

FOCUS ON EXCEPTIONAL CHILDREN

PEER USE OF BEHAVIOR MODIFICATION

Harry E. Rosenberg, Paul Graubard¹

PEER USE OF BEHAVIOR MODIFICATION

Social deviance and maladaptive behavior can be alleviated through the use of behavior modification techniques. In the experiments reported in this paper, a novel approach was taken: The "normals" were treated to increase their tolerance for deviant behavior.

This approach developed as a result of a concern at seeing individuality and creativity suppressed in "exceptional" children, who are expected to conform to the rules of the dominant culture. These children are often tragic victims of society. Under the mantle of "helping," society has stigmatized these children with labels such as "mentally retarded," "psychotic," and "schizophrenic." They have been subjected to loss of privacy, public ridicule, involuntary detention in training schools and hospitals, and loss of prestige and privileges. In many cases, this "help" also leads to physical abuse (James, 1969). This phenomenon is also compounded by racism and class bias. In our opinion, it is no accident that special education classes, child guidance clinics, mental hospitals, and training schools are filled with youth of minority group status far out of proportion to their actual numbers in the population.

For an understanding of the approach, first imagine that a child has absented himself for 37 days of an 80 day school term. If he is referred to a guidance counselor or clinical psychologist, the medical label (which tends to pre-empt all others) will be applied to him. He will be viewed and designated as "school phobic," "emotionally disturbed," or "sick" to some degree. A dean of discipline or a probation officer would label and treat the same child as a "juvenile delinquent," "incorrigible youth," or "youth in need of supervision." Other citizens might view this absentee behavior as "wrong" and would recommend moral lessons dealing with the rewards of virtue and respect for diligence.

In contrast, some members of a counterculture might define this same truancy as heroic behavior to be encouraged, as it seems to violate an oppressive law.

Thus, the problem of maladaptive behavior (or what is popularly called emotional disturbance) can be reasonably interpreted in the language of psychopathology, of learning theory, or of social deviancy. The social deviancy model, long popular in

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anthropology, has seen little use in the field of applied behavior analysis. This is unfortunate, as it is a model which carries many implications for both understanding and ameliorating behavior problems.

In 1934, Benedict noted in her study of comparative cultures the ease with which people who would be considered abnormal in America were functional in other cultures. It did not matter what kind of "abnormality" she studied—those which indicated extreme instability or those which were more in the nature of character traits like sadism or delusions of grandeur—there were still well described cultures in which these abnormals could function at ease and with honor. These people apparently functioned without danger or difficulty to their society.

If one agrees that given behaviors are not good, bad, healthy, or pathological in themselves and that any component of behavior is either adaptive or maladaptive for a specific culture, then "non-normative," "pathological," and "social deviant" become equivalent terms. Use of this conceptualization demands examination of (1) the specific behavior, (2) the perceiver of the behavior, and (3) the effect of the behavior upon the perceiver.

Theories and methods generated by the field of ecology are of great value here, as they view man within the ecosystem or context of his environment. Ecologists do

not conceptualize or treat "emotional disturbance." They attempt to describe behavior which is a mismatch between surroundings and individuals or groups. The implication is that behavior, behavior analysis, and planning strategies to reduce conflict can be conducted only in the originating habitat. It is the "goodness of fit" of behaviors to specific environments that must be scrutinized. Rabkin and Rabkin (1969) say that it is the interface (described as the meeting of two social systems, including the context or background of their encounter) and the clash between cultures that is in need of change when clinical intervention is requested. The behavior of neither the behavior nor the perceiver in isolation from this interface is the target. The behavior, whether a member of a minority or majority group, should be considered with reference to culture-specific factors. This is particularly true if we take the pluralistic ideals of our society and the rights of minority groups seriously. In our opinion, aberrant behaviors constitute a minority group as meaningful as groups composed of ethnically different members of the population.

In the field of mental health, we usually find one group—usually that within the dominant, established culture—which labels the behavior of individuals from another

FOCUS ON EXCEPTIONAL CHILDREN is published monthly except June, July, and August as a service to those concerned with mentally retarded and emotionally disturbed children. This journal is abstracted and indexed in *Exceptional Child Education Abstracts*. Subscription rates, \$9.50 per year. Copyright 1975, Love Publishing Company. All rights reserved. Reproduction in whole or part without written permission is prohibited. Printed in the United States of America. Second class postage is paid at Denver, Colorado.

