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ABSTRACT

This paper represents a report of a year-long case study of the implementation of a token economy in an entire elementary school. The effort was intended to provide teachers with an alternative to corporal punishment as a form of school discipline. In this report, both the successful and unsuccessful procedures are described in chronological fashion, and the reader can then trace the evolution of the school justice system that was the outcome of this project. While the nature of this applied project precluded the use of standard techniques for achieving experimental precision, it nevertheless provides many insights into the process of implementing laboratory-derived principles of behavior management into the regular public school environment. (Author)

Implementing Behavior Modification Procedures in an Elementary School: Problems and Issues

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IMPLEMENTING BEHAVIOR MODIFICATION PROCEDURES IN AN ELEMENTARY SCHOOL: PROBLEMS AND ISSUES[1]

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In all too many schools, discipline is conceived of as being largely restrictive and negative. Penalties such as detention, suspension, expulsion, and corporal punishment are imposed when a student misbehaves. The president of the Pittsburgh Teachers Foundation recently explained the foundation's position regarding the use of corporal punishment: "Until somebody comes up with an alternative, we'll support it". (Wall Street Journal, June 16, 1970, p.1). As noted in a National Education Association (1970) survey, 65 percent of the elementary school teachers polled said they were in favor of the "judicious use" of bodily punishment. And in some areas of the country, the situation appears to be out of control: The Houston public schools, as described by school offical Dr. J. Boney in the November 4, 1972 Arkansas Gazette, "May well be the corporal punishment capitol of the country". Dr. Boney disclosed that, in a two-month period, 8,279 paddlings were administered.

Certainly in light of the current criticisms of education everyone should be interested in the development and implementation of more humane and sensitive forms of discipline in our schools. At its 1971 annual meeting, the National Education

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[1]This project was conducted at the Center for Early Development and Education (Kramer Elementary School) in Little Rock, Arkansas, under the supervision of Dr. Bettye Caldwell, principal. Dr. Elardo's present address: University of Missouri - St. Louis, Dept. of Behavioral Studies, St. Louis, Mo. 63121.

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Association called for the creation of a task force on corporal punishment and alternate forms of motivation. The task force began in 1972 to visit schools, to meet with student, parent and community groups, school boards, and others.

The information, opinions, and reasoning they collected reflected many sides of the issue of school discipline. The National Education Association (1972) has published the task force's report, which among other findings, contained these conclusions and recommendations:

- that no teacher consciously wants to inflict pain upon a young person; rather teachers want to do the best that they know how.

- that teachers lack both opportunity and support for personal growth in terms of identifying, developing, and practicing alternative methods of discipline.

- that educators move to phase out corporal punishment during the 1972 school year.

- that work in the refinement of alternative approaches to school discipline be intensified, including the use of class meetings, role-playing, parent education, human relations training, and the use of priviledges and approval (behavior modification) as a technique. More recently, the seventh annual Gallup Poll of public attitudes toward education revealed that many Americans feel that discipline of children is the biggest problem public schools must deal with. With this as background information on the problem, the following case study is presented.

Moving a School Toward Positive Discipline

During the 1971-72 school year an attempt was made to create and implement an alternative to corporal punishment -- a school-wide behavior modification program. This paper represents what the author has learned from an attempt to implement this behavior modification token system in an elementary school in Little Rock, Arkansas,

during the 1971-72 school year. The school population consisted of approximately 175 elementary children comprising seven classrooms, with a 60-40 black-white ratio. No busing was necessary, since the school was located in an integrated area of town.

Among the older children, there always seemed to be a group who were involved in a fight. There was an excessive amount of school property abused, and there were instances of disrespect toward teachers. A common control technique employed by certain teachers was either the threat of punishment or the use of punishment in the form of paddling. Several paddles were present in the school, (although generally kept out of sight) and their use by more than a few teachers was a well-known fact among the staff.

The matter of discipline was discussed with the entire staff on several occasions. Our black teachers pointed out to us that corporal punishment was what the black children were used to when they misbehaved at home. These teachers felt the same form of discipline should be continued at school so the children would "understand."

Certain other teachers, who had recently taken a course in child development, began to raise questions about the effects of aversive control. They recalled Skinner's (1964) observation that the student who works mainly to escape or avoid punishment develops more subtle forms of escape -- daydreaming, truancy, forgetting, and inattention.

