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A Behavioral Parent Training Follow-Up Using Direct Observation and Audio-Taping in the Home Setting

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A BEHAVIORAL PARENT TRAINING FOLLOW-UP USING
DIRECT OBSERVATION AND AUDIO-TAPING
IN THE HOME SETTING

by

Michelle Fedko Nelson

A Thesis
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
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Michelle Fedko Nelson

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INTRODUCTION

O'Dell (1974), reviewed all literature in the field of parent education published at that time. After a review of professional publications, he concluded that, of those he had reviewed, most were not behavioral studies (direct observation of the occurrence of behavior in a natural setting). The variables were not systematically measured nor were the reliability measures adequate. O'Dell stressed the need for more behavioral studies with good reliability measures.

Eyeberg and Johnson (1974), examined the outcome of treatment success based on parent-collected data on child responding, parental attitude changes toward their children by a written measure and direct observation by trained observers in the home. The paper emphasized the necessity for direct observation in the home. The parent-collected and reported data showed a greater level of behavioral change than could actually be observed in the home. The conclusion was that behavior change measures done in the home may have been affected by observer reactivity or that the parent-reported data may have been affected by parental attitudinal changes toward their children's behavior (parents may have become more tolerant of misbehavior). The necessity of multiple measures for generalization of parent-trained behavior and/or behavior change in the home setting was emphasized. The present study used multiple measures of direct observation, audio-

taping and parent reported data. However behavioral measures were the main tools in this study, since previous studies have stressed the necessity for behavioral data, and the unreliability of non-behavioral data.

Koegel, Glahn and Nieminen (1978) assessed the generalization effects of several different parent training programs. The study consisted of two experiments; the first provided brief demonstrations of specific parental skills used to teach their child a specific task. The second consisted of a global extensive program using videotapes which emphasized parent behaviors as well as child behaviors. The authors emphasized the significance of antecedent and consequent parental behavior on child behavior. The global training also consisted of using specific instructions, modeling of correct procedures, use of correct and incorrect examples, and continued practice after observing videotapes of behavior. The second procedure was more effective in promoting generalization in the home setting without additional training for new behaviors, or changes in the home setting. The present study measured parental as well as child behavior. It is a follow-up program which succeeded a parent education class which included all of the factors emphasized by Koegel, et al in the second experiment, with the exception of the use of videotapes.

Koegel and Rincover (1977) studied generalization of

training from the therapy setting to an extra-therapy setting. A series of two experiments used the same procedures with the exception of the use of partial reinforcement schedules and noncontingent reinforcers in the extra-therapy setting. The results suggested that there are two distinct parameters of extra-therapy responding; generalization and maintenance. Generalization was defined as the initial responding in the extra-therapy setting. Maintenance was defined as continued responding in the extra-therapy setting. The present study attempted to separately study generalization and maintenance. Generalization, in the home, was assumed to have occurred first. Then maintenance, in the home setting, was assessed before and after posttreatment booster sessions (conferences with parents regarding parent-child interactions).

Eyeberg, Kelly, Jackson and Baer (1979) studied the generalization from the classroom to the home setting after a parent education class. Their conclusion, based on weekly systematic behavioral observations in the home, was that group classes were not sufficient to promote change in parental responding. To promote change, immediate individual feedback in the home was necessary. This study used a similar procedure of systematic home observations and individual feedback and training of parent responding in the home.

Stokes and Baer (1977) summarized the recent literature on generalization effects of training. They categorized studies designed to assess program effectiveness on generalization to the home according to nine general headings. "Train and Hope" was to simply train parents to use specific skills and to hope that the parents implemented these skills in the home. "Sequential Modification" consisted of the same type of training which was followed with generalization assessment. When generalization was absent or deficient, training was continued sequentially and systematically in every non-generalized condition across responses, subjects, settings, or experiments. "Introduce to Natural Maintaining Contingencies" was a system which teaches behaviors which have existing reinforcing contingencies in the home setting which maintain the newly acquired behavior. The category of "Train Sufficient Exemplars" consists of initial training with similar exemplars then gradually introducing exemplars of greater diversity. "Train Loosely" was teaching with little stimulus control and little standardization. "Use of Indiscriminable Contingencies" was a procedure which provided varied intermittent reinforcement, assuming that the unpredictability of reinforcement would increase the probability of generalization. "Program Common Stimuli" consisted of teaching stimuli which are common in the home setting. "Mediate Generalization" taught behaviors

which could be utilized readily in new situations. The commonality between the teaching and the problem or new situation promoted generalization. "Train to Generalize" was a procedure which teaches general principles which can be applied to numerous specific situations in the home. This study and the preceeding parent education class were based on all of the categories of generalization except for Train and Hope, Train Loosely, and Use Indiscriminable Contingencies.

Patterson (1973) evaluated the procedure of operationally defining a child behavior, then systematically observing the frequency at which the behavior occurred. Parents were trained to reinforce the decrease in frequency of the operationally defined behavior. Patterson felt long term studies and more studies in general were necessary before concluding the effectiveness of this procedure. Since 1973, this model has been extensively used. However, few follow-up studies of any length have been done and fewer yet have been behavioral, using operationally-defined behaviors which were directly observed in the home setting.

Forehand (1977) reviewed non-compliant child behavior specifically and examined procedures used to train parents to modify non-compliant child behavior. Forehand concluded that the success of many procedures was related to the modification of parental antecedent and consequent behaviors

to produce a change in child behavior. Another significant conclusion resulted from studies of institutionalized children and their parents. Three training methods were studied; training done entirely in the clinical setting, clinical training in the home setting, and training in both settings. Results showed that the most costly and inconvenient procedure, professional training of parents in the home setting, was most effective and produced greater generalization than procedures which were entirely or partially done in the clinical setting.

Roberts, McMahon, Forehand, and Humphreys (1978) studied antecedent and consequent parent responses, pre and post training. Although an empirical data collection system was used to measure parental behavior, the procedure was confounded by the use of audio-equipment or a bugging device worn by the parent enabling the experimenters to give instructions to parents regarding their behavior during the time the pre and post measures were taken. The instructions were given for the purpose of increasing the probability of the occurrence of specified skills which were being taught to the parents. This procedure made it impossible to assess generalization of the skills taught.

Johnson, Christensen and Bellamy (1976) did an evaluation of a family intervention procedure which used audio-recording. This study was an improvement of earlier studies done by Martin, Johnson, Johansson and Wahl (1976),

Johnson and Christensen (1975), and Johnson and Bolstad (1973). Their conclusion was that a better home observation system results from being able to unobtrusively record data by audio-taping, thus avoiding observer reactivity. A better sample of behavior could be recorded due to the simplicity of the observation system since audio-taping can be done anytime. The present study used a similar audio-taping procedure.

Rinn, Vernon and Wise (1975) did a three year program evaluation using a follow-up procedure consisting of randomly selected parents who received telephone interviews, written evaluation forms completed by these parents, and their reports of whether additional help or counseling for child management had been sought or obtained. This was the entire follow-up procedure. No behavioral data was collected in the home setting. Therefore this lengthy study has no actual behavioral data to support its findings which are solely based on parent reported data.

Brubakken, Derovin, and Grueter (1974) trained parents to modify a wide variety of child behaviors by modifying the parental behavior of giving commands. Intensive individualized treatment and home observations of pre and post treatment responding were conducted. Their conclusion was that individualized programs dealing with antecedent parental responses of commands can generalize to the home to modify a wide variety of child behaviors.

The home observation data supported this conclusion. However, the total observation time of approximately four hours was minimal. The present study collected thirty-six hours of data in the home setting.

The object of this study was to answer the following questions.

1. Will booster sessions (conferences) after treatment (parent education class) effect parent responding in the predicted direction?
2. Will parent-trained responding be maintained in the home setting following formal parent training and/or following booster sessions?
3. Are data collected by audio-taping comparable in quality and quantity to data collected by direct observation?

METHODS

Subjects Four families participated in this study. Three families were English speaking, Caucasian Americans. One family was Spanish - English speaking, Caucasian Venezuelans. All families took the same parent education class. All expressed an interest in continuing training at conclusion of the class. Each parent was offered free consultation for participating in the present study. Those who were willing to make a weekly commitment for 12 consecutive weeks were also offered a \$25.00 stipend. The subjects (parents and children) were treated in accordance with APA standards for protection of Human Subjects. The parents signed letters of informed consent after being fully informed of all procedures. The following is a description of each family.

Family A.: A married woman who is a former paralegal with two years of college and is currently staying at home with her only child, a 22 month old son. The father, an attorney, was very interested but did not take the parent education class. He travels a great deal and is away from home about one week out of each month.

Family B.: A young married couple who are graduate students who took the parent education class together. Both were actively involved daily with their 4 month old

son.

Family C: A married couple who took the course together to help with their large combined family of two adults and six teenaged children, all from their previous marriages. Both parents had been single parents for a few years and had recently married about one year before taking the class. Their children were four sons aged 16, 15, 13 and 13 and two daughters aged 14 and 12. The mother is a medical secretary with two years of college education. The father is a former fireman and a skilled worker who is a high school graduate.

Family D.: A married couple who took the class together who have one 3 year old daughter. The mother is a former elementary teacher who is staying home with their child. The father is a college graduate who is a skilled tradesman.

Apparatus The in-home audio-taping was done with inexpensive, portable cassette recorders with contained microphones. The brands of recorders used were Sound Wave distributed by Century House, a mail order company in Eastern United States, and Auditron distributed by Meijer Thrifty Acres of Michigan, United States. The inexpensive cassette tapes were Intermagnetics also distributed by Century House.

Setting In all four cases, the families' homes

were the setting for all data collection and booster sessions. The goal was to have one thirty minute observation and two thirty minute audio-tapes each week. One tape was made simultaneously with the observation period by the observer. The second tape was made by the parents at another time during the week. The observations were planned to be done each week for twelve consecutive weeks, scheduled when it was most likely that the parents and most children would be present. Great efforts were made to schedule the observations at times when it was most convenient for the families and least disruptive to their daily routines and special plans. An attempt was made to vary the day and time of the observations to get a broader sample of behaviors. The families were instructed to go about their activities in the usual way, and no attempts were made to alter the natural setting for the convenience of the observers. The family members moved from room to room at times with the observers following. Additional informal observations were done before actual data collection began to reduce observer reactivity and to train observers.

Experimental Design A multiple baseline design across subjects was planned to achieve experimental control, since the effects of treatment (class and booster sessions) could not be reversed. The three conditions were to have been pretreatment, treatment, and posttreatment. Direct obser-

vation and audio-taping only occurred during pretreatment and posttreatment as planned. Booster sessions were not observed or recorded, although a detailed diary was kept. Booster sessions were continued through the post-treatment condition to give the parents more opportunities for feedback and additional training on different behaviors. It was necessary to do additional training since an average of five behaviors per family were targeted, rather than one or two as planned. Since equally high levels of incorrect responding was seen in two families, booster sessions were implemented sooner than planned, and almost simultaneously. This made it impossible to use the multiple baseline across subjects. Also since the study ran out of time, no true posttreatment without training was conducted. The subjects had only agreed to participate in the study for 13 weeks and could not be available for any longer period of time. Therefore the end result was an AB research design.

Booster Training The independent variable was the individual conferences or booster sessions. After the parent responding in the home showed a stable trend or if incorrect responding was observed at a relatively high level proportionate to the correct level of responding, booster sessions were implemented. Feedback on parent and child responding during observation and audio-taped

sessions was given. All categories of responding were explained and related to the material previously presented in the class. Correct responding was retaught when necessary through definition, demonstration, review of written material (Parents Are Teachers) and supplemental material (Patterson's Families, handouts and copies of lectures from class). Generally the initial booster session was thirty to forty-five minutes in length with succeeding booster sessions of five to fifteen minutes in length. The booster sessions were decreased in length and frequency as soon as a change in responding could be observed. A mean number of five booster sessions were provided.

Data Collection Two methods of data collection were used -- direct observation and audio-taping of the parent-child interactions. Direct observations and a simultaneous audio-tape for a thirty minute period was conducted by trained graduate students. A second thirty minute tape was made by the parents at a different time of the week. All data was recorded and scored similarly. The data collection procedure used frequency recording of each occurrence of the event within the thirty minute session. Since the purpose of the present study was to determine if parent-trained responses of multiple categories were occurring, event recording seemed the most feasible. Another reason for the use of event record-

ing was that the eleven categories of responding observed were very divergent in frequency and duration. Since there was continuous recording for thirty minutes, the first occurrence of the response only, was recorded until there was an offset of the response for approximately five seconds. This data recording rule was specifically designed for responses which were of a long, continuous duration. However most responses were of a short duration and occurred at varying frequencies.

Operational Definitions The dependent variables were several categories of parent and child responses. Antecedent and consequent parent responding were studied. The object was to collect data on the relationship of antecedent and consequent parental behavior to child behavior (Wahler 1969a., Wahler, Winkel, Peterson and Morrison 1974, Brubakken, Derouin, Grueter, 1974). Generally, what has been found to occur is that antecedent parent responses precede the child responses targeted for behavior change and these child behaviors are followed by consequential parent responses. The antecedent parent responses that were observed are 1. Correct Instruction, and 2. Incorrect Instruction. The child behaviors that were observed are 1. Compliance, and 2. Inappropriate Child Behavior. Seven consequent parent behaviors were observed 1. contingent Positive Parent Attention for Appropriate

Child Behavior (Reinforcement), 2. contingent Negative Parent Attention for Inappropriate Child Behavior (Punishment), 3. contingent Positive Parent Attention for Inappropriate Child Behavior (Reinforcement Error), 4. contingent Negative Parent Attention for Appropriate Child Behavior (Punishment Error), 5. specific Descriptive Praise for Appropriate Child Behavior, 6. Response Cost, 7. Timeout (the latter two are specific punishment procedures).

Complete definitions of each of the eleven response categories can be found in Appendix A. The definitions were intended to be mutually exclusive and exhaustive. An attempt was made to choose responses that would be most representative of parent-child interactions, and which were those most emphasized in the previous parent education class.

Data Analysis To analyze specific trends in parent-child responding, the raw data is presented in ratios and rates per minute. A description of each ratio and rate per minute figure is listed in the appendix. These ratios and rates per minute were done to show relationships between responding. However the data collection method of frequency recording does not make it possible to tell if each instance of responding correlated. For example a total of 10 correct instruction responses and a total of

8 Compliance responses could be recorded in a session. A ratio of 80% compliance can be figured without actually knowing whether the first Correct Instruction actually correlates with the first Compliance response and so on.

Reliability The procedure used for assessing inter-observer reliability was smaller number over larger number. The reliability for each of the eleven response categories was computed first using this formula. Then, the mean of these eleven category reliabilities was computed to represent the reliability for the entire session. The inner-observer reliability for the direct observation sessions was 79% (33% of the total sessions). The inner-observer reliability for the audio-tapes done by the parents was 77% (based on 66% of the tapes).

The average reliability between direct observation data and the audio-taped data of direct observation sessions was 62%. The reliability procedure used to compare the quality and quantity of the direct observation data to the audio-taped data was the same as the one used to assess inter-observer reliability. Not all direct observation sessions could be used since some of the audio-tapes of direct observations were inaudible, and were not recorded due to observer error or mechanical difficulties.

The observer training consisted of thorough discussion and memorization of the definitions of each re-

sponse. This was followed by actual practice using the data recording sheet (Appendix A.) to score video-tapes of parent-child interactions from the Ecological Assessment of Child Problem Behavior (Wahler, House, and Stambaugh 1976). In addition, observer training was also done in the home setting. The training occurred over a four week period and consisted of approximately eight hours of practice using the Wahler video-tapes and four hours of practice using actual tapes done by parents and home observation. Reliability checks were planned for fifty percent of the sessions, with a criterion of eighty-five percent reliability. Observer checks were conducted every four weeks to insure against observer drift, and to get additional practice using the Wahler video-tapes and tapes of actual parent-child interactions, since there was difficulty in reaching the eighty-five percent reliability level.

