

**THE ENCOURAGEMENT OF SELF-CONTROL IN THE  
ELEMENTARY CLASSROOM**

**BY**

**LILLIAN IRENE McINTYRE GUDGEON**



THE ENCOURAGEMENT OF SELF-CONTROL  
IN THE ELEMENTARY CLASSROOM

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A Research Paper  
Presented to  
the Graduate Council of  
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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts

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by  
Lillian Irene McIntyre Gudgeon

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To the Graduate Council:

I am submitting herewith a Research Paper written by Lillian Irene Gudgeon entitled "The Encouragement of Self-Control in the Elementary Classroom." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Psychology.

Harland E. Blair

Major Professor

Accepted for the  
Graduate Council:

William H. Ellis

Dean of the Graduate School

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## Chapter I

### Introduction

The Clarksville-Montgomery County School System has stated in its 1976-77 Guidebook for Personnel that "principals and the entire staff shall strive to create school environments favorable to the development of self-discipline and self-direction" (p. 70). Most educators would wholeheartedly agree with such a statement, and yet, the best means of achieving such self-discipline has not been determined.

Webster's Seventh New Collegiate Dictionary (1965) defines self-discipline as "the correction or regulation of oneself for the sake of improvement." Self-control is defined "as restraint exercised over one's own impulses, emotions, or desires." In Roget's Thesaurus (1961) self-discipline and self-control are viewed as synonyms, and throughout this paper they will be considered as such.

Goldfried and Merbaum (1973) contend that self-control is "a personal decision arrived at through conscious deliberation for the purpose of instigating

action which is designed to achieve certain desired outcomes or goals as determined by the individual himself" (p. 102). They go on to list the five basic ingredients for self-control: the individual must determine the goal or direction of change; a conscious rearrangement of one's life must be made to achieve the goal; the success of one's actions, rather than the actions themselves, is important; self-control is not generalized to all areas of life, since one can have good self-control in some aspects of life, but not in others; and self-control is learned. These authors believe that any individual with the right experiences can gain some measure of self-control.

Mahoney and Thoresen (1974) see three basic elements in human self-control: awareness of controlling influences, environmental changes that encourage the desired outcome, and self-presented consequences.

Goldiamond (1973) believes that in achieving self-control one should specify the outcomes desired, discover existing behaviors which are relevant to these outcomes, and then develop a program to convert current behaviors to the desired behaviors.

Marston and Feldman (1972) view self-control as a two-stage process: the commitment to change and the



specific self-controlling responses.

Nye (1973) agrees with the importance of encouraging self-control, for in her study, "Client as Counselor: Self-Regulation Strategies," she quotes a 1970 study by Kanfer: "Self-control of many behaviors 'is tantamount to a prerequisite for participation in the social community' " (p. 711). She presents a three-step process in helping persons develop control of their own behavior change: self-observation, self-monitoring, and self-regulation. Before change can begin, the person must see the behavior and the conditions producing and maintaining it. Self-monitoring involves counting and charting the frequency or the duration of the behavior in order to observe progress and thus, reinforces the desired outcome. Self-regulation includes self-punishing techniques to interrupt the chain of behaviors leading to the undesired response and a self-reward system to strengthen appropriate behaviors. Such a self-help system incorporates the idea that "new behavior is strengthened when responsibility for change is placed on the individual involved" (p. 712).

Goshko (1973) promotes self-observation as the key in teaching students behavior modification. He uses videotape to show students their own behavior, and then

he lets them select the ones they would like to change.

McLaughlin (1976) emphasizes these components in self-control: the pupil examines his own behavior, objectively records the frequency of such behavior, determines the amount and nature of reinforcers, and administers his own reinforcement contingent upon his performance. This author further states that if self-control procedures are to be considered important to educators, they should: be as effective as traditional behavior modification procedures, be inexpensive, be easy to implement and manage, and be highly rated by educators and by the pupils themselves.

McLaughlin examined the literature concerning these four areas. The effectiveness of self-control procedures was found in several studies to be better than teacher-control, other studies found little difference between self-control and externally imposed classroom management procedures, and two studies reported failures of self-control procedures to affect behavior. McLaughlin concludes his investigation into the effectiveness of self-control with "the majority of studies reviewed indicated that self-control procedures have been effective in controlling behaviors in regular and classroom settings" (p. 381).



Concerning expense of self-control procedures, McLaughlin states that they should be inexpensive in terms of time and money. However, a majority of reported studies required the use of costly back-up reinforcers, and the author suggests that further research is needed to develop techniques that are free of any large cost and that require little time to implement.

McLaughlin reports some problems pertaining to ease of implementation, such as difficulty in measuring self-determination and administration of reinforcement; the possible requirement of outside personnel (such as a guidance counselor) to implement self-observation procedures; the presence of another adult, which some studies relied upon; and the use of special electronic equipment to signal or cue pupils, which some self-control procedures require. More exploration of other self-control procedures is recommended to find ones which are effective and which free the teacher of administrative duties that many externally-imposed techniques require.

A final area examined by McLaughlin is the ratings of school personnel and pupils. He found very little data about this. Several studies reported pupil and school opposition to self-control procedures. One teacher discontinued such procedures, possibly because

it was too much bother to continue them. Other studies found that these procedures save teacher time. McLaughlin suggests that more data are needed, perhaps through the use of questionnaires.

A study by Glynn, Thomas, and Shee (1973) is one of those reported by McLaughlin which resulted in positive findings concerning the effectiveness of self-control procedures. These authors included four behavioral components in the analysis of self-control. In the self-assessment stage the individual examines his behavior and decides if he has performed a certain behavior. This is followed by self-recording the frequency of a given behavior, and then self-determination of reinforcement, where the individual determines the amount and nature of reinforcement contingent upon his performance of a given behavior. The fourth component is self-administration of the reinforcement.

Concentrating on these four components, Glynn, Thomas, and Shee chose a second-grade class in New Zealand. There were 37 children in the class with a mean age of 6 years, 11 months. Eight of these children were randomly chosen as the subjects. Their behavior was observed for one-half hour daily by two independent observers. During this time the teacher was having a



reading lesson and would work with two groups while two other groups worked independently. The dependent variable was "on-task" behavior; that is, the children doing what was required. "Off-task" behavior included talking, playing, or moving aimlessly about the room. There were ten different phases to the study. During a ten-day baseline period, rates of on-task behavior were established for the eight children. The second phase was intermittent reinforcement (one minute of free time) for the entire class when they were on-task. The third phase was like the second only back-up reinforcers (use of special games) were added. During the second baseline period, the previous treatments were withdrawn with observation of behavior as in baseline one. The next phase was again intermittent reinforcement for the class. The sixth phase concentrated on individual group reinforcement for on-task behavior rather than class reinforcement. The seventh and eighth phases introduced individual reinforcement. At the sound of a beep the child would record if he were on-task at that moment. For each time marked, a minute of free time would be earned. Observers watched for the accuracy of the self-recording. Following this,

there was another one-week baseline period, and then self-control procedures were reinstated for one week.

