

**THE USE OF BEHAVIOR MODIFICATION  
WITH TWO NONVERBAL BOYS**

**BY**

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THE USE OF BEHAVIOR MODIFICATION  
WITH TWO FETTERED BOYS

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Presented to  
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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts  
in Psychology

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by  
Kathryn Elizabeth Edwards  
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To the Graduate Council:

I am submitting herewith a Research Paper written by Kathryn Elizabeth Edwards entitled "The Use of Behavior Modification with Two Nonverbal Boys." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Psychology.

Elizabeth H. Stokes  
Major Professor

Accepted for the Council:

Wayne S. Stanger  
Dean of the Graduate School

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## CHAPTER I

### INTRODUCTION

#### Review of the Literature

The term "behavior modification" refers to the controlled application of laws of learning to the area of human behavior. It is a technical system based on the results of controlled investigations into the phenomena of conditioning. Behaviorists adhere to the theory that all behavior is learned. Consequently, the behavior analyst seeks to specify the conditions under which a particular behavior is acquired, maintained, and extinguished. Since behavior is thought to be controlled by its consequences, verbal and nonverbal behaviors can be modified by manipulating the environment in a systematic fashion (Franks & Susskind, 1968). Because of its obvious applicability to a variety of disorders, there has been a great many studies conducted in treating children's emotional and learning difficulties in schools and hospitals using behavior modification techniques (Cohen, 1971).

Teachers have found behavior modification to be of greater use in dealing with classroom problems than the medical approach espoused by many mental health specialists. MacMillan (1973) advocates that the medical model of treatment does little to explain the child's learning needs to the educator. He points out that children within any diagnostic classification, such as emotionally disturbed, have very different learning problems. Ullman and Krasner (1965) point out that maladaptive behaviors, or symptoms, are not treated

according to the medical model because one must treat the underlying cause and not just the symptoms. The behaviorist argues that "symptoms" are merely maladaptive behaviors that have been learned. The behavior therapist's task is to teach the person new and appropriate behaviors, and extinguish the maladaptive behaviors (Wikulas, 1972).

Use of behavior modification principles with children stems from ancient times. In their review of the history behind behavior modification techniques, Zilboorg and Henry point out that Plato suggested that children learn their lessons in the form of games. Early Romans treated alcoholism by putting eels, an aversive stimulus, in the wine cup (Zilboorg & Henry, 1941). Itard taught Victor, who displayed many autistic behaviors, the word for milk by rewarding him with a drink whenever Victor pronounced the word (Wolf, 1972). Watson was able to teach little Albert to fear white, furry things by pairing a loud noise with the presentation of a small white rat. (Macmillan, 1973; O'Leary & O'Leary, 1972; Zilboorg & Henry, 1941).

B.F. Skinner introduced the theory of operant conditioning in the early 1950's. Much research was done by Skinner and his disciples using lower organisms as subjects. It has only been within the last decade, however, that behavior modification procedures have been employed in classrooms using children as subjects. Two reasons for this increasingly widespread use of behavior modification with children are posed by Gelfand and Hartmann. They suggest that children's

environments are more easily controlled than are the environments of adults. Second, children's maladaptive behaviors are often observable, and consequently lend themselves well to behavior modification techniques (Gelfand & Hartmann, 1968).

Another attraction of behavior modification is that its principles are easily learned and utilized by people not trained as mental health specialists. One experiment conducted by Risley (1968) used parents as the agents which gave the reinforcement to their children. In this study, fluent verbal expression and other readiness skills were taught to preschool age children from lower socioeconomic backgrounds. When the mothers could not unlearn their usual scolding techniques in dealing with their own children, the experimenters had them be mediators to children other than their own. Every time they reinforced a child with praise, a light flashed on which reinforced the mothers. When they again became the mediators giving reinforcement to their own children, the mothers had learned to ignore inappropriate responses and praise appropriate responses.

Other experiments successfully used teachers as mediators (Lovaas, 1966; Zimmerman & Zimmerman, 1962; Harris, Wolf, & Baer, 1964). With young children, using a person with whom the child has had a history of positive interaction as the mediator has proven to affect a greater behavior change than when a complete stranger is the mediator (McCoy & Zigler, 1965).