A total of seventy-three sessions or thirty-six hours of data were collected. The amount of data collected on each individual family varied due to the amount of time spent on booster sessions, the parents' willingness to audio-tape data, the availability of observers, and the correlation of family schedules with observer schedules. The study was planned to consist of weekly observations before booster sessions, and if necessary, two sessions per week after booster sessions began. These

plans were changed due to illness of family members and observers, vacations, work schedule changes of family members and of observers. Therefore, observations were not always done at weekly intervals. The time spent on booster sessions went according to the plans outlined in Booster Sessions. The only exception was that more specific behaviors were targeted for change, and therefore, more booster sessions were done than planned. Initial booster sessions took the most time, thirty to forty-five minutes, with following booster sessions taking much less time (five to fifteen minutes). Family B and Family A received booster sessions first because of high rates of incorrect responding.

Figure 1. summarizes all follow-up activities of this study.

Figure 1. A summary of follow-up activities for all sessions.

A SUMMARY OF FOLLOWUP ACTIVITIES BY FAMILY FOR ALL SESSIONS

Family	All	A	B	C	D
Total Sessions	62	16	18	17	10
Total Minutes of Direct Observation	1133	300	315	270	248
Total Minutes of Taped Direct Observation	357	90	147	90	30
Total Minutes of Taping Done by Parents	670	210	190	210	60
Total Number of Conferences	23	6	7	6	4
Total Minutes of Conference Time	360	95	90	90	85
Number of Behaviors Targeted for Conferences	20	7	3	4	6
Total Number of Reliability Checks	20				

RESULTS

The first and the most significant research question was to determine if booster sessions in the home would affect parent responding in the predicted direction. In this portion of the study, the actual intervention procedure was conducted in the home. Responding was recorded, scored, and analyzed to provide feedback for the development of programs for maintenance or change in parent responding. In all four families, responding was predominately correct and appropriate. The parents used mainly positive attention and other reinforcement to shape child behavior. Instructions given were usually correct. Very little punishment was given, and when it was given, it was verbal. After the initial booster session, most parents requested help on all responding that was not correct or that could be improved in any way. The order of treatment was based on the level of correct responding since the levels did vary from family to family. Family E. and Family A. had the highest comparative levels of incorrect responding. Family D. had the highest level of correct responding. The order in which booster sessions were initiated from first to last in order was Family B., Family A., Family C., and Family D.

Individual Family Data

Family B. This family was first to receive booster sessions. Both parents were very positive, giving a great

deal of attention to their infant son. Some of their attention was analyzed as Reinforcement Errors. The infant would cry if he did not want to eat semi-solid foods. The parents would hold him, talk to him, give him his bottle, and stop giving him food when he cried. The infant would cry to get picked up a great deal also. The parents were able to identify their responding as Reinforcement Errors. Reinforcement Errors were occurring at a relatively high frequency compared to the overall level of positive attending. Since the infant was too young to respond to instructions, and the parents were making no other incorrect response patterns, Reinforcement Errors were concentrated on for a reduction in frequency. Inappropriate Child Behavior was also targeted for a reduction. The Mother's mean percentage of Reinforcement Errors was twenty-seven percent before booster sessions, and was reduced to seventeen percent after booster sessions. Figure 2. shows the Mother's mean rate per minute of Reinforcement Errors before and after booster sessions. The Father's mean rate of Reinforcement Errors was seven percent before booster sessions, and three percent after booster sessions. Figure 3. shows the Father's percentage of Reinforcement Errors before and after booster sessions. The two highest data points on each parents' graph represents sessions during which the parent was attending their infant when he was sick, and was crying at a greater frequency.

Figure 2. Family B: Mother's reinforcement errors
before and after booster sessions. ($\frac{E+}{T1}$).

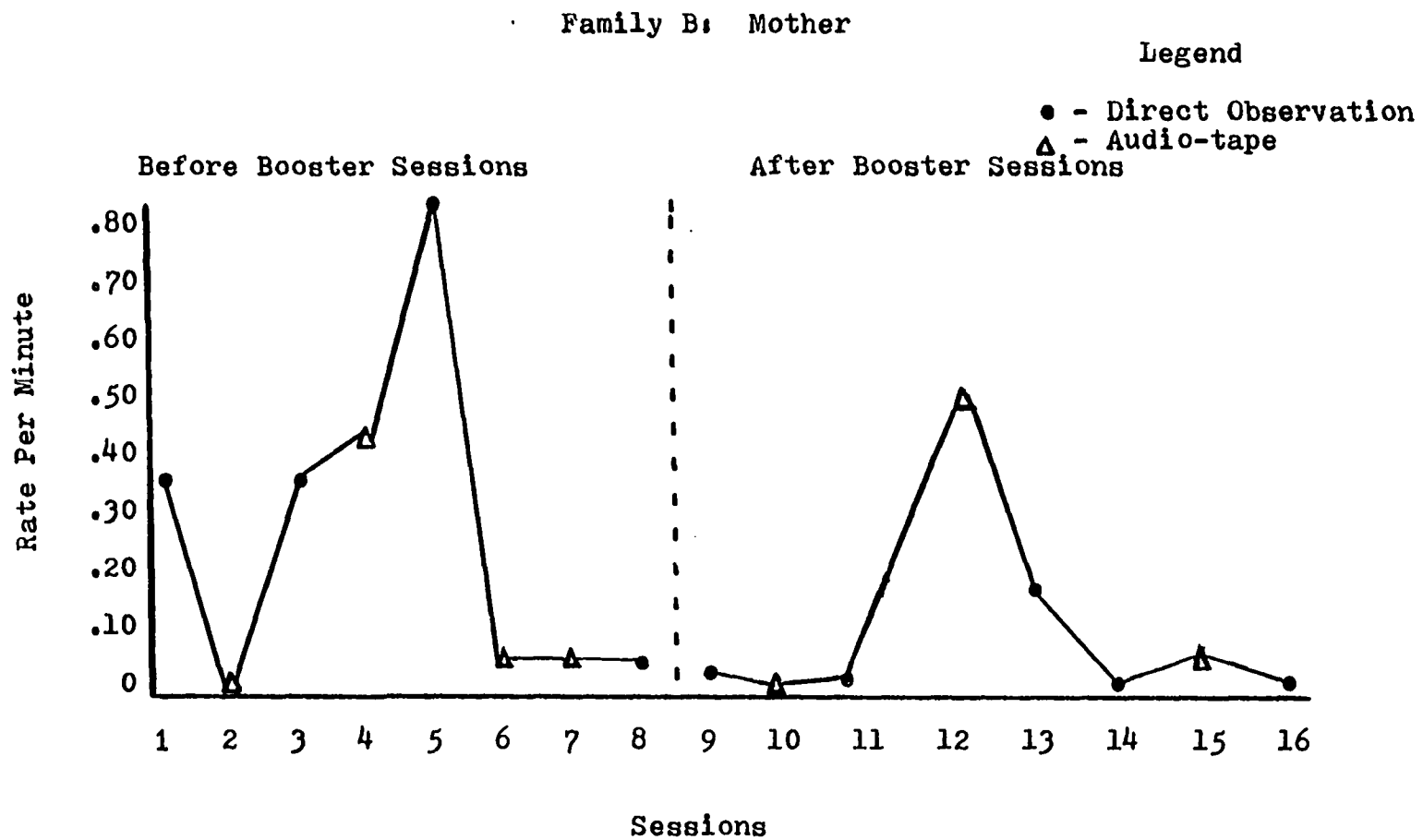
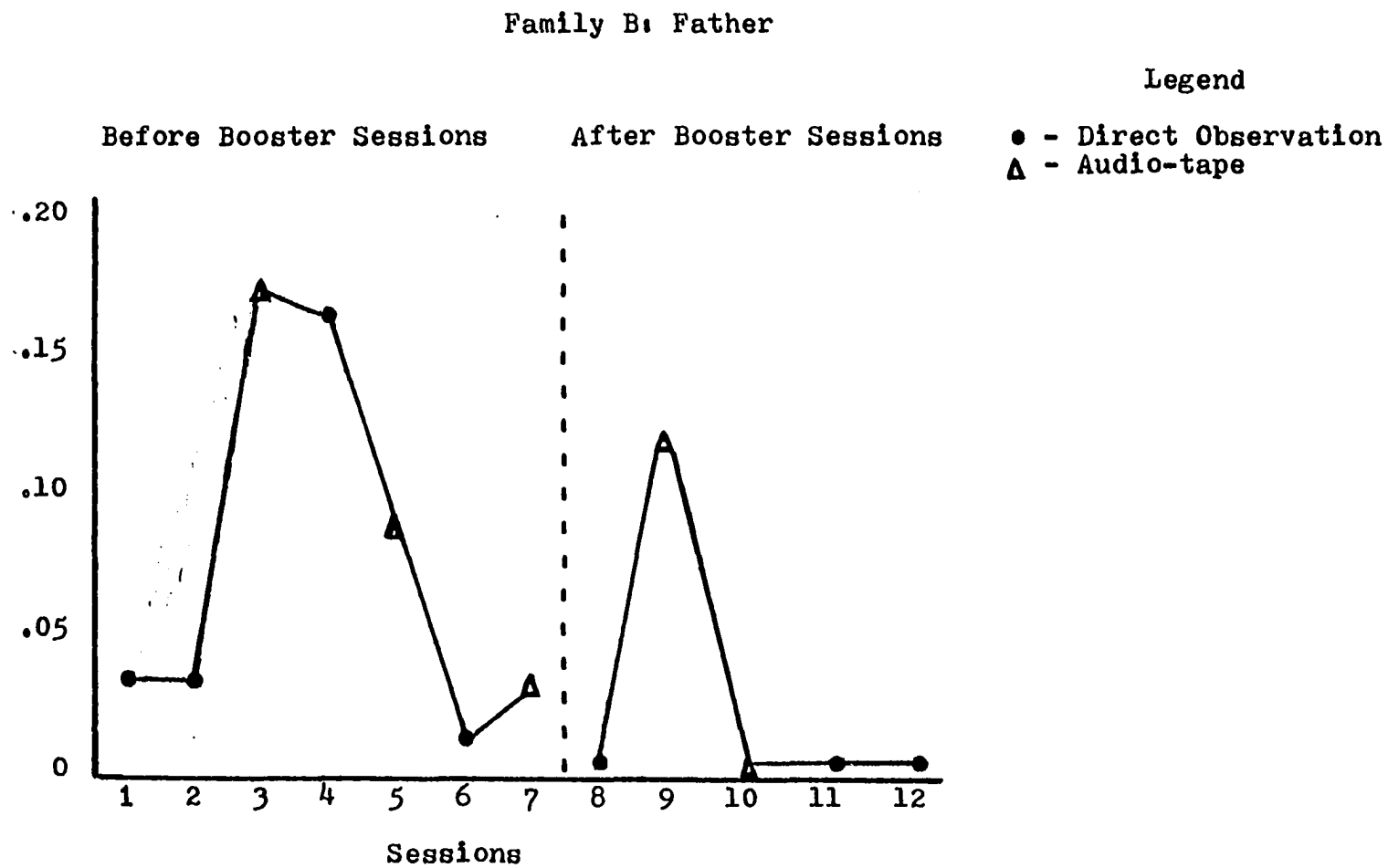


Figure 3. Family B: Father's reinforcement errors before and after booster sessions. ($\frac{E+}{T1}$).



A reduction in the infant crying, or Inappropriate Child Behavior was expected due to the reduction in Reinforcement Errors made by the parents. However the infant crying showed a decrease from a mean rate per minute of .27 before booster sessions to .17 after booster sessions. This relatively small decrease may be explained as being due in part to the attention given to the child when he was sick. Perhaps the partial reinforcement maintained the crying behavior. Also this pattern may have been an extinction burst.

Descriptive Praise was targeted as a correct response to increase since no Descriptive Praise was recorded for either parent before booster sessions were conducted. However, none occurred after booster sessions were conducted. After the initial booster session was conducted, the infant began to crawl and to attempt to sit up. The parents both gave a great deal of positive attention including general statements such as "Good!", "Look at C.!", "What a big boy you are!", "C., Do it again!" The infant seemed to respond to the parents' attention and would repeat attempts at crawling and sitting behavior. The parents were then retaught to use specific Descriptive Praise, such as "Good, you are pushing up on your hands!" "You are up on your knees", "You are holding up your head!" This additional training was good for the parents because it was so practical and related to the situation at hand. It was good for

the infant's language development to hear words specifically describing his actions. This was the last pattern of responding targeted for this family. Also, there were few opportunities to use Descriptive Praise because of the infant's narrow range of acquired behaviors.

Family A. This family had a pattern of responding similar to Family B's. The only exception was that there is no data on the Father's responding since he did not participate in the study. Most of the Mother's parent-child interactions were positive. The Mother's mean percentage of correct positive attention was 80% and increased to 94% after booster sessions were conducted. Even though much positive attention was given, a total of only 4 specific Descriptive Praise responses were recorded before booster sessions. Since there were some high levels of incorrect responding, Descriptive Praise responding was discussed at the initial booster session, but not targeted. An increase did occur since a total of 12 Descriptive Praise responses were recorded after booster sessions were conducted.

The relatively high level of Reinforcement Errors was targeted as the first pattern of responding to correct. The Mother's mean level of Reinforcement Errors was 25% before booster sessions were conducted, and was reduced to a mean of 80% after booster sessions. Along with this parent response, the child response, Inappropriate Child Be-

havior, decreased from a mean rate per minute of .47 to a mean rate per minute of .16. Figure 4. illustrates these changes. The two responses show a similar pattern of reduction and seem related. The second pattern of responding targeted was child Compliance. With the increase of maternal reinforcement for appropriate child behavior rather than for inappropriate child behavior, the 2 year old child in this family seemed to discriminate better between appropriate and inappropriate behavior. Figure 5. shows an increase in child Compliance. The mean Compliance was 68% before booster sessions and increased to 90% after booster sessions. There was also a decrease in negative attention given by the Mother. All of these changes may have helped clarify the expected behavior for the child by providing more consistent contingences for his behavior.

The final response pattern targeted was Incorrect Instructions. A proportionately high level of 21% Incorrect Instructions out of all instructions given was recorded before booster sessions were conducted. Too many instructions were given or repeated. Often instructions were repeated as the child was attempting to comply, and the parental behavior interrupted the compliance, or made it impossible to initiate compliance at all. Since this was the final parental response targeted there was less time in which change could be seen. A second feedback or booster session dealing only with Incorrect Instructions seemed to promote a

Figure 4. Family A: Mother's reinforcement errors before and after booster sessions compared to child's inappropriate behavior before and after booster sessions. ($\frac{E+}{Ti}$ and $\frac{I}{Ti}$).