The results showed observer agreement to be 90% or better during 82 of the 85 days of the study. There was a definite increase in the level of on-task behavior over baseline one during all treatment phases and a definite decrease during baselines two and three. The introduction of behavioral self-control procedures produced a further slight increase in on-task level behavior. The observers found the accuracy of the self-recording to be 76% of the children accurately assessing their behavior and 24% of them inaccurately assessing it.

The authors felt that this study showed that second-grade children could successfully participate in a behavioral self-control program and could maintain high rates of on-task behavior with the use of externally-administered reinforcement procedures. However, the study did change from group to individual contingencies, which the authors admit may have contributed to its success.

Two of these same authors, Glynn and Thomas (1974), later conducted a similar study, "Effect of Cueing on

Self-Control of Classroom Behavior." They chose as their subjects nine third-grade children who had great difficulty in paying attention. The entire class received the treatment program, but the nine were the ones observed by eight observers. The time was during an oral and written language lesson, with ten to fifteen minutes of teacher presentation and thirty-five to forty minutes of individual written work. Again the dependent variable was on-task behavior. During the baseline one phase, the on-task behavior requirements were announced and frequently restated. During the behavioral self-control phase, the children checked if they were on-task when an intermittent signal sounded. They earned one minute of free time at the end of the week for each mark. During baseline two these procedures were withdrawn. The next phase was behavioral self-control and cueing. The taped signals, procedures, and free time were the same, but there was less time between signals and a chart was used to cue whichever set of behaviors was on-task (look at teacher and be quiet or work at your place). They could only check themselves if they were "doing what the chart says" when the signal occurred.



The results showed observer reliability to be 84-98%. Self-control and cueing resulted in a much stronger increase in on-task behavior than self-control alone. It was felt that cueing by chart "eliminated much of the indecision and confusion that subjects had about assessing their behavior" (p. 305).

Another approach to self-control is presented by Joe and Carolyn Brown (1972). They propose the use of intervention packages. In this behavior change process, the individual identifies behaviors to be changed, identifies conditions that elicit and maintain these behaviors, reviews the consequences of the behavior, and decides if there is a desire to change it. If so, the individual investigates and forms alternative plans of action, keeps a record of his progress, and then with the help of a teacher or counselor, determines if the behavior has changed. Such a method, the authors believe, gives the student the necessary tools for solving a problem independently, and therefore, gives him a greater feeling of control over his behavior.

Lee and Candace Frederiksen (1975) compared the use of teacher-determined and self-determined token reinforcement in a special education classroom. The

study considered two aspects: the teacher-determined aspect where tokens were delivered contingent on the teacher's evaluation of each student's behavior, and the student-determined aspect where the delivery of tokens was based on students' evaluations of their own behavior. The subjects were sixth and seventh grade special education students, nine males and five females, with a mean age of 12 years, 8 months, and an IQ of between 50 and 80. Back-up reinforcers were free-time, arm wrestling, playing records, gum, and candy. The two target variables were on-task behavior (any behavior not disruptive and any behavior pertinent to the completion of an activity), and disruptive behavior (any behavior which interfered with the on-task behavior of another student). The subjects were observed during four one-half hour periods each morning with on-task behavior recorded at one randomly selected time during each half hour and disruptive behavior recorded continuously. The reliability of on-task and disruptive behavior measures was established by having two independent observers observe and record along with the teacher for eleven days. Agreement averaged 93.73% during this time. The phases of the study were a baseline period of two weeks, a probe of two days, teacher-determined

reinforcement of eleven weeks, self-determined reinforcement of three weeks, a probe of three days, and self-determined reinforcement of eight weeks. During the teacher-determined phase, one token would be given at the end of each half hour if there were no recorded disruptions and the subjects were on-task during that time. During the self-determined phase, the teacher would ask each subject at the end of each half hour if they had earned a token. If they answered in the affirmative, they received one. If they answered negatively, they received none.

The results showed high on-task behavior during the teacher-determined phase (20% over baseline) and lowered disruptive behavior. During each probe phase where the tokens were not administered contingent on behavior, there was more disruptive behavior and less on-task behavior. During the self-determined phase, on-task behavior showed a gradual but steady increase. Initially disruptive behavior was up, but it fell off rapidly. The accuracy of the self-assessment was evaluated by contrasting it with teacher evaluation. They were strongly correlated, although self-assessments tended to be slightly more lenient than the teacher assessments. The authors suggest two things be considered



when evaluating the effectiveness of the study: the students were under teacher-determined conditions for an extended time period, and the teacher may have influenced self-assessments by facial expression or voice tone.

Yet another means of encouraging self-control is the contract method. Ezell and Thomas (1972) explain that in this method the problem is defined clearly and steps are developed that will lead to a successful solution. The student and teacher decide on the material to be covered and the methods of evaluation, and write up the terms in a contract, which is signed by both. The teacher is a resource person and checks on the student's progress through conferences. However, it is the student who assumes the actual responsibility for solving his own problems. These authors suggest that the only rewards and punishments are those the student gives himself. Karoly and Kanfer (1974) place emphasis on the importance of rewards, for they feel it is the external factors of reward and the internal factors of motivation which act to determine whether such a contract is fulfilled.

Ezell and Thomas go on to list the advantages of the contract method as being the provision of a written record of decisions made and the course of action decided upon, the provision of motivation, and the requirement that the person assume responsibility for his own behavior. They see the disadvantage of the contract as being the necessity of a strong desire on the part of the student to change.

Thompson, Prater, and Poppen (1974) see the contract plan as: providing opportunities for the student to achieve some success each day, providing recognition for achievement, and making students accountable for their own behavior. The opportunity for students to make their own choices and decisions is also seen as another important key to motivation in the contract plan. They summarize the contract's effectiveness by stating, "Contract plans teach teachers how to 'catch students being good' and how to reward them for constructive behavior" (p. 34).

