questionnaire were used to compare the three groups. The comparisons of responses were in relation to the acting-out case only as information increased; the withdrawn case only as information increased; and the acting-out and the withdrawn cases after all the information was given. A last comparison was between the observational frequencies and the questionnaire responses. Specifically, the following hypotheses were investigated. In the acting-out case only, with increasing increments of information:

- 1) The initial choice of strategy based on the description of the classroom incident will remain stable for all three groups.

- 2) Group 1 will choose behavior formation strategies more frequently than group 2.
- 3) Group 1 will choose behavior formation strategies more frequently than group 3.
- 4) Confidence in one's decision will continue to rise for all three groups but differently as noted in hypotheses 5 and 6.
- 5) Group 1 will be more confident in its decision than group 2.
- 6) Group 1 will be more confident in its decision than group 3.

In the withdrawn case only, with increasing amounts of information:

- 1) The initial choice of strategy based on the description of the classroom incident will remain stable for all three groups.
- 2) Group 1 will choose behavior formation strategies more frequently than group 2.
- 3) Group 1 will choose behavior formation strategies more frequently than group 3.
- 4) Confidence in one's decision will continue to rise for all three groups but differently as noted in hypotheses 5 and 6.
- 5) Group 1 will be more confident in its decision than group 2.
- 6) Group 1 will be more confident in its decision than group 3.

In comparing the acting-out and withdrawn cases, after all the information was given:

- 1) Group 1 will choose the behavior formation strategy more frequently than group 2.
- 2) Group 1 will choose the behavior formation strategy more frequently than group 3.
- 3) The behavior formation strategies will be chosen more frequently for use with the withdrawn child than with the acting-out child.

- 4) Group 1 will be more confident in its decision than group 2.
- 5) Group 1 will be more confident in its decision than group 3.

In comparing the observational frequencies and the questionnaire responses only in the experienced group without in-service:

There will be a high degree of correspondence between the questionnaire responses after all the information was given and the most frequently used classroom management strategy.

This will be true for both the acting-out and the withdrawn case-studies.

Schedule of Experimental Procedures

The procedures are presented in graphic form in the flow chart. The total schedule was completed during the period of September, 1972 to August, 1973. The various functions of the experiment were completed according to the following schedule:

- 1) Conducted in-service workshop sessions from September, 1972 to April, 1973. There were 18 sessions in total.
- 2) Formulated the questionnaire. Identified 25 acting-out children and 25 withdrawn children and gathered cumulative folder information in December, 1972. Devised questionnaire in January, 1973.
- 3) Selected the three groups to be used in this study, March-April, 1973.

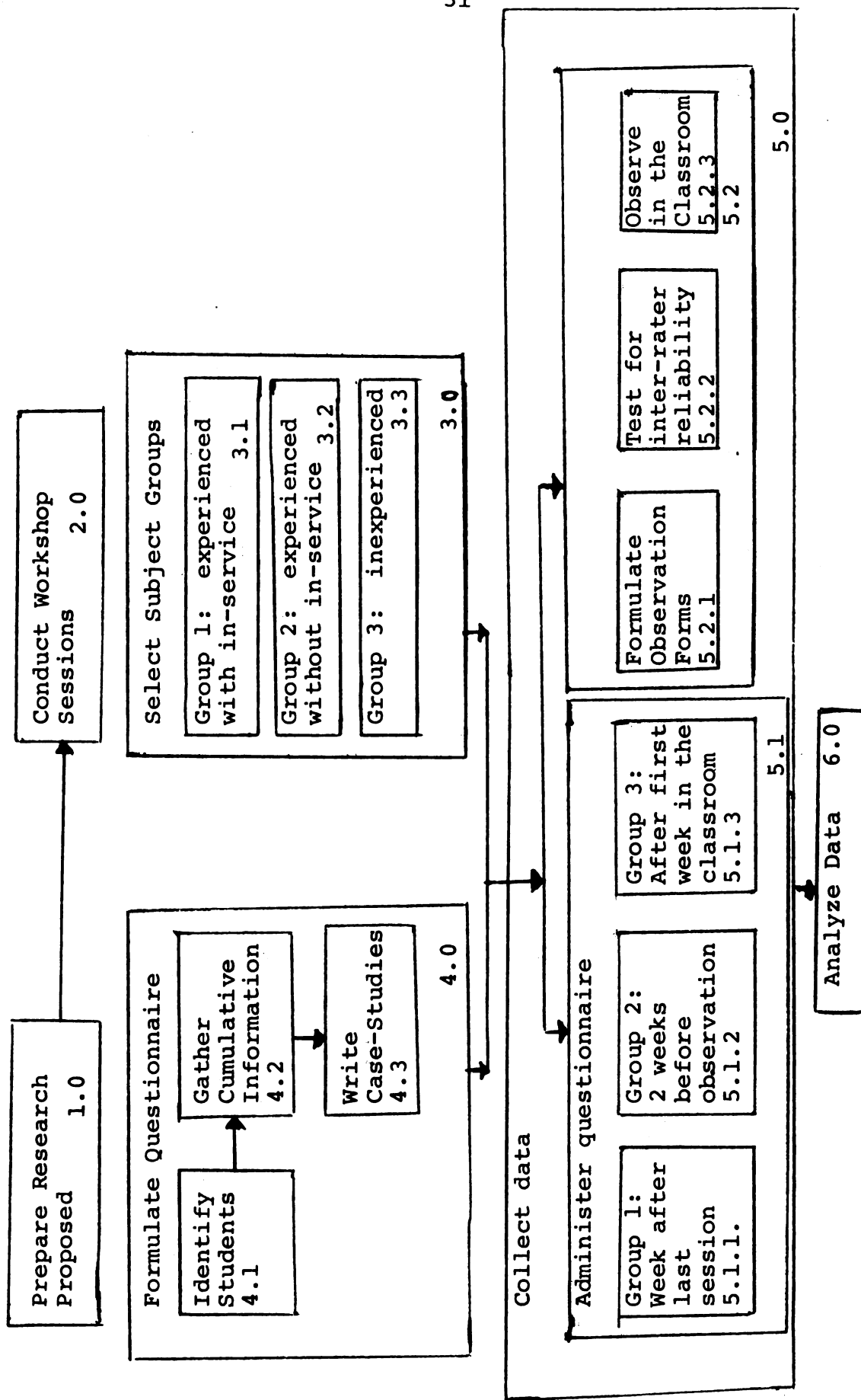


Figure 2.1.--Experimental Procedure.

4. Administered the questionnaires to the three groups, April-May, 1973.
5. Observed in the classrooms of teachers in group 2, May, 1973.
6. Analyzed the data, July, 1973.

Subjects

Three groups of teachers were used in this study. There were two experienced groups of teachers and an inexperienced group of teachers. The experienced groups constituted teachers who 1) taught at one of the three elementary schools used in this study, 2) taught third, fourth, or fifth grades, and 3) had a minimum of one year's teaching experience. The cutoff of one year was felt to be a minimum of time necessary for a teacher to become acquainted with handling the routines and organizational demands of the position. Hoy (1968) also found that one year was sufficient in changing the pupil control ideology of beginning public school teachers to that more closely related to the prevalent custodial pupil control ideology of experienced teachers.

The inexperienced group was comprised of student teachers from the teacher training program at Michigan State University. Their contact with the classroom was limited to a ten-week term, and their inclusion as subjects was after a week in the classroom. This week was spent in observing the children, writing lesson plans, observing the routines

of the classroom and getting acquainted with the children. No actual teaching was done. The inexperienced group was included in comparison to the experienced group to see whether experience would contribute to any differences. Student teaching was seen as an ideal period because all of the student teachers had fulfilled most of the basic educational and professional requirements for an elementary certificate but had spent little time in the classroom. Perceivably, professional training would not be a confounding variable.

Selection of Teachers

Each of the three groups was defined by certain parameters. The experienced group with in-service training (group 1) numbered among those who attended workshop sessions taught by Dr. H. Clarizio and the investigator. There were 18 sessions in total. Teachers who attended seven or more were included in group 1. Those who were not included attended only four sessions or less. It was believed that these teachers did not obtain sufficient information about the use of the various behavior modification strategies to permit effective application. Group 1 teachers were all from Liberty and Willard schools.

The other group of experienced teachers (group 2) was selected from Cortland School. Cortland School was the only remaining elementary school that had the same number of grades as Willard and Liberty schools (K-6) and did not

have any contact with the in-service training sessions. The principal was very cooperative.

The inexperienced teachers (group 3) were all student teachers assigned to Cortland School. All six of the student teachers were from Michigan State University's teacher training program. The student teachers were assigned to either grades three, four, or six.

Characteristics of the Teachers

The experienced group of teachers (groups 1 and 2) selected for this study consisted of 16 full-time teachers from the third, fourth, and fifth grades from Liberty, Willard and Cortland Schools. There were eight in group 1 and eight in group 2. Group 3 consisted of six student teachers assigned for ten weeks at Cortland School.

The experienced groups were compared with respect to their age and years of experience. A t-test for differences of means was used for each comparison. All the teachers (groups 1, 2, and 3) were compared with respect to the number of basic professional courses completed for an elementary certificate.

Of the 16 experienced teachers, two were men and 14 were women. In group 1, five of the teachers were Black. In group 2, six were Black. The subjects' mean age in group 1 was 35.75 years and the average length of experience was 5.5 years. Group 2 teachers' mean age was 40.5 years and the average length of experience was 6.375 years. The

TABLE 2.1.--Teachers' age, years of experience, number of courses of groups 1 and 2.

Variables	Group 1	Group 2	SDm	df	t	p
Years of Experience	$\bar{x}$ - 5.5	$\bar{x}$ = 6.375	2.4707	14	0.3542	>.05
Age	$\bar{x}$ =35.75	$\bar{x}$ =40.5	6.3238	14	0.7511	>.05
Number of Courses	$\bar{x}$ = 8.625	$\bar{x}$ = 9.25	0.7719	14	0.6941	>.05
Race	5 Black 3 White	6 Black 2 White				
Sex	1 Male 7 Females	1 Male 7 Females				

t scores were not significant at the .05 level of significance.

Group 3 was compared to the other groups only in respect to the number of completed basic courses for the elementary certificate. This comparison was necessary to establish similarity of professional training between the three groups.

The list of basic courses was compiled from information obtained from the Elementary Education Program Planning Guidebook, College of Education (Michigan State University). The requirements in the Elementary Education Program leading up to an elementary certificate are:

- 1) A minimum of 180 credits to complete a B.A. degree;
- 2) Completion of the University College courses;

- 3) Completion of one certification major of at least 45 credits and one minor of at least 30 credits; and
- 4) Completion of certain professional courses in Education.

Items 2, 3, and 4 vary according to the individual's program and certification major and minor. Certain required professional courses in Education are listed in item 5.

These courses include:

- 1) Growth and development;
- 2) Individual and the school;
- 3) Methods of elementary education;
- 4) Methods of teaching reading;
- 5) Language arts in elementary grades;
- 6) Children's literature;
- 7) Social studies for elementary grades;
- 8) Mathematics for elementary grades;
- 9) Science for elementary and middle schools; and
- 10) Student teaching.

The mean number of basic courses leading to the elementary certificate was 8.625 for group 1, 9.25 for group 2 and 8.33 for group 3. The t values were not statistically significant at the .05 level.

The experienced groups compare closely in terms of age, experience and number of professional courses. Although some of the experienced teachers did not receive their degrees from Michigan State University, as did the

TABLE 2.2.--Teachers' number of courses of groups 1 and 2, compared with group 3.

Variables	Group 1 Mean	Group 2 Mean	Group 3 Mean	SDm	df	t	p
Number of Courses	8.625		8.33	0.6831	12	-0.4270	>.05
Number of Courses		9.25	8.33	0.7115	12	-1.2284	>.05

student teachers, the basic requirements for the elementary certificate were very similar. Programs of the individual teacher might differ in the major and minor areas; however, the courses that various universities feel would prepare a prospective teacher are similar in content (Borg, 1970).

The two experienced groups were comparable in age. The experienced group with in-service (group 1), however, comprised the younger segment of the two experienced groups. Willard School had many teachers with 10-15 years of experience; however, these teachers did not voluntarily participate in seven or more in-service sessions. The total staff of Liberty and Cortland Schools was comparable in age and academic degrees.

Treatment

The In-service Training Sessions

The in-service training sessions on behavior modification were held weekly from September-December, 1972, and from February-April, 1973. Each session lasted 1-1/2 hours and was divided into two parts: 1) discussion of specific behavior modification strategies by the workshop leader, and 2) discussion of teachers' problems regarding classroom discipline in relation to the effective use of behavior modification techniques.

The first series (September-December, 1972) consisted of ten sessions and was conducted by Dr. H. Clarizio and the investigator. The topics covered were:

- I. Introduction
- II. Glasser's Discussion on Individual Discipline
- III. Types of Problem Children (Spaulding).
- IV. Behavior Formation Techniques
 - A. Positive Reinforcement
 - B. Modeling
- V. Behavior Elimination Techniques
 - A. Extinction
 - B. Punishment

The second series (February-April, 1973) consisted of eight sessions and was conducted by this investigator and Mr. Ronald Jones. The topics covered were:

- I. Introduction
- II. Reinforcement and contingency contracting
- III. Modeling and the peer group
- IV. Extinction
- V. Punishment
- VI. The open classroom vs. Skinner
- VII. Attitude learning
- VIII. Evaluation of both sessions

The teachers were given the text, Toward Positive Classroom Discipline, by H. Clarizio. Tapes, overheads and handouts were used in the sessions. The sessions were designed to help the teachers to recognize behavior requiring the use of behavior modification strategies in their classroom, and to evaluate the results of the strategies.

The discussion part of each session focused upon the individual teacher's classroom problems.

Measuring Instrument

The Questionnaire--Case Studies I and II

For the purposes of this study, a questionnaire that would determine the discipline decisions of teachers was designed. The instrument was modeled after that used in the Oskamp (1965) clinical judgment studies and other educational case study-type questionnaires. In contrast to those studies, the questionnaire for the present research was based on information found in the cumulative folders of the student population to which the subjects were exposed. The organization of the questionnaire was determined: 1) by relating the information found in the fifty cumulative folders; and 2) by basing the decision stems on the basic behavior modification strategies; reinforcement, modeling, extinction and punishment.

The questionnaire consisted of two sections: the withdrawn case study and the acting-out case study. Each case study was organized as follows:

- 1) Classroom incident
- 2) Social history
- 3) Psychological history
- 4) School history
- 5) A follow-up and general description of classroom behavior. Items 2, 3 and 4 were

systematically varied. This was done so as not to have "types" confounded with increment of information.

The model used was the test Oskamp (1965) devised to determine the diagnostic accuracy and confidence of clinicians. The information used in the Oskamp (1965) study was from a published case which included the patient's history, social and psychological, and the clinical diagnosis of his illness.

The purpose of the questionnaire was to ascertain the strategy that a teacher would select when confronted with four classroom incidents, two for the acting-out youngster and two for the withdrawn youngster.

Representativeness of the Two Case Studies

The information used in the case studies was gathered by examining the cumulative folders of students in the third, fourth, and fifth grades from the Highland Park City Schools. The investigator asked the principals of Liberty and Willard Schools, the two teachers of a special behavior modification project, and five selected teachers to nominate children who exhibited aggressive and acting-out behaviors and those who exhibited withdrawn and quiet-passive behaviors. The five selected teachers had two or more years of experience teaching in the respective schools and were not part of the group of experienced teachers with in-service training. Although the withdrawn

youngster was more difficult to identify because these youngsters, in the teachers' perceptions, do not usually require discipline decisions, and also rarely come to the attention of special project teachers and administrators, the school personnel were able to identify a representative group of withdrawn youngsters.

The investigator accumulated folders of 25 aggressive children and 25 withdrawn children. The distribution of sexes was as follows: 17 boys and 8 girls for the withdrawn group, and 4 girls and 21 boys for the aggressive group. The information available in all the folders included:

Place of birth

Birthdate

Number, names and birthdates of the children in the family

Family data including state of birth, language, education, occupation, marital status of the mother and father

With whom the child presently resides

Immunization history

School history of the child

Transfer history

Group test scores

Parent conferences reports

Report cards with teacher's comments

Psychological reports (only if the child had previously been referred to the school's diagnostician).