Working with the author, who served as a consultant, and through the school principal, Dr. Bettye Caldwell, this small group of teachers requested a plan for the 1971-72 school year which would make corporal punishment in the classroom unnecessary, one which would provide teachers with a positive method of discipline as an alter-

native. The core group was interested in implementing a school-wide behavior modification system, but knew by that time that it would fail if some of the initiative and planning did not come from the larger total group of teachers themselves. Thus, teachers discussed the proposed plan with other teachers. When all involved were surveyed, most were eager to try such a plan. A typical comment was, "I know of no area that needs more attention and modification than behavior -- consistency with regard to handling seems important." However, one reply was, "will work with whatever the majority decides."

Since the majority response was favorable to the proposed unified, positive approach to behavior management, plans for such an approach were developed further.

An important principle of implementation is that an endeavor must have the support of those who will be expected to work at implementation on a day-to-day basis. We were able to achieve this support by going through the above steps, and by promising to help teachers implement the token system in their classrooms, as well as by scheduling problem-solving meetings with the group at least every other week.

Early Plans

Our plans as of the summer of 1971 called for implementing some type of token reward system in each of our primary (grades 1-3) and intermediate (4-5) classes. This decision was arrived at after considering the question of whether or not it would be better to introduce the system to one room at a time. We opted for the former approach, however, reasoning that the latter could lead to feelings of favoritism and divisiveness. After familiarizing ourselves with literature on token systems (O'Leary and Drabman, 1972; Kuypers, Becker, and O'Leary, 1968; O'Leary and O'Leary, 1972), we attempted to outline a system which we felt would suit our needs.

The following is a list of our original (August 1972) token system rules.

1. The rules of the token system should be discussed with children on the first morning of school. Children themselves can help compose some of the rules about what type of behavior is acceptable in the classroom. The teachers should also explain other aspects of the token system.

2. Each day, children can earn from 0 to 14 tokens. They can earn one each for the morning class meeting, four more during reading time, four more during math time, four more during social studies, and one more at PE.

3. Tokens will be given for both good behavior and good academic work. If a child completes a reading task but runs around the room, a token may be given for academic work but not for good behavior.

4. There will be penalties for misbehavior at lunch and at recess. Supervisors will cary a ticket book, and if they observe a child misbehaving they may issue a ticket. These tickets will be given for starting a fight, destroying property, ignoring a request by a supervisor, etc. One copy of the ticket will be given to the child, and one should be placed in the ticket box in the principal's office as soon as possible. The principal will then talk with the child and decide how many tokens the child must give up for the offense.

5. Tokens should be deposited in the bank every day. Banking hours will be from 2:30 - 3:15, from Monday to Wednesday, and at noontime on Thursday and Friday. The bank will be at the west end of the upstairs hall.

6. What can children buy with their tokens? They can buy tickets to participate in many types of activities. Various staff members will offer different things to do each Thursday (for Primary) or Friday (for Intermediate). Among these activities will be a beauty parlor, an unbirthday party, a rocket launching, an ice cream

making party, a dance, a tennis lesson, a sewing lesson and a trip to the airport. A price list for each activity will be posted near the bank, and children may sign up for an activity when they have earned enough tokens. A surprise store will visit each room occasionally, with various items for sale.

7. Helping Room. Children who do not earn enough tokens to go on an activity are to spend the Thursday or Friday activity period (2:00 - 3:00) in the Library. They should bring something to do, or they may read a book. A supervisor will be available and will be in charge during this time.

The Training Period. Before school convened for the fall 1972 term, we scheduled a one-week (August 14-18) training and orientation period for the entire staff. In spite of the fact that our building had just been sand-blasted and painted and was still in a state of disarray, we managed to conduct approximately four hours of lecture -- discussions with our teachers on the methods of implementation of our proposed behavior management system. We tried to reassure them that we know this was not enough time to master an understanding of behavior modification principles, pointed out help would be available to them in their classrooms after school began, and reminded them that we intended to discuss the behavior modification system at our weekly in-service meetings.

An effort to gather information which could provide helpful information to teachers was made which consisted of full-day (8:30 - 3:15) observations in each of the seven classrooms which were involved with the token system. These observations were performed for several reasons:

1. To see how effective the teacher was as a behavior modifier. Did the teacher seem to understand the system and to rely on it as a means of behavior management?

2. To get a more in-depth view of the types of inappropriate behavior evidenced by the children, and to try to discover what contigencies were maintaining this behavior.