There is no mysticism involved in the manner in which the behaviorist attempts to modify the behavior of the subject. The first step in modifying a behavior is to identify in observable terms the maladaptive behavior. Included in identification of the maladaptive behavior are the conditions under which this behavior occurs and the reinforcement that immediately follows the behavior. (Mikulas, 1972).

The behavior analyst must be aware of the goal the behavior satisfies, such as attracting the teacher's attention. Had the behavior not proved positively reinforcing in the past it would not have been continued. By not recognizing the goals perpetuating a certain behavior in a student, educators often unwittingly reward undesirable behavior (Clarizio, 1971).

Madsen and his associates conducted a study in a regular classroom which illustrates this. In their study, the behavior that was the target of change was the age-old one of students standing up and wandering around the room when they should be studying. Two measures were taken. The number of times a teacher told students to sit down or reprimanded them for standing constituted one measure. The experimenters also counted the number of times the teacher praised students for remaining seated. The results of the study showed that when the teacher's commands to "sit down" tripled, students' standing behavior increased dramatically. When the conditions were reversed and the teacher praised the "sit down" behavior, standing dropped below the baseline level (Madsen, Becker, & Thomas, 1968).

After the maladaptive behavior has been defined, a baseline taken, and the environmental stimuli analyzed, a reinforcer should be chosen that will increase the subject's likelihood of learning the new behavior.

There are two types of positive reinforcers. Primary reinforcers have a biological significance and satisfy a physiological need. Secondary reinforcers are those reinforcers which have acquired rewarding characteristics by being paired with a primary reinforcer. The stimuli that acquire the secondary reinforcing properties are directly related to a person's life history. Consequently, social reinforcement is often diminished in dealing with subjects who have had only unpleasant experiences with authority figures (Clarizio, 1971).

Staats' series of studies with young children underscore the fact that achievement and social approval are learned rewards. In his experiments, Staats used the principles of reinforcement to teach reading to 4 year olds. The results of the studies indicated that neither learning or social reinforcement alone was enough to maintain the attention of very young children in teaching them extended tasks. However, when extrinsic reinforcers were introduced, the children's attention span increased to three times what it had been when they were only receiving praise. When the extrinsic rewards were withdrawn, the children ceased attending to the task (Staats, Staats, Schutz, & Wolf, 1962).

Staats conducted behavior modification programs with severely emotionally disturbed, retarded, culturally

deprived and normal children with the same results (Staats, 1963). Risley's program with culturally deprived children concurred with the results of Staats' experiments. He found that warm praise rarely proved to be a powerful enough reinforcer to rapidly change the children's behavior and that various types of food and candies were needed as primary reinforcers (Risley, 1968). Lovaas (1966) taught nonverbal autistic children to respond to social reinforcement by pairing praise with food.

Bijou and Sturges (1959) list five classifications of reinforcers. The most basic reinforcers they term consumables. These are edible and drinkable reinforcers, such as those used in Risley's program (Risley, 1968). Manipulatables are toys and trinkets. Manipulatable reinforcers work especially well with children who have hobbies. Meacham and Wiesen (1974) report that spontaneous speech was increased in a nonverbal girl when she was reinforced with bottle caps, which she collected.

Meacham and Wiesen used a third type of reinforcement, visual and auditory stimuli, to teach a disruptive boy self-control in the classroom. In this situation, the teacher hung a green piece of construction paper from her desk when his behavior was acceptable. When the green construction paper was in view, the boy earned points which allowed him to be a leader in recreation activities. When his teacher hung a piece of red construction paper from her desk, he knew he was losing points for unacceptable classroom behavior (Meacham & Wiesen, 1974).

Social stimuli is the fourth category of reinforcement listed by Bijou and Sturges (1959). Reinforcement that is social often needs to first be paired with tangible reinforcement before it can become effective. In deciding whether or not social reinforcement can be effective alone, the behavior analyst should consider the child's developmental level and his socio-economic background. The lower both variables are, the more likely it is that tangible reinforcers must also be used. (Clarizio, 1971).

Finally, a fifth category is the token. Token reinforcers are symbols that the subject can trade in for something he wants. Tokens work well with a large number of subjects, such as is in the usual classroom. Tokens also teach the subject to delay gratification while maintaining a high rate of participation. Many psychologists feel that the token's most significant effect, however, is that of training the teacher when to respond to a child (Meacham & Wiesen, 1974).