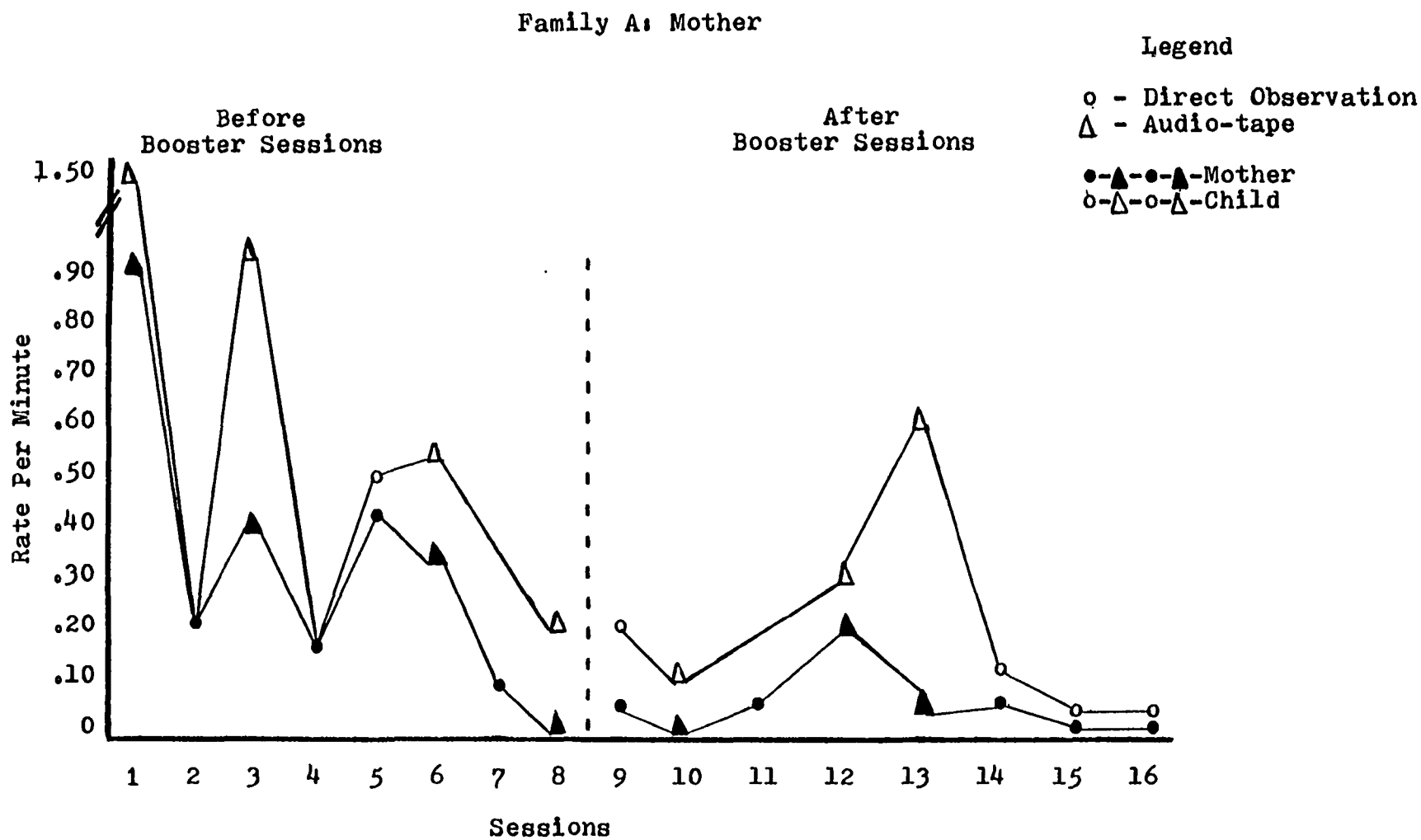
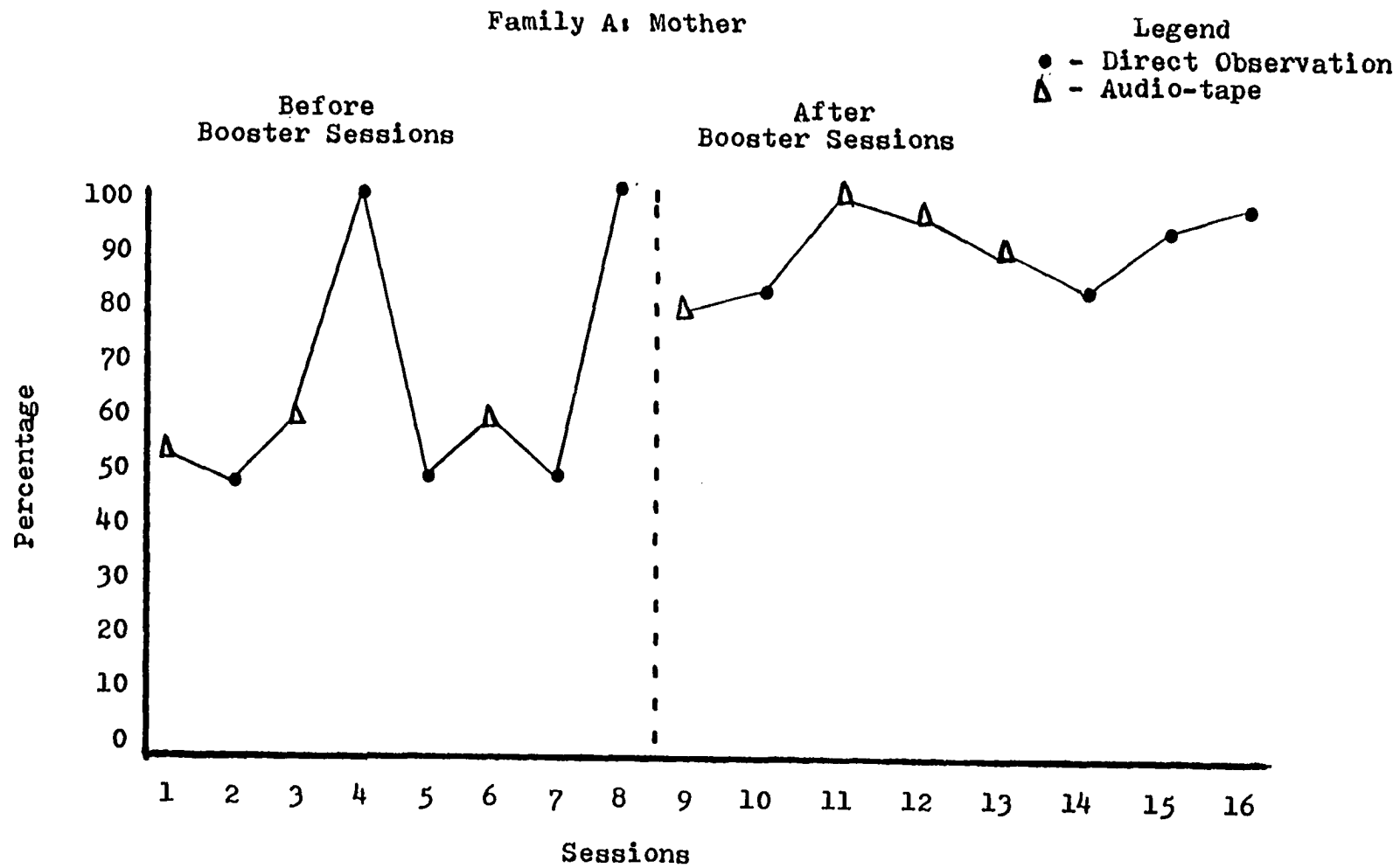


Figure 5. Family A: Child compliance before and after booster sessions. ($\frac{C}{CI,II}$).



change in responding. Figure 6. shows this pattern. During the last two sessions, a relatively minimal level of Incorrect Instructions can be seen.

Family C. Positive trends or changes in the predicted direction occurred with Family C. This family had a behavior change project in operation during the entire study. The six teenagers in this family had daily household tasks which were performed to earn points which were exchanged for participation in activities such as weekends at grandparents, school events, movies, etc. The tasks were alternated among the six children with some variation to accommodate the younger children's abilities. The parents checked work daily and awarded points for tasks completed satisfactorily and/or tasks completed early. Incorrect responding was comparatively minimal compared to correct responding. However significant changes can be seen in the targeted responses Punishment Errors and Incorrect Instructions. Although both parents were providing more positive attention than negative attention, some incorrect negative attention was recorded. Before booster sessions, Incorrect Instructions were at a mean level of 20% for the Mother, and were eliminated after booster sessions. Both parents reduced the amount of Punishment Errors. The Mother's errors began to decrease before booster sessions and were maintained at a mean rate per minute of .03 (see Figure 7.) The Father's were elimin-

Figure 6. Family A: Mother's percentage of incorrect instructions before and after booster sessions.

$$\left(\frac{II}{II, CI} \right).$$

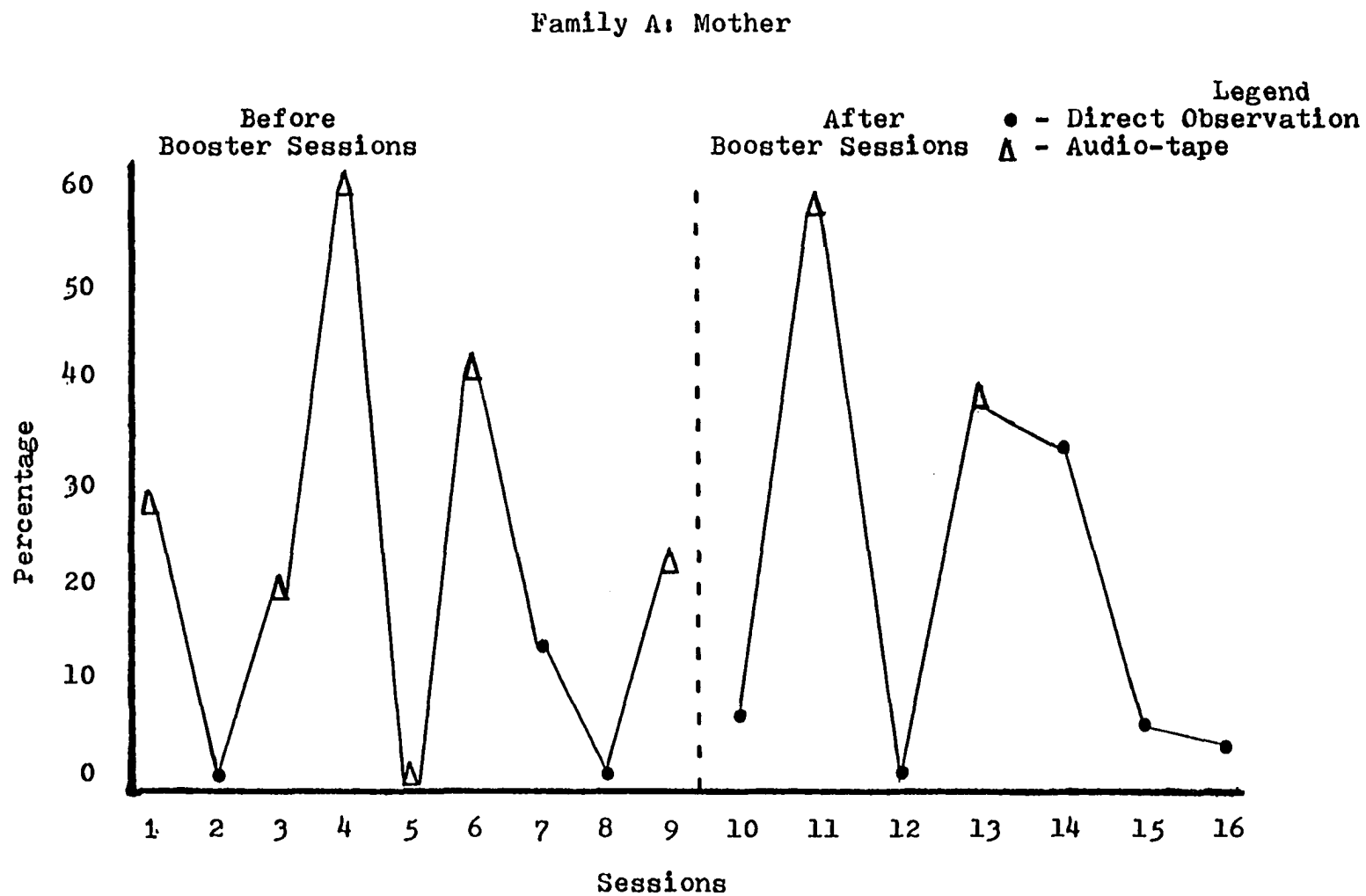
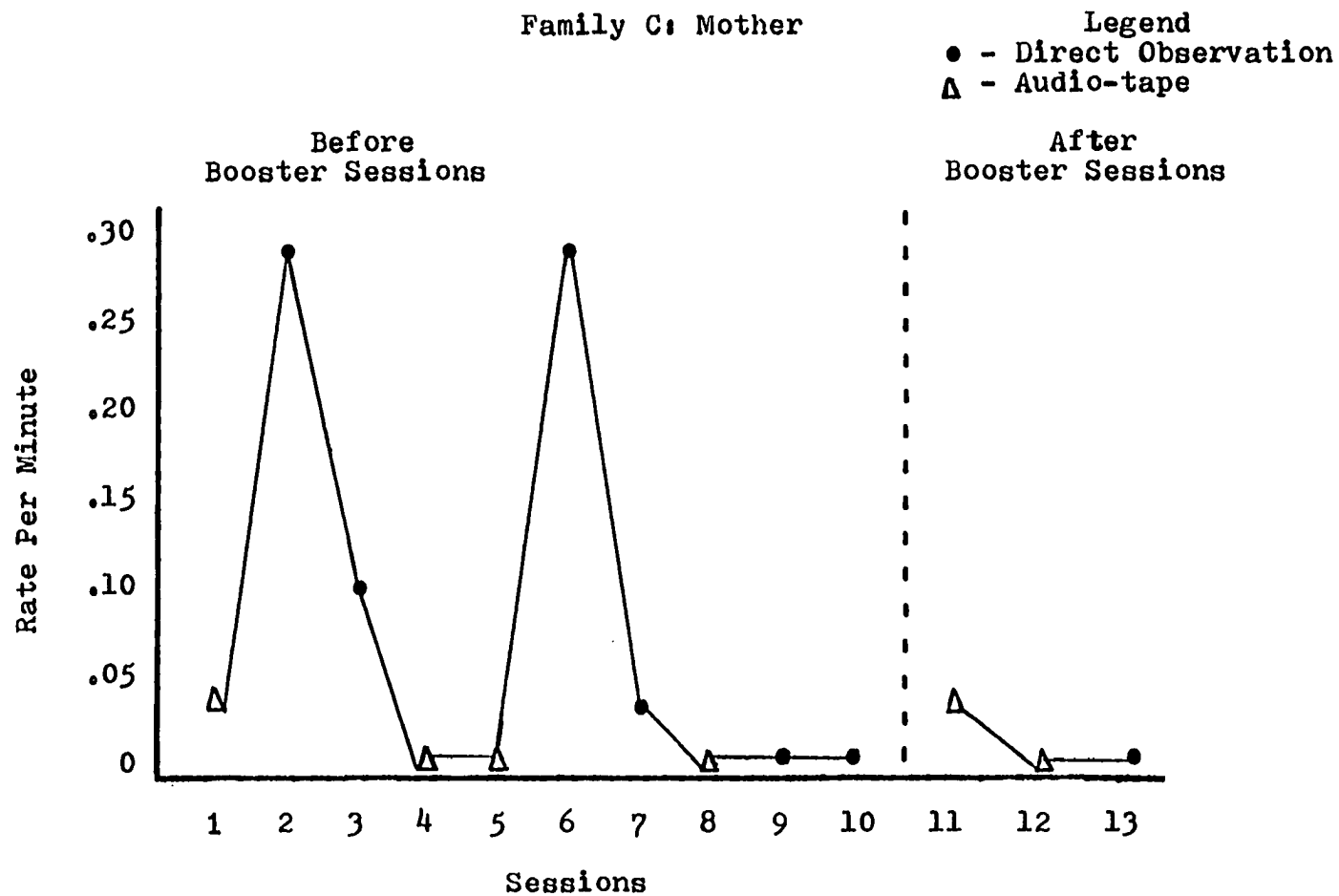


Figure 7. Family C: Mother's punishment errors
before and after booster sessions. ($\frac{E-}{Ti}$).



ated (see Figure 8.). The nature of the incorrect negative responding was entirely verbal.

The incorrect negative attention was verbal statements, usually criticisms or reprimands made about previous inappropriate behavior while the child was behaving appropriately. The Incorrect Instructions usually involved a negative tone of voice, a critical comment or a verbal threat. Correct punishment involved a verbal description of appropriate behavior and a request for the appropriate behavior.

Negative attention, for appropriate or inappropriate child behavior, given by both parents was reduced after the booster sessions. However, the reduction in negative attention can be seen before the booster sessions were conducted for the Father, as well as for the Mother.

Since both parents increased the amount of positive attention given for appropriate child behavior, the reduction in negative attention seemed related. Also, a reduction in the Inappropriate Child responses occurred.

These were mainly negative, verbal statements made to siblings and parents. This reduction seemed to follow the Mother's pattern of the reduction of punishment errors. Figure 9. shows the mean rate per minute of Inappropriate Child responses for all six children.

Compliance was reported to be a problem by both parents during the class. The data did not support this parental report. Compliance when averaged among all six

Figure 8. Family C: Father's punishment errors
before and after booster sessions. ($\frac{E-}{Ti}$).