3. To try to identify any particular period of the day in which behavior problems were most frequent.

4. To try to discover strengths in each teacher which could be rewarded and built upon.

Perhaps the most interesting fact (from behavior modifiers point of view, at least) which was uncovered from this fifty-hour-plus observation period was the failure to praise students for good behavior. After discussion of the importance of pairing praising with tokens, we found that teachers did not exhibit anywhere near acceptable amounts of praise. As a rough approximation, it appears that six teachers praised with 10 per cent of their total verbalizations, while the seventh teacher (who was the only one with a previous course in behavior modification) praised about 30 percent of the time. This finding was communicated to the teachers, and on the whole, they felt this was useful and constructive information, and informal subsequent observations indicate that they were praising more often, as well as more effectively.

As another attempt to insure teacher input to the token system, interviews were conducted at periodic intervals, and the responses collected served as the basis for discussion during training sessions. Here is a sample of one of these interviews.

The following information was collected from teachers in the middle of October 1972. The token system had been employed since August.

Mrs. N. enthusiastically supports the system and feels we should keep it. She mentioned several problem areas and offered these comments:

1. Introducing the entire school to the system may have been too much for this year.

2. Reward activities are not really more rewarding than other classroom activities at the same time.

3. Children do not value the tokens and will give them away at times.

4. Children need less delay between tokens and other reinforcers.

5. Teachers are put in the role of punishers when they must stay with the "left-over" children on Thursday afternoons.

6. We should not allow 10 to 12 children out of 175 to disrupt the school, i.e., should separate these children and use an extensive behavior modification system with them.

7. We should do something about the disruption in the halls and on the playground.

Mrs. J. also felt that the system was valuable and that we should continue using it. Mrs. J. suggested that we need more immediate primary rewards, in addition to the activities on Thursday and Friday. She suggested that we terminate bank balances every week so that those children who accumulate enough tokens for that one week are the only ones to go on the various activities. These teachers concluded that part of the system's inefficiency could be traced to their inadequate administration procedures. They also pointed to some difficulties we were all aware of, noting that some children bought activities but somehow missed them. In general, they would like to see the system continued -- with some changes.

Beginning early in December 1972 we decided to conduct a more formal set of discussions on behavior modification principles than had been the case to this point. (We had been holding informal weekly discussions.) It was not clear at this time whether any inadequacies in the application of these principles to the classroom were due to the fact that at times the teachers forgot to employ the principles, or were perhaps not sufficiently motivated to use them. For example, one teacher would wait several hours before giving out any tokens, and then she would give nearly every child five of them. Most of the staff felt that everyone needed a better understanding of the basic principles of reinforcement, especially after a teacher made this comment: "I didn't give out many tokens since I was too busy teaching." Some of our teachers still had the attitude that you can or should ignore good behavior.

Further Changes

Following these interviews and other discussions, some changes in the system seemed to be desirable. Several teachers indicated that many of their children were acquiring so many tokens that they had enough saved up to buy activities several weeks in advance. The teachers felt that some of these students were then more free to misbehave. In an attempt to surmount this problem, the staff decided that all bank balances would return to zero at the close of each week. This was considered to be a more desirable alternative at the time than penalizing the children by subtracting tokens from their bank balances, since such a plan might become too similar to a "demerit" system. Consequently, on November 2, 1972 we announced this alteration to the children. It was accepted with some minor grumbling in all rooms except one, Mrs. B's, the room with our oldest (5th level) children.

Children take the initiative. Many of our 5th level children were quite upset about this new rule, and later in the day several of them spoke to me about it. Their view was that the change in the system was arbitrarily imposed upon them without their involvement in the decision-making process. I communicated their feelings to several staff members and we decided that this was a very desirable type of behavior on the part of Mrs. B.'s students and that their initiative and concern should be rewarded. We perceived in these reactions an answer to the criticism that behavior modification systems invlove only external impositions of control. The children, we realized, were entirely capable of indicating to us their own objectives for behavior change; thus they were participating in the controlling process. We therefore decided to invite Mrs. B.'s children to plan their own token system rules. These children and their teacher developed a new system, and on November 9, 1972, I asked their spokesman, a ten-year-old named David, to write a description of what transpired. I asked him

to address these questions:

1. How did the "old" token system work -- how did you get tokens, what could they buy?

2. What did the kids think when we said the bank balance would have to go back to zero each week?

3. What kinds of things did the kids in your room complain about in their meetings?

4. You kids plus your teacher can design your own token system with its own special rules. What is this "new" system like and how does it work? (Describe its rules, the judge system, the reward tables in the room, and any fines or penalties that are used.)