From the information obtained from the cumulative folders, profiles of an acting-out youngster and of a withdrawn were drawn.

1) Two behavior incidents

specific classroom incident

a general description of the classroom behavior

2) The School history

a general description of his past school behavior

reported attitudes of previous teachers

last report card information

3) The Psychological history

the teacher's referral statement

the diagnostician's report which included test scores

the interpretation of the test scores

4) Social history

any parent conference reports

social worker's report

housing and neighborhood conditions

family's source of income

family's discipline methods

parental goals for the child

A piece of information was included in the profile only if 75 percent of the children identified in the specified groups exhibited the given behavior in their cumulative folders. Detailed personality history information was limited because not all of the 50 children were referred to the school's diagnostician. Fifteen of the aggressive youngsters and ten of the withdrawn youngsters were referred to the school's diagnostician. Of this information,

behaviors and characteristics displayed by 75 percent of the children were included in the psychological history section of the questionnaire. Table 2.3 breaks down the information used in the description of the case studies.

TABLE 2.3.--Frequently occurring behaviors.

Withdrawn	Acting-out
<u>Incident</u>	<u>Incident</u>
Rejected by classmates	Physically aggressive toward other children
Non-participation	Destructive of school property
Lacks self-confidence	Bullies other children
Expresses feeling of worthlessness	Disrupts classroom procedures
Daydreams	Resists directions
Lacks Motivation	Uses abusive language
<u>School History</u>	<u>School History</u>
Transferred from another school district	
Report Card:	Report Card:
Work Habits--Satisfactory	Work Habits--need improving
Health Habits--Satisfactory	Health Habits--Satisfactory
Social Growth--Needs Improvement	Social Growth--Needs Improvement
Citizenship--Fair	Citizenship--Fair-Poor
Reading	Reading
Spelling Sat-improving	Spelling Sat-needs improving
Math, Handwriting	Math, Handwriting
Comment:	Comment:
Inhibited and reserved	Disturbing influence
Daydreams	Must establish authority

TABLE 2.3.--Continued.

Withdrawn	Acting-out
Comment--cont.:	Comment--cont.:
Attention span short	
Needs individual help	
<u>Psychological History</u>	<u>Psychological History</u>
Referral:	Referral:
daydreaming	disruptive behavior
non-responsive behavior	abusive language
constant reminders	physically aggressive
Observations:	Observations:
Intelligence: dull normal	Intelligence: dull normal
Size: small and immature	Size: average physical
Relational Skills:	Relational Skills:
needed directions	verbal skills good
confused with noise	related well
responded slowly	strengths in non-verbal items
support from Mother	impulsive, aggressive
against the school	behavior shown
	ambivalent attitude
	toward adults
<u>Social History</u>	<u>Social History</u>
Neighborhood:	Neighborhood:
lower-income	lower-income
single family dwelling	single family dwelling
unkempt home	sparsely furnished home
Marital Status:	Marital Status:
Separated	Separated
Children living with Mother	Children living with Mother
Average number of children-4	Average number of children-4
Income--ADC	Income--Income Supplement

TABLE 2.3.--Continued.

Withdrawn	Acting-out
Discipline Strategy: punitive "hit him" scapegoat	Discipline Strategy: punitive--"stick"
Parent conferences: Mother attends	Parent conferences: Mother didn't attend

Following are detailed descriptions of the information and the actual increments of information used in the questionnaire. The sections correspond to the divisions found in the questionnaire.

Case Study I: The Withdrawn Youngster

Classroom Incidents

The classroom incidents were compiled from behavior descriptions found in the cumulative folders of the 25 identified withdrawn youngsters. These behavior descriptions were in the form of anecdotal incidents written by the teachers, from year-end report card descriptions and/or based on general behavior descriptions that were checked by the teachers. The information included in the incidents was found in 75 percent of the cumulative folders. Below are the actual classroom incidents used in the questionnaire.

Item 2.1.--Classroom Incident--Withdrawn Youngster.--

Tom is in a class of 30 students. I am concerned about him because he is so quiet, and some of the other children take advantage of him. The class was divided into groups of five, and they were all to work cooperatively on a mural on "Keeping Our City Clean." Everyone was involved in the project and also talking among themselves. Tom remained on the fringe of his group; however, he was beginning to do some of the drawing and coloring of the project. Tom is very good in art.

Item 2.2.--Classroom Incident--Withdrawn Youngster.--

Tom continues to daydream in the class. He is seldom with other children and appears unhappy or depressed most of the time. Whenever he is put in a group, he becomes nervous and self-conscious. When I ask a direct question, he will seldom answer. However, when there are no children around, I can usually get him to answer some of my questions. Whenever I can get him to do his work, he does it neatly and meticulously.

All the incidents were read by the same group that nominated the 50 children whose cumulative folders were used. These included the two principals, the special project teachers and the five experienced teachers who were not part of the subject groups. They were to read and judge the incidents for appropriateness and representativeness. Minor changes were suggested and these were incorporated in the incidents.

School History--Withdrawn Youngster

The school history information was gathered from the student entrance information sheet, any anecdotal notes, previous report cards and parent conference reports. The format of the previous report cards included breakdown of:

- 1) Attendance and tardy record
- 2) Work habits
 - a) Follows directions
 - b) Works independently
 - c) Completes work on time
 - d) Takes pride in accurate work
 - e) Makes good use of time and materials
- 3) Health habits
 - a) Appears to get needed sleep
 - b) Practices habits of cleanliness
- 4) Social growth
 - a) Works and plays well with others
 - b) Uses basic manners
 - c) Respects rights and property of others
 - d) Respects authority and regulations
- 5) Citizenship which is interpreted as 1) good, 2) fair and 3) poor.
- 6) Language Arts

Reading

- a) Reads with understanding
- b) Uses word attack skills

- c) Expresses ideas orally
- d) Listens attentively
- e) Expresses ideas in writing

Spelling

- a) Spells correctly in written work
- b) Spells assigned words correctly

Handwriting

- 7) Math
 - a) Knows and understands basic facts
 - b) Reasons well in problem solving
- 8) Science and Health
- 9) Social Studies
- 10) Physical Education
- 11) Music
- 12) Art
- 13) Record of regular teacher conferences.

Evaluation of sections 1-12 is divided into:

- 1) work is exceptionally good
- 2) satisfactory
- 3) is improving
- 4) needs improving

From these sources of information the frequent descriptions were:

- 1) 75 percent of the youngsters had a transfer record from the Detroit schools.
- 2) Reports from teachers indicate a failure of interaction with other youngsters.

- 3) Breakdown of school subject areas indicated that work habits and health habits were satisfactory. Social skills needed improvement and academic skills were satisfactory or improving.

Below is the actual school history increment used in the questionnaire.

Item 2.3.--School History--Withdrawn Youngster.--

Tom transferred from the Detroit Public Schools. He was seen by his previous teachers as shy and having difficulties finishing his work. He was rarely noted to socialize with other children and he seemed to have no friends.

His last report card indicated that his work habits and health habits were satisfactory. However, his teacher felt that his social growth, such as "works and plays well with others" and "uses basic manners," needed improvement. His citizenship mark was fair throughout the year.

Tom's reading, spelling, handwriting and mathematics were evaluated by the teacher to be satisfactory or improving. She felt that he could profit from outside help in some of his academic areas. She also felt that he needed to pay more attention to his work and to complete his assignments, both in class and at home.

His last teacher's report card comment was: "Tom is very inhibited and reserved. He daydreams constantly. His attention span is very short. With more individual help perhaps he will be more motivated toward school."

Psychological History--Withdrawn Youngster

The referral data usually referred to general behavior shown previously in classes. The withdrawn youngsters were usually referred to the school diagnostician because of:

- 1) daydreaming behavior
- 2) constant reminders to get work done
- 3) non-participation

Of the ten youngsters who were referred to the diagnostician for psychological evaluation and help, the most frequently given information was:

- 1) little emotion showed
- 2) following of directions very specifically
- 3) usually in the dull normal range of intelligence
- 4) felt pressure for more mature behavior
- 5) being overwhelmed by noise, confusion and directions
- 6) support from mother over rules of school

The description was based upon the referral data and the most frequently occurring behavior descriptions elicited from the reports of the school diagnostician. Below is the actual psychological history increment used in the questionnaire.

Item 2.4.--Psychological History--Withdrawn Young-

ster.--Tom was referred to the psychologist for daydreaming and listlessness. At home he needed constant reminders to get dressed, and he seldom finished anything he started. Tom objected to chores and schoolwork, and was irresponsible about any task he was given. Below is the psychologist's report:

Tom was small and frail. He talked slowly, showed little emotion, occasionally misunderstood the questions, and seemed to think carefully before answering. He continually asked for directions and tried to make certain that he did what was requested. Tom scored in the dull average range of intelligence. His performance scores, however, were lower because of his slowness.

Tests showed that he felt pressured toward mature behavior, and that he resisted by attempts to escape from action. He wished that he might be able to change himself into another person or animal so that, "I could hide from anyone who tried to get me." Tom was overwhelmed by the noise, confusion and lack of direction at home. Tom has been supported in being allowed to stay indoors when the other children were sent out to play, and he evaded responsibility for schoolwork by gaining his mother's concurrence in the validity of his claim, that he knew everything the teacher was teaching and did not need to complete his assignments.

Social History--Withdrawn Youngster

The social history information was gathered from three sources: 1) Child's entrance information sheet; 2) Parent-teacher conference reports that indicated the parent's view of discipline and attitude toward school; and 3) the social worker's or school worker's report of neighborhood and home environment. The social worker's report included whether mother and/or father were supporting family and the main income source. From these sources the most frequently given descriptions were:

1) Neighborhood description:

run-down section of town

usually single dwelling houses

condition of house usually unkempt and disorganized

2) Constellation of family:

mother was separated

receiving ADC payments

children lived with mother

3) Discipline at home:

mother usually punitive and would hit youngsters when they got on her nerves

child described as not getting along with siblings and frequently the scapegoat

4) Parent-conference information:

mother attended the conferences

teacher did most of talking

Below is the actual social history increment used in the questionnaire.

Item 2.5.--Social History--Withdrawn Youngster.--

Tom lives in a run-down section of town. There are few lawns, bushes and trees. The family lives in a single family dwelling. The house is unkempt inside with items of food, clothing and papers scattered around the floor and on the furniture.

There are four children in the family. The parents are separated, and Tom and his brothers and sisters are living with their mother. The mother receives ADC payments and sometimes is able to get some work as a day maid.

The mother disciplines Tom usually by spanking: "I hit him with anything I get my hands on." She feels that she is very strict and that Tom rarely "lips off" to her. She does not like noise in the house; however, because she does not seem to have any organizational skills, nothing seems to get done on time.

The mother voiced some concern that Tom does not get along well with his brothers. She feels that sometimes he is too quiet and is usually the brunt of his brothers' meanness. However, because he does not get into trouble, she expects more mature behavior from him than from her other children.

Tom's mother attended all the scheduled Parent-Teacher conferences. Most of the conferences were spent

in discussing Tom's reluctance to speak in class and his inability to make friends. The mother does not know what to do with him; however, she often voices the belief that the teachers are sometimes too hard on him.

Case Study II: The Acting-Out Youngster

Classroom Incidents

Most frequently checked behavior descriptions were:

- 1) Physically aggressive toward other children
- 2) Destructive of school property
- 3) Bullies other children
- 4) Disrupts classroom procedures usually with defiant and argumentative talk and actions
- 5) Resents directions and is irresponsible and unable to follow through to completion of assignment
- 6) Uses abusive language

The descriptions of the incidents involved a pattern of abusive and defiant talk and actions toward the other children as well as to the teacher. Below are the classroom incidents used in the questionnaire.

Item 2.6.--Classroom Incident--Acting-Out

Youngster.--The class is very quiet, and all are working on the assignment outlined on the board. I am at my desk correcting some papers; however, periodically I stand to answer questions and to survey the room to see that the students are working. Johnny is sitting next to Peter.

Peter drops his pencil. This causes Johnny to comment about how clumsy Peter is. Peter gets angry and pushes Johnny. Seeing this commotion, I quickly call both boys to attention and remind them of the assignment. At that point, Johnny defiantly answers me back and says that it was Peter's fault for being so clumsy. He glares at me.

Item 2.7.--Classroom Incident--Acting-Out

Youngster.--Johnny continues to disrupt the class by making noises, or teasing and provoking others. He becomes defiant and argumentative when I talk to him about his behavior. He is very domineering, and most of the time irresponsible and unreliable. I cannot count on him getting all his work done. He has been caught fighting on the playground and is often very cruel and a bully to the smaller children in the class.

School History--Acting-Out Youngster

The information obtained for the school history was basically gathered from the entrance information sheet, anecdotal notes, previous report cards and parent conference reports. See explanation in the school history of the withdrawn child for detailed description of categories and evaluation ratings. The anecdotal notes indicated that the acting-out youngster has been a problem throughout his school history and has gained a reputation that is handed down and recognized by the teachers before he enters

his classroom. For more detailed profile information refer to Table 2.3.

Below is the actual school history increment used in the questionnaire.

Item 2.8.--School History--Acting-Out Youngster.--

Johnny has been a problem throughout his school history. He has a record of absences and tardiness. His past teachers have all felt that he was a disorderly and disruptive influence in the school. His behavior and attitude have often been a subject of conversation among the teachers.

His last report card indicated that his work habits, such as follows directions, works independently, takes pride in accurate work, needed improvement. His health habits were satisfactory. His social growth, such as works and plays well with others, uses basic manners, respects rights and property of others, needed improvement. His citizenship mark fluctuated between fair and poor throughout the year.

Johnny's reading, spelling, handwriting and mathematics fluctuated between satisfactory and needs improvement. His performance in gym was very satisfactory.

His last teacher's report card comment was:
"Johnny doesn't cooperate in the classroom. He doesn't do his school work and often does things to disturb those who are trying to do their work. You have to establish yourself as the boss or he will take over."

Psychological History--Acting-Out Youngster

Of the 25 acting-out youngsters identified, 15 had previously been referred to the school diagnostician for psychological assessment. Referral problems usually centered around the aggressive and abusive behavior and language directed toward the other children. The testing involved an assessment of his intelligence functioning and how he would react in situations that involve interactions, both toward his peers and adults. Below is the actual psychological history increment used in the questionnaire.

Item 2.9.--Psychological History--Acting-Out

Youngster.--Johnny was referred to the psychologist because of his disruptive behavior in the classroom. Many times during the day he hits the other children, knocks them down and calls them "profane" names. He constantly ignores classroom rules and directions. The psychologist's report follows:

Johnny was a handsome boy of average physical build. He was pleasant and related quite well. His verbal skills were good.

His test results showed that Johnny is presently functioning in the Dull Normal Range of intelligence. He seemed to show strength in non-verbal items requiring him to distinguish essential from non-essential environmental details.

Johnny's projective test material indicates that in certain situations he reacts so impulsively that he loses his realistic judgment of a situation and behaves inappropriately. At such times, he gives vent to a great deal of anger and resentment. This inappropriate, aggressive and impulsive behavior occurs almost always when people are involved. In non-interpersonal situations he shows an ability to recover his hold on reality and to perceive situations in an undistorted way.

Johnny seems unable to cope with his own emotional feelings. He reveals tremendous ambivalence toward adults. He feels anger and resentment towards them, while at the same time he craves attention and nurture. The result is that his behavior towards adults is unpredictable and inconsistent.

Social History--Acting-Out Youngster

The information sources for the social history description were 1) the student's entrance information sheet, 2) parent conference reports and 3) the social or school worker's report. The main emphasis in the social history is the discipline strategy used in the home and the reaction of the child in relation to these procedures. Below is the social history increment used in the questionnaire.

Item 2.10.--Social History--Acting-Out Youngster.--

Johnny's family resides in a lower income neighborhood in

a single family dwelling. The yard is neat and clean. The house is neat, but simply and sparsely furnished. There are four children in the family. The parents are separated and Johnny and his brothers and sisters are living with their mother, who works as a clerk at a general hospital. The family receives food stamps as an income supplement.