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STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

Date of Filing: September 30, 1975

Title of Publication: FOCUS ON EXCEPTIONAL CHILDREN

Frequency of Issue: Monthly except June, July and August

Location of Known Office of Publication: 6635 E. Villanova Place,
Denver, CO 80222

Location of Headquarters of Publisher: 6635 E. Villanova Place,
Denver, CO 80222

Name and Address of Publisher, Editor, and Managing Editor:

Stanley F. Love, 6635 E. Villanova Place, Denver, CO 80222

Owner: Stanley F. Love

Extent and Nature of Circulation:

	Average No. Copies Each Issue during Preceding 12 Months	Single Issue Nearest to Filing Date
Total No. Copies Printed	8,556	14,500
Paid Circulation		
Sales thru dealers, etc.	0	0
Mail Subscriptions	6,258	6,434
Total Paid Circulation	6,258	6,434
Free Distribution	500	500
Total Distribution	6,758	6,934
Office Use and Left Over	1,798	7,566
Total	8,556	14,500

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group as disturbed. Those so labeled usually come from a political or social minority. Both Szasz (1970) and Rhodes (1969) discuss the political underpinnings of mental health labeling in current society.

The treatment of "social deviants" by "normals" cannot be extensively documented here. The theme of cruelty to underdogs runs through the social history of Western society and is extensively detailed in our literature (e.g., Chekhov's *Ward Six*, 1965), and the harassment of "deviants" can be seen on any playground as "normal" children torment a "different" child. Thus, if we work with the "goodness of fit" model, to change the behavior of "normals" may be of equal importance to changing the behavior of "deviants." Change in the interface between conflicting groups is the most significant factor.

The behavioral literature is replete with examples of how behavior modification has been used to change the behavior of the social deviant (e.g., any issue of the *Journal of Applied Behavior Analysis*). There are few examples in the literature where deviants, as part of a planned process of change, were taught to modify the behavior of normals.

We feel that it is necessary to teach deviants to change other people, not only for self-protection but also because the positive use of power leads to self-enhancement and positive feelings about the self. If children are to be more than recipients of someone's benevolence, they must learn how to operate on society as well as to accept being operated upon. Moreover, our clinical data indicate that, in the process of learning to change others, the "deviant" changes his own behavior and receives feedback and reinforcement for this change.

The experiments to be described took place in an agricultural community. "Anglos" comprise the predominant group within the town, although there is a large Chicano population and a small Black community. Each experiment describes a special approach. These experiments are reported as representative of a method, and we assume a much wider spectrum of possible applications than is illustrated here.

CHILDREN-MODIFIED TEACHER BEHAVIOR

This experiment took place in a school which had a reputation for being hostile to the special education program in general and toward adolescent minority group children in particular. Experience had shown that it was extremely difficult to reintegrate special education children into the mainstream of that particular school. It was

felt that many regular class teachers scapegoated special education children. Supervisors' directives that all children, including special education children, were to be treated equally had little effect.

The goal of the special education program was to reintegrate its members into regular classes of the school. The children spent more time with each of the regular class teachers than any professional consultant or administrator could and had the greatest personal interest in changing their teachers. They were, therefore, expected to exert the most influence over their teachers, if given an effective technology.

Method

Sam's eighth grade teachers found him frightening. Only 14 years old, he already weighed a powerful 185 pounds. He was easily the school's best athlete, but he loved fighting even more than sports. His viciousness equaled his strength; he had knocked other students cold with beer bottles and chairs. Sam's catalog of infamy also included a 40 day suspension for hitting a principal with a stick and an arrest and a two and one-half year probation for assault.

Inevitably, Sam's teachers agreed that he was an incorrigible and placed him in a class for those with behavioral problems. Had they known he had begun secret preparations to change their behavior, they would have been shocked.

Sam's math teacher was one of the first to encounter his new technique. Sam asked for help with a problem; when she had finished her explanation, he looked her in the eye and said, "You really help me learn when you're nice to me." The startled teacher groped for words, then said, "You caught on quickly." Sam smiled, "It makes me feel good when you praise me." Suddenly, Sam was consistently making such statements to all of his teachers. And he would come to class early or stay late to chat with them.