5. What do the kids in the room think of the new system?

6. Is there anything else you want to say?

David W. -- November 9, 1972 -- To Mr. Elardo

"The 'old' token system worked like this. You got the tokens during the day and turned them into the bank. Some people would not buy anything for a while so they had a whole lot in the bank. So they could be real good for one week and get a lot of tokens but the next week they could be bad but they would still be able to buy things with their tokens. Then, the teachers went to a meeting and thought up a new program where the kids go back to zero at the end of each week. So we went to Mr. Elardo and told him how that makes us kids feel. So we said the next time you decide to change the token system take some of us. So we, the teachers and the kids, went to a meeting and worked out a new token system that we all like. What we do is we get the tokens during the week and at the end of the week when we buy things with our tokens, the left over ones go into a savings account. Now with these tokens in the savings account we may buy things during the week. Some things like the spool (an old wire spool used as a table) where we read books and comic books and the art table where we have various kinds of art supplies like paper, stencils, art games and so on. We also have a T.V. where we may watch our favorite show or a record player

and more. But to keep all of the kids in order while at these special activities we have a Judge and an Assistant Judge. The jobs of these people are to figure out punishment for the children who misbehave. They are also in charge of the work turned in. When a kid turns in his work to the Judge or Assistant Judge he is checked off on a list and asked the familiar question, "Want to buy something?" The kids in our room love the new system for the simple reason that they're tired of being bored. Mrs. B.'s room is the only room experiencing the new system and we think it might go on to other classrooms."

Although we did not perceive the children in Davis's room as being particularly "bored" very often, it was nice to see that the childrens' involvement in planning the new system, and living under it, proved stimulating to them.

Reward Activity Management

Seven or eight different out-of-room activities were offered regularly each Thursday (for the younger children) and again on Friday (for the older children). Wednesday was bank day and the sign-up day for activities. Late Wednesday afternoon each child would be called to see his teacher, or a fellow student who kept the bank-book. The child would deposit the day's tokens, and together with the banker would add up the week's total (as mentioned above, this procedure was more complicated in our 5th level room). The child would then be asked to choose an activity from the current week's list, which had been posted in the room. Since the number of children who could be accommodated in any one activity was limited, being one of the first children picked to come to sign-up time served as an additional reward. The following is a typical week's selection of reward activities and their "prices":

Candy-Making: Learn how to mix and fix great candy. - Ms. G. (45 tokens). Gourmet Snack Picnic: Come with us on a picnic where you help with the table setting and be a taste-tester of many great foods. - Ms. H. (40 tokens). Rocket Launching: Come

and see the launching and blast-off of a model rocket. - Mr. E. (50 tokens). Sock Hop: Dance to the latest James Brown, Jackson Five records or just listen and watch. - Ms. C. (40 tokens). Piano Lesson: Learn to ma' beautiful music on the piano. - Ms. L. (35 tokens). Toy Helper: Help Ms. J. get the new toy library ready and have treats. - Ms. J. (30 tokens).

During the month of January, 1972 one of our staff members turned in the following report on the problems caused by our system of using different prices for reward activities in the same rooms. That is, one week we might have charged 20 tokens to go to an ice cream party, and several weeks later it might be offered again for 30 tokens. The children didn't think this was fair. This is the report, which might be entitled, "Maintaining an equitable cost of living."

"After working as banker and bookkeeper for several months, I have discovered it takes quite a bit of planning and a lot of work to make a system operate smoothly.

We have made changes here and there as we went along seeking for the 'perfect' system. Even with all the changes to simplify the program, the students still had questions about the pricing and selecting of the activities from week to week and wanted to know why the same activity was more or less in other classrooms. It is hard to explain the difference in prices to a child that probably feels he has worked as hard as the child that's paying less.

So the two weeks before the Christmas break, I went to each classroom to talk to the teachers, students and other persons involved with the reward time to get some ideas on how we could change the program one last time for the school year, hoping to put the revised program in effect January 3.

It seems that everyone was in favor of a change or modification of the present program. The teachers and students were all for price stabilization -- i.e., within a given room, a particular activity should always cost the same amount. The students

thought it was really a big treat to pick, and also to price, the activities they wanted.

After receiving the list from the teachers, I plan to make a chart for each class with all the activities and prices so the teachers and students can refer to it from time to time when in doubt about an activity.

Many of the students have discovered that tokens can be taken away for unacceptable behavior, or on rare occasions the whole class might be barred from reward activities for the week or until the teacher feels they are ready to participate.