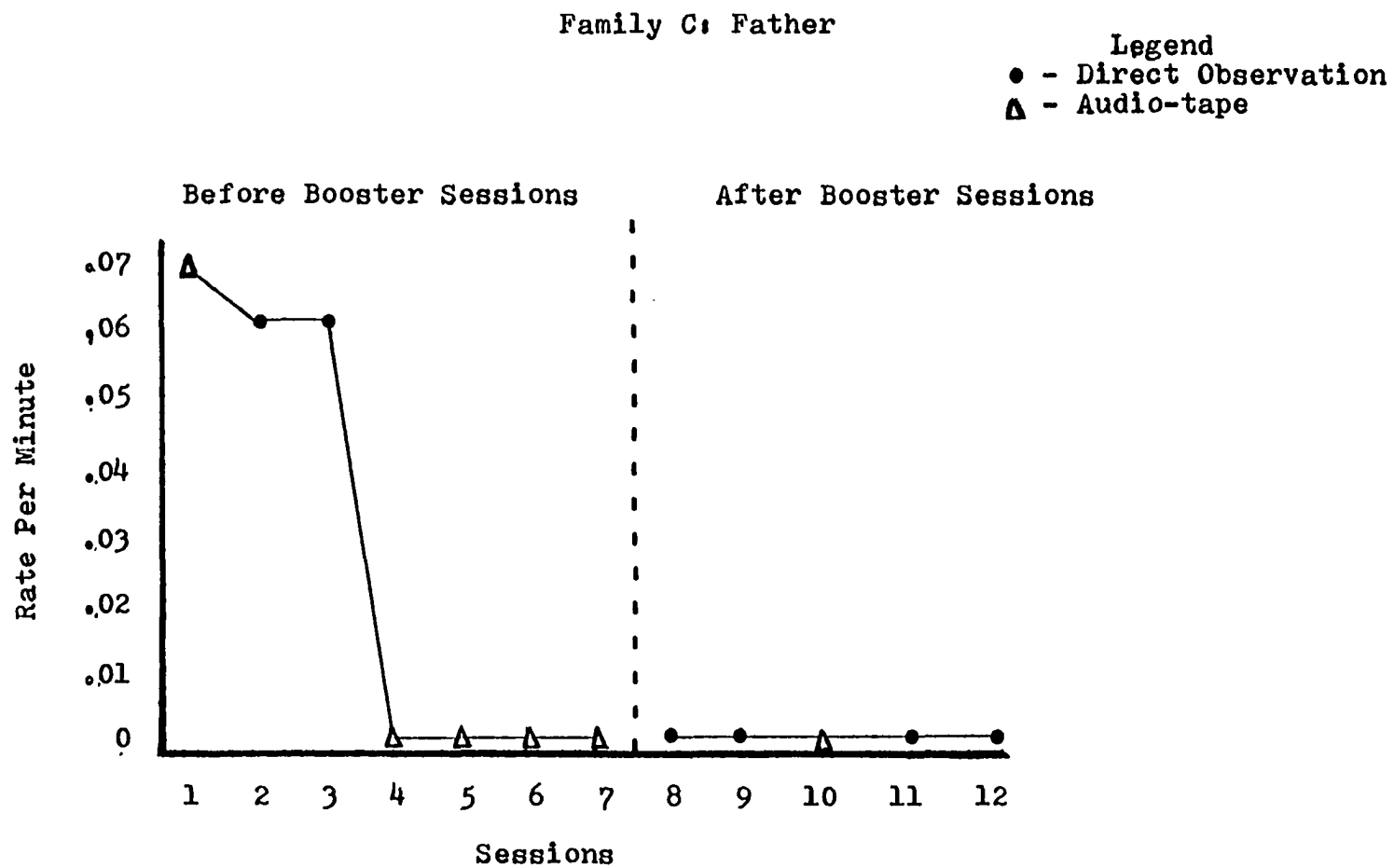


Figure 9. Family C: Mean rate of inappropriate child behavior for all children before and after booster sessions.

$$\left(\frac{I}{Ti} \right).$$

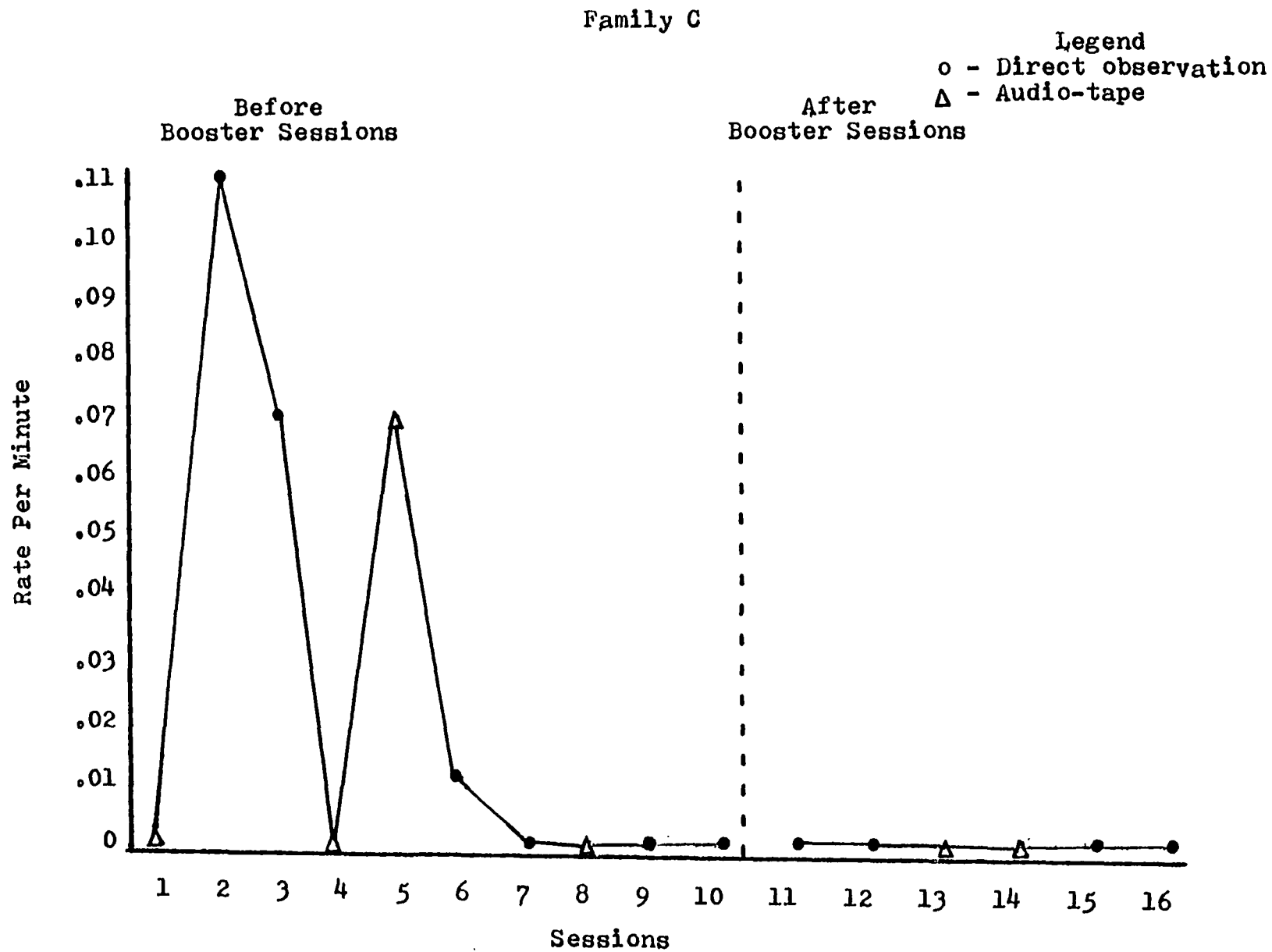
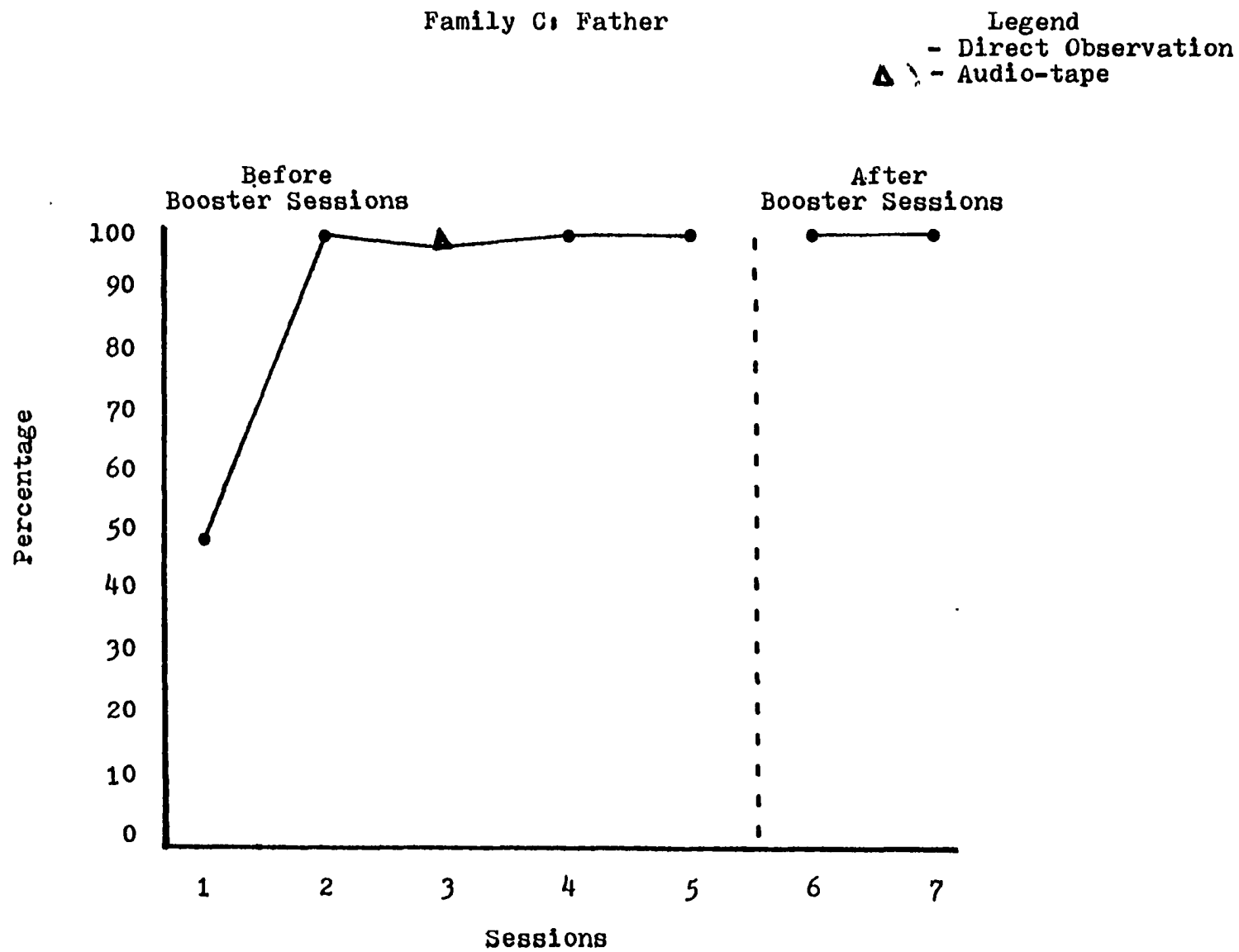


Figure 11. Family C: Mean compliance for all children to Father before and after booster sessions. ($\frac{C}{CI}$).

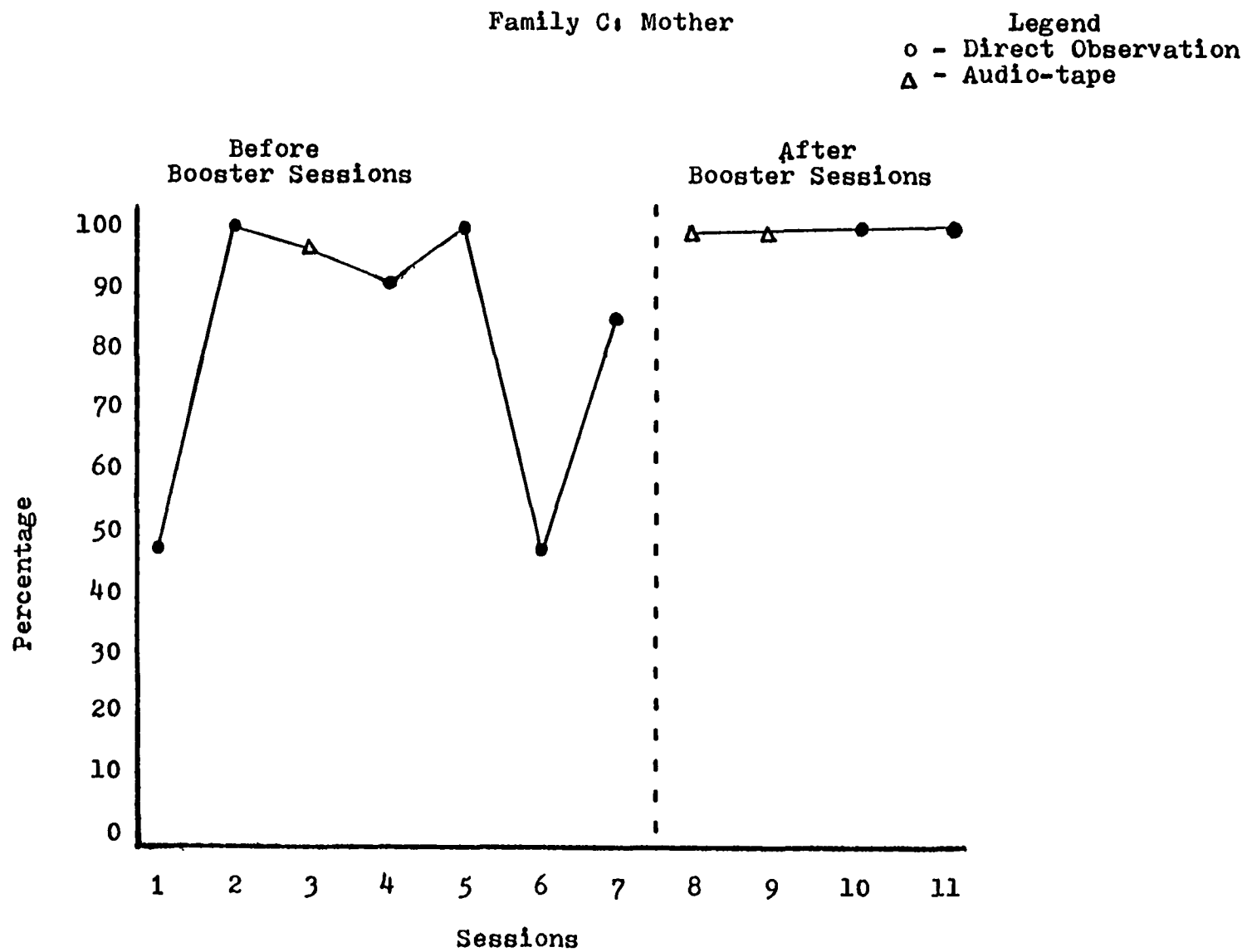


children was above 80% most of the time. Compliance data taken for each parent for each child showed that the Mother's compliance ratio was not as high as the Father's. Also, for both parents, individual child responding was different. Before booster sessions two children out of six were more non-compliant than compliant. Both parents seemed to focus on the two children who were more non-compliant rather than the four who were more compliant. As the reduction in negative attention and the increased positive attention which occurred, compliance became consistently high for both parents for all six children. Figure 10. and 11. show the average compliance for the Mother and Father before and after booster sessions respectively.

Another positive change in responding was that an increase in Descriptive Praise occurred. Before booster sessions, the Mother was observed to make only one response and the Father made none. After this was pointed out during the initial booster session, the Mother made a total of 6 responses and the Father made a total of 3 responses. Both parents were advised to try to continue increasing this correct responding at the end of the study. The increase occurred after other patterns of responding changed, and in the last sessions.

Family D. This family showed the most correct patterns of responding among the four families in the study. This was especially the case with the Mother's response

Figure 10. Family C: Mean compliance for all children to Mother before and after booster sessions. ($\frac{C}{CI}$).