Meacham and Gall (cited in Meacham & Wiesen, 1974) tallied the types of reinforcers used with behavior modification programs in the regular classroom. Their results showed that with young children, social reinforcers were used more than manipulables and consumables in the regular classroom. Tokens and visual and auditory stimuli were used little if at all.

In order to reinforce appropriate behaviors, it is often necessary to begin modifying a behavior by reinforcing

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successive approximations of the response. This procedure is called "shaping." Shaping has been successfully used with many different subject populations.

Studies using shaping techniques have been found to work well in training speech in psychotic and neurotic children. Sloane and MacAulay report a study in which Sloane, Johnson, and Harris trained mothers to shape the speech patterns in culturally deprived children (Sloane & MacAulay, 1968). Risley conducted a similar study using both teachers and mothers as the mediators shaping their children's verbal skills (Risley, 1968). Browning and Stover (1971) report two cases in which they shaped the verbal behavior of an autistic girl and an electively mute boy. They first reinforced imitation, then phonemes, and then words, until both children were speaking in sentences.

Although shaping has been used to successfully teach subjects complex behaviors, the behavior therapist must exercise caution when using this procedure lest he should overtrain one step in the succession. Overtraining of one step may cause the subject to regress to that level if later more complex behaviors are extinguished (Browning & Stover, 1971). The mediator should also guard against presenting the approximations to the subject too rapidly or too slowly. If the steps are presented too slowly the subject may become satiated. However, if they are presented too rapidly, earlier shaped responses may become extinguished (Blackman & Silberman, 1971). Cohen emphasizes the fact that reinforcement

must immediately follow the desired approximation, or else the wrong response will be reinforced. His studies indicate that even a delay of 1/20th of a second may lead to reinforcing the wrong response (Cohen, 1969).

Shaping and reinforcement techniques have proved highly successful in training mute children to speak. Muteness is most commonly associated with deafness or some physical defect.

Associated with total muteness is immature speech patterns in children. However, immature speech is due to mental retardation or lack of verbal stimulation in the home in the vast majority of cases (Milton, Solnit, & Solnit, 1968; Shaw, 1972). Immature speech has been found to occur 3 times more often with boys than with girls (Bakwin & Bakwin, 1972).

The totally nonverbal child may be psychotic or neurotic. If the mutism is neurotic, it is termed "elective mutism" because it is assumed that the child could talk if he wished to do so. He may speak to some persons and refuse to talk to others. Mutism of this nature may occur after the child has experienced a traumatic event and may disappear spontaneously when the defense is no longer needed by the child (Milton, et al, 1968). Withdrawal and fearfulness often accompany elective mutism, and can cause misdiagnosis of the child's problem (Shaw, 1972).

Bakwin and Bakwin (1972) express the opinion that the basis for elective mutism is usually interparental strife or a traumatic experience that occurs at the time speech is

developing in the child. When contention is in the home the child refuses to talk to one parent, he is often reinforced in this behavior by the parent with whom he has allied himself. If the child generalizes this selective nonverbal behavior to the classroom, his teachers begin to be concerned.

Elective mutism is often perpetuated by the mutual dependency which may develop between a parent and a child. Buxbaum gives the example of a mother who brought her child in for therapy because he would speak to no one else but her. When the child spoke to the therapist during the first session, the mother angrily took the child home and never returned (Buxbaum, 1970, p. 63). Numerous other psychologists state that language retardation and elective mutism is almost entirely environmentally based (e.g. Berry & Minerson, 1956, pp. 88-116; Brown, 1967, pp. 340-352). Filippi and Rousey found that delayed speech in neurotic children correlated with angry, uncommunicative mothers (Filippi & Rousey, 1968).

While mental health specialists may agree on the etiology of elective mutism, there is little agreement as to therapy. Traditional play therapy and psychotherapy has proved to be of little value in dealing with nonverbal behavior (Etemad & Szurek, 1973).

Smayling (1958) found that in 5 cases of voluntary mutism where speech defects were also present, speech therapy involving only speech training methods were successful in inducing spontaneous speech. In one case, desensitization

was used in conjunction with speech training in order to facilitate generalization to the classroom.