The mother describes Johnny as one who is easily distracted and needs constant praise. When he doesn't get his way, he becomes angry and strikes out. His younger sister is afraid of him. The mother minds the fighting among the children only if they hurt each other.

The mother disciplines Johnny with the "stick." She found that raising her voice does not seem to have any impact on Johnny. The mother feels that Johnny's one main problem is that he always wants to have his own way.

She would like to see him be less active and angry.

Because the mother works, she has never attended any of the Parent-Teacher conferences. Teachers are unable to get her cooperation with regard to Johnny's behavior.

The choices of strategies that followed each behavior incident and each increment of information were based upon the four strategies of behavior modification: positive reinforcement, modeling, extinction and punishment. The choices were written by the investigator and checked by two independent judges for 1) purity of strategy, 2) the feasibility of the strategies in relation to the incidents and 3) the desirability of strategies in relation to each other.

Collection of Data

General Procedures

In brief, the subjects were composed of three groups: eight experienced teachers with in-service training, eight experienced teachers without in-service training and six inexperienced student teachers. The selection of these teachers was limited to three elementary schools in the Highland Park City Schools. The in-service training sessions totaled 18, and the teachers who comprised the in-service group attended seven or more sessions. The other group of experienced teachers was from an elementary school that had no contact with the in-service programs and the investigator. The principal was cooperative and willing to have both the administration of the questionnaires and the observations done in his school. The student teachers were from Michigan State University's teacher training program and were assigned to the school without contact with the in-service programs for Spring term, 1973.

The questionnaire was the source of the data and determined the choices of strategy and the confidence levels in relation to the acting-out case-study and the withdrawn case-study. The questionnaire was based on information gained from cumulative folders of identified youngsters. These youngsters were identified by the two principals, five teachers who had two years or more experience and who were not part of the subject groups, and two special project

teachers. The information gathered for each case-study was divided into school, psychological and social histories. After each classroom incident, the teachers were asked to make a strategy decision from the choices of reinforcement, modeling, extinction and punishment. Confidence levels about the appropriateness of the strategy were determined after each increment of information.

Administration of the Questionnaires

The questionnaires were individually administered. The questionnaires were handed to groups 1, 2 and 3 during the months of April and May 1973, no more than a week apart. The explanation and the handout that accompanied the questionnaire implied that this was part of the evaluation process of an existing school project. The questionnaire was seen by the school personnel as having a "legitimate" part of an existing school project. The already existing positive relationship between the director and the schools made this cooperation from principals and teachers possible. The investigator's role was already established in the schools as 1) co-instructor of the in-service sessions and 2) a member of the evaluation team of an existing school project. All the subjects were asked to answer the questionnaire, and mail it to the investigator. Envelopes for mailing were enclosed. All the questionnaires were returned.

The questionnaires for the group with in-service training (group 1) were administered a week after the last training session. There were four from this group who needed repeated reminders before completing the questionnaire. The questionnaires for group 2 were administered a week before Easter vacation and the observations in their classrooms were conducted a week after Easter vacation. The investigator had no prior knowledge of the teachers' choices on the questionnaire at the time of the observations. There were two from this group who needed reminders before completing the questionnaire. The questionnaires for group 3 were administered to them after a week in their assigned classrooms. The student teachers spent most of this time in observing the children and classroom procedures, and not in actual teaching. It was believed that this was sufficient time to give the student teachers exposure to the classroom but not experience in teaching. Four student teachers needed one reminder before completing the questionnaire.

Observational Procedures

The observations in the classroom were conducted to do a comparison between the prevalent discipline mode of the teacher in relation to an identified acting-out youngster and a withdrawn youngster, and her prevalent choice of strategy in the questionnaire.

There are three major approaches available for observation in the classroom:

- 1) Numerical occurrence which involves a frequency count
- 2) Time duration which involves logging time the behavior lasts
- 3) Numerical occurrence in terms of time which specifies a time interval.

Each has a place in classroom observations and each also has certain limitations.

The type of observational approach used in this study was the frequency count approach. The number of times a particular behavior occurred was tabulated. Limitations for this method are:

- 1) Difficulty in delineating the beginning and end of an instance of behavior
- 2) Different instances of a behavior may not be equivalent.

Unless a behavior to be observed specifically demands the use of either a frequency or duration type of assessment, it makes little difference which method you use. As measurements of behavior they are highly correlated (Adam, 1970; Williams and Anandam, 1973).

The observations were confined to the eight teachers in the experienced group without in-service training (group 2). The investigator had no previous contact with this school and with the teachers. The teachers in group 1 were

not included. Because the investigator helped conduct the in-service training sessions, it was felt that her presence in the classroom would bias the results of the in-service training group (group 1). In other words, the teachers might feel that they should interact with their children in a certain prescribed manner.

Letters stating in effect that these observations were not to be used for evaluation purposes were distributed to the eight teachers in whose rooms the investigator planned to observe. Permission was obtained from all. The letter is found in Appendix II. Two sessions of 20 minutes each, on different days (one in the morning and one in the afternoon), were scheduled. The number of observations was limited because of 1) the tolerance level of the teachers to having visitors in the classroom and 2) the principal's request that the observations be kept to a minimum. Before the investigator went into the classroom, two children, an acting-out youngster and a withdrawn youngster, were selected as follows: each teacher to be observed suggested two aggressive youngsters and two withdrawn youngsters from her class and these four youngsters were submitted to the principal for reconfirmation. The principal supported the teachers' choices. From these four identified children, two were selected for observation. The teacher was not informed about the two selected. How the teacher interacted with these children was to be the focus of the observations.

The teachers were not told that the questionnaire and the observations were connected. The questionnaires were distributed a week prior to Easter vacation and were given as an evaluation instrument of an established school delinquency program. A cover letter was enclosed (see Appendix II). The observations were scheduled a week after the Easter vacation. The investigator felt that this was sufficient time for the children and the teachers to become re-established in their routines and to recover from the excitement of the holidays. The observations took two weeks to complete. Each teacher was notified that an observation was scheduled for the morning or the afternoon but the specific times were not indicated. All the teachers were cooperative. The investigator stationed herself in the classroom so that she could observe the auditory and physical interaction of the teacher and the withdrawn and/or aggressive child, and yet not be part of the ongoing activities of the class. It is suggested that in order to re-establish "normalcy" in the classroom, the observer sit near the back of the room and out of the direct line of vision of the person(s) being observed (Williams and Anandam, 1973).

Behavior Modification Observation Form

The observation form was divided into the four major behavior modification strategy categories--positive reinforcement, punishment (disapproval), modeling, and

extinction. These were further subdivided into the appropriate and inappropriate use of the strategies. The disapproval category was divided into removal of reward and presenting disapproval. The observation form is found in Appendix III.

A mark was entered in the appropriate category when the behavior was displayed by the teacher. No differentiation was made within the categories as to the particular type of response the teacher made.

In analyzing the data, the most frequently occurring strategy was indicated. Using the dichotomous categories of behavior formation and behavior elimination, the same "0" and "1" representations were used to indicate the prevalent mode being used by the teacher in relation to the acting-out child or the withdrawn youngster. The appropriate and inappropriate categories were combined to determine what prevalent strategy was being used in the classroom. The form was subdivided to make coding and categorizing of behavior simpler to define.

The categories correspond in definition with the four choices given in the case-studies. The descriptions of the categories are:

Appropriate reinforcement:

- 1) Appropriate social reinforcement: a verbal, physical, or gestural approval response to an appropriate behavior. Feedback for appropriate behavior from the teacher is very

important. For example: "Good" in response to a correct answer, "That's a good job," "That's fantastic." Includes also responses such as a smile, nod, or any approving gesture.

- 2) Appropriate tangible: presentation or acknowledgement of future presentation of food, toys, tokens or anything material after the desired behavior has been displayed. Includes check marks, stars, smiling faces, grades, cookies or candy.
- 3) Appropriate activity reinforcement: Use of activities or games as reinforcement for desirable behavior. Includes picking an interesting game or working on a special project or going to a special activity center.

Inappropriate reinforcement:

- 1) Inappropriate social reinforcement: Rewarding the child by verbal feedback, or physical-gestural actions, when appropriate behavior is not displayed; for example, responding favorably to a child who blurts out an answer when one of the classroom rules is that you must raise your hand before you answer.
- 2) Inappropriate tangible reward: Administration of tokens, toys, food or any other material things when the desired behavior is not

performed. Includes giving stars or check marks when established criteria have not been met.

- 3) Inappropriate activity reinforcement: Child is allowed to participate in chosen activity and/or game, in spite of his behavior not meeting criteria specified previously.

Appropriate Disapproval

- 1) Removal of reward: Removal of the child or removal of reward from the child when behavior is not appropriate or under conditions previously specified: the place, length of time, a particular infraction. Includes sending the child to the "hallway" or "cool corner" for time-out or a loss of privilege because of inappropriate behavior. This is done in a calm and rational manner.
- 2) Presenting disapproval: Presentation of mild verbal or physical disapproval for inappropriate behavior. Includes calling child to attention, setting him back in his seat, correcting his mistakes ("No, that is not the right answer"), or administering mild restraint, e.g., putting hand on shoulder.

Inappropriate disapproval

- 1) Removal of reward: Removal of child or removal of reward from child for behavior not previously

forbidden or not inappropriate. For example, child is sent out of the room for minor infraction that was not previously enforced, or sent out of the room with a loud, harsh, angry voice or for an unspecified length of time.

- 2) Presenting disapproval: Use of harsh, sarcastic, haranguing and/or shouted verbal responses. Also includes use of physical punitive actions by the teacher, e.g., pinching, slapping, paddling, shoving.

Appropriate Modeling

- 1) Teacher as a model: Teacher presenting appropriate modeling behavior. Includes teacher showing enthusiasm for activity and verbally encouraging her students to follow her example.
- 2) Child as a model: Teacher commenting on appropriate behavior displayed by a peer in the group in the hope that the misbehaving child will display like behavior. For example: "I like the way Johnny's sitting in his chair."

Inappropriate Modeling

Use of either teacher's or student's behavior as an example, but inappropriate for the situation. Examples are (1) teacher displaying angry and hostile behaviors when confronted with child who is talking to his neighbor, or (2) calling attention

to a child who is acting inappropriately or infringing on the rules of the classroom.

Appropriate Extinction

Ignoring or non-reinforcement: Both positive and negative ignoring of behavior that is inappropriate. Includes not paying attention to the child who blurts out his answer but attending to the child who raises his hand. The teacher must be aware of the inappropriate behavior and that she chooses to ignore this behavior.

Inappropriate Extinction

Non-reinforcement of appropriate behavior that the teacher wants to increase, or inappropriate use of extinction when behavior is definitely disruptive and destructive. An example of this would be a child hitting other youngsters and throwing things, and the teacher choosing to ignore this behavior rather than intervene.

Inter-rater Reliability

The investigator did all the observations used in this study. However, to establish the reliability of these observations, two other observers were used to obtain a measure of rater agreement. One observer was Mr. Ronald Jones, a doctoral student in child development at Michigan State University. He helped conduct the second series of inservice workshops. The other observer, a former teacher with six years experience, was

working for an organization that provided behavior modification consultation in the schools.

Arrangements were made for the three raters to together observe a teacher in her classroom to check the similarity of their ratings. Prior to these observations, the observers discussed the definitions of each of the categories, pre-tested the observation form using a 30 minute video tape of a teacher conducting a language exercise, and at that time revised any unclear categories or definitions.

The three raters observed the selected teacher in her classroom and used the revised observation form. The teacher was teaching a combination second-third grade classroom, and was not part of any of the subject groups. Three 20-minute observations on different days, were conducted. The inter-rater reliability for the total score on each of the categories for the three 20-minute observations was determined by the use of the Pearson product moment correlation method. The raw scores for each rater are found in Appendix IV.

These reliability coefficients are presented in Table 2.4. These high reliability coefficients indicate that the raters had clearly defined the categories on the observation form and had high agreement among themselves as to the recorded behaviors displayed by the teachers.

TABLE 2.4.--Pearson product moment correlations of Raters 1, 2, and 3.

	Rater 2	Rater 3
Rater 1	.9877	.9999
Rater 2		.9893

Treatment of the Data--Analysis Procedures

The responses of the subject teachers were analyzed using the analysis of variance for a two factor experiment with repeated measures. The fixed effects model had teachers nested under different experienced groups and crossed with the repeated measures. Mandeville (1972) suggested that repeated measures analysis of variance is recommended when one wishes to retain the item response as the basic datum in the analysis. The repeated measures were the increments of information. Six separate analyses were made, three for the frequency of strategies chosen and three for the confidence level.

The strategies were assigned a value of one for behavior formation strategies (reinforcement and modeling) and zero for behavior elimination strategies (extinction and punishment). The responses were combined into dichotomous categories, because the analysis of variance for a two factor experiment with repeated measures could not handle the multitude of choices given within the individual repeated measures. In order to separate the choices, a

design of repeated measures within repeated measures would be necessary. Lunney (1970) has empirically concluded that dichotomous data can be appropriately analyzed using the analysis of variance method in fixed effects models. The confidence level values were determined by a 1-5 rating scale; 1 being not confident to 5 being very confident.

The level of significance for testing all the hypotheses was set at the .05 level. That is, in testing of all hypotheses in this study, only those differences which occur five times in 100 ($p = .05$) will be accepted as being statistically significant.

The Scheffe' post hoc technique was performed in those instances where the analysis of variance test revealed significance and comparisons of the groups were necessary.

Pearson product moment correlations were performed to obtain the correspondence between the questionnaire responses after all the information was given and the classroom observations.

Summary

Highland Park is a uniquely urbanized city. It has a 97.3 percent Black school population. Highland Park City also has the highest crime rate in the country for cities of its size, and in the 1972 state assessments tests, the fourth and seventh graders ranked in the first percentile.

Three groups of teachers were selected from the Highland Park City Schools. Group 1 consisted of experienced

third, fourth, and fifth grade teachers with in-service training and group 3 consisted of student teachers. The teachers responded to a questionnaire that asked them to make discipline decisions concerning an acting-out youngster and a withdrawn youngster. They were also asked to rate their confidence in the appropriateness of their decisions.

The information included in the case-studies was obtained from the cumulative folders of 25 withdrawn youngsters and 25 acting-out youngsters identified by school personnel. The information contained in the case-studies included the school, psychological, and social history of the child.

It was generally hypothesized that for all groups, the initial choice of strategy would remain stable and the confidence level would increase as information about the child increased. The experienced group with in-service training was hypothesized to choose behavior formation strategies more frequently and be more confident than either the group without in-service training or the inexperienced group.

Twenty-two questionnaires were distributed. All of the questionnaires were returned. The responses were analyzed using the analysis of variance for a two factor experiment with repeated measures. The strategies were given a value of 1 for behavior formation strategies and 0 for behavior elimination strategies. The confidence

level values were determined by a 1-5 rating scale. The level of significance for testing the hypotheses was determined at the .05 level. Pearson product moment correlations were performed to obtain the correspondence between the questionnaire responses after all the information was given and the classroom observations.

CHAPTER III

RESULTS AND DISCUSSION

The findings of this study are based upon the data of the questionnaire that asked the teachers to make discipline decisions and to rate their confidence in the decisions. Group differences on strategy choices and confidence levels were determined through analyses of variance for a two factor experiment with repeated measures. Comparisons of the observation frequencies and the questionnaire responses were calculated by Pearson product moment correlations.

The hypotheses for this study can be divided into five main sections. For ease of explanation, this chapter will be divided into five respective sections. Part one will cover the general hypotheses that initial strategy will remain stable and that confidence level will increase as increments of information are increased. This is held for all three groups. Part two will focus on the acting-out case only. It is hypothesized that group 1, the experienced group with in-service training, will choose behavior formation strategies more frequently and be more confident as compared to groups 2 and 3. Part three will focus on

the withdrawn case only. In this instance, too, it is hypothesized that group 1 will choose behavior formation strategies more frequently and be more confident than groups 2 and 3. Part four will present the findings of the follow-up classroom incidents. A comparison will be made of the responses of the teachers in the acting-out and withdrawn cases after all the information about the child has been presented. It is hypothesized that group 1 will choose behavior formation strategies and be more confident than groups 2 and 3. The behavior formation strategies will be chosen more frequently for use with the withdrawn child as compared with the acting-out child. Finally, part five will compare the questionnaire responses and the observed response frequencies of group 2. The strategy most frequently used by the experienced teachers in their classrooms in relation to selected acting-out and withdrawn youngsters will be compared to the respective questionnaire responses.