During January each child in the elementary school was polled to determine what price he or she thought each reward activity should always cost in his room. By combining all of these data, a general price list for each room was prepared. Here is the list for Mrs. B.'s (5th level) room: Assembly (staff provides entertainment) - 38; Ball game - 25; Bingo - 30; Bus ride (double decker) - 40; Candy - 35; Canister set making - 23; Caramel apples- 38; Coin collecting - 25; Cookies - 38; Crafts: Christmas tree - 30 -- Christmas wreaths - 30 -- Ice candles - 31 -- Indian crafts - 23; Doll clothes - 23; Embroidery party - 33; Gourmet Picnic - 39; Grooming class - 23; Ice cream party - 35; Jewelry box making - 30; Kite making - 30; Movie and popcorn - 37; Newspaper - 23; Penny hike - 23; Piano lesson - 25; Rocket launching - 23; Sewing - 23; Scavenger hunt - 23; Sock hop - 23; Sports car ride - 23; Tickets to Kramer Olympics - 2 Toy helpers - 25; Trips to the: Airport - 30 -- Bank - 27; Beaver's Dam - 25; Dairy Queen - 40; Game and Fish Commission - 27 ; Arkansas River Murray Lock and Dam - 27; Safeway Distribution - 40; Center - 40; Arkansas Territorial - 23; Restoration - 23; Zoo - 37.

Chips or Checkmarks; A Change in the Type and Scope of Token Reinforcement

By January 1973, our token supply was dimishing -- many tokens were simply lost, some extortion was suspected, and a great deal were chewed beyond recognition by the

children. A consensus was reached that a checkmark system would be a desirable replacement. At this time there was discussion of replacing the several Wednesday reward activities with a feature movie. We also observed that behavior in the rooms had improved, but that behavior in the halls, cafeteria, etc. was still not acceptable. The following memo served as a basis for discussion of these proposed changes:

Topic for Discussion: Suggested Improvements in the Kramer Token System

"Improvements in our system seem to be desired (and needed) in these areas: (a) Tokens in the form of red chips have been used for over three months. It probably would be a good idea to move now to a system which uses checkmarks instead of tokens. Each child's name can be kept posted in fromt of the room, and instead of getting red chips, he would get daily marks: John XX, Joe X, Nancy XXX.

"Any Wednesday out-of-room reward activity will have one set price for all rooms so the children will know exactly how many marks they will need to qualify for a reward. (b) If we decide to use the new movies for the Wednesday rewards, it will probably be necessary to offer in-room reward activities from time to time. We should also insist that the children have earned a checkmark prior to recess; if he hasn't he should stay in during that recess.

"Children who earn surplus checkmarks should be able to earn such in-room rewards as free time, time to paint or color, to watch TV, or look at magazines, etc. (c) In an effort to improve student behavior in the halls, cafeteria, and on the playground, we need to expand our system so that adults in these areas are able to subtract or cross off marks for inappropriate behavior. We then must follow through and see that the misbehaving child is deprived of privileges. (d) While a time-out room has not been established, because of lack of suitable space, if we were more consistent in depriving problem children of recess the need for such a room might be eliminated."

A Unified System of School Rules

During late January and early February 1973, the staff discussed with the children of Kramer the possibility of developing a more uniform school-wide list of rules.

School rules were discussed on several occasions during this period, especially during class meetings. The following list resulted from the above discussions:

Kramer School Rules -- Suggested by the Children of Kramer

Penalty: Loss of tokens (Amount varies from room to room). 1) No fighting any where; 2) No running in building; 3) No throwing paper in building; 4) No cursing anybody; 5) No eating in building, except in cafeteria; 6) No pushing; 7) No breaking into lines; 8) No throwing rocks; 9) No yelling in halls; 10) No using things you haven't bought. 11) No pencil sharpening after 8:30; 12) No littering in or out of the building; 13) No letting your neighbor get you in trouble; 14) No running in room; 15) No walking around room unless you're getting work, putting work away, or going from one group to another; 16) No name calling; 17) No talking back to teachers. 18) No taking things from others unless they give them to us. 19) No writing, scratching or coloring on walls or desks; 20) No interrupting people while they're talking; 21) No sliding down the stair-rails; 22) No leaving school grounds without permission; 23) No meddling or bothering others; 24) No bothering the intercom system; 25) no wasting time; 26) No standing on the swings. The list of rules was announced in our school paper by Tim M., a reporter and 5th level student:

From the Kramer Line -- Our School Rules -- Tim M.

"We have a new set of rules at Kramer. Each class made some rules. Then we put how much the fines were. We felt that if we fine a person for breaking a rule, sooner or later he will improve."

"We have also stopped the token system and changed to a check system. Some people have been getting more tokens than they were supposed to. Now you earn a ✓ on a large sheet of paper with everyone's name on it."

It is interesting to note that the children wrote all the rules in a negative form. As adults working with children we try to train ourselves to state rules positively ("We walk in the halls"). When children write the rules, however, they appear

to be perfectly happy to use the "Thou shalt not" format.