An even more detailed method of contracting is given in the book Writing Behavioral Contracts by DeRisi and Butz (1975). They include these steps: selection of one or two behaviors to work on; a description of the behaviors so they can be observed and

counted; identification of rewards that will help provide motivation; writing an understandable contract; collection of data; troubleshooting the system to see what went wrong if the data show no improvement; re-writing the contract; continuing to monitor, troubleshoot, and rewrite until there is improvement in the troublesome behaviors; and then selection of another behavior to work on. The authors do believe in providing for some kind of reinforcer in the contract, and a bonus clause for sustained or exceptional performance. There is also a statement of penalties which will be imposed if the specified behavior is not performed. Such contracts have been found to be useful in a number of cases.

The present study attempted to encourage self-control in a fifth-grade classroom by the use of the contracting technique. It was predicted that improvement in behavior would result during the contract phase of the study.



## Chapter II

### Method

#### Subjects

Eight subjects were chosen from a fifth-grade classroom of 34 students. Five boys and three girls were selected by the teacher, based on the amount of problem behaviors typically exhibited in the classroom setting. Students usually exhibiting a large number, an average number, and a small number of problem behaviors, as compared to the class as a whole, were included.

#### Procedure

The students in this classroom had all been a part of a behavior modification program for seven months. Every day each student knew he could earn five points at the end of the day. These points were called "IGs", which were the teacher's initials. Throughout the day the teacher would put checks by the names of any students who exhibited problem behaviors (out of seat when supposed to be working, talking in line, aggressive behavior, etc.). At the end of the day the teacher would subtract the number of checks from five and award IGs based on the number remaining. For example, if a student got two checks by his name, he would receive three IGs at

the end of the day. These IGs were recorded by the teacher, who would put her initials on each student's IG card an appropriate number of times. On Friday the IGs could be cashed in for candy--two IGs for one "Now and Later". The students could save up 20 IGs and get out of work in a particular subject for one day, but this option was seldom chosen.

To begin the study on self-control, there was an initial baseline period of ten days. During this time the teacher continued the teacher-controlled behavior modification procedures and kept a record of the number of problem behaviors for each subject.

The contract plan was then introduced to the entire class. A master contract was passed out to each student with blanks to be filled in concerning what behavior each student would try to improve. There were also places for the signatures of the student and teacher. The provisions of the contract were that the student would keep a record of the behavior chosen in the contract by writing an explanation of what he did right and wrong each day. Then he was to give himself one to seven IGs, depending on how he rated his performance. For a poor performance, he would subtract one to three IGs from

his total of the day before. At the end of the week, the teacher would collect the contracts and record sheets (see Appendix), tally the number of IGs each student felt he had earned, record the IGs on the IG cards, and have the "candy sale".

Each week a new contract was written and a new record sheet provided. The students decided whether to continue working on the same behavior if they felt more progress was needed, or whether to work on the improvement of a new behavior.

The contract method was in effect for sixteen days, and then there was a return to the baseline phase for four days. The teacher continued to count problem behaviors during each phase of the study.



## Chapter III

### Results

A graph was plotted for each subject, comparing the number of problem behaviors during baseline one, treatment (the contract method), and baseline two (see Appendix). For days when the subject was absent, no mark is shown on the graph. Seven of the subjects showed an improvement during the treatment phase of the study as compared to the baseline one phase. The percentage of improvement ranged from 35% to 84%, with a mean percentage of improvement of 61%. One subject did not improve.

## Chapter IV

### Discussion

#### Summary

From the results obtained, the contract method seems to be an effective procedure for lowering the rate of problem behaviors in a fifth-grade classroom. There was improvement during the contract phase of the study, and thus, the hypothesis was supported.

However, the amount of improvement should be viewed with caution, for there was only one observer--the teacher--who had other duties besides checking problem behaviors and who may have inadvertently influenced the results.

Nevertheless, the contract method of self-control did have advantages over teacher-controlled methods. It saved teacher time and effort, and made this teacher feel more comfortable in her role.

Not only did the teacher like the method, but the students also liked it. When a vote was taken on whether to continue with the contract system, all but a few wanted to continue. One of the few who did not was the subject who showed no improvement. He made comments against the system throughout the treatment phase, apparently

feeling uncomfortable when given the responsibility of evaluating himself. He also lost his record sheet several times. This behavior supports other studies which indicated that desire is a very important part of self-control.

One area of concern was the accuracy with which fifth-graders would evaluate themselves. Although no specific data were gathered about this accuracy, reading of the record sheets was sometimes enlightening and surprising:

I didn't pay attention once during the film and  
I talked three times. I deserve two IGs.

I didn't do anything to anyone.

I didn't call anybody a name; almost, but I didn't.

Did badly--0 IGs.

I was rotten--0 IGs

I can't believe it. I did great. I didn't do  
anything wrong all day.

Bothering people in class--Sorry--0 IGs.

I didn't call nobody a name, not even my brother.

These comments show that the students could be very honest, but they were generally more lenient than the teacher's appraisals.



One unsatisfactory area was the generality of the comments when the students explained their behavior each day on the record sheets. The encouragement of a more precise tally is needed.

Another unsatisfactory area was the cost involved in the purchase of back-up reinforcers. Less costly means of rewards should be implemented.

### Conclusion

In conclusion, the contract method of self-control was found effective in this study. Further examination and investigation of self-control methods will provide additional needed data, but it seems apparent, as Mahoney and Thoresen (1974) have stated, "that self-control skills--developed and refined through careful empirical methods--offer excitingly effective means for the attainment of personally meaningful goals. In this sense, behavioral self-control represents an 'applied humanism'--a humane and long-awaited technology for giving power to the person" (p. 2).

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## APPENDIX A: FORMS

## MY BEHAVIORAL CONTRACT

I, \_\_\_\_\_, on \_\_\_\_\_,  
                    (name)   (date)  
agree to try to improve my behavior. The behavior I will  
work on is \_\_\_\_\_.

Each day I will keep an honest record of how I did by writing down an explanation of what I did right and wrong. Then I will award myself 1, 2, 3, 4, or 5 IGs, depending on how well I think I did. If I really did a GREAT job, I will award myself 7 IGs for the day. If I don't do a good job, I will subtract 1, 2, or 3 IGs on my record sheet.

At the end of the week I will review my progress and turn in my record sheet to Mrs. Gudgeon, so she will be aware of my progress.