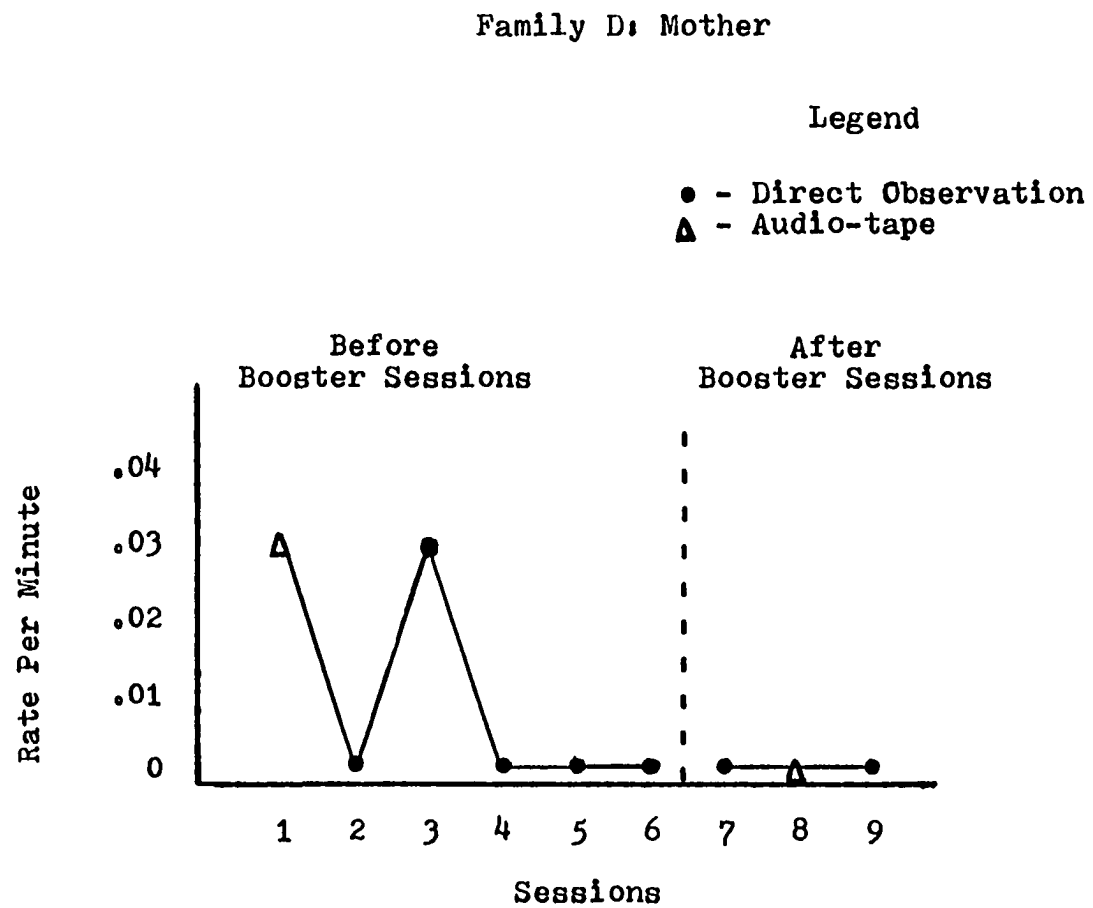
patterns. She was observed to be giving all Correct Instructions and no incorrect attention, Reinforcement Errors or Punishment Errors after booster sessions were conducted. The 3 year old daughter was complying with all instructions given and was emitting no Inappropriate Child Behavior towards the Mother. The Father's minimally incorrect response patterns were reduced or started to decrease after booster sessions were conducted. The first parent response targeted was Reinforcement Errors which seemed to be effecting Compliance and Inappropriate Child Behavior. Further analysis also seemed to indicate that the level of Incorrect Instructions, especially in the case of the Father, was also significant.

The Mother's correct responding patterns were stable before booster sessions were initiated. The Mother's rate of Reinforcement Errors shows a reduction before booster sessions and continues throughout the study (see Figure 12). No punishment Errors were observed to occur in the Mother's responding. The Mother's mean level of incorrect attention was 3% before booster sessions were conducted and were completely reduced after booster sessions were conducted.

The Father's mean level of incorrect attention was 6% before booster sessions and 1% after booster sessions were conducted. Responding consisted primarily of Reinforcement Errors.

Punishment Errors were recorded during one session only

Figure 12. Family D: Mother's reinforcement errors
before and after booster sessions. ($\frac{E+}{Ti}$).



before booster sessions so this pattern was not targeted.

Although the proportion of incorrect attention decreased, the rate of Reinforcement Errors did not show a similar consistent reduction as can be seen in Figure 13. The mean rate per minute of .04 is reduced to a rate of .03. The overall proportion of correct attention seemed to be effected more by the fact that the Father's mean percentage of correct attention increased from 95% to 99% and his mean rate per minute of correct positive attention increased from .60 to 1.07.

Compliance was nearly perfect and always above acceptable levels towards the Mother (see Figure 14). Compliance was at a mean level of 55% towards the Father before booster sessions were conducted. It was improved to a mean of 90% (see Figure 15). These parents also reported child compliance to be a problem during the class. Again the data did not show this to be the case.

The rate per minute of Inappropriate Child Behavior towards both parents was similar. However after booster sessions were conducted the pattern follows the Father's rate of Reinforcement Errors more closely. Figure 16. shows that a reduction in the rate of Inappropriate Child Behavior occurred towards the Mother. Figure 17. shows that a reduction also occurs towards the Father which is followed by an increase for the last session.

The Mother was observed to be making Incorrect In-

Figure 13. Family D: Father's reinforcement errors
before and after booster sessions. ($\frac{E+}{T1}$).

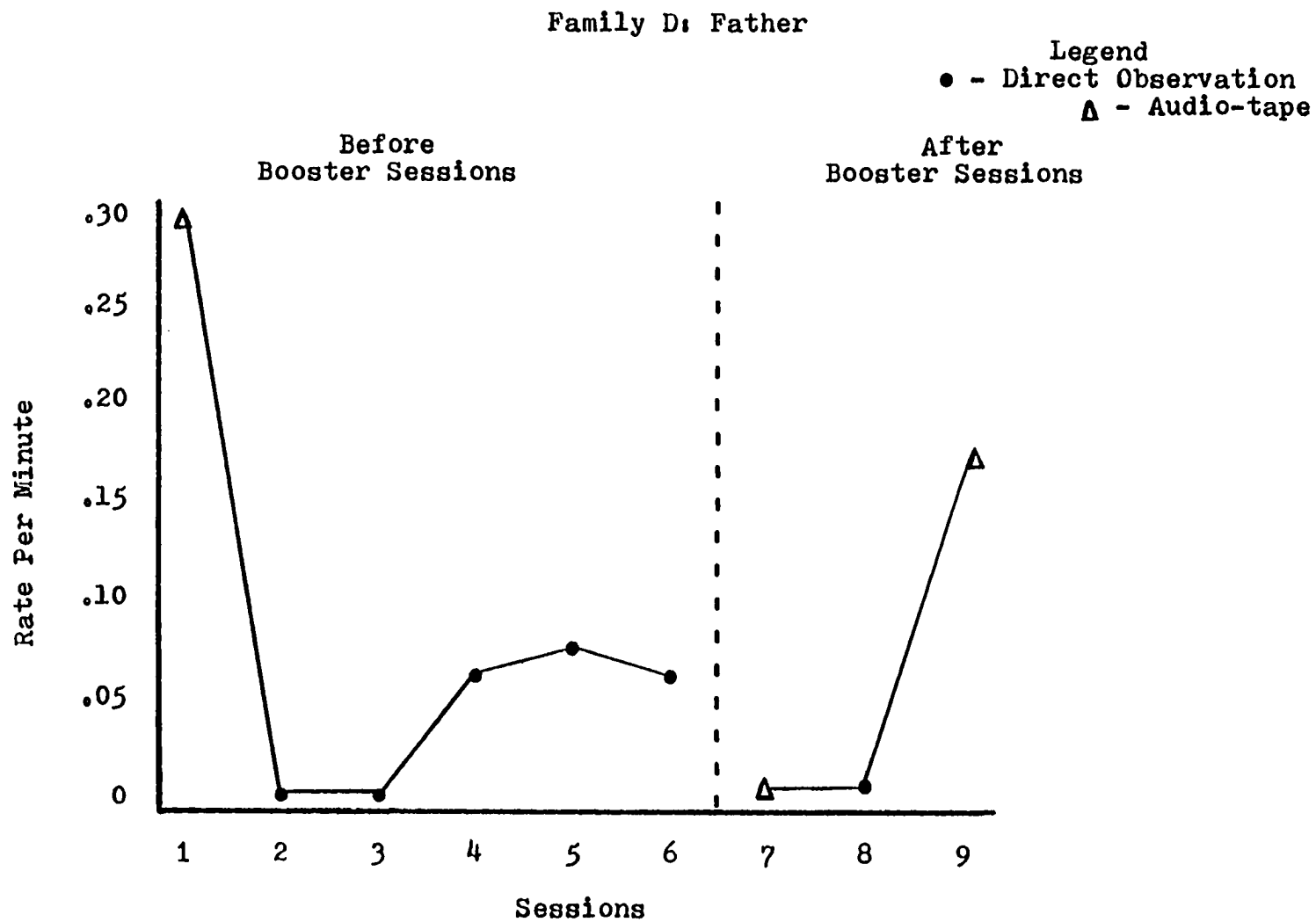


Figure 14. Family D: Child compliance to Mother
before and after booster sessions. ($\frac{C}{CI}$).

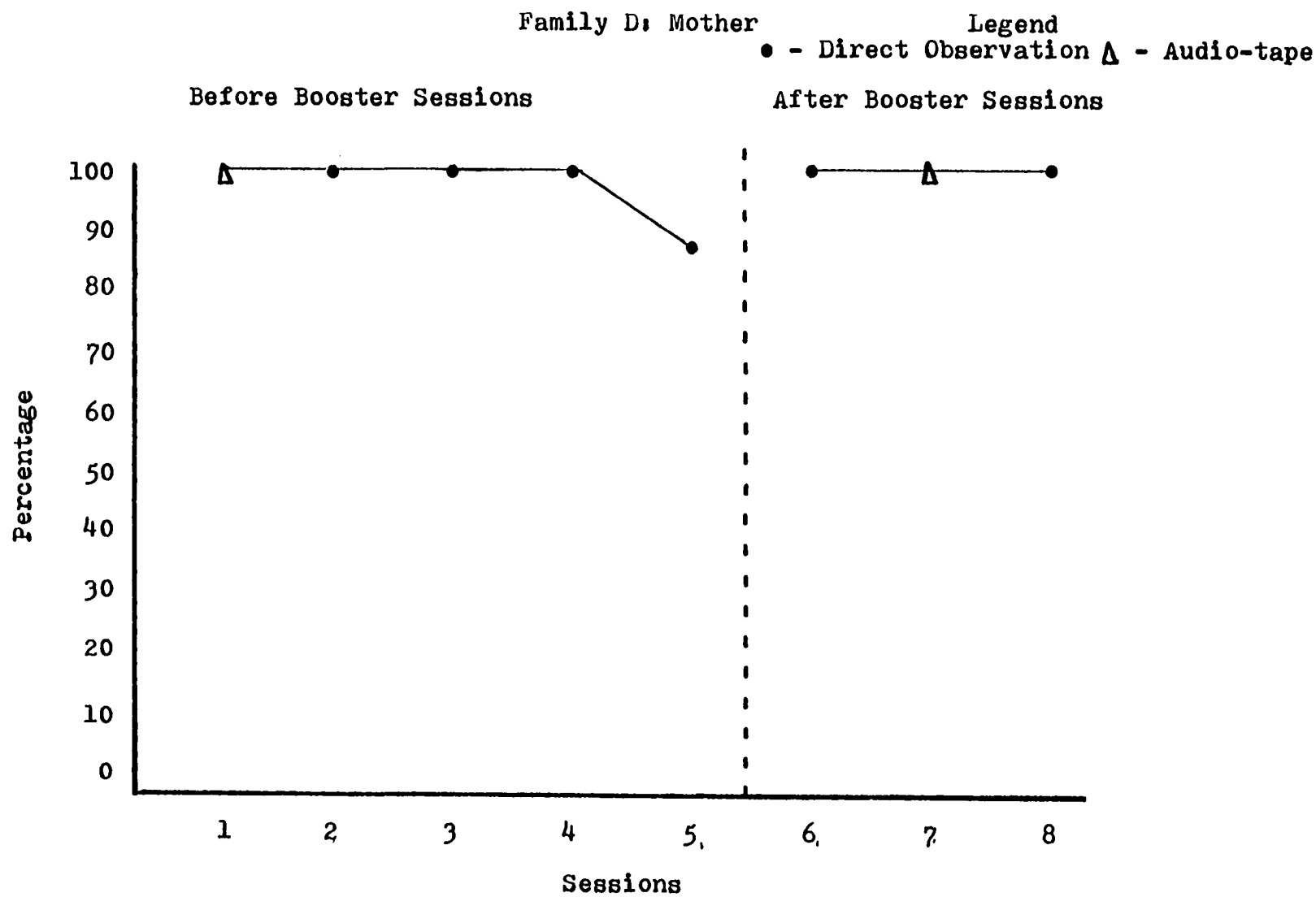


Figure 15. Family D: Child compliance to Father
before and after booster sessions. ($\frac{C}{CI}$).

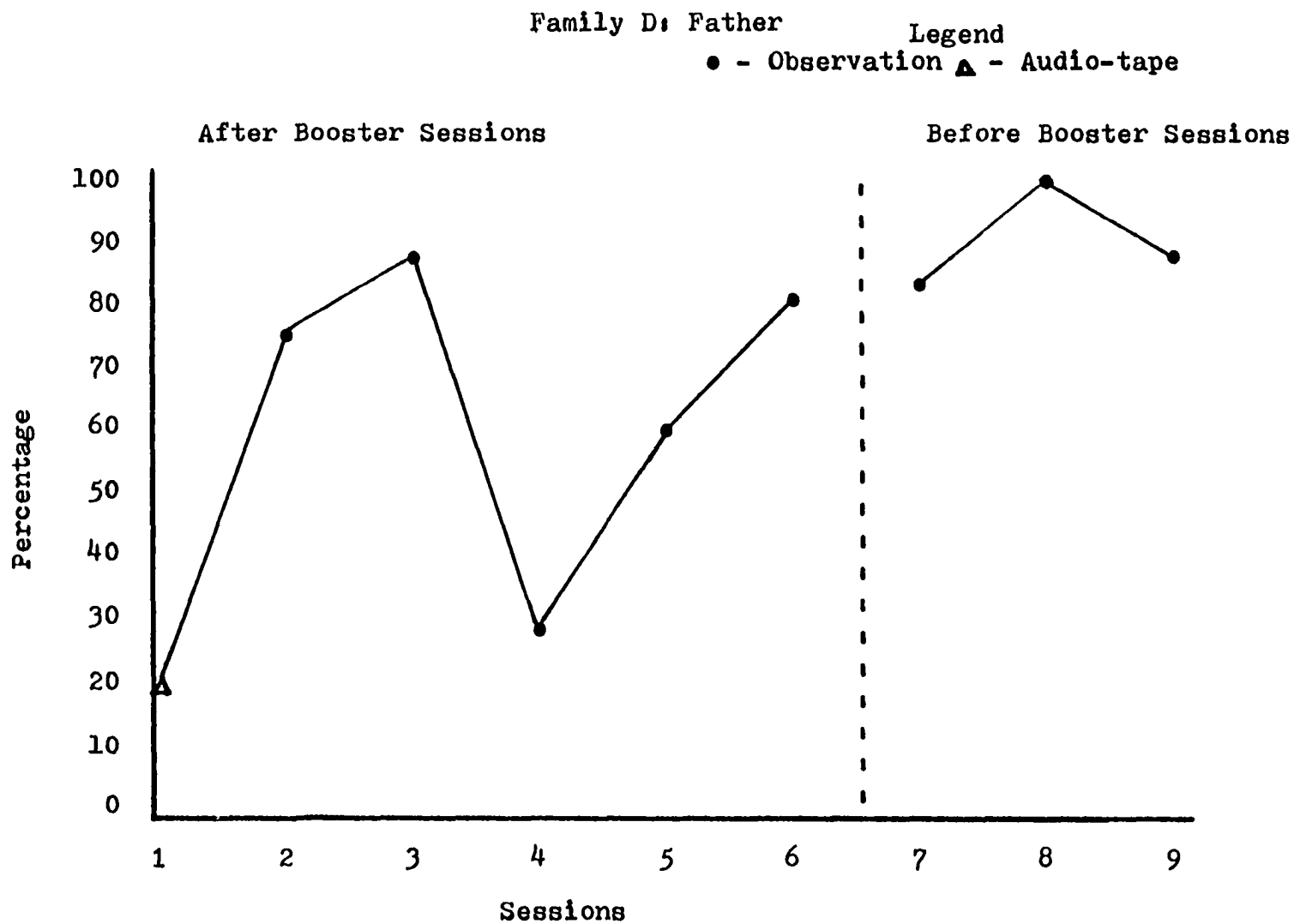


Figure 16. Family D: Rate of inappropriate child behavior to Mother before and after booster sessions.