Analyses of variance techniques for a two factor experiment with repeated measures were used to test the main effects, increments of information, groups and their interactions. The fixed effects model had teachers nested under groups and crossed with the repeated measures, increments of information. Scheffe' post hoc method of comparisons was carried out when significant F ratio differences existed between group means (Hays, 1963). The

Michigan State University Computer programs were used in the statistical computations.

The three main sets of data to be analyzed were 1) the choices of strategies chosen by the teachers, 2) the ratings of confidence they had in the appropriateness of the strategies, and 3) the observational frequencies of the teachers without in-service training (group 2). The questionnaire responses were tabulated for the two cases, that of an acting-out youngster and of a withdrawn youngster, across four increments of information and after all information was given. Separate analyses of variance were carried out for these two dependent variables, choices and confidence levels, across all cases and increments of information.

Part One--General Findings

The general hypotheses indicated that for all three groups, the initial strategy would remain stable and that the confidence levels would increase as information increased. The F ratios of interest were calculated across the increments of information. The F scores for all the analyses of strategies and confidence levels were not significant at the .05 level. These are found in Tables 3.1, 3.2, 3.3 and 3.4. The means did not differ significantly. Essentially, this supports the hypothesis that the initial strategy will remain stable in that there were no significant differences in the choices across the

TABLE 3.1.--Analysis of variance of frequency of strategies in the acting-out case with four increments repeated measures.

Sources of Variance	df	MS	F
Groups	2	1.03125	3.044
Increments	3	.07576	.591
Groups X Increments Interaction	6	.12829	.598

TABLE 3.2.--Analysis of variance of frequency of strategies in the withdrawn case with four increments repeated measures.

Sources of Variance	df	MS	F
Groups	2	.07670	.630
Increments	3	.04167	1.226
Group X Increments Interaction	6	.031250	.919

TABLE 3.3.--Analysis of variance of frequency of confidence level in the acting-out case with four increments repeated measures.

Sources of Variance	df	MS	F
Groups	2	8.57765	5.803*
Increments	3	.64773	1.854
Groups X Increments Interaction	6	.64836	1.856

*Significant at the .05 level.

TABLE 3.4.--Analysis of variance of frequency of confidence level in the withdrawn case with four increments repeated measures.

Sources of Variance	df	MS	F
Groups	2	3.23958	2.688
Increments	3	.25379	.937
Groups X Increments Interaction	6	.34186	1.262

repeated measures. This was true for both the acting-out case and the withdrawn case and for the three groups.

However, the confidence level across repeated repeated measures showed no significant differences with increasing amounts of information. Contrary to what was expected, ratings of more confidence did not occur as the increments of information increased. The increase in confidence level from initial choice to fourth increment was not found for all groups. The teachers, like the clinicians, were consistent with their responses. They initially made their choice on very little information and the increasing amounts of information just reconfirmed their choices. There were no significant differences between the three groups. The experienced groups did not differ from the inexperienced group or from each other in relation to the stability of choices. The reason for no differences between the groups was that the teachers intuitively determined what choice they made and did not change their minds about their choices. The different groups of teachers did

not seem to utilize the different amounts of information to determine their choice of strategy.

The absence of differences between the groups might be accounted for by the small numbers in each group and the similarities of age, experience and professional background in groups 1 and 2. The number of professional courses taken by group 3 compared favorably with groups 1 and 2. These similarities might account for the stability of choices that were found. Different experiences and educational backgrounds might have influenced some changes in the groups' response patterns.

Secondly, it may be that the choices did not change with increasing increments of information because after the teachers had made their initial choice, the information that followed might not have added any crucial information that would bring about a different behavioral or attitudinal response from the teacher. For example, if a family that constantly beat the child was mentioned in relation to the acting-out child, the teacher might change her strategy to one which would provide more rewarding and reinforcing situations. There was no means of controlling what impact or influence the information provided had on the strategy choice of the teacher.

The three groups of teachers did not show an increase in confidence levels with increasing amounts of information. This is contrary to what Oskamp (1965) and Ryback (1965) found in their studies. The clinicians

became more confident with increasing amounts of information. Unlike the clinicians, the teachers indicated a high level of confidence initially and the increasing information only reconfirmed their high levels of confidence. Most of the teachers in all three groups initially were marking that they were moderately confident (3) to very confident (5) about the appropriateness of their decision (see Appendix II for precise information). Teachers with experience had a tendency to rate higher confidence levels than the inexperienced group. This tendency perceivably might have resulted because having been exposed to like behavior or classroom situations, and having had moderate or very high success in modifying behavior, the teacher would naturally be very confident about the appropriateness of the strategy used.

The four classroom incidents had a very high degree of representativeness and association to classroom problems. A larger number in each of the sample groups, an open-ended format for the strategy choice, and more incidents might have produced more variability within and between the groups.

Part Two--The Acting-Out Case with Increasing Increments of Information

It was hypothesized that the experienced group with in-service training would more frequently choose behavior formation strategies than groups 2 and 3. This hypothesis was not confirmed (see Table 3.1). There were no significant

differences between groups in their choices of strategies in the acting-out case.

The percentages of frequency of behavior formation choices in the acting-out case is graphically portrayed in Figure 3.1. Percentages were computed because the inexperienced group differed in number from groups 1 and 2. Graphic differences might look vast; however, because of the small numbers in the samples the contrast might represent only one or two different responses. Conclusive statements, even in terms of a trend, cannot be concluded from these graphic representations.

The teachers in all three groups chose behavior formation strategies more frequently than behavior elimination strategies (see Appendix IV). The frequencies of strategy choices for the acting-out case study are shown in Table 3.5. The graphic representation portrayed the strategies lumped into dichotomous units. Because of this factor, some of the variability of choice was masked. For example, in the Project Identification and Correction of Problem Behavior in Pre-High School Age Students (1973), teachers with in-service training in behavior modification differed significantly from a group of teachers without in-service in terms of appropriate use of modeling and extinction techniques. There were no statistically significant differences between the two groups in terms of the appropriate use of positive reinforcement or punishment. The in-service groups and the contrast groups were the same

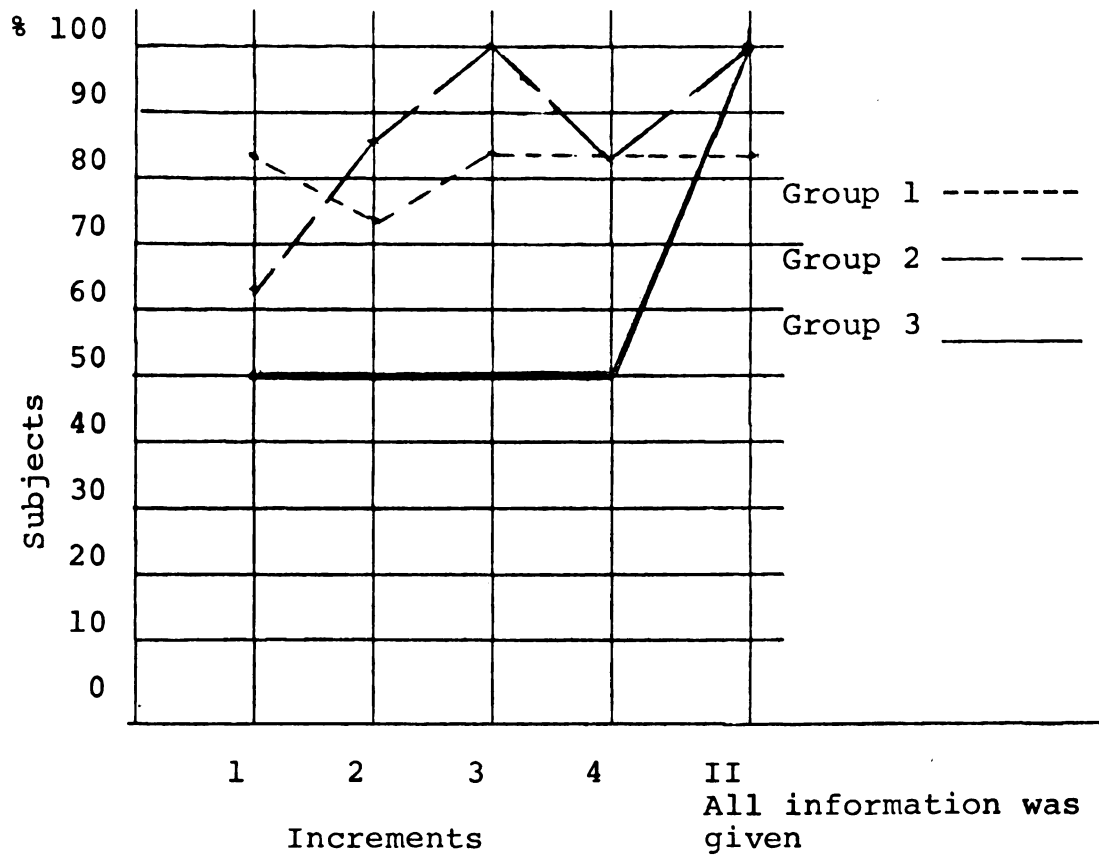


Figure 3.1.--Percentages of subjects choosing behavior formation strategy in the acting-out case.

TABLE 3.5.--Strategy choices for the acting-out case.

		Increments				
		I	2	3	4	II
Group 1	Reinforcement	5	5	5	6	7
	Extinction	1	--	--	1	1
	Modeling	2	1	2	1	--
	Punishment	--	2	1	--	--
Group 2	Reinforcement	5	7	8	7	7
	Extinction	3	1	--	--	--
	Modeling	--	--	--	--	1
	Punishment	--	--	--	1	--
Group 3	Reinforcement	1	2	2	2	6
	Extinction	--	1	--	--	--
	Modeling	2	1	1	1	--
	Punishment	3	2	3	3	--

groups as those used in this study. In light of the finding that more appropriate use of extinction and modeling was used in the in-service group, the use of dichotomous units in this study might possibly mask this variability. For example, if a particular teacher used reinforcement, and then changed her choice to extinction after additional information, then the scoring of her responses would change from behavior formation to behavior elimination. On the other hand, if a teacher first chose reinforcement, and then changed her choice to modeling, the scoring of her responses would not indicate a change. The variability of her responses would be lost.

There were significant differences between groups in confidence level across increments of information at

the .05 level (see Table 3.3). The Scheffe' method of post hoc comparisons was used to examine relevant comparisons. The comparisons are reported in Table 3.6. The Scheffe' method was used because it has the advantages of simplicity and applicability to groups of unequal sizes. In the Scheffe' method, the comparison is said to be significant if the lower and upper limits fail to cover zero. No significant comparisons were obtained. This does not necessarily say that there are no significant comparisons, only that there was not enough information available to determine the particular significant comparisons.

TABLE 3.6.--Post hoc comparisons for the confidence level of the acting-out case only.

	Group 2	Group 3	Group 1
Group 1	- .8010, ¹ 2.4260 ²	- .7221, 2.7635	
Group 2		-1.5346, 1.9510	
Groups 1 & 2		-1.8607, 4.3185	
Groups 2 & 3			-4.7044, 1.0380

¹Lower limits of contrast at .05 level.

²Upper limits of contrast at .05 level.

Figure 3.2 is a graphic presentation of the means of the confidence levels across increments of information. Group 1 was graphically higher than groups 2 and 3. However, the extreme difference was only 1.6 difference. Conclusive statements cannot be deduced. However, because the in-service training sessions were geared to 1) identifying individual problems and 2) using behavior modification strategies as a means of modifying student behavior, the slight elevation might conceivably be a reflection of this training.

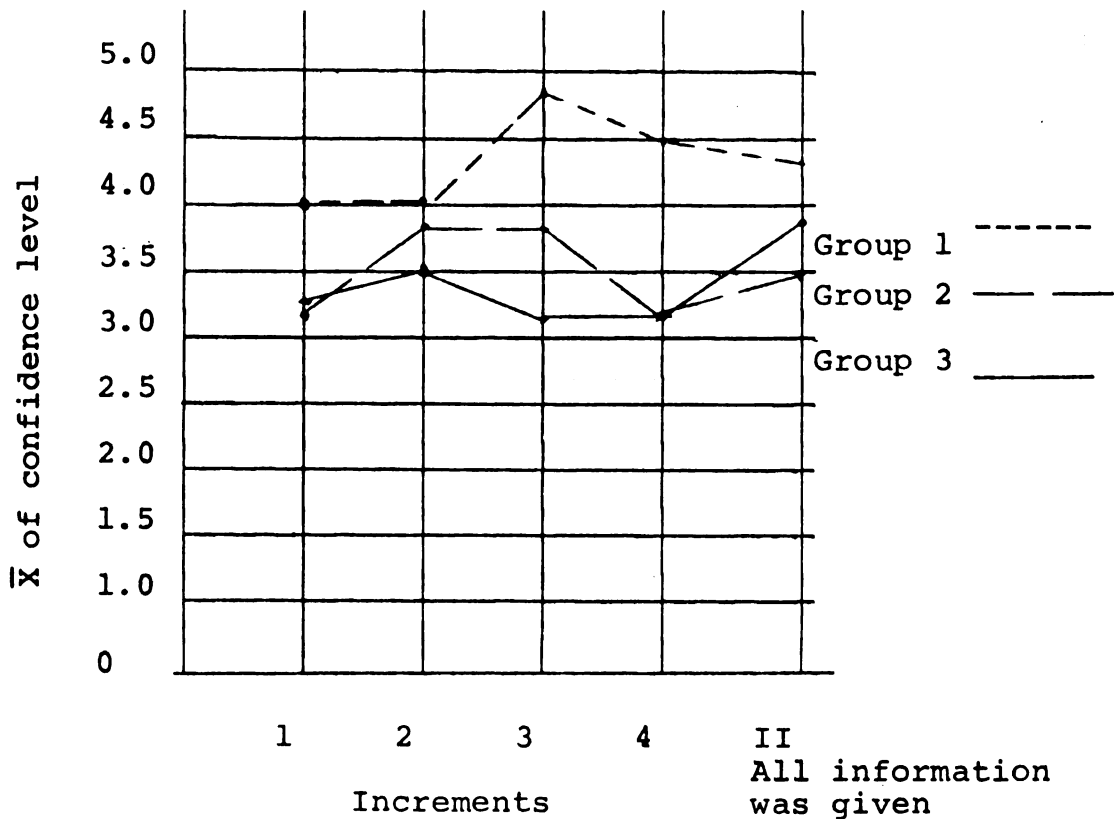


Figure 3.2.--Means of confidence level in the acting-out case.

The confidence levels 1 and 2 were rarely picked by the teachers. The choices of fairly confident (3) to very confident (5) were frequently circled. The elevation of confidence levels shown by the groups can be looked upon as a reflection of two factors: 1) the rating scale and 2) the problem format. The rating interval might not have had sufficient numbers of intervals that would differentiate finer differences in the confidence level. In constructing the graph, the assumption is made that if two teachers circled three (moderately confident), they were equally confident in their choice. This cannot be assumed to be true.

The problem format might have contributed to the elevation of confidence levels. Because of the distance, the teacher did not have the emotional involvement with the child being described. It was an academic exercise, and confidence in the decision reflected the ability of the teacher to figure out the answer to the question and not her ability to handle the actual problem in her classroom. When the teacher is, in essence, involved with the decision and the actual implementation of that decision in her classroom, a greater variability between the groups in terms of confidence levels might occur.

Part Three--The Withdrawn Case with Increasing Increments of Information

It was hypothesized that the experienced group with in-service training would more frequently choose behavior

formation strategies and be more confident than groups 2 and 3. This was not confirmed at the .05 level of significance. No significant differences were found between the three groups (see Tables 3.2 and 3.4).

The graphic representations of Figures 3.3 and 3.4 showed that the responses were closely distributed between the three groups.