Role playing, drama, and group discussions have proved successful in cases where the child is merely reticent (Blackham & Silberman, 1971). Modeling has also been successful in teaching withdrawn nursery school children appropriate social interaction (Evers & Schwarz, 1973).

Behavior modification seems to offer one of the least expensive and least time-consuming methods for changing non-verbal behavior in psychotic and neurotic children. The results of many studies have shown dramatic behavior changes.

Blackham and Silberman report a case study in which modeling, shaping, primary and secondary reinforcers were combined to change the nonverbal behavior of a third grade boy in only 5 sessions. By the fifth session, he was talking in the classroom and became one of the highest achievers. In a second case study reported by Blackham and Silberman, deprivation was used to motivate the child to speak. The child was given salty peanuts until he was satiated. By talking, he could earn a drink of soda pop (Blackham & Silverman, 1971).

Risley and Wolf shaped attention span and verbal behavior in children by using ice cream as the reinforcer (Risley & Wolf, 1966). In another study conducted by the same experimenters, breakfast and lunch were used as speech training sessions. Bites of the meal served as consumable reinforcement (Wolf, Risley, & Mees, 1964). Lovaas also used meals as extrinsic reinforcers to promote successive approximations of

appropriate speech in autistic children (Lovaas, 1966).

Staughan conducted two studies described in the book by Sloane and MacAulay in which a 14 year old boy's verbal behavior was dramatically increased by allowing him to earn M & M candies for the entire class. A box was placed on his desk which lighted up whenever he responded verbally. During the time the light was on, he was earning points for his class. The identical procedure was used on another subject with the same results (Sloane & MacAulay, 1968, chap. 12). These studies concur with the theory that social reinforcement from peers is often an important factor in implementing a change in behavior.

Teacher attention appears to be another major source of affecting behavioral change through social reinforcement. Numerous studies have shown various behaviors can be changed by manipulating teacher attention. Regressive crawling,, crying, isolate play, passivity, hitting, and name-calling have all been lessened by training the teacher to ignore inappropriate behaviors and attend to appropriate behaviors (Thomas, Becker, & Armstrong, 1968; Madsen et al., 1968; Harris, Wolf, & Baer, 1964; Ward & Baker, 1968). One experiment designed to test the effects of teacher attention and classroom study behavior was conducted by Fall, Lund, and Jackson. In this study, an observer held up a small piece of colored paper to signal the teacher as to when she should attend to a child. When the teacher attended only to study behaviors and ignored other behaviors, the entire

classroom increased their study behaviors approximately 65% (Hall et al., 1968).

Cognizant of the reinforcing properties of social stimuli, behavior therapists have utilized social reinforcers alone in an attempt to modify the behaviors of nonverbal children. A recent study reported by Brison (1971) successfully used teacher attention to promote verbal communication in a child who was mute in school settings but displayed normal verbal interaction in the family setting.

Teacher attention was used as the reinforcer in a program designed to increase talking in a 4 year old girl (Reynolds & Risley, 1968). Whenever the little girl responded verbally to the teacher, she not only attended to the child's request, but promoted further speech by asking her relevant questions.

### Purpose of Study

The purpose of this study was to test the effects of a behavior modification program designed to introduce spontaneous conversation in two nonverbal boys. Specifically, the author sought to demonstrate that systematically applied primary reinforcers paired with social approval would increase the frequency of verbal communication between the child and his teacher. The study took place in regular first grade and kindergarten classrooms.

## CHAPTER II

### METHOD

#### Subjects

The first subject was a 6 year old boy ( $S_1$ ), who was in kindergarten. He was referred to the school psychologist for observation because his teacher was concerned about his emotional state. She reported that he cried excessively without any apparent cause and that he appeared frightened much of the time. Often, when he became nervous, he would grab his arms around his body and hold himself.

During the initial weeks of the school year,  $S_1$  was totally nonverbal. His teacher had spent a great deal of time trying to develop his self-confidence, and had been rewarded by one word verbalizations. At the time the study began,  $S_1$  would communicate by shrugging his shoulders or responding "yes" or "no" to a question. He saw the speech teacher one hour each week.