($\frac{I}{T_i}$).

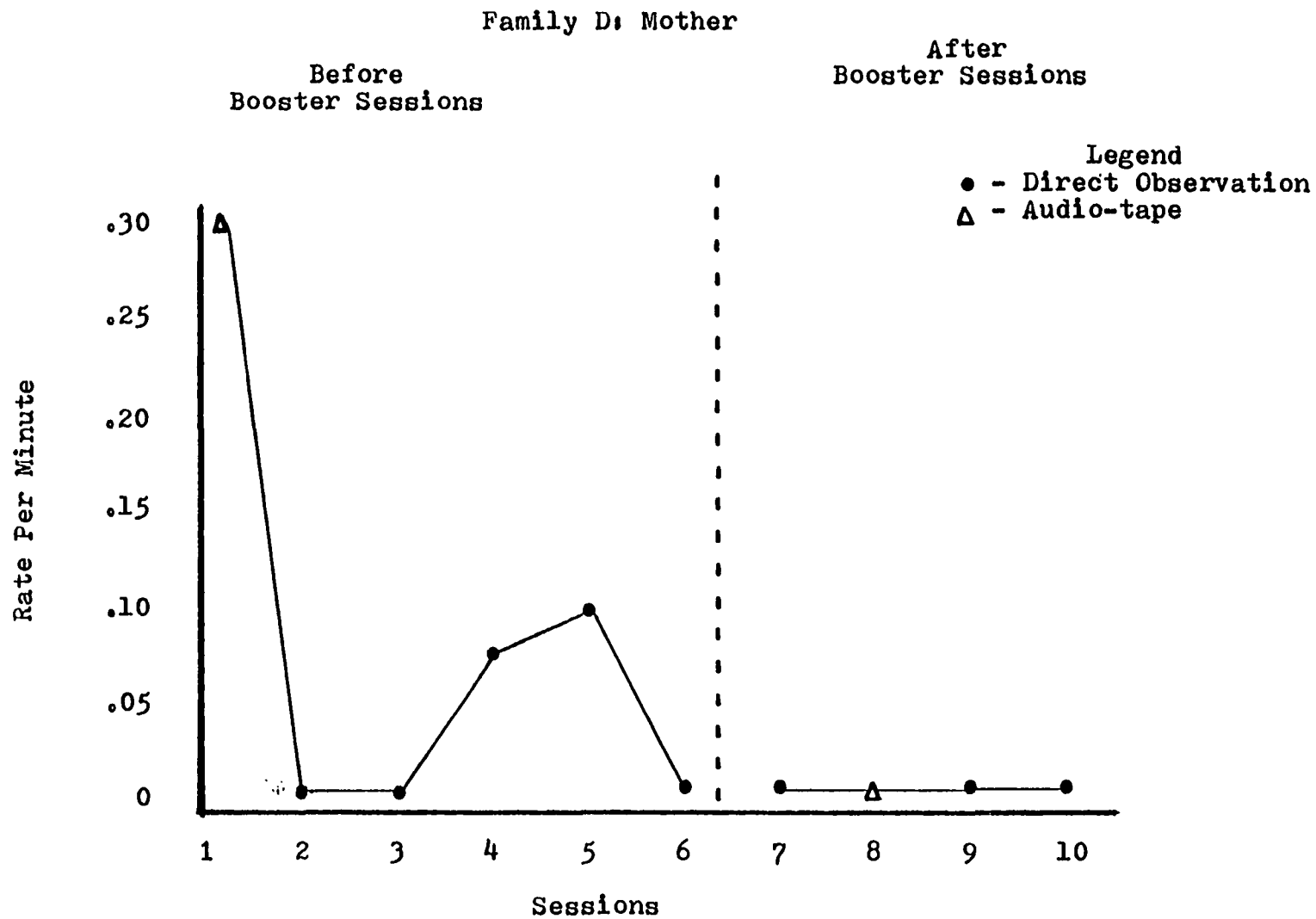
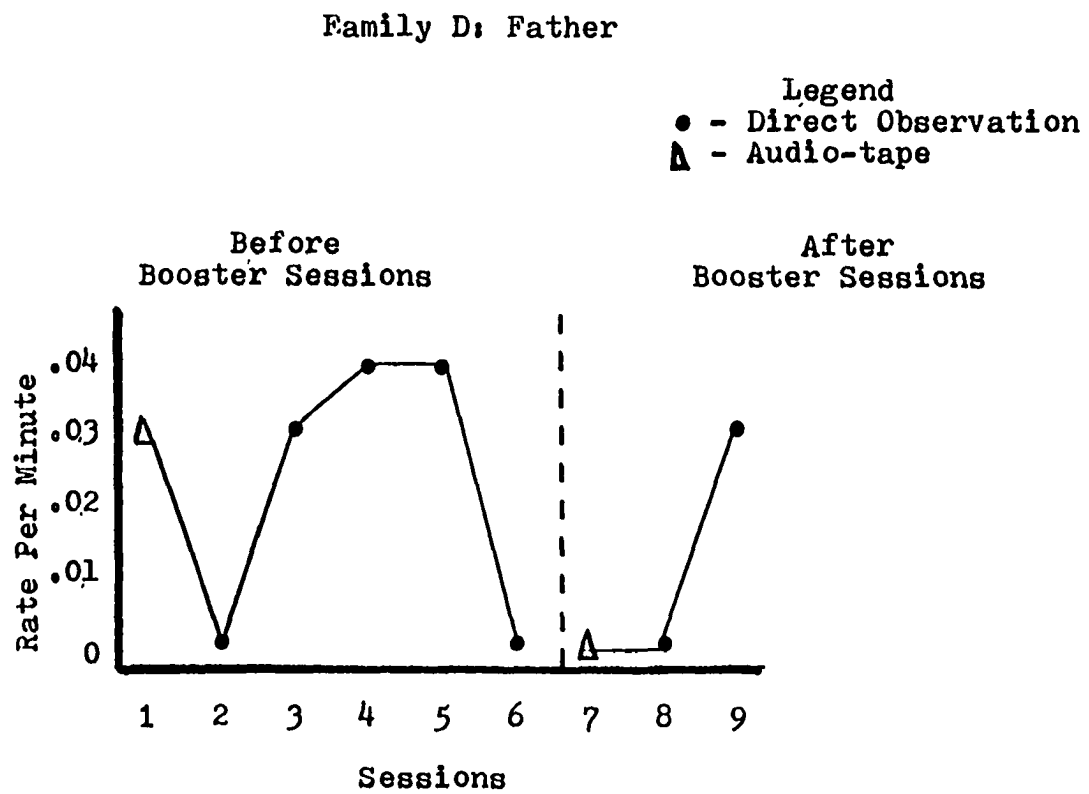


Figure 17. Family D: Rate of inappropriate child behavior to Father before and after booster sessions.

($\frac{I}{T_i}$).



structions during one session only. Therefore her response pattern regarding instructions was not targeted (see Figure 18.). The Father's mean level of Incorrect Instructions was 16% before booster sessions and 17% after booster sessions. His incorrect instructions consisted mainly of repeats and were given with negative facial expressions and/or with a negative tone of voice (see Figure 19.). The 3 year old daughter seemed to find the negative actions amusing rather than threatening. She seemed to be ignoring the negative actions as well as not complying. She would generally comply if the instruction was repeated and positively presented by her Father. In this way the Father seemed to be reinforcing delayed compliance and the daughter seemed to be reinforcing incorrect instructions. There was no time to change this pattern although it was discussed with the parents and they were able to see the related patterns of responding.

The use of Descriptive Praise was the final area of responding discussed with this family. Although it was pointed out that no Descriptive Praise responses were made before booster sessions, not much change occurred afterwards. The Father made a total of 3 responses and the Mother made none. It was advised that both parents could begin to try to increase their responding in this area since other areas were now improved or improving. Descriptive Praise was retaught.

Figure 18. Family D: Mother's percentage of incorrect instructions before and after booster sessions.

($\frac{II}{CI, II}$).

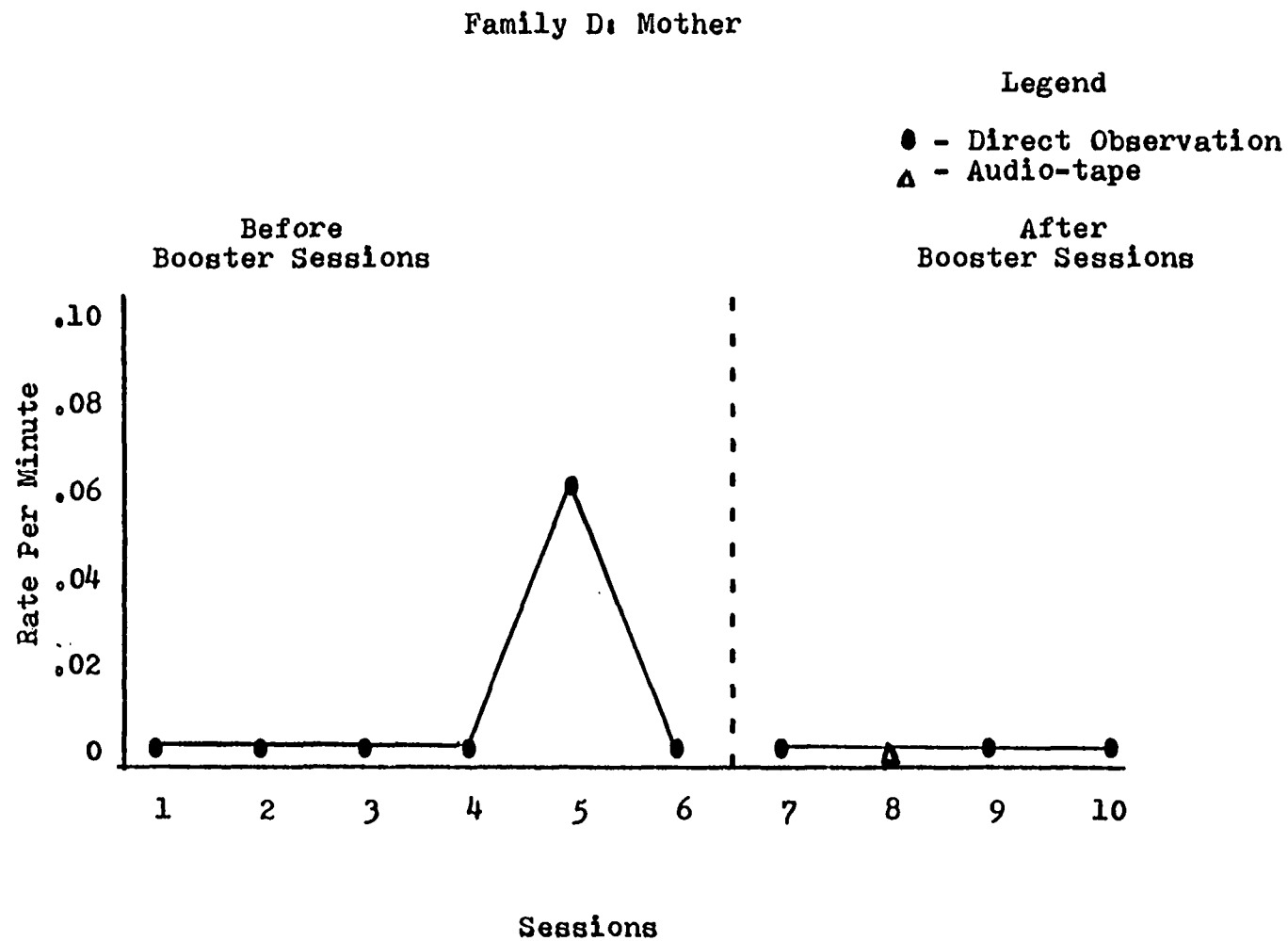
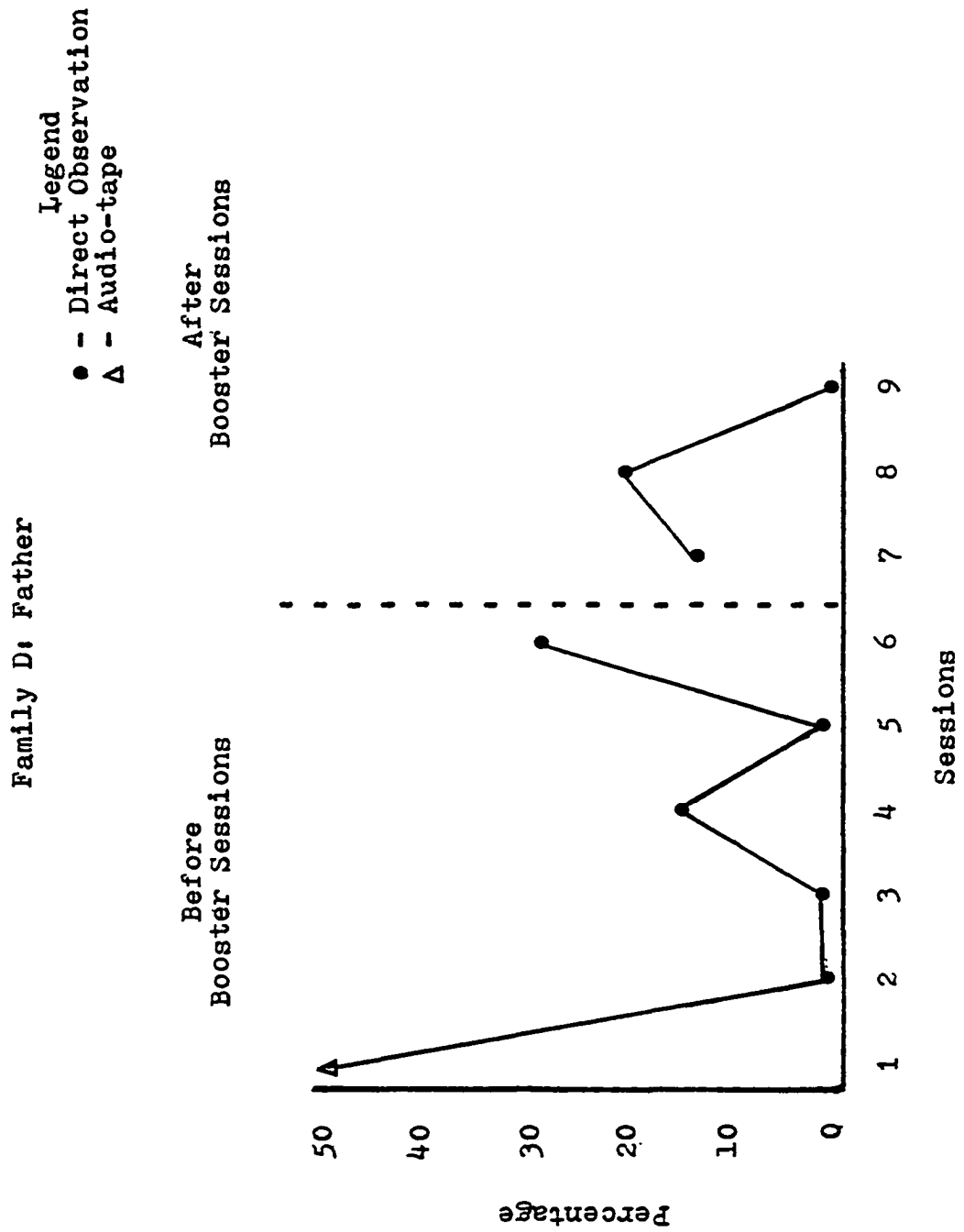


Figure 19. Family D: Father's percentage of incorrect instructions before and after booster sessions. ($\frac{II}{II,CI}$).