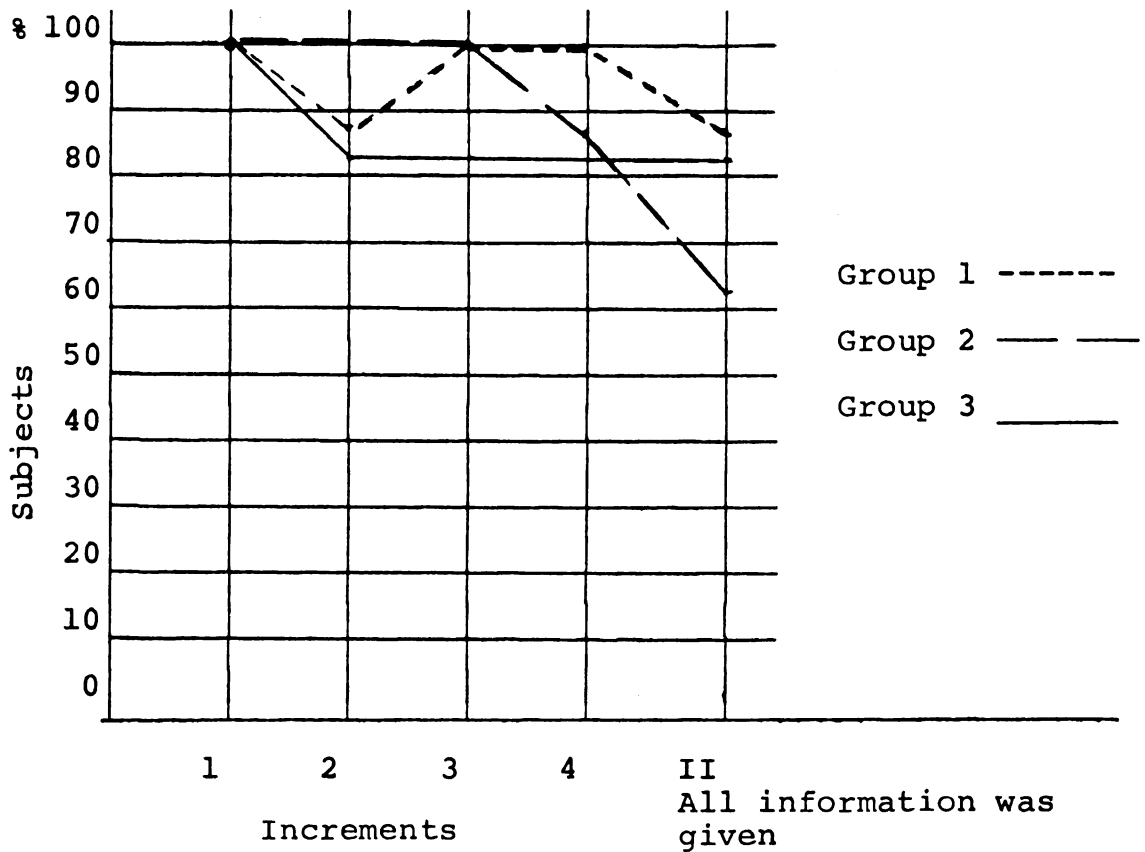


Figure 3.3.--Percentages of subjects choosing behavior formation strategy in the withdrawn case.

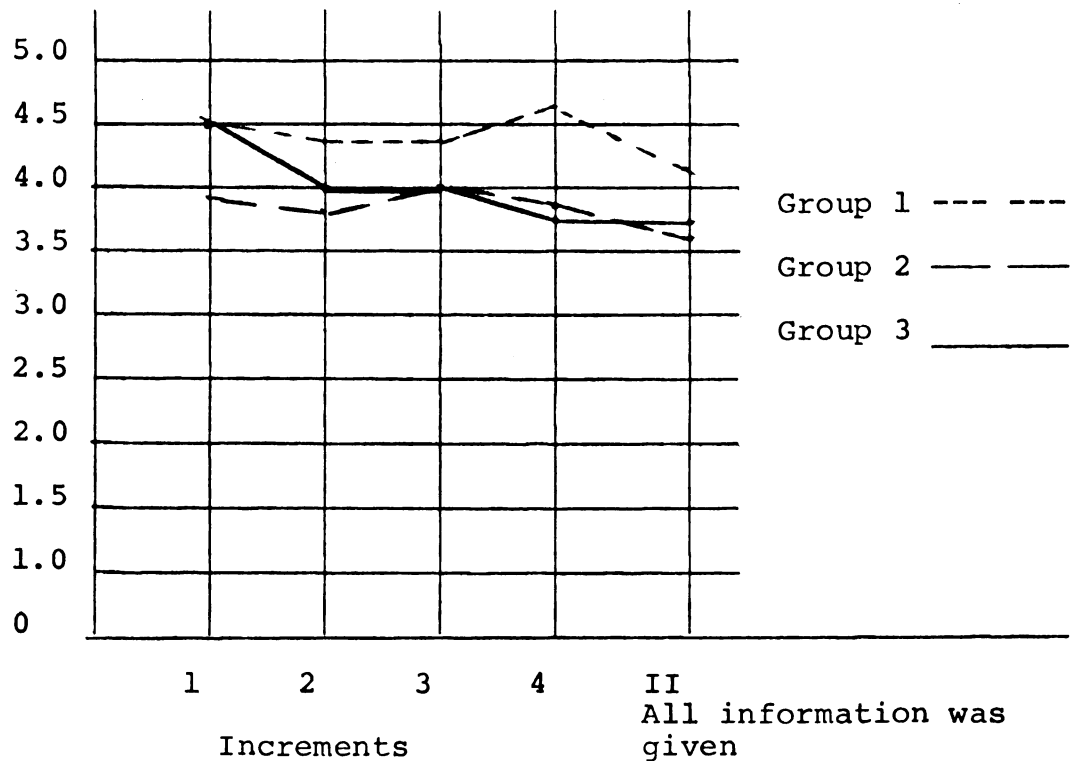


Figure 3.4.--Means of confidence level in the withdrawn case.

Very little variability in choices of strategy can be seen in Table 3.7. Most of the choices were in the category of reinforcement. Generally the responses were behavior formation choices more frequently than behavior elimination choices. Higher mean confidence levels for all the groups were found with the withdrawn youngster than with the acting-out youngster. The withdrawn youngster did not seem to present a confounding problem for the teacher. The behavior pattern is such that all teachers want to increase participation and cooperative behavior through reinforcement and modeling. Because this youngster

TABLE 3.7.--Strategy Choices for the Withdrawn Case-Study.

		Increments				
		I	2	3	4	II
Group 1	Reinforcement	8	7	7	8	7
	Extinction	--	--	--	--	1
	Modeling	--	--	1	--	--
	Punishment	--	1	--	--	--
Group 2	Reinforcement	8	8	8	7	5
	Extinction	--	--	--	1	3
	Modeling	--	--	--	--	--
	Punishment	--	--	--	--	--
Group 3	Reinforcement	6	5	5	5	5
	Extinction	--	1	1	1	1
	Modeling	--	--	--	--	--
	Punishment	--	--	--	--	--

rarely acts out of turn and disrupts the classroom procedures, the teachers view this youngster from a more open and less defensive position. In the previously cited delinquency prevention project (Clarizio, 1973), it was found that positive reinforcement and punishment are the most commonly used behavior modification strategies. However, when punishment was used, the teachers relied heavily upon the presentation of painful experiences such as criticism, the "evil eye," and verbal reprimands to change behavior. With a withdrawn youngster this method would rarely be used. Except for a general reminder to "get to work" or "to stop daydreaming" most of the interactions would be positive. Because of the general positive approach in handling the withdrawn child, the teachers, of

course, would be more confident in the appropriateness of their choice.

Part Four--The Follow-Up
Classroom Description

In the last two analyses of variance, the responses of both the acting-out and withdrawn cases were compared after all the information was given. It was hypothesized that group 1 would choose behavior formation strategies more frequently than groups 2 and 3. Also, for all the groups, the behavior formation strategies would be chosen more frequently for use with the withdrawn child. There were no significant differences between groups and between cases in their choice of strategies (see Table 3.8).

TABLE 3.8.--Analysis of variance of frequency of strategies after all information was given in the acting-out and withdrawn case-studies.

Sources of Variance	df	MS	F
Groups	2	.18371	.376
Cases	1	.02272	.155
Groups X Cases Interaction	2	.34280	2.333

In comparing the choice of strategy over increments and after all information was given, the group with in-service training did not vary in their choices of

strategy. Both case-studies showed a similar pattern. However, the other groups had variations in their choices, especially after all the information was given (see Appendix IV). The inexperienced group generally was split between behavior elimination and formation strategies as information increased. However, this group showed the highest behavior formation frequency as compared with groups 1 and 2 after all information was given. In the withdrawn case study, group 2 decreased in frequency of choice of behavior formation strategy after all information was given. It seems that for groups 2 and 3, those without in-service training, the problem per se had most impact on the choice of strategy. Because of the general focus of the in-service training, the classroom incidents of a particular child would be analyzed together, and the strategies used would be consistent over incidents. The tendency would be to analyze the situation and not to intuitively make a choice. The above statements were based upon the graphic representations. The reader is cautioned again about the conclusiveness of these statements. Small sample size makes it impossible to make definite statements, even in relation to trends that might be shown.

There were significant differences between groups in confidence levels at the .05 level after all the information was given (see Table 3.9).

TABLE 3.9.--Analysis of variance of frequency of confidence level after all information was given in the acting-out and withdrawn cases.

Sources of Variance	df	MS	F
Groups	2	15.94792	6.078*
Cases	1	1.11364	.795
Groups X Cases Interaction	2	.39110	.279

*Significant at the .05 level.

The Scheffe' post hoc method was used to examine the comparisons. These comparisons are reported in Table 3.10.

TABLE 3.10.--Scheffe' method of post hoc comparisons for the confidence levels after all information was given in the acting-out and withdrawn cases.

	Group 2	Group 3	Group 1
Group 1	- .3373 ¹ 3.9623 ²	- .6135 4.0305	
Group 2		-2.426 2.218	
Groups 1 & 2		-3.518 5.721	
Groups 2 & 3			-7.346 .3046

¹Lower limits of contrast at .05 level.

²Upper limits of contrast at .05 level.

No significant comparisons were obtained because zero fell between the upper and lower limits of each comparison.

Graphically, the in-service training group appeared more confident than the other groups. However, the differences are too small to warrant any kind of conclusion statement. In the Highland Park delinquency prevention study (1973), it was concluded that the in-service trained teachers were able to be more positive in their approach, despite having an apparently more acting-out student population to manage than group 2. Because the focus of the in-service training was on analyzing problems and learning how to manage these problems with specific behavior modification strategies, the group with in-service training would hopefully be more confident about their choice after receiving and analyzing all the information given about the child. Ryback (1965) concluded that increased familiarity with a task or a situation would manifest itself in higher confidence ratings. The majority of the problems discussed in the workshop dealt with children who defied rules and disrupted the order and performance of the class.

Part Five--Correlations of Observational Frequencies and Questionnaire Choices

The classroom observations were limited to the experienced group without in-service training. This group was observed because the principal was cooperative and

willing to have his teachers participate in the study. Also the investigator had had no previous contact with the teachers in this school. An observation form was used (described in Chapter II). Each teacher was observed for two 20-minute sessions. The observation data were coded identically with the questionnaire responses. The most frequently occurring strategy was coded. If the teacher's most frequent interaction pattern was behavior formation strategies, a "1" was assigned. However, if the ratio was .3 reinforcement responses to 13 punishment and extinction responses, a "0" for behavior elimination was assigned. The most frequent mode of interaction over the two observations was coded.

It was hypothesized that there would be a high degree of correspondence between the questionnaire response after all the information was given, and the most frequent classroom management strategy used by the teacher. Separate Pearson product moment correlations were calculated for the withdrawn case study and the acting-out case study. Negligible or near zero correlations were obtained.

The collapse of the response choice and the observation data into a dichotomy of behavior formation and behavior elimination categories might have masked some of the correspondence of strategies used by the teachers. In the prevention project using the same groups of teachers (1973), the teachers in the in-service training group

TABLE 3.11.--Correlations of questionnaire response and classroom observations.

	N	$\bar{X}$	σ	r_{xy}
Withdrawn case study				
Questionnaire response	8	6.00	0.3535	0.00
Observation of teacher and withdrawn youngster	8	7.00	0.2165	
Acting-out case study				
Questionnaire response	8	7.50	0.1653	0.1428
Observation of teacher and acting-out youngster	8	0.50	0.1653	

differed significantly from the contrast group in terms of appropriate use of modeling and extinction techniques. Positive reinforcement and punishment were the most commonly used behavior modification strategies used to change behavior. The reward-punishment ratio for the group with in-service training was three rewards for every two punishment; and for the group without in-service training, the reward-punishment ratio was nearly equal. Because the observation data in this study was limited to the group without in-service training, and because of the use of dichotomous units, the correspondence of strategies would be limited. The questionnaire responses, as shown graphically (Figures 3.1 and 3.3), were more behavior formation choices. This was especially true with the withdrawn case-study.

A greater correspondence between the questionnaire responses and the observed classroom behavior might have been evidenced with the group with in-service training. Transfer was programmed more carefully with this group. Appreciation of specific behavior modification strategies in relation to frequently occurring problems was discussed at the afternoon sessions. The previously cited finding of 1) the more frequent use of modeling and 2) the higher use of reward in relation to punishment by group 1 would lend credence to expecting more general correspondence between the questionnaire responses and classroom observational data. White, et al. (1969), in studying the impact of in-service information in changing classroom behavior, found that a teacher takes more from an in-service program when she is aware of the appropriateness of the techniques and the approval of the administration for her to use in the classroom the knowledge gained from the in-service training. The principals in both in-service schools, Liberty and Willard, were very supportive of the in-service workshops. Each of the principals encouraged the teachers in the use of the strategies in their classrooms, and were also cooperative and lent credibility to the workshop leaders. On the other hand, no direct support for the basic ideas was obtained from the Cortland school principal.

Summary

Group differences on strategy choices and confidence levels were determined through analyses of variance for a two factor experiment with repeated measures. Comparisons of the observation frequencies and the questionnaire responses were calculated by Pearson product moment correlations.

The results of this study included:

- 1) There were no significant differences between the repeated measures of the choice of strategy. It was concluded that the teachers did not change their initial choice of strategy with increasing amounts of information.
- 2) There were no significant differences across the repeated measures of the confidence level. The teachers did not increase their confidence levels in the appropriateness of their decision with increasing amounts of information.
- 3) The teachers with in-service training did not differ significantly in their choices in either the acting-out case or the withdrawn case.
- 4) Significant differences were found at the .05 level between groups in their confidence level in the acting-out case. Using the Scheffe' method of post hoc comparisons, none of the comparisons were significant. No

significant differences were found between groups in their confidence level in the withdrawn case.

- 5) After all the information was given, there were no significant differences in either case-study in the choices the three groups made.
- 6) After all the information was given, there were significant differences in the confidence level between groups. All Scheffe' post hoc comparisons were insignificant.
- 7) Negligible or near zero correlations were obtained between the questionnaire responses of the teachers without in-service training and the actual classroom observation frequencies.

CHAPTER IV

SUMMARY AND CONCLUSIONS

Summary

Teachers, both beginning and experienced, have felt frustrated and uncertain in handling discipline concerns of the acting-out youngster and the withdrawn youngster. The acting-out youngster impairs both the group's progress and his own functioning, while the withdrawn youngster only impedes his own classroom functioning. Teachers, traditionally, have access to a variety of information about the youngsters in their classroom and also a multitude of ways to handle misbehaviors. This information comes from neighborhood information, teacher lounge information, formal cumulative records, assessment tests and professional school workers' information. The techniques of handling misbehavior have ranged from very punitive methods to humanistic and supportive interventions.

The purpose of this investigation was to determine the responses and confidence levels of teachers, with varying amounts of experience and in-service training, to specific classroom incidents of an acting-out youngster

and a withdrawn youngster. The choices from which the teachers decided were behavior formation strategies (reinforcement and modeling) and behavior elimination strategies (extinction and punishment).