On the playground,  $S_1$  would watch the other children intently, but would not enter into play with them. His large muscle coordination appeared to be less developed than his small muscle coordination. He walked with his toes pointed slightly toward each other.

The subject's teacher felt that  $S_1$  was potentially a high achiever. He had known how to write when he entered kindergarten and knew his alphabet. The examiner administered the Inventory of Readiness Skills to the boy. The results of this test concurred with his teacher's reports.

He scored in the high average range, and was at or above the readiness level in all areas of visual and auditory skills.

A conference with the subject's mother revealed that he seldom talked to her. However, he did communicate well with his father and grandparents. Since both parents worked long hours, S<sub>1</sub> and his older brother and sister often stayed with the grandparents during the week. She reported that she and her husband were having marital difficulties and expressed the opinion that she felt that the uneasy atmosphere at home was contributing to her son's nonverbal behavior at school.

The second subject chosen for the behavior modification program was a 7 year old boy (S<sub>2</sub>), who had been referred to the school psychologist because he was withdrawn in the regular classroom. He sat with his head on his desk throughout the day and refused to participate in individual or group activities.

He was totally nonverbal in the regular classroom. His nonverbal behavior had not generalized to his reading or speech classes. The speech teacher, who was working with him at the time the study began, reported that the subject's language development was approximately on the level of the average 3 year old child.

The subject's large and small muscle control was very poor. The examiner observed that he walked without picking up his feet and went down the slide on the playground in a "knock-kneed" fashion. S<sub>2</sub> had not established hand dominance yet.

Academically, the child could not count to the number "5." He reversed numbers when copying from the board. He knew only the color red. His teacher reported that his attention span was extremely short and that he could not follow directions. When the class watched television, S<sub>2</sub> displayed no interest in the show. His ability to retain any information appeared quite limited. S<sub>2</sub> had attended kindergarten for 13 days the previous school year. However, his mother removed him from the class.

The cumulative records revealed that S<sub>2</sub> had been administered a Peabody Picture Vocabulary Test early in the school year. He had scored in the average range of estimated intellectual functioning compared to the other children his age on whom the test was normed.

The examiner administered the Inventory of Readiness Skills to determine the boy's specific strengths and weaknesses. He scored below the readiness level in auditory skills, color discrimination, and visual-motor coordination. Although this test indicated that the subject's auditory discrimination was below the expected level, it was determined that this fact could not explain his total lack of verbal communication in the regular classroom, since he did talk in other environments.

Socially, S<sub>2</sub> was accepted by his peers at times, and was ostracized by them at other times. S<sub>2</sub> did not interact with other children on the playground. He preferred to play by himself. He reportedly had taken things from his class-

mates, but, when confronted, displayed no outward reaction to being scolded. Instead S<sub>2</sub> maintained silence. He never maintained eye contact with adults either, unless forced to do so. Noteworthy is the fact that this child was receiving a great deal of attention from various adults by refusing to talk.

A parent conference was held with the subject's mother. She reported that her son spoke only in word phrases at home, when he did talk. He occasionally refused to talk to his mother. On these occasions he remained silent until she threatened him with being punished with a belt. At other times, the boy refused to eat until he got his own way in a matter.

Both the child's mother and father were employed. The subject, an only child, stayed with a babysitter after school, but did not speak to her.

The subject's mother reported that there had been marital problems in the home for some time, and that she and her husband had been divorced. They had recently remarried each other because they felt that the divorce had been difficult on their child. She reported, however, that she and her husband were again considering separation. His mother was of the opinion that her son would begin to speak in the classroom if he was whipped.

#### Experimental Procedure

Since the nonverbal behavior of both subjects was determined to be retarding their social and academic development

it was decided that the nonverbal behavior should be the target of change. A baseline measure of the absence of verbalization in the regular classroom was taken for one week. This was done by the examiner who observed the children for one  $\frac{1}{2}$  hour session each day.

To modify the behavior of the two subjects, a shaping procedure was used. Since S<sub>1</sub> already spoke in single word phrases, it was decided that he would have to speak in short sentences or word phrases consisting of at least two words to receive reinforcement.