A Change in the Reward Activities; or, When Are Rewards Reinforcers?

In an effort to try to simplify our system in terms of the staff's time commitment to the reward activities, staff members after consulting some (but not enough, as it turned out) of the children this time, replaced all the Wednesday reward activities with what we thought would be an adequate substitute: "Reward Movies."

It was about this time we were mobilizing our efforts to improve our after-school program for the elementary children. Staff invloved in that program had realized that, as the school year wore on, the children were becoming less interested in the regularly available after-school activities (basketball, kickball, gymnastics, TV, free play, and art). Because of the known appeal of the weekly reinforcement activities, we thought that having one of them available for one afternoon each week would enrich the late-day program. However, implementation of this plan meant searching for an alternative type of reward for the regular period. It should be remembered that offering the reward activities served a double purpose -- providing reinforcement for good behavior in the children and making time for staff development available for the adults. Accordingly, when we learned of the possibility of securing feature movies for a very low rental fee, we thought that the movies could be used during reward time and the special activities could become part of the elementary day care program. We believed, to some degree at least, that the children would be adequately rewarded by these full length feature films. Consequently, the only reward activity offered on Wednesday afternoons beginning with January 31 was a movie. Our first movie was "Shipwrecked," followed in subsequent weeks by "Davy Crockett" and "Buffalo Bill."

However, it soon became obvious to us that most children really preferred the old reward system, and we consequently restored the reward system used earlier -- not entirely to its former level (eight different activities to select from each Wednesday) but to a more easily managed system of four to six activities. Consequently,

the remander of the school year unfolded harmoniously, with an absence of corporal punishment.

Broader Issues Related to the Implementation of Behavioral Techniques in the Schools

1. Opposition to the philosophy of reward. We have maintained our belief that if we could just supply teachers with a knowledge of behavioral principles and techniques (such as shaping, contingency management, etc.), they would come to rely more and more on positive means of behavior control and less and less on physical punishment and other forms of aversive control. As Skinner (1964) stated, "Most teachers are humane and well disposed. They do not want to threaten their students yet they find themselves doing so." He explained that the reason aversive techniques were so prevalent in education is because effective alternatives had not been developed. Currently we believe that the field of behavior modification (operant conditioning) is able to supply these alternatives. Yet we still hear arguments to the effect that "our children are raised with physical punishment as a form of discipline, and therefore the school should continue what the home supplies in this regard." Hopefully, we have changed some teacher attitudes on this subject.

During a discussion of discipline with several of Little Rock's elementary school principles, two of them expressed the point of view that spanking was OK and "made kids respect you." We suggested they ask our teachers how they handle discipline. We called Mrs. B. and Mrs. A. to the meeting. They reported they didn't spank, but withheld privileges for punishment. The visiting principals asked what the children thought about the system. We suggested that we ask some of them rather than try to speak for them. Accordingly we called in these children from Mrs. B.'s room: Tim, Mickey, David, and Dwight. As the boys walked into the room, Tim made a spontaneous remark which, in view of the topic under discussion, must have appeared to have been prearranged: "Oh, I know you," he said to one of the principals. "I used to go to

your school, and you whipped me four times." Reinforced by the laughter that ensued, Tim further embellished his story by adding, "Seventeen licks each time." This innocent reminiscence served to illustrate more dramatically than anything we could have said at least one effect of frequent use of corporal punishment -- Tim's outstanding memory of his earlier school was that he had been whipped there. (A similar [illegible] comedy was added to the meeting later when we discovered an uninvited boy sitting on the couch in the outer office. We asked him what he wanted, and after a little hesitation the answer came forth. He had formerly attended one of the schools represented by the visiting principals and had been paddled several times by his former principal. When he saw the man in the building he became concerned that he was to be sent back to the other school and stationed himself in the outer office to learn whether that was true. Upon discovering his apprehensiveness, we simply invited him inside to participate in the meeting.)

Our boys enjoyed themselves immensely while expounding to these principals about our system of discipline. In a good-natured way the visiting principals baited the boys to see if they could not get some indication that the boys thought there were times when a spanking was the most appropriate form of discipline and if they would not respect their principal more if she occasionally paddled an unruly one. Mickey replied, "Oh, no. She's a sweet lady and it wouldn't seem right for her to paddle any of the kids." Mickey added that sometimes it might be a good idea for the principal to call the parents and tell them to paddle a child, adding that "Your parents always spank harder anyway." All of the boys expressed the opinion that some kids would probably prefer to get a spanking to "get it over with" and that spankings did no good at all. Finally Mickey, the most articulate of the four, added an interesting and insightful reason that spankings were not the best form of discipline: "Sometimes you get accused falsely of doing something. If you get paddled and later prove

you did not do it, you can't get unpaddled. But if you lose an activity, maybe by the time the activity should occur you can prove your innocence and still get your activity." What a profound justification for delayed reinforcement!