This study was conducted with eight third, fourth, and fifth grade teachers without in-service training (group 2), and six student teachers (group 3), from the Highland Park City Schools. The eight teachers of group 1 attended seven or more behavior modification in-service training sessions. Total in-service sessions were 18. The eight experienced teachers who comprised group 2 were from another elementary school and had no previous contact with the in-service program or the investigator. The six student teachers were also housed in this elementary school. They were all from the Michigan State University Teacher Training program. T-scores, for differences of means, on the age, years of experience and number of professional courses completed were not significant at the .05 level for the two groups of experienced teachers. The t-score for differences of means was not significant at the .05 level for the number of professional courses completed between the experienced groups and the inexperienced group.

The questionnaire administered consisted of two case-studies, that of an acting-out youngster and of a withdrawn youngster. Each of the case-studies was divided into five distinct sections: classroom incident,

psychological history, school history, social history and a follow-up classroom incident. The psychological, school and social histories were systematically varied, for the study was interested in the increments of information and not whether particular information would bring about a change in the responses. The particular increments of information were based upon information found in 75 percent of the cumulative folders of 25 identified acting-out youngsters and 25 identified withdrawn youngsters.

Selected experienced teachers, principals, and two special project teachers nominated these youngsters. They also judged the classroom incidents for their representativeness, appropriateness and sufficiency of information in relation to their experiences.

After each increment of information, the teacher was asked to make a choice from behavior formation strategies (reinforcement and modeling) and behavior elimination strategies (extinction and punishment). The stems were judged by two independent raters for 1) purity of strategy, 2) the feasibility of the strategies in relation to the incidents, and 3) the desirability of strategies in relation to each other. The teacher was also asked to rate her/his confidence in the appropriateness of the particular decision.

This study hypothesized that generally the group of inexperienced teachers with in-service training would choose behavior formation strategies more frequently, and

be more confident about the appropriateness of their decision, than the contrast experienced group without in-service training and the inexperienced group of student teachers. It was also hypothesized that for all groups, the initial choice of strategy, based only on the classroom incident, would remain stable despite increasing amounts of information. The confidence level for all groups would increase as information increased. A final hypothesis involved the comparison of responses observed in the classroom and the questionnaire responses of the experienced group without in-service training. It was hypothesized that there would be a high degree of correspondence between the questionnaire responses after all the information was given and the most frequent classroom management strategy used by the teacher.

The data collected were primarily analyzed using analysis of variance procedures for a two factor experiment with repeated measures. Six separate analyses were made for each of the two dependent variables, choice of strategies and confidence level. The Scheffe' method for post hoc comparisons was used for testing specific hypotheses. Pearson product moment correlations were performed to obtain the correspondence level between the questionnaire responses after all the information was given and the classroom observations.

The results indicated that there were significant differences in the confidence levels between groups. These

differences were found 1) in the acting-out case study with increasing increments of information and 2) comparing the acting-out and withdrawn cases after all the information was given. Comparisons using the Scheffe' post hoc method revealed no significant comparisons. No significant differences across repeated measures of the choice of strategies were obtained. Because of this finding, the hypothesis of the stability of the initial response across increments of information was confirmed. Increasing levels of confidence with increasing increments of information was not supported. The teachers with in-service training did not differ significantly in their choices of strategies in either the acting-out case or the withdrawn case. After all the information was given, there were no significant differences in the choices the three groups made in either case.

The questionnaire responses of the teachers without in-service training were compared with actual classroom observations. Two 20-minute observations were obtained on different days. All the observations were done by this investigator. The correlations were 0.00 for the withdrawn case study and 0.1428 for the acting-out case study.

Conclusions

Limitations of the Study

The limitations of this study included the following:

1.--The Subjects.--Because of the parameters set for the experienced group with in-service training, this group had a relatively small number. Also because it was an after school, voluntary program, the teachers who were included in this study might not have been representative of the other teachers who did not attend the sessions.

The experienced group without in-service training, although comparing very closely in age, years of experience and number of professional courses completed with the experienced group with in-service training, came from a school with observable positive differences. These differences included a more positive staff-principal relationship, a more modern and open building and a more highly evaluated teaching staff. This group, however, was the only other contrast group available in the school district because the other elementary school had only grades 1-3. Also, the principal of this school was cooperative and willing to let the investigator administer the questionnaires and to observe in the various teachers' classrooms.

There were difficulties in the student teachers' group. All the students were from Michigan State University's teacher training program, while most of the experienced

teachers were from other Michigan universities. Also, the student teachers were limited to grades three, four and five. They were all assigned to the school that had no in-service training and were working on an elementary certificate.

2.--The Questionnaire.--The questionnaire preparation was based upon the information obtained from the cumulative folders of only 25 identified acting-out and 25 identified withdrawn youngsters from the Highland Park City Schools. Highland Park is a highly urbanized setting and has a distinctive racial and economic make-up. Information found in the questionnaire might be applicable only to settings similar to that of Highland Park. (See description in Chapter II.)

In the identification of the children, selected teachers, the special project teachers and the principals were asked to nominate children in the two categories. Two problems were encountered using this system. One, because of the nature of the two categories of children, the aggressive acting-out youngsters were more visible to the authorities. Thus, in the drawing of the two lists, there was an overabundance of names in the acting-out categories. The children selected were those who were repeatedly identified. Therefore these children were among the most aggressive and troublesome in the school and might have been different from those who were acting-out but not seen by a multitude of school personnel. Two, the school

personnel had some difficulty generating names of children identified as withdrawn or quiet. They felt that the quiet ones were seldom referred to special programs or to the office because teachers did not see them as needing help; and that because of severe competition and harassment by peers, the children soon learned out of necessity to display more overt coping behavior.

3.--The Format of the Questionnaire.

a. The limited number of classroom incidents.--The representativeness of these incidents was determined by choosing the incidents found in 75 percent of the cumulative records of the 50 identified youngsters. After the specific incidents were written, they were read by the teachers and principals who initially nominated the list of identified youngsters. They were asked to read them for appropriateness and representativeness of classroom incidents. Although the incidents were based on the records of identified youngsters, when a teacher is answering a question on a questionnaire, it is seemingly difficult to respond to and generalize without relating it to an individual child and to other behaviors not specified. This might cause a teacher to make her decision a certain way.

b. The strategy choices.--Although the choices are easily classified, they limited the range of responses the teacher could make. An open-ended answer form might be

preferable. Raters would then indicate the type of response made.

c. The confidence ratings.--The teachers had a tendency to circle only numbers 3-5 (moderately confident to very confident). Also, the question must be raised as to whether a particular rating on the scale has the same meaning to each individual teacher.

4.--The Observations.--The observations of the teachers were limited to appropriate-inappropriate frequency ratings on reinforcement, modeling, extinction, and punishment. This does not necessarily reflect the total interaction pattern of the teacher-student relationship. For example, non-verbal actions and interactions of teachers over the routines of the classrooms were difficult to categorize with this system.

The frequency of the observations also was limited. The observations were limited to two 20-minute sessions because of the limited time of the investigator and the tolerance of the teachers in having so many visitors in their classrooms. Although the observations were done on different days and different times, it is possible that two samples were not sufficient to be representative of how the teacher interacts with her children. An ideal amount of observations would be to have samples of behavior for each subject period of the day. It would seem that a teacher would react differently to a child during a

structured activity than during a free time activity. Likewise, the child might react differently to a structured activity and to the minimum restraints of a free time activity. Cobb (1969), however, has found that a 30-minute observation period could constitute an adequate sample of classroom behavior for the entire school day.

Another limitation was that classroom observations were not obtained for the teachers with in-service training and the inexperienced group. It is not known if the same results of negligible or no relationship between the response and the observations would be obtained.

5.--The Analysis of the Data.--Using dichotomous representation in the coding of the strategies and the observation data limited the interpretation of the responses. For example, a teacher who changed from a reinforcement to a modeling choice was represented with a "1" on both instances, which would be interpreted as no change. The frequency of each strategy could not be determined using this system.

The use of a two factor analysis of variance with repeated measures limited the analysis to one case study at a time. The interactions between the cases with increasing increments of information were not obtained.

Outcomes From This Study

In spite of the above-mentioned limitations, three interesting outcomes were obtained from this study. The

first outcome focused on the choices of strategies. It was concluded that the teachers did not significantly change their initial choice of strategy with increasing increments of information. It seems that teachers, like clinicians, made their initial choice on very little information. The succeeding increments of information only served to justify their initial choice. This conclusion might indicate that the teacher, when confronted with a discipline problem, will act immediately upon the problem and will use increasing amounts of information about the child to reconfirm her actions. Teachers might be seen as reacting to misbehavior in a rather superficial manner.

Secondly, the three groups of teachers did not differ significantly. The graphic representation in Figure 3.4, showed that the three groups' frequencies of specified responses were very close together. (In the acting-out case study, significant differences at the .05 level were found between the three groups in their confidence level. The group with in-service training appeared to have a higher level of confidence in their choices than the other group. Future research, based on a larger sample, may confirm the tentative conclusion of this study. that in-service training will raise the level of the teachers' confidence in the appropriateness of their response to behavioral problems. As teachers gain familiarity with the various choices of strategy, with the

method of analyzing problems, and with applying strategies for behavior modification, their confidence level might be expected to rise. The findings of this study cannot be conclusive because of the small size of the sample and because the groups were not randomly assigned.)

Finally, there was little or no relationship between the questionnaire responses of the teachers without in-service training and their observed classroom responses. In the classroom observations, the teachers used behavior formation strategies more frequently in their interactions with the withdrawn youngster than they used with the acting-out youngster. Reprimand types of comments such as "Sit down," "Are you finished with your work?", were directed more frequently to the acting-out youngster. The teachers were also more apt to pay attention to the acting-out youngster because he usually was disrupting the on-going task of the group and/or he was the center of the disruption. The interaction of the teacher with the acting-out child was more frequent and the majority of contacts were mild reprimands and reminders.

The day-to-day demands of the job, the pressure to impart a specified amount of the curriculum, and to work with a large group tempt the teacher to use reprimands and reminders to obtain immediate compliance from the child. In relation to the acting-out youngster and the disruptions he presents, the frequency of behavior formation strategies will conceivably remain low unless the teacher is actively reminded and encouraged to use them.

Focusing on the desired and competing behaviors will have to be encouraged.)

Implications for Teacher Pre-Service and
In-Service Education

This study has provided some evidence that teachers are cognizant of the use of behavior formation strategies in handling specific behaviors of the acting-out youngster and the withdrawn youngster. The evidence points out that teachers, when answering questionnaires or inventories, are likely to answer as they think they should, rather than in accordance with what they do. This was brought out in the comparison of the responses on the questionnaire with the classroom observations. Educators must be cognizant of this point, and must rely more heavily upon direct observation of the desired behavior they are focusing upon in their training programs. Some procedures for direct observations must be part of every evaluation process of a training program, both pre-service and in-service. In the planning of an in-service session, one must program for transfer and not leave this process to chance. Transfer of behavior from the training setting to the job setting must occur.

White, et al. (1969), found that changes in the classroom depend upon the attitude of the principal. The administration, whether they are to attend the sessions or not, must understand and support your ideas if new programs

of behaviors are to be implemented in the classrooms. This is most important with teachers with experience.

Another important aspect is the format of the in-service training. It has been found that behavioral changes occur in programs that 1) involve release time from the teaching situation and 2) provide practice and encouragement in the use of the new techniques (Schmuck, 1968). In these programs the transfer from an academic situation to the classroom is programmed.

Training programs should attempt to assess the attitude teachers hold about 1) whether they feel the information being offered is worthwhile, and 2) how confident they are about the "correctness" and usefulness of such information in their dealings with the children. Questions assessing this attitude will, of course, vary with the experience of the group. The inexperienced group will not be able to assess accurately the impact the information will have on children. To help the inexperienced group, and to counteract the trend Hoy (1968) found of the shifting of beginning teachers to more custodial pupil control ideology, more supervised contact with children, more instruction in teaching technique, and more individualized and supportive instruction in the use of discipline strategies might be helpful.

The trends of the results of this study also seemed to indicate that teachers, when confronted with a discipline problem, will make a decision on very little information,

and will probably continue to act upon this decision in spite of increasing amounts of information. Teachers in in-service and pre-service programs would benefit from instruction that would specify behaviors and institute procedures for the utilization of increasing amounts of information. The process of handling a discipline behavior should be based upon more variables and information than upon just an intuitive assessment of the situation.

Teachers should be provided with more specific practical information by the pupil personnel staff. This might include the child's strengths, weaknesses, his reactions to various types of stress, rewarding conditions and the best learning environment. The results indicate that perhaps much of the information presently available to the teacher, has little or not particular meaning for the day-to-day activities in the classroom. A change might be warranted in the present report writing and information dissemination procedures by the pupil personnel staff. In the present form, teachers are 1) not gaining practical information for their day-to-day activities or 2) not able to transfer the information into practical solutions for behavior problems.

The graphic representations (Figures 3.1, 3.2, 3.3, and 3.4) of the strategies and confidence levels indicate that teachers of varying degrees of experience and training agree closely with each other in the withdrawn case. In this case, teachers were more apt to use

behavior formation strategies in their approach. Teachers see the withdrawn child as less of a threat to their ability to manage the class, and that this child's problem would be aggravated by the more punitive strategies.

However, in the acting-out case there were more discrepancies in the teachers' choices of strategies. The experienced groups were more positive in their approach than the inexperienced group. The experienced group with in-service training was consistently higher in their level of confidence in the appropriateness of their decision. The actions of the acting-out child engenders various reactions on the part of the teacher. If the child is behaving, the teacher often adopts a "wait and see" attitude. If the child is disrupting, the teacher is torn between punishing the child for his behavior and overlooking the behavior and rewarding the competing desired behavior. Because the teacher with in-service training was able to see that some of the positive strategies do bring about changes in the child in her classroom, confidence in these strategies were seen as higher. Confidence in the information given in pre-service and in-service programs should be assessed.

Implications for Further Research

The review of the literature in the area of classroom management failed to produce many reports of experimental research studies on the choices and the

confidence level of teachers with varying experience and training in handling deviant behaviors of the acting-out youngster and the withdrawn youngster. This study indicated that there was a slight difference between the groups in the way they handled and perceived the appropriateness of the response to the acting-out child, but there was less difference evident in their responses to the withdrawn youngster. A variety of incidents and open-ended questions might produce more differences between the groups.

Further research needs to be conducted to determine whether a certain type of information about the child would bring about changes in the teacher's handling of the discipline behavior. Research of this type would entail a large sample of subjects. The increments would have to be systematically varied and the data would have to be analyzed by looking not only at the placement of the increments but also the type of information being presented.

This study was conducted using small groups and in a highly urbanized setting. Suburban and rural children would have different types of information included in their histories. Given this difference in information, would teachers differ in handling discipline behaviors of the acting-out youngster and the withdrawn youngster? Along this same line of approach, it would be interesting to investigate groups with different and/or no professional education. Would parent groups differ significantly from

groups of teachers? Would counselors or school psychologists who see the child usually on a one-to-one basis differ significantly from groups of teachers? These differences or similarities would be useful knowledge for school consultants.

A question that might be of value to trainers, pre-service and in-service, is "Does confidence in the appropriateness or usefulness of the information increase the consistency with which the information is used in the classroom?" From the workshop discussions, the investigator felt that the teachers tried to become more consistent in their approach to discipline problems. Extensive classroom observations would be necessary to assess the validity of this impression.

There is still much to be accomplished in assessing the variables in the area of classroom management. In-service and pre-service training programs would profit from any information that would help teachers to become more positive in handling their problems, to know how to utilize more effectively the available information about the child, and to be more confident and consistent in their approaches.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Ackerson, L. Children's Behavior Problems. Chicago: The University of Chicago Press, 1942.
- Adams, R. S. "Duration and Incident Frequencies as Observation Indices." Educational and Psychological Measurement, 30 (1970), 669-74.
- Anthony, E. J. "Taxonomy is Not One Man's Business." International Journal of Psychiatry. 3 (1967), 173-178.
- Ausubel, David P. "New Look at Classroom Discipline." Phi Delta Kappa, 43 (October 1961), 26-28.
- Bandura, A. Principles of Behavior Modification. New York: Holt, Rinehart & Winston, Inc., 1969.
- Beilin, Harry. "Teachers' and Clinicians' Attitudes Toward the Behavior Problems of Children: A Reappraisal." Child Development, 30 (1959), 9-25.
- Bijou, S. W. "A Functional Analysis of Retarded Development." In International Review of Research in Mental Retardation. Edited by N. R. Ellis. Vol. I. New York: Academic Press, 1966.
- Borg, Walter R. Mini Course: A Microteaching Approach to Teacher Education. Beverly Hills, Calif.: Macmillan Educational Services, Inc., 1970.
- Buys, C. J. "Effects of Teacher Reinforcement on Elementary Pupils' Behavior and Attitude." Psychol. Sch. 9 (July 1972), 278-288.
- Clarizio, Harvey F. Identification and Correction of Problem Behavior in Pre-High School Age Students. Project No. 0655-0102. School District of the City of Highland Park.
- Clarizio, Harvey F. Toward Positive Classroom Discipline. New York: John Wiley & Sons, Inc., 1971.