The second question the present study dealt with was whether parent-trained responding from the previous class could be maintained in the home, and whether booster session training would also be maintained in the home. Of the eleven response categories selected for observation, eight were observed throughout the study. Those were 1. Correct Instruction, 2. Incorrect Instruction, 3. Compliance, 4. Inappropriate Child Behavior, 5. Positive Attention for Appropriate Child Behavior, 6. Negative Attention for Inappropriate Child Behavior, 7. Positive Attention for Inappropriate Child Behavior or Reinforcement Errors, 8. Negative Attention for Appropriate Child Behavior or Punishment Errors, and 9. Descriptive Praise. Descriptive Praise occurred the least frequently but at a higher rate after the booster sessions were conducted. Time Out and Response Cost, the remaining two categories, were not observed. Most responding related to the selected categories was correctly applied in the home setting, and according to the principles taught in the class. Parental response patterns were changed in the predicted direction with incorrect responding decreasing or ceasing. This was usually followed by the predicted changes in child responding such as improvement in Compliance.

After booster sessions were conducted, all families maintained relatively higher levels of correct responding. Since the booster sessions had a provision for a fading

out procedure in which feedback on responding was gradually diminished in frequency and duration, the probability of the correct responding being maintained independently in the home setting was increased. Also, the fact that more than one response was targeted made the initial feedback most important and influential. Parents had to maintain correct responding on the first targeted incorrect response before the second incorrect response was dealt with.

Of the eleven selected categories of responding, a large variance was evident in the frequency at which these responses occurred. High frequency categories were Positive Attention for Appropriate Child Behavior, Correct Instruction and Compliance respectively. These were designated or prescribed as being desirable, effective behaviors, and were most emphasized in the previous parent education class. Of the categories designated as not desirable, Inappropriate Child Behavior occurred at the highest level, followed in order by Incorrect Instruction, Reinforcement Errors, and Punishment Errors.

Of the responses designated as desirable and effective, the response occurring at the lowest relative frequency was Descriptive Praise. Two responses were not observed, Response Cost and Time Out. Since some Inappropriate Child Behavior was reported verbally by the parents during class, and was observed during the Study, some instances of Response Cost and Time Out were expected to occur.

After the Booster Sessions, there were some differences in the relative frequency of responding on each category. The most notable changes were a decrease in the relative frequency of Inappropriate Child Behavior, Reinforcement Errors (Positive Attention for Inappropriate Child Behavior), Punishment Errors (Negative Attention for Appropriate Child Behavior), and Incorrect Instruction; and an increase in Descriptive Praise.

Descriptive Praise responses were not recorded, or recorded at a low frequency before booster sessions began for each family. The initial booster session consisted of defining and discussing each of the eleven response categories. General responding trends were discussed for each category. Parental feedback on high and low rates of correct and incorrect responding was given. In all families it was specifically pointed out during this initial conference that Descriptive Praise was occurring at a very low level, if at all. However, since all four families had other more serious patterns of responding which required change, Descriptive Praise was not the first targeted response, if targeted at all. For example, both parents in Family B. had a high level of Positive Attention for Inappropriate Child Behavior relative to their level of responding in other response categories. Their infant was given much attention for crying when it was being fed and did not seem to want to eat, when he was put in his play-

pen, etc. Since the infant was learning to cry often but was not old enough to understand Descriptive Praise, reduction of parent consequent responding of Positive Attention for Inappropriate Child Behavior was selected for change. Table 2. is a summary of the frequency of the response of Descriptive Praise. It seems that by showing the parents the absence of responding and emphasizing the usefulness of Descriptive Praise, some change was seen after the initial booster session in Family A's responding. However the change seen in responding of Families C. and D. did not occur until Descriptive Praise was specifically pointed out for a second time during the booster sessions. Changes occurred during the last three sessions; or later.

TOTAL NUMBER OF DESCRIPTIVE PRAISES OBSERVED
BEFORE AND AFTER CONFERENCES

Family	A	B	C	D
Parent	M F	M F	M F	M F
Before Conferences	4	1 1	1 0	0 0
After Conferences	12	0 0	6 3	1 3

The final question dealt with the comparison of two data collection procedures, direct observation and audio-recording. When the data was compared using the inter-observer reliability formula, the differences in the two sets of data are

DISCUSSION

The effects of the booster sessions on the parent-child responding may have been significant. Changes in the predicted direction occurred for all subjects in most of the eleven selected response categories. All correct patterns of responding, such as Positive Parent Attention for Appropriate Child Behavior, Correct Instructions, and Compliance occurred at a greater frequency following training. All incorrect patterns of responding were improved to some extent also. For example, there was a relative decrease in the frequency of Reinforcement Errors, Incorrect Instructions, Punishment Errors, and Inappropriate Child Behavior. It appears that better conditions for generalization and maintenance of responding in the home setting does occur when training is partially done in the home also. Studies by Lovas, Koegel, Simmons, and Long (1973), and Stokes and Baer (1979) had similar conclusions.

Booster Session training in the home seems to have provided more immediate, visible, positive contingencies for the maintenance of correct parent responding by increasing their effectiveness in child management on a practical basis. With the more immediate feedback on responding from the trainer during booster sessions, the parents were better able to discriminate their crucial antecedent and consequent behaviors and see the effects of these behaviors on

the child behaviors. Clearer understanding of the contingencies for both parent and child responding seem to positively enhance parent-child interactions.

The present study also duplicates the findings of the Koegel and Rincover (1977) study on generalization and maintenance of responding studied separately. Generalization was defined as the initial responding after training in the natural environment whereas maintenance was the continued responding in the natural environment. This study dealt more with the maintenance of responding than actual generalization. It was assumed that generalization occurred after the parent education class but there was parent reported data only since no behavioral data on responding was done prior to the class. It is assumed that the eleven selected categories of responding were taught during class and were not part of the subjects' behavior repertoire, or that if the responses existed in their repertoire, that responding was improved by the class. The functional relationship is more evident however, between the pre-booster responding and the post-booster responding that was conducted in the home setting after the class. Clearly a relationship can be seen regarding the effects of booster training on the maintenance of correct responding.

Responding was observed in all eleven categories with

the child behaviors. Clearer understanding of the contingencies for both parent and child responding seem to positively enhance parent-child interactions.

Responding was observed in all eleven categories with the exception of Response Cost and Timeout. Apparently these two categories were very low frequency behaviors since all other punishment behaviors were observed at a low frequency. During the parent education class the parents reported high rates of inappropriate child behaviors in the home. It was assumed that Response Cost and Timeout would be necessary procedures for child management for these parents. Yet when follow-up was done, the frequency of inappropriate behavior was relatively minimal to all behaviors emitted by the children. This leads to a similar conclusion of the one made by Eyeberg and Johnson (1974) that parent-reports differ from behavioral data. Parents or subjects may not be able to accurately assess their own behavior.

The over-all reliability was not at an acceptable level, nor the comparison or reliability of the audio-taped data to the direct observation was as high as was expected. Several factors may be accountable. The eleven selected categories of responding were defined using as much physical behavior as verbal behavior. This may have resulted in a loss of data, since physical responding could not have been recorded from the audio-tapes. For example, Compliance often

was a physical act requiring no verbalization on the part of the child. Unless a verbal response was required to a parental instruction, it was not possible to record the occurrence of Compliance from the audio-tape.

Much of the parental attention was also physical, and therefore could not have been recorded from the audio-tapes. Behaviors such as holding, hugging, smiling, taking objects, or feeding would have been missed on the tapes. Sometimes the opposite case would result in more data being recorded by the audio-taping than direct observation. The audio-tape would record verbal responses that were not audible to the observer. For example, during an observation session, the parent requested a specific verbal response, and the observer recorded that no child response was made. The parent was also observed as responding as if no child response was made. Later, the audio-tape of this observation session indicated that a child response was made. After analyzing the specific conditions of this observation session it was noted that the audio-recorder was within one and half feet of the child, and in far closer proximity to the child than either the observer or the parent.

The level of correct parental responding seemed to correlate with the type of data collection procedure. More correct or appropriate behavior was observed during direct

observation sessions. Most of the factors raised so far have dealt with the imperfections of this study and the possible effects these had on the outcome. Another explanation for the difference between the direct observation data and the audio-taped data may be the subjects' reactivity to the observers' presence. Parents and children both may have been cued by the observers' presence to perform at higher levels of correct responding. Johnson and Bolstad (1973) concluded that the only reliable data collection procedure was an unobtrusive one, such as audio-taping.

The audio-taping equipment was not of a high quality because of the costliness of quality equipment. Often tapes were of such a poor quality that they were entirely inaudible. In an attempt to keep costs to a minimal level much audio-taped data was lost or was difficult to score accurately because of inaudibility.

Observers who did not do the direct observations were used to score the audio-tapes a second time for reliability. From an empirical point, this was a better procedure. However, persons who were unfamiliar with the family members had difficulty identifying members or understanding their specific speech patterns. Other related factors were technical. The audio-recorders were difficult to move unobtrusively. This had to be done when the subjects moved even from one portion of a large room to another. The audio-recorders could be run

off household current or by batteries. Sometimes the batteries would fail during an observation period before it was expected that recharging was necessary. The audio-tapes were often used a second time to save on costs. The recycled tapes often had a great deal of static or background noise which interfered with audibility.

Overall the study would have more empirical significance if data had been collected prior to the parent education class. The follow-up was conducted for thirteen weeks starting three weeks after the class was completed. Observer training was done for four weeks prior to the follow-up. More observer training would have improved reliability. Also, better equipment and more attention to the technical and mechanical details of audio-taping would have improved the quality and quantity of data. Other data recording procedures such as interval recording and sequential event recording may have improved reliability. The complexities of these systems when used with audio-taping are a challenge that would have required a far more sophisticated procedure and more synchronized audio-recorders would have had to be in operation simultaneously to provide the interval cues to observers and to reliability observers while another audio-recorder was recording the session.

Finally, the study would have provided more significant results if the follow-up could have been conducted over several months rather than several weeks.

This study did not allow for loss of data due to the absence of subjects or observers. Nor did it allow enough time for booster training. Since the subjects had agreed in advance to be available for only 13 weeks, these factors could not be dealt with in the time allotted.

The results of this study tentatively suggests that both direct observation and audio-taping can be used as behavioral data collection procedures which can be used with booster training in the home setting to improve and maintain responding. Whether this study has generality, a procedure which will obtain an identical functional relationship between the dependent and independent variables in other settings or with other subjects is not certain. (Johnston and Pennypacker, 1979). Inadequate measurement procedures in this study would have to be perfected. An interval recording system and more stringent inter-observer reliability would be necessary. Also a better research design would have to be used to maintain experimental control so that the functional relationship between the variables could be shown. The nature of the data collected is descriptive and therefore all results can not be considered significant without further, more rigorous empirical study.

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OBSERVER MANUAL
PARENT TRAINING

Followup Study

Spring, 1979

Definitions

I. Correct Instruction

A correct command is one made by the parent instructing the child to do a specific act. It can be an imperative such as "Do this," or indirectly stated such as an interrogative, "Will you do this?" Ambiguous commands or interrogatives which do not specify an act are not correct instruction, such as "Be nice," or "Can you be nice?" It must consist of all of the following:

1. Designate an obvious referent such as "pick up your shoes."
2. Specify an act of compliance, something that child does.
3. Can be initiated by the child with-in ten seconds.
4. State clearly in words the child is likely to understand. The vocabulary fits the age of the child.
5. Stated in a normal tone of voice (calm, moderate).
6. Does not specify the positive or aversive consequences such as a threat or bribe.
7. It is the first command requiring compliance (not a repetition).
8. Physical contact or gestures are positive (no shaking head, finger, fist, no grabbing, shaking, spanking).

Non Examples

Non Examples (Cont.)

1. Parent says, "If you don't straighten-up I'm locking you in the car while I shop."
2. "If you stop crying and come to the table, you can have ice cream for dessert."
3. Parent says "Do you think you can act like an adult today?"
4. Parent slaps the child and says, "I told you not to do that yesterday."

Examples

1. Parent asks the child to put his shirt and pants on first.
2. Parent asks the child to zip her jacket and put her hat on before going outside.
3. Don't pound the clay on the table.
4. Go to your room now.
5. It's time for dinner.

II. Incorrect Command

An incorrect command made by the parent instructing the child to do an act. It consists of one or more of the following:

1. Does not state clearly a specific act.
2. Does not require compliance at all.
3. Does not require initiation of compliance immediately or within ten seconds.
4. Compliance or non-compliance can't be assessed since the observer or parent can't tell if the child complies.
5. Must be a specific act that the child can perform, something which can be seen which

Incorrect Command (Cont.)

the child does.

6. Is aversive or aggressive because of the content of the statement, voice quality, gestures and/or physical contact made with the child such as hitting, spanking, grabbing.
7. States consequences as threats or bribes.
8. It is a repetition unless the child requests a repetition (and then only once). The same instruction was given before ten seconds has passed from the previous instruction.

Examples

1. Parent says "If you do that again, I'll spank you!"
2. Parent slaps child and says "You brat, I told you before not to make faces at me."
3. Parent says "If you are good I'll give you a surprise."
4. Parent says "Do you want to be nice?"
5. Parent says to nine month-child, "Stop crying right now!"

Non-Examples

1. Parent says "Remember to close the door on the way out please."
2. Parent says "If you pick up your toys, play without fighting today, you may earn a special snack this afternoon."
3. Parent says "You are hitting again. The rule is no hitting. You will have to go to time out if you hit again. Tell me the rule about hitting? What will happen if you hit again?"

III. Compliance

Compliance (Cont.)

The child initiates compliance within ten seconds after the instruction is given by the parent. (A child may act inappropriately but still comply with a specific instruction).

Examples

1. The parent says "Please close the door." The child closes the door within ten seconds.
2. The parent says, "Wash your hands before you sit down to eat." The child gets up and says "You are so fussy", on the way to the bathroom, and he washes his hands.
3. The child cleans his room for five minutes as instructed, then leaves the mess to go play outside, after the parent says "Clean up your room before you go outside."
4. The child cleans up her room complaining and crying until it's finished then goes outside.
5. The child calls his parent a name but starts to take out the garbage within ten seconds of the parent's instruction to do so.

Non-Examples

1. The parent says, "Please hang up your coat," The child leaves his coat on a chair and asks, "What's for dinner?"
2. The parent says, "Put your toys away before dinner." The child plays five minutes more until dinner is ready, picks up one toy, then comes to the table.

IV. Contingent Positive Parental Attention for Appropriate Behavior

The parent provides some kind of contingent positive attention to the child for appropriate behavior with-

IV. Contingent Positive Parental Attention for Appropriate Behavior (Cont.)

in two seconds following the behavior. It consists of any of the following parent behaviors:

1. Physical contact of any kind with the child, such as touching, hugging, patting, kissing, hair mussing.
2. Positive gesturing directed to the child, such as waving, clapping.
3. Positive vocalizations directed to the child, such as "good girl", "beautiful", "fantastic", "good", "O.K.", which do not constitute descriptive praise (see definition).

Examples

1. Smiling and watching the child clean up his room.
2. Hugging the child and saying that was what a big girl does.
3. Reading a favorite story to the child or playing a game with the child.
4. Talking to the child about his day at school, smiling, asking questions to show interest.

Non-Examples

1. Child tells parent that he cleaned his room. The parent grunts but does not look up from the book she's reading.
2. The child says he cleared off the table. The parent says, "It's about time you did some work, take out the garbage too."

V. Contingent Negative Attention for Inappropriate Child Behavior

Any negative or punitive parent behavior which is directed to the child within three seconds following inappropriate child behavior. It is judged to be nega-

V. Contingent Negative Attention for Inappropriate Child Behavior (Cont.)

tive because of the aggressive behavior of the parent, the voice quality of the parent and/or the content of the statement. It consists of any of the following parent behavior:

1. Any physical contact of a negative nature with the child such as grabbing, slapping, spanking, pushing, restraining.
2. Any gestures such as shaking a finger or a fist, directed to the child.
3. Any statements directed to the child that are critical, ridiculing, insulting, screamed, or threatened.

Examples

1. The child hitting a child, then parent slaps the child and says, "I've told you before not to hit other children."
2. The child breaks a dish. The parent grabs the child, saying "You clumsy, stupid brat."

Non-Examples

1. The child bites another child. The parent takes the child to time-out.
2. The child colors on the wall. The parent puts the crayons away for two days and calmly asks the child to wash the wall.

VI. Positive Attention for Inappropriate Child Behavior (Reinforcement Error)

Any Positive parent behavior which is directed to the child while the child is acting inappropriately or within three seconds following an instance of inappropriate behavior. It consists of any of the following parent behaviors:

1. Any physical contact with the child such as

VI. Positive Attention for Inappropriate Child Behavior
(Reinforcement Error) (Cont.)

hugging, patting the child on the head.