Finally in this meeting there was a discussion of who should paddle a child, if this should ever be done. Some of the principals indicated that it should never be anyone other than the principal; others felt that the teacher who had witnessed the misbehavior should handle the punishment. (To a great extent these attitudes expressed sex stereotypes, as most of the principals were men and most of the teachers women. Their general feeling was that men, not women, should be the ones to punish the children.)

2. Problems with the school-wide approach. As mentioned earlier, before we began this system in August 1972, we discussed the pros and cons of beginning a token system in one or two rooms vs. in all elementary rooms simultaneously. We decided upon the latter approach because we felt it would help insure a more unified school. However, it has been impossible to install exactly the same system in each of our seven elementary classrooms. As stated earlier, our 5th level class requested much more control over their token system than did the younger groups, and we were pleased by this request and granted it.

We found that some teachers would not distribute as many tokens (or checks) as others, which led to the differential pricing of reward activities in each room.

Finally, we found that as mentioned in point (1), at least two teachers tended to go along with this approach only half-heartedly This leads to the point below.

3. The problem of teacher incentives. What motivation should a teacher be expected to have to adopt a token system, or any other educational innovation, for that matter?

This is a topic which young future advocates of behavior modification never hear about, while, as undergraduate and graduate students, they study rats in the Skinner boxes or children in a special lab school. In the real world, it seems that many teachers are not beating a path to the door of the behavior modifier, so that it becomes necessary to convince skeptical, 20-year veteran teachers of the value of the behavior modification approach. How can this be done? Present them with the research evidence? Let them read a copy of the Journal of Applied Behavior Analysis? It may come as a shock to some (but not many, I hope) educational researchers that there are plenty of teachers, administrators, school systems, etc. who do not employ research evidence as an aid to decision-making. But there is always the charisma of the innovator. This can be useful in stimulating change, if one is lucky enough to have any.

Hopefully, what we all would like to see is this: a teacher tries some behavior shaping; it works, and she is reinforced by this and does it again. To get to this point, however, may require a great deal of time and effort. We should remember that a teacher's personal monetary reward system (a salary) is not truly contingent upon his or her teaching skill. After ten years or so when the teacher has reached peak salary and has tenure, it is too late to think about using salary as an incentive to improve the quality of teaching; and before this point is reached there seems also to be no built-in way of shaping teacher behavior with monetary rewards. At one point, when we wanted to pay our teachers some extra money for learning about behavior modification, the school district said this was against certain guidelines. Thanks to our staffing patterns, we have been able to let our teachers have one afternoon a week free of teaching duties. It is at this time we offer the in-service training, and we hope that these sessions are rewarding to our teachers.

However, in most schools, the problem of how to get and maintain teacher motivation to try an innovation will continue to exist and will perhaps present more of a problem than it has for us.

4. The question of evaluation. In the behavior modification literature, most demonstrations of the effects of token systems in the classroom have utilized within-subject designs. Typically, after a period of several days of observation of the behavior of children (called the baseline period), the token program is instituted (for perhaps one or two months), is withdrawn, and finally reinstated. If a decrease in disruptive behavior is related to the period in which the token system is in effect, the system is usually considered successful.

One review of classroom token reinforcement programs (O'Leary and Drabman, 1972) made clear the fact that most tokens systems have been employed on a much narrower basis than is the case with our effort. For instance, some typical types of classroom situations discussed in this review were:

- the behavior of seven disruptive children in a second grade class of 21 children for eight months.
- the hyperactive behavior of six children treated for two and one-half months.
- the six classrooms of nine students each studied for one year.

While most of these studies were designed so that they would be carefully evaluated, by now it should be clear to the reader that what we have attempted to do does not closely resemble the typical classroom token study in several respects, and consequently our effort is not amenable to the same type of evaluation.

First of all, we have not had as our main purpose the design of one or two classroom token economies. Rather, we have been working on a comprehensive, school-wide discipline plan, and we have tried to implement this plan in a real live public elementary school, with 175 elementary students and several teachers, most of whom were not selected by our senior staff.