Signed \_\_\_\_\_  
(Student)

Signed \_\_\_\_\_  
(Teacher)

Monday

Explanation of My Behavior--

Number of IGs I Deserve--  

---

Tuesday

Explanation of My Behavior--

Number of IGs I Deserve--  

---

Wednesday

Explanation of My Behavior--

Number of IGs I Deserve--  

---

Thursday

Explanation of My Behavior--

Number of IGs I Deserve--  

---

Friday

Explanation of My Behavior--

Number of IGs I Deserve--  

---

How I Think I Did This Week--

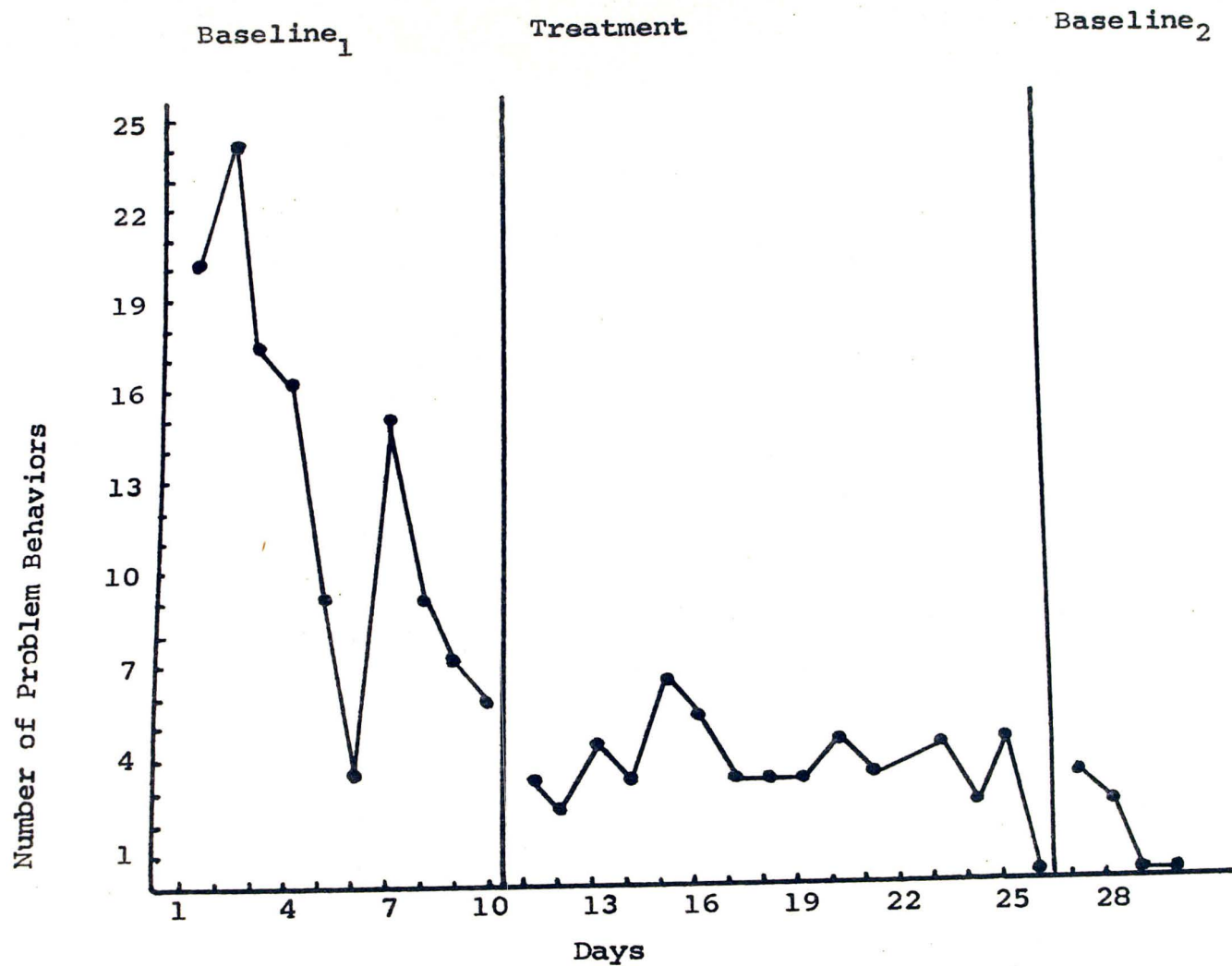
I believe I kept an honest record of my behavior  
for the week.

Signed \_\_\_\_\_



## APPENDIX B: FIGURES

Figure 1. Number of Problem Behaviors During  
Baseline<sub>1</sub>, Treatment, and Baseline<sub>2</sub>:  
Subject One





**Figure 2. Number of Problem Behaviors During  
Baseline<sub>1</sub>, Treatment, and Baseline<sub>2</sub>:  
Subject Two**