Some teachers gave credit for Sam's dramatic turnaround to the special teacher. They naturally assumed that he had done something to change Sam and his "incorrigible" classmates. Rather than change them, the teacher had trained the students to become behavior engineers. Their parents, teacher, and peers had become the clients.

Subjects. Seven children with an age range of 12 to 15 years were selected as behavior engineers. Two children were Caucasian, two were Black, and three were Chicanos. Each engineer was assigned two clients (teachers), and each

had the responsibility of accelerating praise rates and decelerating negative comments and punishment by the teachers.

Procedure. The class day in the school was organized into seven 43-minute periods. Special education children met with a special class teacher three periods a day and were integrated into the regular classes for four periods daily.

Instruction and practice in behavior modification theory and techniques were given during one period a day by the special class teachers. Initially, instruction was on a one-to-one basis, but later the whole class worked together on practicing their newly learned skills. The children were told that they were going to participate in an experiment. Scientific accuracy was stressed as being extremely important. Students were directed to record all the client-teacher's remarks during the pilot period of two weeks. Through consensual validation of the class and special education staff, these comments were sorted into positive or negative groups.

Techniques taught to the children included making eye contact with teachers, asking for extra help, and making reinforcing comments such as, "Gee, it makes me feel good and work so much better when you praise me" and "I like the way you teach that lesson." They also were taught to use reinforcing behavior such as sitting up straight and nodding in agreement as teachers spoke. These techniques and phrases were used contingent upon teacher performance. The pupils were also taught to perform the "aha" reaction (so notably described by Fritz Redl) as follows: When a pupil understood an assignment, he was to ask the teachers to explain it once again. In the middle of the second explanation the student exclaims, "Aha! Now I understand; I could never get that point before."

Pupils were also taught to break eye contact with the teacher during a scolding, to ignore a teacher's provocation, to show up early for class, and to ask for extra assignments. These techniques were explicitly taught and practiced repeatedly. Simulation techniques and role playing were employed. Video tapes were used extensively so that other children could monitor their performance and, under both class and teacher prompting, adjust those factors that were targets for change.

Reliability. Each of the seven students were observed in action. At various times, an observer-aide unobtrusively recorded his own version of positive and negative contacts within the teacher-student interface. These records were later compared with those of the student-participants for the same observation periods.

On positive contacts from teacher-clients, the range of correlations between student and observer records was very narrow, from a low of .815 to a high of .980. The mean correlation across seven student-observer combinations is .942.

On negative contacts, the range of correlations is from .453 for one student-observer combination to 1.00 for two such combinations. These perfect correlations reflect the fact that students were often observed well into the experiment during periods when negative contacts by teachers were few, often zero. Therefore, agreement between students and observers in the absence of negative contact for such periods is quite high. The average for the seven student-observer combinations is .957.

An interesting sidelight was that at the beginning when procedures were piloted, the observer-aides consistently differed from the children in the number of positive comments made. Closer monitoring revealed that the aides were more accurate in recording, since often the special education children were unable to recognize conventional praise phrases as such. Therefore, they consistently underestimated the amount of praise that was given to them. Teachers were experimentally naive.

Results

Data were collected during a nine week period. With seven student-engineers, each with two teacher-clients, there were, in effect, 14 replications to examine. An ABA design was employed: The first two weeks were considered baseline weeks and were followed by five weeks of intervention. During the last two weeks, students were instructed to stop all reinforcements, thereby applying extinction.

Data on positive contacts by each teacher-behavior engineer during the nine weeks were cast into a repeated-measures analysis of variance. One data point was used per student-teacher combination for each week (the average number of positive contacts during the week for that combination). The results of that ANOVA, summarized in Table 1, are fairly straightforward. There is no significant interaction between Weeks and Teacher Replications, and no significant overall effect for Teachers. There is a very marked effect for Weeks (which we shall return to in our discussion briefly) and, as might be expected, a significant effect for Subjects.