Secondly, our plan is growing and changing in real time, and is quite dependent upon our reciprocal interactions with our students and teachers for many of its feature

Thirdly, in terms of experimental design, in many schools there exists the problem of interaction among several simultaneous "treatments." We were not able to completely isolate the effects of the behavior modification program as opposed to the new science program, or the presence of volunteers in the school, the availability of aids, etc. Therefore, we believe we have achieved these behavioral objectives for our program: (a) the establishment of a system of behavior modification with (b) significant input from the children and (c) evidence that classroom teachers can learn to implement the program and rely on it as an alternative to physical punishment and a form of discipline. In this sense, we feel that our effort was worthwhile.

5. Problems with the more difficult children. As mentioned earlier, our main purpose in implementing this school wide discipline plan was to provide teachers with an alternative to corporal punishment. In our case, the alternative was a loss of privileges: children who did not earn enough tokens or checkmarks to attend a reward activity had to stay behind in their room. This procedure brought several problems with our system into focus. First, it often was the case that it was the children with the most severe behavior problems who didn't earn enough checkmarks to earn a reward activity. Their teachers were simply not able to "catch them being good" often enough, or to isolate enough improvement in their behavior or their schoolwork, in spite of our help as researchers. So quite often, we saw the same faces being left behind. Second, problems arose in the rooms in which the detained children were to remain. Since the teachers were free to attend a staff development meeting at this time, we typically used research assistants or student helpers to supervise the children being "punished." Children were told to remain quiet, stay in their seats, and to find something to work on during the 2-hour interval of detention. Often the children would misbehave in the detention room by running around, throwing erasers or pencils, or talking to the children outside by leaning out the window.

One occasion should be highlighted at this point, and perhaps students of behavior modification can learn from it -- it is the type of incident one doesn't

often read about in the standard journals in the area, which naturally, tend to highlight the successes and to avoid discussions of failures or difficulties with the techniques. This incident occurred one time when the author was left in charge of a fourth grade room during the time several students who had not earned a reward activity were to remain behind. When the researcher arrived at the room the teacher was just leaving, and student teachers and research assistants were gathering children into groups to leave for the reward activities. There were eight children to supervise -- two or three from an adjoining room were included. At this point one girl who was about 5' 6" tall and in quite a bad mood stated that she was leaving the room, and started using some rather foul language. It was at this point it became difficult to tolerate such disrespect. She went over to the (second story) window and said she was going to climb down to the playground, and put her leg outside. At this point, it appeared that she might fall, so the researcher had to go get her and drag her back to her seat. In a minute, she was up again, and the researcher stood between her and the door. Then she said "my uncle has a gun and he'll get you" as she tried to push the researcher away and run out the door. The researcher grabbed her and yanked her back into the room and she fell down, tripping over a desk. Just then some observers walked by and got a rather unfortunate glimpse of how this researcher was helping provide teachers with an alternative to corporal punishment. Incidently, this is not the only such indident of this nature. We experienced several similar incidents involving several other adults working with this program. The luxury of hindsight has let us to conclude that perhaps some of the above difficulties could have been avoided if the children in the detention rooms could have been allowed to earn some slight reward toward the end of the 2-hour period -- perhaps the opportunity to listen to records.

6. Logistical problems. At this point the reader will be aware of the fact that for this project we had the additional help of five or six researchers and two to four student teachers. We did not feel we could mount this type of school-wide

reward system without some kind of extra help - a problem that others desiring to attempt such a system will have to deal with. A logical source of help, of course, would be parent volunteers. But the enormity of the job of coordinating such a system for just our small (175 student) population led us to understand why behavior modification efforts often extend no further than the walls of a single classroom.

Conclusion

It is the author's opinion that perhaps research in behavior modification via operant conditioning has reached the point where the need for more knowledge of the principles involved is being surpassed by the need for knowledge of how to implement successfully those techniques which have already been demonstrated to work under controlled conditions. As this paper has hopefully shown, just because a school psychologist is knowledgable about behavior modification, this does not imply that s/he is knowledgable about how to implement this approach in the schools. We need more studies dealing with this topic. (The reader interested in implementation is referred to the article by Reppucci and Saunders (1974), in which a conceptualization of difficulties encountered in employing behavior modification in natural settings is presented).

In terms of our continuing effort to eliminate negative systems of school discipline, we feel the need for more knowledge pertaining to the design of school justice systems involving both children and adults. We have attempted to make our classrooms more democratic, and have found that our oldest children (ages 9-11) were able to assume much responsibility for planning and supervising the token system. This type of classroom may be more difficult to launch than the traditional autocratic one, but we believe it affords children the opportunity to learn first hand the problems of treating each other fairly. Needless to say, the school psychologist can play a key role in creating more humane learning environments for children.

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