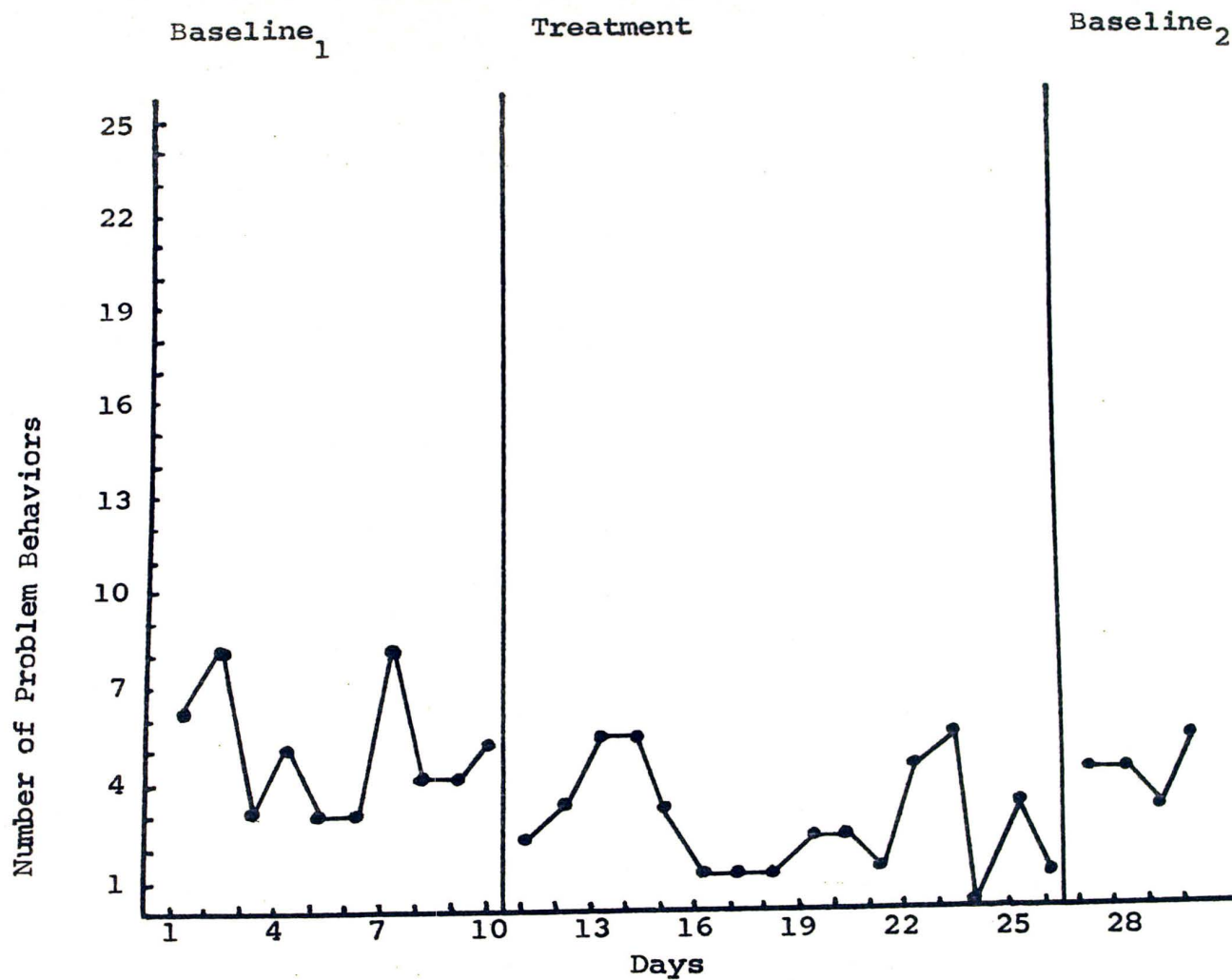


Figure 3. Number of Problem Behaviors During  
Baseline<sub>1</sub>, Treatment, and