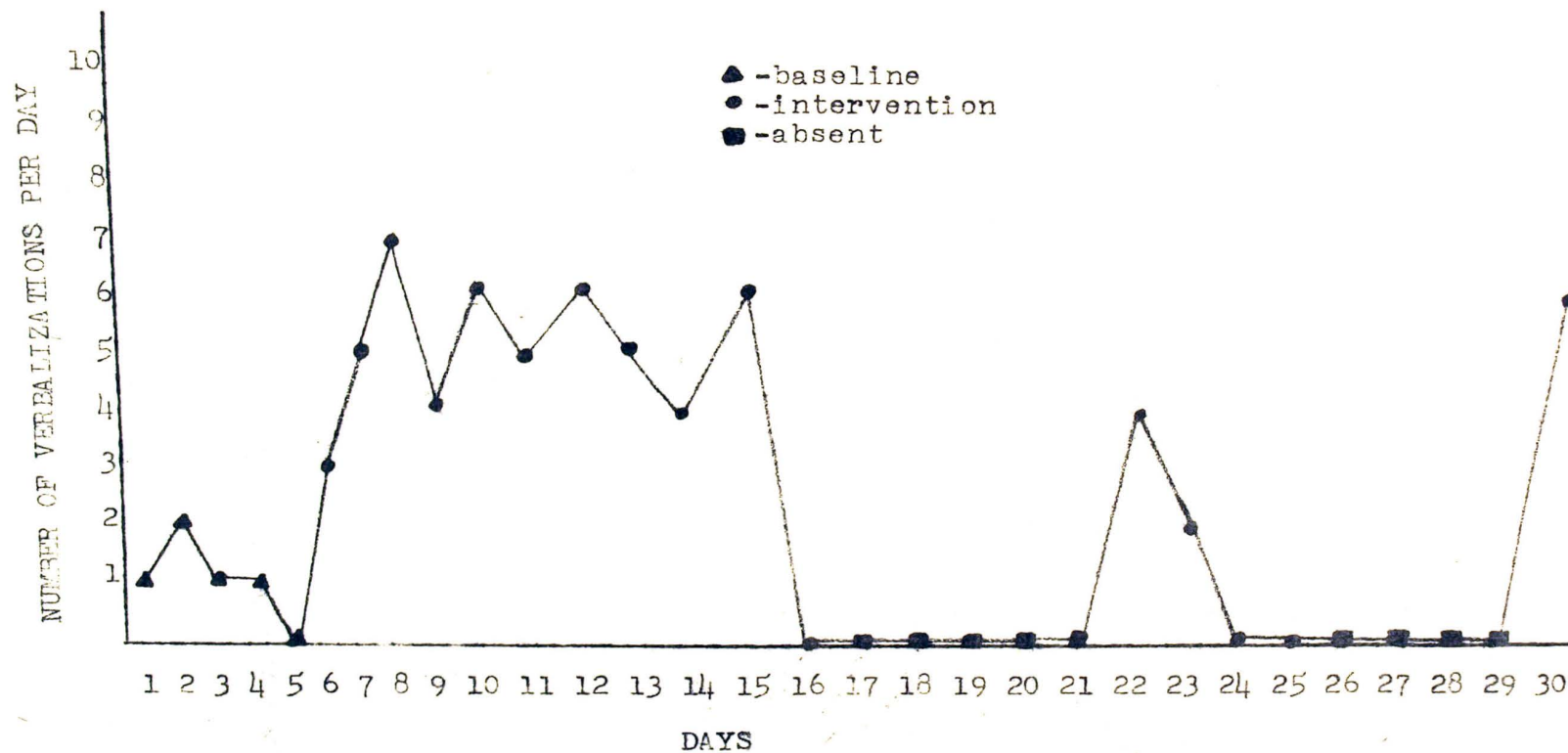
S<sub>2</sub> was to be rewarded just for eye contact. After this behavior was firmly established, he was not to be reinforced until he spoke to the teacher.

M & M candies served as reinforcers. These were dropped into a clear cup which was within the subject's view whenever his response was appropriate. He was allowed to eat the candy at 4 different intervals throughout the school day. The teacher's attention was paired with the M & M candies. Both teachers were instructed to ignore all nonverbal behavior and pay attention to the child only when he talked. The children had to ask for classroom materials.