- Cobb, J. "Prediction of Academic Achievement from Classroom Observation." Unpublished doctoral dissertation, University of Oregon, 1969.
- "Hospital Struggles for Life." Detroit Free Press, July 18, 1973.
- Deutsch, Martin. Minority Group and Class Status as Related to Social and Personality Factors in Scholastic Achievement. Ithaca, New York Society for Applied Anthropology, Monograph No. 2, 1960.
- Dreger, Ralph M. "A Progress Report on a Factor Analytic Approach to Classification in Child Psychiatry." Psychiatric Research Reports, No. 18, Vol. 22, pp. 22-74.
- Dreger, R. M.; Lewis, P. M.; Rich, T. A.; Miller, K. S.; Reid, M. P.; Overlade, D. C.; Taffel, C.; and Flemming, E. L. "Behavioral Classification Project." Journal of Consulting Psychology. 28 (1964), No. 1, 1-13.
- Driscoll, Robert L. "A Survey of Pupil Disruptive Behaviors as Viewed by Student Teachers." Unpublished Ph.D. dissertation, Michigan State University, 1970.
- Eaton, Merrill T.; Di'Amico, Louis; and Phillips, B. N. "Problem Behavior in School." Journal of Educational Psychology. 47 (October 1956), 350-357.
- Eddy, Elizabeth M. Walk the White Line. Garden City, N.Y.: Doubleday and Co., 1965.
- Goldberg, Lewis R. "Simple Models on Simple Processes: Some Research on Clinical Judgments." American Psychologist. 23 (1968), 483-496.
- Goldberg, L. R. "The Effectiveness of Clinicians' Judgments: The Diagnosis of Organic Brain Damage from the Bender-Gestalt Test." Journal of Consulting Psychology. 23 (1959), 25-33.
- Gorton, R. A. "Do Teachers Equate Good Discipline with Good Teaching?" Nat. Assn. Sec. Sch. Prin. Bull. 55 (April 1971), 29-36.
- Hall, R. V.; Lund, D.; and Jackson, D. "Effects of Teacher Attention on Study Behavior." Journal of Applied Behavior Analysis. 1 (1968), 1-12.

- Hall, R. V.; Panyan, Marion; Rabon, Deloris; and Broden, Marcia. "Instructing Beginning Teachers in Reinforcement Procedures which Improve Classroom Control." Journal of Applied Behavior Analysis. 1 (1968), 315-322.
- Hays, William L. Statistics. New York: Holt, Rinehart & Winston, Inc., 1963.
- Herman, Wayne L.; Duffey, Robert V.; Schumacher, Elizabeth; Williams, David L.; and Zachary, Lillian B. "Techniques for Dealing with Children's Behavior." The Elementary School Journal. 69 (January 1969), pp. 198-203.
- Hewett, F. M. The Emotionally Distrubed Child in the Classroom. Boston: Allyn & Bacon, 1968.
- Hewitt, L. E. and Jenkins, R. L. Fundamental Patterns of Maladjustment: The Dynamics of Their Origin. Springfield, Ill.: Green, 1946.
- Holt, Robert R. "Yet Another Look at Clinical and Statistical Prediction: Or, is Clinical Psychology Worthwhile?" American Psychologist. 25, Pt. 1 (January-June 1970), 337-358.
- Hoy, W. K. "Influence of Experiences on the Beginning Teacher." School Review. 76 (Spring 1968), 312-323.
- Hoy, W. K. "Organizational Socialization: The Student Teacher and Pupil Control Ideology." Journal of Educational Research, 61 (December 1967), 153-155.
- "Local District Results: Michigan Educational Assessment Program." Fourth Report of the 1971-72 Series. Michigan Department of Education, 1972.
- Lorr, M. "Classification of the Behavior Disorders." In Annual Review of Psychology. Edited by P. R. Farnsworth, O. McNeman and O. McNeman. Palo Alto, Calif.: Annual Reviews, Inc., 1961.
- Lunney, Gerald H. "Using Analysis of Variance with a Dichotomous Dependent Variable: An Empirical Study." Journal of Educational Measurement. No. 4 (Winter 1970), 263-269.
- Mandeville, Garrett K. "A New Look at Treatment Differences." American Educational Research Journal. 9, No. 2 (Spring 1972), 311-321.

- McArthur, Charles. "Analyzing the Clinical Process." J. of Counseling Psychology. No. 4 (1954), 203-207.
- Meehl, P. E. Clinical Versus Statistical Prediction: A Theoretical Analysis and a Review of the Evidence. Minneapolis: University of Minnesota Press, 1954.
- O'Leary, K. D.; Becker, W. C.; Evans, M. B.; and Sandangas, R. A. "A Token Reinforcement Program in a Public School: A Replication and Systematic Analysis." Journal of Applied Behavior Analysis. 2 (1969), 3-13.
- O'Leary, K. D. and Becker, W. C. "The Effects of the Intensity of a Teachers Reprimands on Children's Behavior." Journal of School Psychology. 7 (1969), 8-11.
- Oskamp, Stuart. "Overconfidence in Case-Study Judgments." Journal of Consulting Psychology. 29, No. 3 (1965), 261-265.
- Oskamp, S. "The Relationships of Clinical Experience and Training Methods to Several Criteria of Clinical Predictions." Psychological Monographs. 76 (1962). (28, Whole No. 547.)
- Parker, J. Cecil and Golden, William P., Jr. "In-service Education of Elementary and Secondary School Teachers." Review of Educational Research. 22 (June 1952), 193-200.
- Patterson, G. R. "An Empirical Approach to the Classification of Distrubed Children." J. Clinical Psychol. 20 (1964), 326-337.
- Peck, Leigh. "Teachers' Reports of the Problems of Unadjusted School Children." Journal of Educational Psychology. 26 (1935), 123-138.
- Peterson, Donald R. "Behavior Problems of Middle Childhood." Journal of Consulting Psychology. 25 (1961), No. 3, 205-209.
- Porter, Robert M. "Student Attitudes Toward Child Behavior Problems." Journal of Educational Research. 52 (May 1959), 349-352.
- Quay, Herbert C. "Personality Patterns in Pre-Adolescent Delinquent Boys." Educational and Psychological Measurement. 26, No. 1 (1966), 99-110.

- Quay, Herbert C. "Patterns of Aggression, Withdrawal and Immaturity." In Psychopathological Disorders of Childhood. Edited by Herbert C. Quay and John S. Werry. New York: Wiley & Sons, 1972.
- Quay, Herbert C.; and Quay, Lorene C. "Behavior Problems in Early Adolescence." Child Development. 36 (1965), 215-220.
- Rosen, B. M.; Bahn, A. K.; and Kramer, M. "Demographic and Diagnostic Characteristics of Psychiatric Outpatient Clinics in the United States, 1961." American Journal of Orthopsychiatry. 34 (1964), 455-468.
- Ryback, David. "Confidence and Accuracy as a Function of Experience in Judgment-Making in the Absence of Systematic Feedback." Perceptual and Motor Skills. 24 (1967), 331-334.
- Sarason, Seymour B. The Culture of the School and the Problem of Change. Boston: Allyn and Bacon, 1971.
- Schmuck, Richard A. "Helping Teachers Improve Classroom Group Processes." The Journal of Applied Behavioral Science. 4 (1968), 401-435.
- Sparks, J. N. "Teacher Attitudes Toward the Behavior Problems of Children." Journal of Educational Psychology. 43, No. 5 (May 1952), 284-291.
- "School Scores Create Shock Wave." State Journal, December 10, 1972.
- Stebbins, Robert A. "The Meaning of Disorderly Behavior: Teacher Definitions of a Classroom Situation." Sociology of Education. 44 (1970), 217-236.
- Stendler, Celia B. "How Well Do Elementary-School Teachers Understand Child Behavior?" Journal of Educational Psychology. 40 (December 1949), 489-498.
- Stewart, N. "Teachers Concepts of Behavior Problems." In Growing Points in Educational Research. Washington: American Educ. Res. Ass. Rep., 1949.
- Taft, R. "The Ability to Judge People." Psychological Bulletin. 52 (1955), 1-23.
- Thomas, D. R.; Becker, W. C.; and Armstrong, Marianne. "Production and Elimination of Disruptive Classroom Behavior by Systematically Varying Teacher's Behavior." Journal of Applied Behavior Analysis. 1 (1968), 35-45.

- Ullman, L. and Krasner, L. Case Studies in Behavior Modification. New York: Holt, Rinehart & Winston, 1965.
- U.S. Department of Commerce, Bureau of the Census. General Social and Economic Characteristics, Michigan. April 1972.
- Westbrook, A. "Teachers' Recognition of Problem Behavior and Referrals of Children to Pupil Personnel Services." J. Ed. Res. 63 (May 1970), 391-394.
- Wickman, E. K. Children's Behavior and Teachers' Attitudes. New York: Commonwealth Fund, 1928.
- White, Marjorie A.; Raun, Chester E.; and Butts, David P. "A Study of Contrasting Patterns of In-service Education." Science Teacher. 53, No. 1 (1969), 13-19.
- Williams, Robert L. and Anandam, Kamala. Cooperative Classroom Management. Columbus: Charles E. Merrill Publishing Company, 1973.
- Willower, Donald J.; Eidell, Terry L.; and Hoy, Wayne K. The School and Pupil Control Ideology. University Park, Pa.: Penn State Studies Monograph, No. 24, 1967.
- Ziv, A. "Children's Behavior Problems as Viewed by Teachers, Psychologists and Children." Child Development. 41 (Spring 1970), 871-879.

APPENDICES

APPENDIX I

THE QUESTIONNAIRE

APPENDIX I

THE QUESTIONNAIRE

Case Studies--I and II

Each teacher when faced with a discipline problem has varying amounts of information available to her. Sometimes, the teacher must make a decision on very limited amounts of information. Following this page, there are two different cases for which you will be asked to decide which strategy or method you as a teacher would use when confronted with the particular problem. Each case study is divided into four sections.

DIRECTIONS:

1. Do only one page at a time. Answer all the questions on each page before proceeding to the next page. Do not return to the previous pages after you have completed them.
2. Read the information given to you and determine the method or strategy you feel you would use to handle the problem. Be sure to answer each question as you really think that you would handle the situation as described. The "I" in each situation refers to you as the teacher.
3. There are no right or wrong answers to the questions.
4. After each answer, mark the degree of confidence you have about the appropriateness of the method you chose.

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
NOT CONFIDENT		FAIRLY CONFIDENT		VERY CONFIDENT

This will take about 30 minutes to complete.

Classroom Incident

The class is very quiet, and all are working on the assignment outlined on the board. I am at my desk correcting some papers, however, periodically I stand to answer questions and to survey the room to see that the students are working. Johnny is sitting next to Peter. Peter drops his pencil. This causes Johnny to comment about how clumsy Peter is. Peter gets angry and pushes Johnny. Seeing this commotion, I quickly call both boys to attention and remind them of the assignment. At that point, Johnny defiantly answers me back and says that it was Peter's fault for being so clumsy. He glares at me.

I. Choose one of the below that typifies what you would do in this situation to change Johnny's defiant, sassing behavior.

- a. I would send Johnny out of the room for answering back and for causing a disruption in the classroom. He will have to stand in the hallway until he can behave in the classroom.
- b. I would ignore Johnny's defiant statement and his glare because he wants me to get angry at him.
- c. I would approach Johnny's desk and would comment on the work he has done. I would remark about the progress he showed on the assignment and try to get him working again.
- d. I would make some statement to the class about how certain popular leaders are working. "Joe and Jim, I like the way you are continuing with the assignment. You will certainly be finished by the time class is over in fifteen minutes."

II. Circle the number indicating your confidence in the appropriateness of the decision you made above.

1	2	3	4	5
NOT CONFIDENT		FAIRLY CONFIDENT		VERY CONFIDENT

Be sure that you have marked both questions.

School History

Johnny has been a problem throughout his school history. He has a record of absences and tardiness. His past teachers have all felt that he was a disorderly and disruptive influence in the school. His behavior and attitudes have often been a subject of conversation among the teachers.

His last report card indicated that his work habits, such as follows directions, works independently, takes pride in accurate work, needed improvement. His health habits were satisfactory. His social growth, such as works and plays well with others, uses basic manners, respects rights and property of others, needed improvement. His citizenship mark fluctuated between fair and poor throughout the year.

Johnny's reading, spelling, handwriting and mathematics fluctuated between satisfactory and needs improvement. His performance in the gym was very satisfactory.

His last teacher's report card comment was:

"Johnny doesn't cooperate in the classroom. He doesn't do his school work and often does things to disturb those who are trying to do their work. You have to establish yourself as the boss or he will take over."

Go on to the next page and answer the two questions.

Based on what you know about him now:

I. Would you change the way you would handle the classroom misbehavior?

yes _____

no _____

If you are changing your strategy, mark the choice you would now make:

- a. I would send Johnny out of the room for answering back and for causing a disruption in the classroom. He will have to stand in the hallway until he can behave in the classroom.
- b. I would ignore Johnny's defiant statement and his glare because he wants me to get angry at him.
- c. I would approach Johnny's desk and would comment on the work he has done. I would remark about the progress he showed on the assignment and try to get him working again.
- d. I would make some statement to the class about how certain popular leaders are working. "Joe and Jim, I like the way you are continuing with the assignment. You will certainly be finished by the time class is over in fifteen minutes.

II. Circle the number indicating your confidence in the appropriateness of the decision you made above.

1	2	3	4	5
NOT CONFIDENT		FAIRLY CONFIDENT		VERY CONFIDENT

Be sure that you have marked both questions.

Social History

Johnny's family resides in a lower income neighborhood in a single family dwelling. The yard is neat and clean. The house is neat, but simply and sparsely furnished. There are four children in the family. The parents are separated and Johnny and his brothers and sisters are living with their mother, who works as a clerk at a general hospital. The family receives food stamps as an income supplement.

The mother describes Johnny as one who is easily distracted and needs constant praise. When he doesn't get his way, he becomes angry and strikes out. His younger sister is afraid of him. The mother minds the fighting among the children only if they hurt each other.

The mother disciplines Johnny with the "stick." She found that raising her voice does not seem to have any impact on Johnny. The mother feels that Johnny's one main problem is that he always wants to have his own way.

She would like to see him be less active and angry.

Because the mother works, she has never attended any of the Parent-Teacher conferences. Teachers are unable to get her cooperation with regard to Johnny's behavior.

Go on to the next page and answer the two questions.

Based on what you know about him now:

- I. Would you change the way you would handle the class-room misbehavior?

yes _____

no _____

If you are changing your strategy, mark the choice you would now make:

- a. I would send Johnny out of the room for answering back and for causing a disruption in the classroom. He will have to stand in the hallway until he can behave in the classroom.
- b. I would ignore Johnny's defiant statement and his glare because he wants me to get angry at him.
- c. I would approach Johnny's desk and would comment on the work he has done. I would remark about the progress he showed on the assignment and try to get him working again.
- d. I would make some statement to the class about how certain popular leaders are working. "Joe and Jim, I like the way you are continuing with the assignment. You will certainly be finished by the time class is over in fifteen minutes."

- II. Circle the number indicating your confidence in the appropriateness of the decision you made above.

1	2	3	4	5
NOT CONFIDENT			FAIRLY CONFIDENT	VERY CONFIDENT

Be sure that you have marked both questions.