Baseline<sub>2</sub>:  
Subject Three



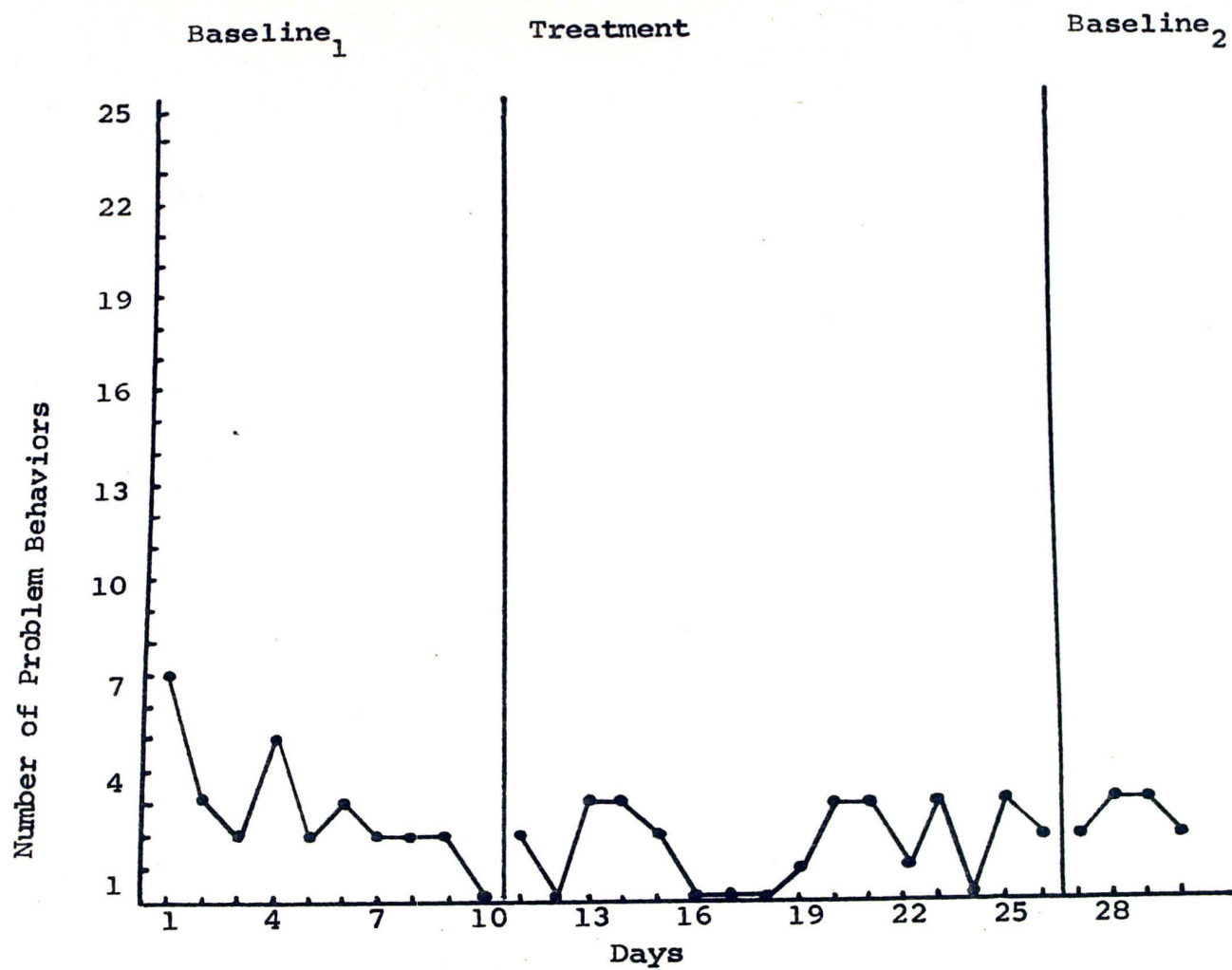
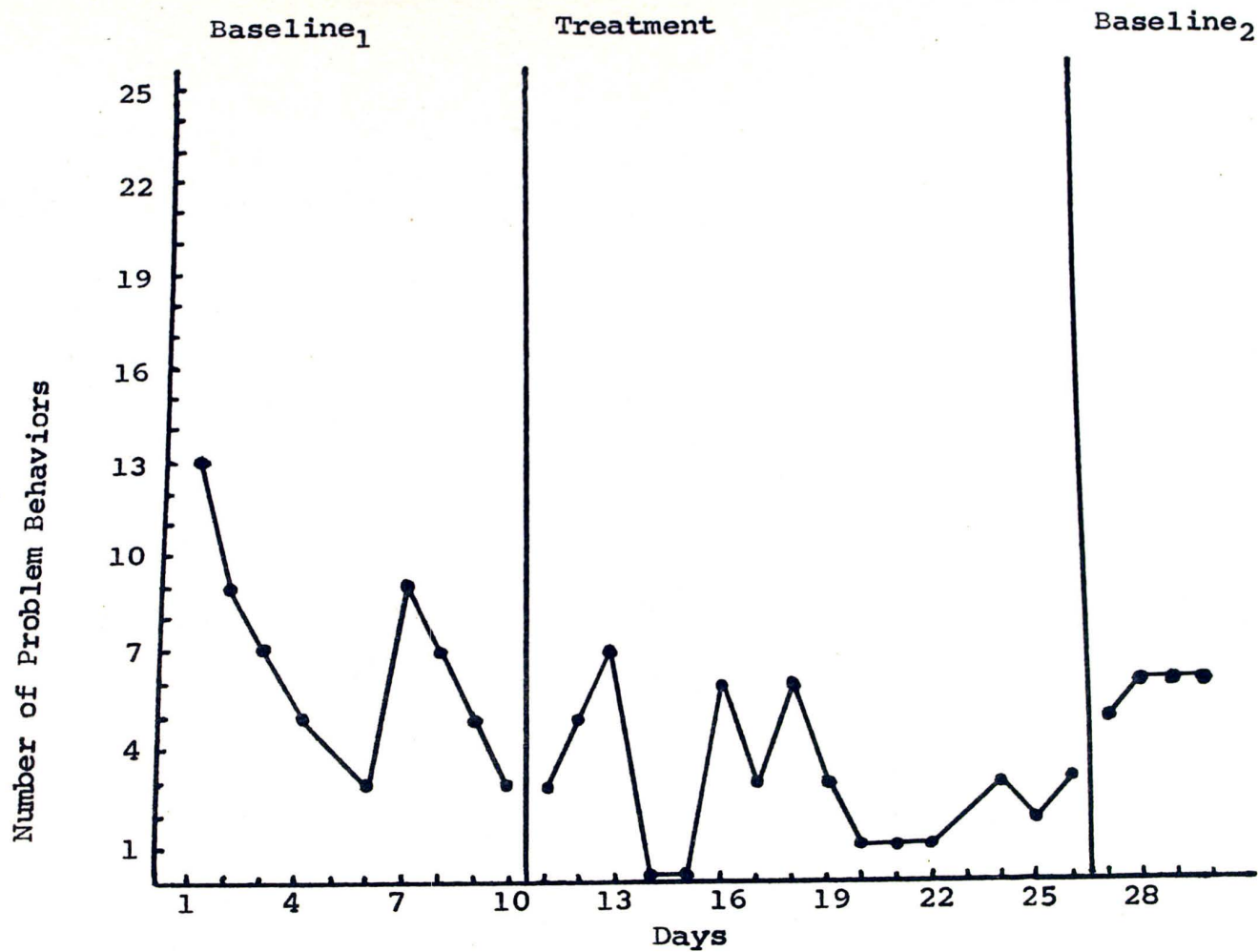