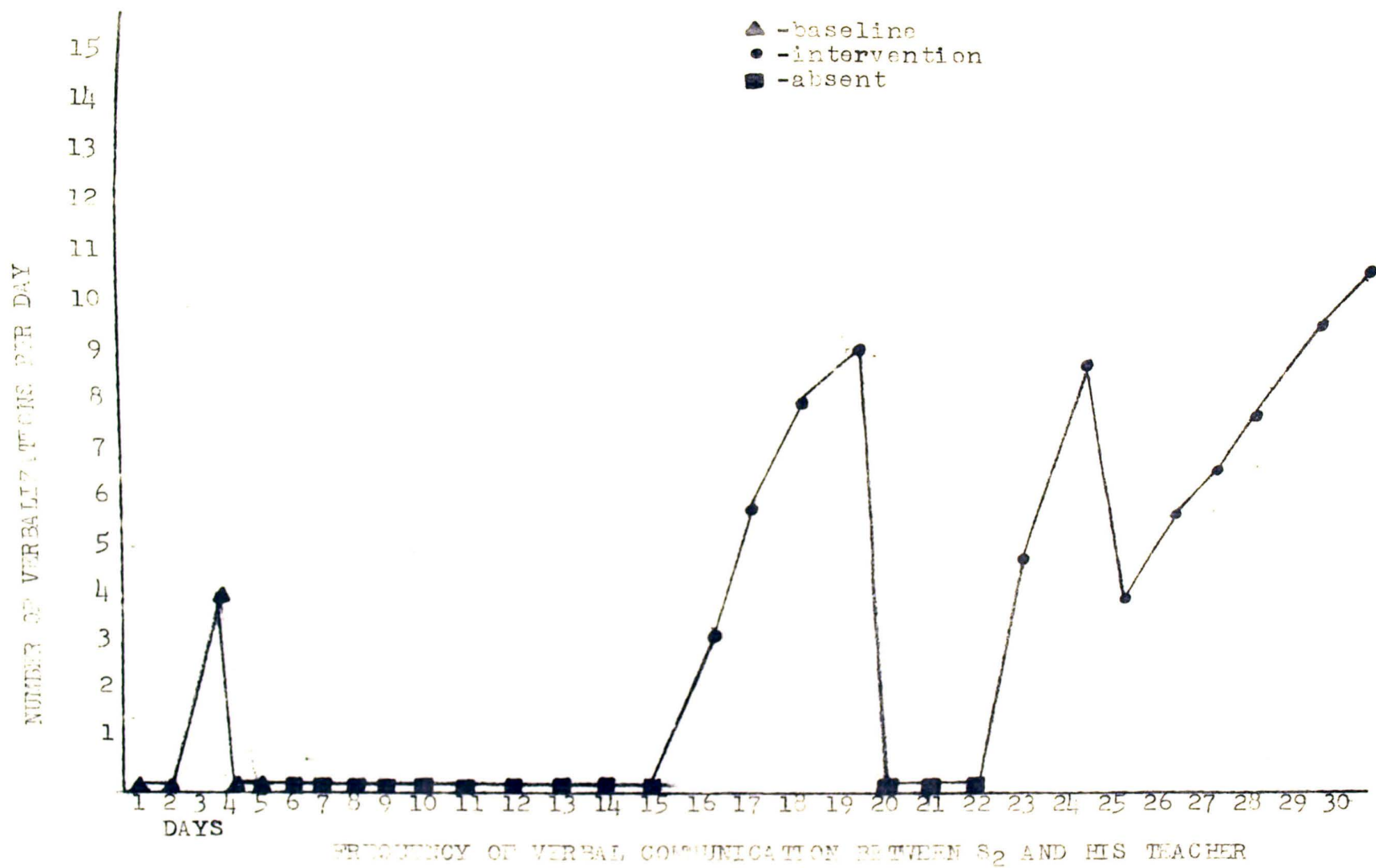
The teachers of both subjects served as mediators. Frequency of verbal communication between the subject and the teacher were kept by tally marks. The author observed the interaction between the subjects and their teachers three  $\frac{1}{2}$  hour sessions each week to determine the reliability of the frequency charts. Since the recorded behavior consisted of

direct verbal interaction between the child and the teacher, the tallies kept by the author and those kept by the teacher agreed 100%.