2. Any gestures, such as clapping hands, nodding head yes, directed to the child.
3. Any statements directed to the child such as "poor baby", sympathetic comments, explanatory comments, constructively critical comments, laughing, agreement with the child.

Examples

1. The child is crying and refuses to stay in bed. The parent holds the child saying sympathetically, "You know you have to get some sleep so you won't be tired tomorrow."
2. The child calls someone a name. The parent laughs and says, "You shouldn't say that word."
3. The child complains about having to do a chore. The parent helps the child do the work explaining why learning to work independently is important.

Non-Examples

1. The child brings home a bad report card. The parent says, "I'm glad you showed this to me but you can do better than this. Let's start working on these needs to do better subjects at home. We can work together for a half hour each school night. Also, I'm going to ask your teacher to send home papers each week so we can see how you are doing."
2. The child breaks a rule, the parent instructs the child to repeat the rule and perform the correct behavior.

VII. Negative Attention for Appropriate Child Behavior
(Punishment Error)

VII. Negative Attention for Appropriate Child Behavior (Punishment Error) (Cont.)

Any negative behavior directed to the child while the child is acting appropriately or within three seconds following appropriate behavior. It is judged to be negative because of the aggressive behavior of the parent, the voice quality of the parent, and/or the content of the statements or parental gestures. It consists of any of the following parent behaviors:

1. Any aggressive physical contact with the child such as grabbing, spanking, shaking.
2. Any negative gestures such as shaking head no, finger or fist.
3. Any harsh or subtle aggressive statements directed to the child such as criticisms, ridicule, insults, threats, sarcasm.

Examples

1. The child is looking at a book quietly. The parent says "Hey stupid, why aren't you doing your math?"
2. The child is washing the dishes. The parent says "Don't forget that if those dishes aren't done right, you'll have to do them over again."
3. The child says "I love you." The parent says "Big deal."

Non-Examples

1. The child is washing the dishes. The parent gives the instruction "When you finish the dishes, please take out the trash."
2. The child complies with a rule. The parent then gives incorrect instruction, such as, "If you are good, I'll love you more."

VIII. Descriptive Praise

A type of statement of approval which describes a

VIII. Descriptive Praise (Cont.)

specific appropriate child behavior, directed to the child at a time when the child is acting appropriately. It must consist of all of the following:

1. Describe a specific aspect of the child behavior that the child is performing, such as how, what, where or when of the activity.
2. Be clearly stated in words the child is likely to understand.
3. Be stated positively, such as compliments, appreciation or positive physical contact made with the child, such as, hugs or kisses, clapping and smiling. Voice quality of the parent should be pleasant, happy, calm (or excited would also be positive in some situations such as surprise over the first successful attempt a child makes).

Examples

1. The child clears the table. The parent says "I really like the way you remembered to wipe the crumbs into your hand."
2. The child gets ready for bed on time. The parent says, "I really like the way you remembered to get ready for bed without being told."
3. That was really a big job for you to do by yourself. You buttoned your shirt and tied your shoes. I'm very proud that you can button and tie!"

Non-Examples

1. The child gets ready for bed, and the parent says, "I love you, goodnight."
2. The child sits still during church. The parent says she is an angel to be so good.

IX. Inappropriate Child Behavior

IX. Inappropriate Child Behavior (Cont.)

Behavior unacceptable to the parent and/or negative, aversive, harmful to others or self. It could consist of any one of the following:

1. Any aggressive physical contact made by the child with another person such as pushing, hitting, pinching, or kicking.
2. Any gestures directed to another person which are usually considered aversive such as making faces, shaking finger or fist, or making an obscene gesture (flipping the bird).
3. Any negative or sarcastic vocalizations directed to anyone such as teasing, whinning, crying, complaining, or tantruming.
4. Any deliberate destructive behavior such as destroying property belonging to self or others.
5. Rule breaking when rules have been stated, posted or made clearly visible by the parent.

Examples

1. The child hurts another person by hitting and kicking.
2. The child tears up a book, screaming at the parent.
3. The child calls another person names and makes faces (rolls eyes and sticks out his tongue).
4. The parent makes a request and the child responds with several complaints.

Non-Examples

1. The child does not comply with a request made by the parent (non-compliance).

Non-Examples (Cont.)

2. The child asks polite, soft spoken questions during the parent's favorite T.V. program.
3. The child requests help with a difficult task when the parent is busy.
4. The child does not respond to a threat or bribe made by the parent.

X. Timeout

Timeout is a procedure involving the removal of access to reinforcement for a specific period of time contingent upon a specific inappropriate behavior performed by the child. It differs from response cost in that it removes the access to reinforcers for a specific time period rather than the removing the amount of reinforcers available. It must consist of the following parent behaviors:

1. A warning statement that timeout will be given if the inappropriate child behavior continues.
2. If the child behavior continues, the child is immediately taken to the timeout place such as a laundry room, bathroom or bedroom in which the toys and other reinforcers have been removed.
3. The child is told to stay in timeout for a brief period of time (two to five minutes).
4. If the child complies, he is allowed to come out of timeout. If the child comes out before time is up or acts more inappropriately such as tantrums, he is told to stay in timeout for another minute or two. Sometimes it is also possible to remove the reinforcing environment rather than removing the child from it. The parent may be reading to a child who starts to whine and cry, the parent can stop reading and leave the room.

Examples

1. The child throws his blocks at another child. The parent gives the warning, the child continues to throw blocks. The parent immediately takes the child to the laundry room, tells the child to stay there for three minutes. When the child complies, he is allowed to come back to play.
2. The child has a tantrum because he does not get to pick the T.V. programs for the entire evening. The parent turns off the T.V. and reads a book in another room.

Non-Examples

1. The child is fighting with a younger child. The parent grabs the child, slaps the child and tells him to go to his room.

XI. Response Cost

Response cost is the response - contingent withdrawal of reinforcers or the removal of reinforcers such as crayons which were used to color on the wall, stars, happy faces or earned for a requested behavior. It can consist of one or more of the following:

1. Physical behavior directed to the child such as taking away a misused toy.
2. Verbal behavior describing the response cost to be performed by the parent such as saying "You have just broken the rule about running which cost you a smile face on your chart for good walking."

Examples

1. The child is asked to keep her chocolate candy bar on the table. The child sets the candy on a chair. The parent takes the candy away.
2. The child does not do his chores so he does not get to go to the movie that week.

Examples (Cont.)

3. The child hits another child with his sand shovel so the parent takes the shovel for the rest of the day.
4. The child complains and the parent says that "You have just lost one penny of your allowance, for complaining."

Non-Examples

1. The child is looking at the parent's magazine carefully turning the pages when the parent comes over slaps the child and says "Leave my things alone."
2. The child has a swing first and has been taking turns. The parent makes the child give the swing up to another child.

														TIME		
OBSERVER I				OBSERVER II				FAMILY				DATE		START END		
PARENT				CHILD		PARENT										
C.I.		I.I.		C	I	AA+	AA-	E+	E-	P	R-C	T	COMMENTS			
M	F	M	F			M	F	M	F	M	F	M	F	M	F	
1																
2																
3																
4																
5																
C.I.		I.I.		C	I	AA+	AA-	E+	E-	P	R-C	T				
6																
7																
8																
9																
10																
C.I.		I.I.		C	I	AA+	AA-	E+	E-	P	R-C	T				
11																
12																
13																
14																
15																
16																
TOTAL																
$\frac{A}{A+D}$																
RELIABILITY																
CHECK IF OBSERVED						NOTES										
1. graphing																
2. data recording																
3. behavior change project																
4. rules 5. tokens																

Data Analysis: Ratios and Rates Per Minute Used

1. Compliance $\frac{C}{CI}$
Correct Instruction

The ratio between the number of correct instructions made by the parent to the number of compliances made by the child.

2. Incorrect Instruction $\frac{II}{CI, II}$
Correct Instruction, Incorrect Instruction

The proportion of incorrect instructions made out of all instructions given. The parent should be giving seventy-five to one hundred percent correct instructions to insure child compliance.

3. Positive Attention, Descriptive Praise $\frac{AA+, P}{AA+, P, E+}$
Positive Attention, Descriptive
Praise, Reinforcement Error

The proportion of correct positive parent responses made to the child for appropriate child behavior. The parent must be giving the child reinforcement for appropriate behavior at a relative greater frequency than negative attention for any type of child behavior and/or positive attention for inappropriate child behavior. Also it should be proportionately equal or greater than the number of instructions given.

4. Positive Attention, Descriptive Praise $\frac{AA+, P}{Ti}$
Time

The rate per minute at which correct positive attention was given by the parent to the child. This rate of responding should be high relative to rates per minute of negative and/or incorrect attention. Also proportionately equal to or greater than the number of instructions given.

4

5. Negative Attention
Response Cost, Timeout
Negative Attention, Re-
sponse Cost, Timeout,
Punishment Error

$$\frac{AA-, RC, T}{AA-, RC, T, E-}$$

The number of correct negative parent responses made to the child for inappropriate child behavior. The parent must withhold reinforcement or give negative attention to help the child to discriminate between appropriate and inappropriate child behavior. Withholding reinforcement was emphasized in the parent education class, and shown to be the most effective. Physical punishment, especially, as well as verbal punishment was discouraged. Parents were taught specific procedures such as Response Cost and Timeout to more effectively change child behavior that was unacceptable to them. However, parents were also encouraged to be as accurate as possible in giving negative attention. Serious problems result when parents give negative attention to children who are acting appropriately. The percentage of correct negative responses relative to correct positive responses should be of a very low frequency. The frequency of correct negative responding should be relatively high when compared to incorrect negative responding.

6. Negative Attention,
Response Cost, Timeout
Time

$$\frac{AA-, RC, T}{Ti}$$

The rate per minute at which correct negative attention was given by the parent to the child. This rate of

responding should be relatively low when compared to the rate of correct positive attention, and relatively high to the rate of incorrect negative attention.

- | | |
|---|--|
| 7. <u>Reinforcement Error
and Punishment Error</u>
Positive attention,
Descriptive Praise,
Negative Attention,
Response Cost, Time-
out, Reinforcement
Error, Punishment
Error | $\frac{E+, E-}{AA+, AA-, RC, T}$ $P, E+, E-$ |
|---|--|

The relative amount or frequency of incorrect attention should be comparatively low to the correct attention. It is important for the parental contingencies to be consistent. Correct positive attention should be given for appropriate child behavior and correct negative attention for inappropriate child behavior, most of the time. If incorrect attention occurs at a relatively high percentage of the total attention given, the child will be confused and unable to distinguish between appropriate and inappropriate behavior.

- | | |
|---------------------------------------|-----------------|
| 8. <u>Reinforcement Error</u>
Time | $\frac{E+}{Ti}$ |
|---------------------------------------|-----------------|

The rate per minute at which incorrect positive attention is given by the parent for inappropriate child behaviors. The incorrect attention should be at a relatively minimal rate compared to the rate of correct positive attention given by the parent.

9. Punishment Error
Time

$$\frac{E-}{T_i}$$

The rate per minute at which incorrect negative attention is given by the parent to the child. The incorrect attention should be at a relatively minimal rate compared to the rate of correct negative attention given by the parent.

10. Inappropriate Child Behavior
Time

$$\frac{I}{T_i}$$

The rate per minute at which the child makes inappropriate responses. Rates of responding were relative to the individual child's rate of responding. (Noncompliance was not included because it was assessed in the Compliance Over Instruction ratio.)

Description of the Follow-up Project

This follow-up project is unique because it will be done with parents in their homes. Many follow-up projects are telephone interviews or questionnaires which are filled out and mailed back. These types of follow-up projects don't provide enough accurate information to improve parent education. The program in which you are participating was designed so that you would learn new things from us that could be applied to actual situations in your home. This way doing a follow-up project in your homes will be so valuable to evaluate this parent education program. Our home follow-up project is more effective but not more difficult to do. It will involve letting two persons observe you interacting with your children one or two times a week for about thirty minutes. You simply carry out your routine activities while we observe. The second part of the follow-up project is also simple. We will ask you to make some audio tapes of family interactions. We'll supply all of the equipment such as recorders and tapes. All that you have to do is turn on the recorder a few times a week. We'll pick up the tapes and drop off blank ones when we come to observe you. After a period of observations, you will receive

consultation and help with any new projects or problems. The observations will start now and hopefully take about twelve weeks or until the end of May. The consultations will start later after we have seen how you are doing on your own and as we can schedule appointments. The consultations will be given if they are needed until the end of June.

Participation in this follow-up project will have some real benefits for you. The consultation or additional personal instruction in parent education will be free of charge. We will be able to really help you apply what you have learned. We will be able to help you with new projects or problems concerning parent education. Since it often takes awhile to absorb as much material as we presented in class, this will really help you. We can also help you keep up all of the new parent skills you have learned so that you will continue improving and maintain the improvements that you have made. Your participation will greatly benefit the quality of future parent education classes too.

We will be offering \$25.00 in prizes or cash per family for any family who participates in the entire follow-up project.

March 2, 1979

Dear Parent,

The parent education class and succeeding follow-up project in which you will be participating will be conducted systematically such that it comprises a study. Information will be collected to evaluate the class effectiveness and to improve future classes. We are interested in providing parents with the most effective parent education classes we can develop.

After attending seven parent education classes, consisting of group and individual instruction, role-playing, discussions, readings, home assignments, and learning activities, you are invited to participate free of charge in a twelve week follow-up project.

We ask your permission to observe and to audio tape your family interactions at home and to study family behavior records which you provide. You will receive additional consultation services during the follow-up project in exchange for providing the continued opportunity for us to observe and to audio tape weekly. Your continued participation during the follow-up will provide a great service to parent education as very few systematic follow-up projects have been done in the past.

In the event the instructor or follow-up project leader makes a presentation about this class or the follow-up at a conference or via publication, the information which you provide will be treated confidentially and the anonymity of families will be strictly maintained. The tapes and observation sheets will be kept in a locked file box. At the completion of the study, the tapes will be erased and the observation sheets will be shredded.

We also advise you that you may withdraw from class participation or the follow-up at any time by speaking with the instructor or the follow-up leader.

We look forward to interacting with you and we hope you will enjoy the parent education program.

I understand the above information and have been given an opportunity to ask questions. I consent to the use of information provided by me for evaluation purposes.

_____ Parent	_____ Instructor	_____ Date
_____ Parent	_____ Follow-up Project Leader	

Observation Appointment

Your code letter is _____.

Please check to make sure that all of your tapes have this letter on them. Please also be sure to put the date and time on each tape.

Please record _____ tapes during the time period of _____ on these days _____.

We will be coming to your home to observe on _____ at _____ for _____ minutes.

If you have to change this appointment for observation or taping, please call _____ or _____ as soon as possible.

Observation Instructions

Carry out your usual activities as much as possible as if we weren't there. Once we start observing, please wait until the end of the observation period to talk to us. We'll get more accurate information if we aren't talking. We'll try to be in a position where we can see you and your children interacting at all times. If you have to leave the room we are in, do so. If you don't return in two or three minutes, we'll follow as unobtrusively as possible. Explain to the children that we are observing what you've learned in class or anything that will put them at ease. They need to feel as natural as possible. If you carry out your usual routine, the children will probably do so too.

Audio Tape Instructions

1. Label the tape with your letter, time and date before placing the tape in the recorder.
2. Place the tape in the recorder, turn the volume to full capacity. This gives the best, most audible tape.
3. Place the recorder so that it's no more than six feet from you at all times. Please move the recorder to keep it within six feet if you need to move around.
4. Place the recorder in an open place on a sturdy table, shelf, etc. This will also insure a clear audible tape.
5. Push the play and record buttons to activate the recorder.
6. If you have to stop recording or if there is a personal or private matter being discussed, push the stop button. We are only interested in parent - child interactions so feel free to limit the recording of any other events.
7. When you are ready to resume taping push record and play again.
8. When you have recorded for the required length of time, push stop, then rewind.
9. After rewinding the tape, play it for a few seconds to check the audibility.

10. If the tape isn't audible, please re-tape. This can be done by recording right over the old part.
11. The children can be told about the taping just as the observations were explained.
12. The children will probably be very interested in the recorder and in hearing the tape.
13. Please make a rule that they do not touch the recorder but may listen to the tapes when you are present to supervise. This protects the recorder and the tape which can be easily erased.