Figure 4. Number of Problem Behaviors During  
Baseline<sub>1</sub>, Treatment, and Baseline<sub>2</sub>:  
Subject Four





**Figure 5. Number of Problem Behaviors During  
Baseline<sub>1</sub>, Treatment, and Baseline<sub>2</sub>:  
Subject Five**

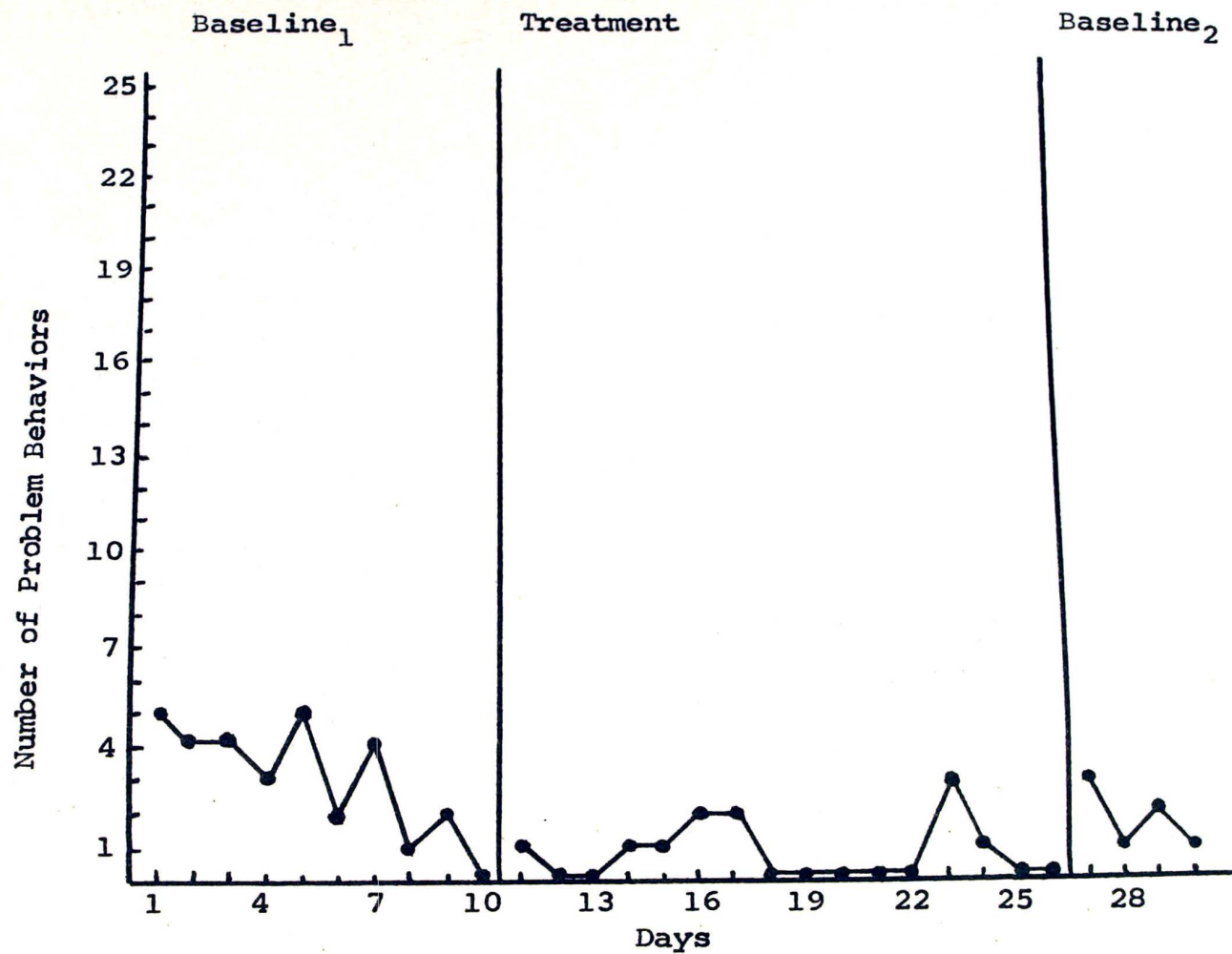


Figure 6. Number of Problem Behaviors During  
Baseline<sub>1</sub>, Treatment, and Baseline<sub>2</sub>:  
Subject Six

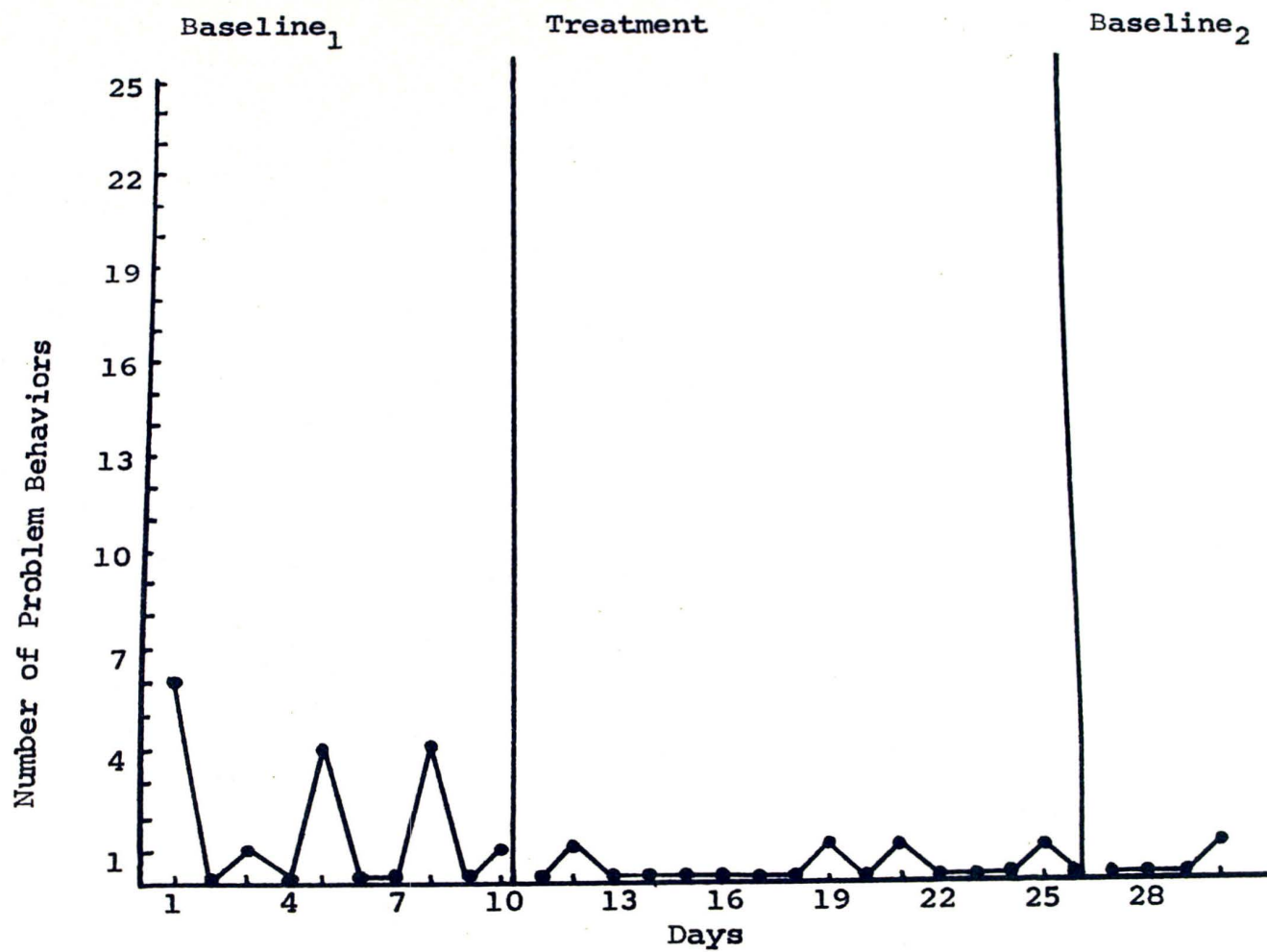




Figure 7. Number of Problem Behaviors During  
Baseline<sub>1</sub>, Treatment, and Baseline<sub>2</sub>:  
Subject Seven