Success for both subjects was defined as adequate verbal communication in the regular classroom.



FREQUENCY OF VERBAL COMMUNICATION BETWEEN S<sub>1</sub> AND HIS  
TEACHER



## CHAPTER III

## RESULTS AND DISCUSSIONS

Initially, the first subject responded positively to the reinforcement program. On the third day after the program had been instituted, S<sub>1</sub> spoke to his teacher in complete sentences seven times, which is more than he had spoken in one day during the entire school year, according to his teacher's reports.

The mean number of verbalizations for the days he was in school during the reinforcement period was 4.5. Although this is a 350% increase in the mean number of verbalizations compared to the baseline period, it is still considered inadequate verbalization for a 6 year old child during a six hour school day.

The second child was only in the regular classroom for two hours each day. He began talking in complete sentences as soon as the reinforcement procedure was instituted. On the fourth day, he began to assert himself by asking the teacher if he could do classroom tasks. For example, he asked if he could take out the trash for the teacher.

While he seemed to enjoy the candy, the attention he received from the teacher seemed to be the most powerful reinforcer. This tenet is substantiated by the fact that his verbal communication with his teacher continued to increase during the last week of the study although the candy was discontinued. He appeared to enjoy the attention talking gave him and would often walk up to the teacher's desk and

ask her about something very minor.

The mean verbalizations recorded for  $S_2$  during the intervention period was 7.2 verbal communications per day he was in school. This is compared to a daily mean of .8 verbalizations recorded during the baseline period. The amount of verbal communication between  $S_2$  and his teacher is considered to be adequate for the two hours he is in the classroom each day.

As with all studies conducted in a natural environment, there are limitations. It is necessary to view the results of experiments such as these with some caution because there may be uncontrolled variables. There were two major variables that could not be controlled by the experimenter in this study which may have influenced the results. First was the excessive absenteeism of both children. Second was the fact that both of the children's parents separated during the course of the study. The first subject's mother and father separated on the 23rd day of the experiment.  $S_1$  was totally uncommunicative with his teacher on the following two days. The parents of the second boy separated on the 20th day of the study.

A follow-up four weeks after the study was concluded indicated that  $S_1$  is speaking more frequently in sentences and  $S_2$  has improved in verbal communication and classroom cooperation.  $S_2$  now works on assignments whereas before the study began, he sat listlessly at his desk.

The study indicates that behavior modification is a procedure that can be used successfully in a regular classroom.

## CHAPTER IV

## SUMMARY

In this study the effects of a behavior modification program designed to increase the frequency of verbal communication in two nonverbal boys were examined. The subjects were in regular first grade and kindergarten classrooms.

The kindergarten child spoke to his teacher occasionally in one-word phrases. The first grade child was almost totally mute in the regular classroom. Although neither child spoke in the regular classroom the mothers of both children reported that their sons did talk in other environments.

To modify the behavior of both children, a program was instituted that utilized primary and secondary reinforcers. M & M candies served as consumable reinforcers. The candies were paired with teacher approval and were administered each time the child responded verbally according to a predetermined criteria. The children's teachers ignored all nonverbal behavior. The subjects had to ask for classroom materials.

The classroom teachers served as mediators. They kept a daily tally of how often the children spoke directly to them during the time the subjects were in the regular classroom. The author observed the verbal interaction between the subjects and their teachers three  $\frac{1}{2}$  hour sessions each week to determine the reliability of the frequency charts. The tallies kept by the author and those kept by the teachers agreed 100%.

The results of the study indicate that the behavior modification program was successful. The kindergarten child showed a mean increase of 3.5 sentences spoken in the classroom daily.

The first grade child increased more dramatically in verbal communication. The mean verbalizations recorded for the first grade boy during the intervention period was 7.2 verbal communications for the two hours he was in the regular classroom each day. Teacher attention appeared to be the most powerful reinforcer for this child.

A follow-up four weeks after the conclusion of the study indicated that the kindergarten child is speaking more frequently in sentences and that the first grade child speaks frequently, often asks to do classroom errands, and works on his school work. None of these behavior were evidenced before the intervention program was instituted.

The results of the study indicate that behavior modification is a technique that can be used successfully by a teacher in a regular classroom.