Psychological History

Johnny was referred to the psychologist because of his disruptive behavior in the classroom. Many times during the day he hits the other children, knocks them down and calls them "profane" names. He constantly ignores classroom rules and directions.

The psychologist's report follows:

Johnny was a handsome boy of average physical build. He was pleasant and related quite well. His verbal skills were good.

His test results showed that Johnny is presently functioning in the Dull Normal Range of intelligence. He seemed to show strength in non-verbal items requiring him to distinguish essential from non-essential environmental details.

Johnny's projective test material indicates that in certain situations he reacts so impulsively that he loses his realistic judgment of a situation and behaves inappropriately. At such times, he gives vent to a great deal of anger and resentment. This inappropriate, aggressive and impulsive behavior occurs almost always when people are involved. In non-interpersonal situations he shows an ability to recover his hold on reality and to perceive situations in an undistorted way.

Johnny seems unable to cope with his own emotional feelings. He reveals tremendous ambivalence toward adults. He feels anger and resentment towards them, while at the same time he craves attention and nurturance. The result is that his behavior towards adults is unpredictable and inconsistent.

Go on to the next page and answer the two questions.

Based on what you know about him now?

- I. Would you change the way you would handle the class-room misbehavior?

yes _____

no _____

If you are changing your strategy, mark the choice you would now make:

- a. I would send Johnny out of the room for answering back and for causing a disruption in the class-room. He will have to stand in the hallway until he can behave in the classroom.
 - b. I would ignore Johnny's defiant statement and his glare because he wants me to get angry at him.
 - c. I would approach Johnny's desk and would comment on the work he has done. I would remark about the progress he showed on the assignment and try to get him working again.
 - d. I would make some statement to the class about how certain popular leaders are working. "Joe and Jim, I like the way you are continuing with the assignment. You will certainly be finished by the time class is over in fifteen minutes."
- II. Circle the number indicating your confidence in the appropriateness of the decision you made above.

1	2	3	4	5
NOT CONFIDENT		FAIRLY CONFIDENT	VERY CONFIDENT	

Be sure that you have marked both questions.

Classroom Incident

Johnny continues to disrupt the class by making noises, or teasing and provoking others. He becomes defiant and argumentative when I talk to him about his behavior. He is very domineering, and most of the time, irresponsible and unreliable. I cannot count on him getting all his work done. He has been caught fighting on the playground and is often very cruel and a bully to the smaller children in the class.

I. Choose one of the below that typifies what you would do in this situation to change Johnny's noisy and provocative behavior.

- a. Every time Johnny disrupts the class or hits another youngster, I would send him to the principal and let him discipline Johnny. The principal could suspend him from school.
- b. I would praise him about any sportsmanship-like behavior he displays. Every time I can "catch" him being good, I will make him monitor for that period because he seems to like this privilege.
- c. I would just ignore his behavior and would try to get the other children not to pay attention to him. If he doesn't have anyone to play or talk with him, he won't be so disruptive.
- d. Because Mark is one of the leaders of the class and Johnny admires Mark for his ability to get along with the other children, I would make a comment such as "Look how quietly Mark and the others around him are working."

II. Circle the number indicating your confidence in the appropriateness of the decision you made above.

1	2	3	4	5
NOT CONFIDENT		FAIRLY CONFIDENT		VERY CONFIDENT

Be sure that you have marked both questions.

Case Study IIClassroom Incident

Tom is in a class of 30 students. I am concerned about him because he is so quiet, and some of the other children take advantage of him. The class was divided into groups of five and they were all to work cooperatively on a mural on "Keeping Our City Clean." Everyone was involved in the project and also talking among themselves. Tom remained on the fringe of his group, however, he was beginning to do some of the drawing and coloring of the project. Tom is very good in art.

I. Choose one of the below that typifies what you would do in this situation to help Tom become more actively involved with the group's activity.

- a. I would not comment about his participation. He is working quietly. I would leave him alone.
- b. I would remind him that if he didn't work faster with the group that he would not finish his part of the project and that he would have to remain in at recess to finish.
- c. I would comment to Tom about how well the other children are working, especially his friend, Marshall, who is actively involved with the group project.
- d. I would comment favorably on his performance, especially the drawing and coloring he has completed. I would mention something about how well his drawing fits into the completion of the total group project.

II. Circle the number indicating your confidence in the appropriateness of the decision you made above.

1	2	3	4	5
NOT		FAIRLY		VERY
CONFIDENT		CONFIDENT		CONFIDENT

Be sure that you have marked both questions.

School History

Tom transferred from the Detroit Public Schools. He was seen by his previous teachers as shy and having difficulties finishing his work. He rarely was noted to socialize with other children and he seemed to have no friends.

His last report card indicated that his work habits and health habits were satisfactory. However, his teacher felt that his social growth, such as works and plays well with others and uses basic manners, needed improvement. His citizenship mark was fair throughout the year.

Tom's reading, spelling, handwriting and mathematics were evaluated by the teacher to be satisfactory or improving. She also felt that he could profit from outside help in some of his academic areas. She also felt that he needed to pay more attention to his work and to complete his assignments, both in class and at home.

His last teacher's report card comment was:

"Tom is very inhibited and reserved. He daydreams constantly. His attention span is very short. With more individual help perhaps he will be more motivated toward school."

Go to the next page and answer the two questions.

Based on what you know about him now:

I. Would you change the way you would help Tom?

yes _____

no _____

If you are changing your strategy, mark the choice you would now make:

- a. I would not comment about his participation. He is working quietly. I would leave him alone.
- b. I would remind him that if he didn't work faster with the group that he would not finish his part of the project, and that he would have to remain in at recess to finish.
- c. I would comment to Tom about how well the other children are working, especially his friend, Marshall, who is actively involved with the group project.
- d. I would comment favorably on his performance, especially the drawing and coloring he has completed. I would mention something about how well his drawing fits into the completion of the total group project.

II. Circle the number indicating your confidence in the appropriateness of the decision you made above.

1	2	3	4	5
NOT CONFIDENT		FAIRLY CONFIDENT	VERY CONFIDENT	

Be sure that you have marked both questions.

Social History

Tom lives in a run-down section of town. There are few lawns, bushes and trees. The family lives in a single family dwelling. The house is unkempt inside with items of food, clothing and papers scattered around the floor and on the furniture.

There are four children in the family. The parents are separated and Tom and his brothers and sisters are living with their mother. The mother receives ADC payments and sometimes is able to get some work as a day maid.

The mother disciplines Tom usually by spanking: "I hit him with anything I get my hands on." She feels that she is very strict and that Tom rarely "lips off" to her. She does not like noise in the house, however because she does not seem to have any organizational skills, nothing seems to get done on time.

The mother voiced some concern that Tom does not get along well with his brothers. She feels that sometimes he is too quiet and is usually the brunt of his brothers' meanness. However, because he does not get into trouble, she expects more mature behavior from him than from her other children.

Tom's mother attended all the scheduled Parent-Teacher conferences. Most of the conferences were spent in discussing Tom's reluctance to speak in class and his inability to make friends. The mother does not know what to do with him, however she often voices the belief that the teachers are sometimes too hard on him.

Go on to the next page and answer the two questions.

Based on what you know about him now:

I. Would you change the way you would help Tom?

yes _____

no _____

If you are changing your strategy, mark the choice you would now make:

- a. I would not comment about his participation. He is working quietly. I would leave him alone.
- b. I would remind him that if he didn't work faster with the group that he would not finish his part of the project and that he would have to remain in at recess to finish.
- c. I would comment to Tom about how well the other children are working, especially his friend, Marshall, who is actively involved with the group project.
- d. I would comment favorably on his performance, especially the drawing and coloring he has completed. I would mention something about how well his drawing fits into the completion of the total group project.

II. Circle the number indicating your confidence in the appropriateness of the decision you made above.

1	2	3	4	5
NOT CONFIDENT		FAIRLY CONFIDENT		VERY CONFIDENT

Be sure that you have marked both questions.

Psychological History

Tom was referred to the psychologist for daydreaming and listlessness. At home he needed constant reminders to get dressed, and he seldom finished anything he started. Tom objected to chores and schoolwork, and was irresponsible about any task he was given.

Below is the psychologist's report:

Tom was small and frail. He talked slowly, showed little emotion, occasionally misunderstood the questions, and seemed to think carefully before answering. He continually asked for directions and tried to make certain that he did what was requested. Tom scored in the dull average range of intelligence. His performance scores, however, were lower because of his slowness.

Tests showed that he felt pressured toward mature behavior, and that he resisted by attempts to escape from action. He wished that he might be able to change himself into another person or animal so that, "I could hide from anyone who tried to get me." Tom was overwhelmed by the noise, confusion and lack of direction at home. Tom has been supported in being allowed to stay indoors when the other children were sent out to play, and he evaded responsibility for schoolwork by gaining his mother's concurrence in the validity of his claim, that he knew everything the teacher was teaching and did not need to complete his assignments.

Go on to the next page and answer the two questions.

Based on what you know about him now:

I. Would you change the way you would help Tom?

yes _____

no _____

If you are changing your strategy, mark the choice you would now make:

- a. I would not comment about his participation. He is working quietly. I would leave him alone.
- b. I would remind him that if he didn't work faster with the group that he would not finish his part of the project and that he would have to remain in at recess to finish.
- c. I would comment to Tom about how well the other children are working, especially his friend, Marshall, who is actively involved with the group project.
- d. I would comment favorably on his performance, especially the drawing and coloring he has completed. I would mention something about how well his drawing fits into the completion of the total group project.

II. Circle the number indicating your confidence in the appropriateness of the decision you made above.

1	2	3	4	5
NOT CONFIDENT		FAIRLY CONFIDENT	VERY CONFIDENT	

Be sure that you have marked both questions.

Classroom Incident

Tom continues to daydream in the class. He is seldom with other children and appears unhappy or depressed most of the time. Whenever he is put in a group, he becomes nervous and self-conscious. When I ask a direct question, he will seldom answer. However, when there are no children around, I can usually get him to answer some of my questions. Whenever I can get him to do his work, he does it neatly and meticulously.

- I. Choose one of the below that typifies what you would do in this situation to help Tom interact more fre-quently with the other children.
- a. I would leave Tom alone whenever he is playing with the other children or approaches others. He will play with them when he is ready.
 - b. I would encourage Tom to enter play with other children, and would get the other children to accept him. Every time he is with other children, I will give him some of my attention.
 - c. Marshall, one of the more popular boys, seems to get along with Tom. Whenever Tom is near Marshall, I would make a comment such as "Marshall is playing the game very well" or "Marshall seems to be having a good time playing with the other children."
 - d. Whenever Tom is not interacting with the other children when the activity calls for it, or daydreaming I would give him a mild reprimand about the importance of being in a group.

- II. Circle the number indicating your confidence in the appropriateness of the decision you made above.

1	2	3	4	5
NOT CONFIDENT		FAIRLY CONFIDENT		VERY CONFIDENT

Be sure that you have marked both questions.

1

At what school are you presently teaching? _____

How many years have you taught
(include this year)? _____

What is your certificate major? _____

minor? _____

Degrees that you have earned? _____ B.A.

_____ B.S.

_____ M.A.

_____ other; specify _____

Check the courses you have completed:

_____ Growth and development of children

_____ Individual and the School: Introductory
Educational Psychology

_____ Methods of Elementary Education

_____ Methods of Teaching Reading

_____ Language Arts for the Elementary Grades

_____ Children's Literature

_____ Social Studies for the Elementary Grades

_____ Mathematics for the Elementary Grades

_____ Science for the Elementary Grades

_____ Student teaching

Thank you for your time and cooperation.

APPENDIX II

LETTERS TO TEACHERS

APPENDIX II

LETTERS TO TEACHERS

April 16, 1973

Dear Teacher,

Please complete the enclosed questionnaire as soon as possible. It should take about 30 minutes to complete.

Please return the completed questionnaire in the accompanying envelope. Thank you for your cooperation.

Sincerely,

May E. Polk
Director
Criminal Justice Program

Myrtle Yoshinaga
Consultant
Criminal Justice Program

APPENDIX III

OBSERVATION FORM

APPENDIX III

OBSERVATION FORM

School _____ Room _____ Teacher _____

Date _____ Observer _____

I II Total

Reinforcement

Disapproval

Removal of Reward

Presenting

Modeling

Extinction

APPENDIX IV

STRATEGY CHOICES

MEAN CONFIDENCE LEVEL RATINGS

INTER-RATER RELIABILITY OBSERVATION FREQUENCIES

CONFIDENCE LEVELS

STRATEGIES

Withdrawn						Acting-Out					
Groups	Incident	Increments			Gen. Incident	Incident	Increments			Gen. Incident	
		2	3	4			2	3	4		
1	R	R	R	R	R	R	P	P	R	R	
1	R	R	R	R	R	R	R	R	R	R	
1	R	R	R	R	R	M	M	M	M	R	
1	R	R	R	R	E	R	R	R	R	E	
1	R	P	R	R	R	E	R	R	R	R	
1	R	R	M	R	R	R	R	M	E	R	
1	R	R	R	R	R	M	P	R	R	R	
1	R	R	R	R	R	R	R	R	R	R	
2	R	R	R	R	R	E	R	R	R	R	
2	R	R	R	R	R	R	R	R	R	R	
2	R	R	R	E	E	E	R	R	P	R	
2	R	R	R	R	R	R	R	R	R	R	
2	R	R	R	R	E	R	R	R	R	R	
2	R	R	R	R	R	E	E	R	R	R	
2	R	R	R	R	E	R	R	R	R	R	
2	R	R	R	R	R	R	R	R	R	M	
3	R	E	E	E	E	P	P	P	P	R	
3	R	R	R	R	R	P	E	R	R	R	
3	R	R	R	R	R	P	P	P	P	R	
3	R	R	R	R	R	M	R	R	R	R	
3	R	R	R	R	R	R	R	P	P	R	
3	R	R	R	R	R	M	M	M	M	R	

Choices:

R = Reinforcement

M = Modeling

E = Extinction

P = Punishment

CONFIDENCE LEVELS

Groups	Withdrawn					Acting-Out				
	Incident	Increments			Gen. Incident	Incident	Increments			Gen. Incident
		2	3	4			2	3	4	
1	5	4	5	5	5	4	5	5	5	5
1	4	4	4	4	4	3	2	5	4	4
1	4	4	5	5	4	4	4	5	5	5
1	4	4	4	4	4	4	4	4	4	4
1	4	5	4	4	3	5	5	5	5	4
1	5	4	3	5	5	3	5	4	3	5
1	5	5	5	5	4	5	3	5	5	3
1	5	5	5	5	5	4	4	5	5	5
2	3	4	4	4	4	3	4	4	4	4
2	4	3	3	3	4	3	4	4	4	3
2	4	3	4	2	2	3	4	4	2	3
2	4	4	5	5	5	4	5	5	5	5
2	4	4	4	4	3	3	3	3	3	3
2	5	5	5	5	5	3	3	3	1	3
2	3	3	3	3	3	3	3	3	3	3
2	4	4	4	4	3	4	4	4	4	4
3	5	4	4	3	4	4	4	4	4	4
3	4	3	4	3	3	2	3	3	3	4
3	4	3	4	4	4	3	3	2	3	3
3	5	5	5	5	3	4	3	3	3	4
3	5	5	3	3	4	3	4	3	2	4
3	4	4	4	4	4	4	4	4	4	4

1 = Not confident

2

3 = Fairly confident

4

5 = Very confident

$\bar{X}$ Confidence Level for Withdrawn

	Increments				
	I	2	3	4	II
Group 1	4.5	4.4	4.4	4.6	4.2
Group 2	3.9	3.8	4.0	3.8	3.6
Group 3	4.5	4.0	4.0	3.7	3.7

 $\bar{X}$ Confidence Levels for Acting-Out

	Increments				
	I	2	3	4	II
Group 1	4.0	4.0	4.8	4.5	4.4
Group 2	3.2	3.8	3.8	3.2	3.5
Group 3	3.3	3.5	3.2	3.2	3.8

Total Observation Frequencies for Three
20-Minute Observations

Strategy	Raters		
	I	II	III
Positive Reinforcement	95	90	92
Modeling	5	9	13
Punishment	40	45	48
Extinction	0	0	0

1

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