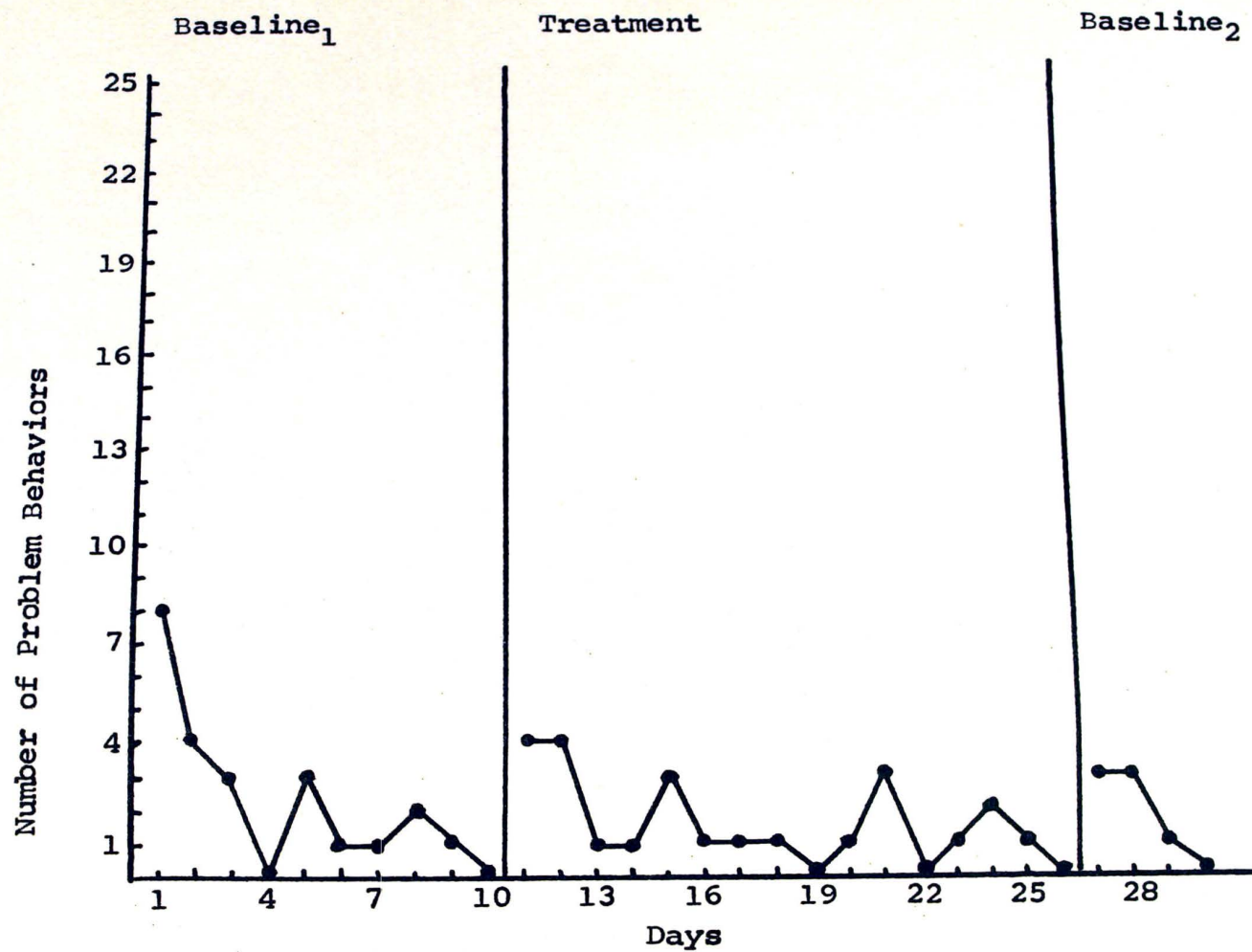


Figure 8. Number of Problem Behaviors During  
Baseline<sub>1</sub>, Treatment, and Baseline<sub>2</sub>:  
Subject Eight

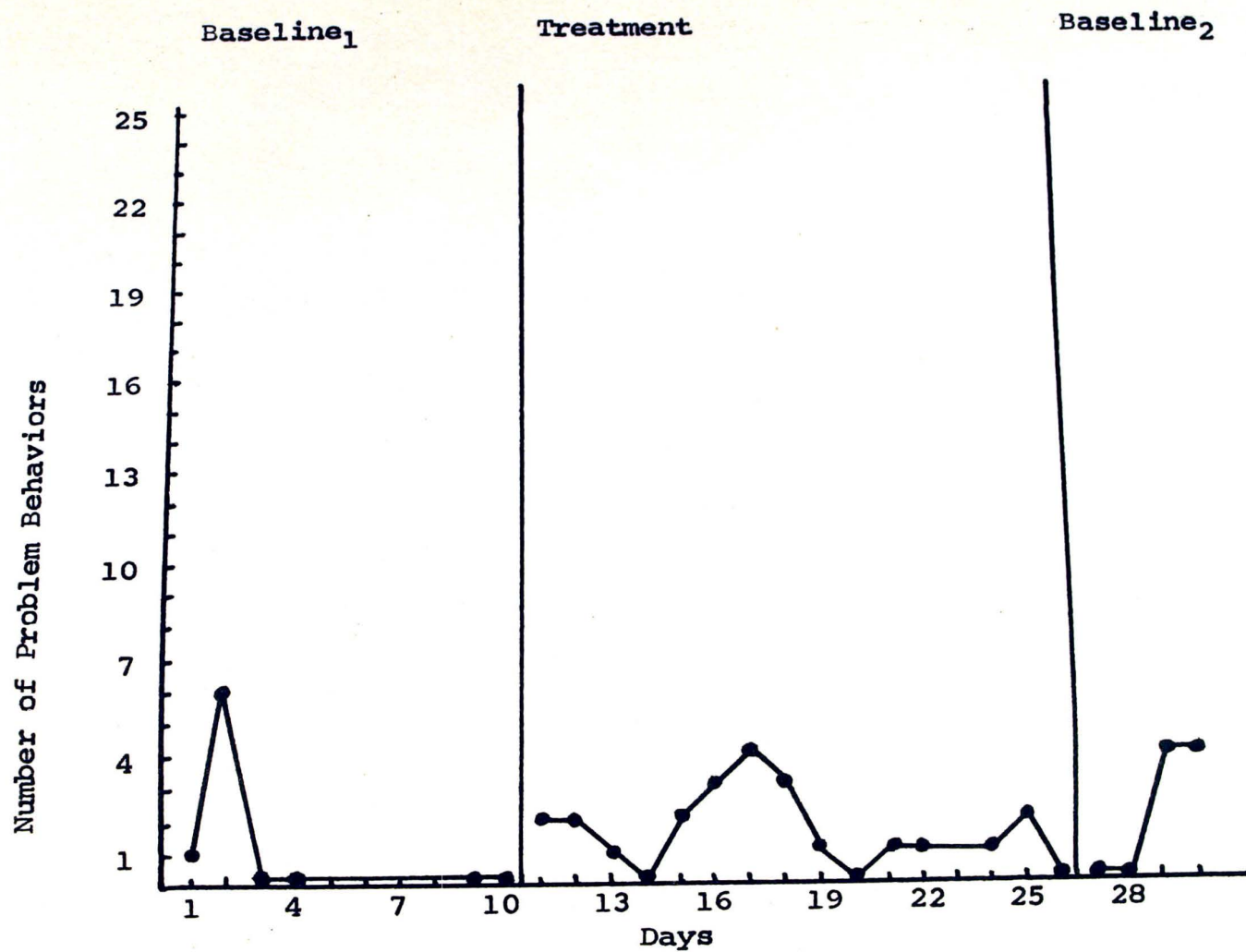




Figure 9. Total Problem Behaviors Shown by all  
Subjects During Baseline<sub>1</sub>, Treatment,  
and Baseline<sub>2</sub>