A similar analysis on negative teacher-as-client contacts is summarized in Table 2. In most respects, the effects here

Table 1

ANALYSIS OF VARIANCE FOR POSITIVE CONTACTS IN STUDENT-TEACHER SHAPING AS A FUNCTION OF WEEKS AND TEACHER REPLICATION

Source	df	ms	F
Subjects (S)	6	113.83	4.8*
Weeks (A)	8	975.88	41.49*
Teacher Rep. (B)	1	6.00	1.50
A x B	8	6.00	1.68
A x S	48	23.52	
B x S	6	4.00	
A x B x S	48	3.58	

* < .01

Table 2

ANALYSIS OF VARIANCE FOR NEGATIVE CONTACTS IN STUDENT-TEACHER SHAPING AS A FUNCTION OF WEEKS AND TEACHER REPLICATION

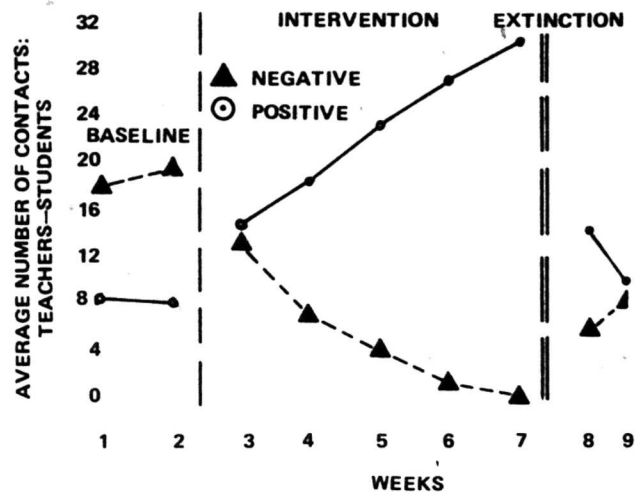
Source	df	ms	F
Subjects (S)	6	211.50	7.06**
Weeks (A)	8	562.75	18.80**
Teacher Rep. (B)	1	8.00	9.64*
A x B	8	1.25	.48
A x S	48	29.94	
B x S	6	.83	
A x B x S	48	2.60	

*p < .05, **p < .01

are similar to those for positive contacts. The exception is a significant effect for Teacher Replications which, though reliable, is quite small in magnitude.

Figure 1 shows a plot of average frequency of positive contacts and of negative contacts over the nine weeks of the experiment. For positive contacts, there is a significant jump from Week 2 (a baseline week) to Week 3 (the first week of treatment). There is a general improvement in frequency of positive contacts throughout the next four weeks, all intervention weeks. With Week 8 (the first week of extinction), there is a marked and significant drop in positive contacts by teacher-clients. By Week 9, the frequency of positive contacts has fallen to below the base

Figure 1



rates for Weeks 1 and 2, although this is not statistically significant.

The results on negative contacts are fairly analogous to those for positive contacts. Indeed, they appear to be mutually dependent, until we examine the extinction Weeks, 8 and 9. Here, although there is a significant increase in negative contact from the last week of treatment (Week 7) to the first week of extinction (Week 8), the frequency of negative contacts does not increase significantly between Weeks 8 and 9. Also, negative contacts during extinction are still significantly fewer than for Weeks 1 and 2, the baseline weeks. It can clearly be seen that children can modify teacher behavior, at least temporarily. However, the teacher-clients appear to be quite dependent on a maintained reinforcement schedule for positive contacts; this is less the case for negative contacts, at least as far as these data can show us. Of course, the frequency of negative contacts might have increased to base-rate levels or even beyond in subsequent weeks, but these data are beyond the scope of the present analyses. Nevertheless, we might hazard a guess that teacher-clients did learn to be less punitive with training and that this training held to some extent even when the reinforcements were withdrawn. It does appear, however, that teachers, like most people, are backsliders and need a high level of reinforcement to maintain particular kinds of new behaviors.

A number of ethical questions are raised by this experiment, not the least of which is the surreptitious observation of teacher behavior by aides in order to

establish a reliability coefficient. This was felt to be justified by the necessity for scientific validation of the procedure. The observations were in no way used as evaluation of teacher performance. These data will not affect teachers' retaining jobs, getting increments, or contribute to any of the rewards or punishments established by the school system. Data concerning teachers and children are confidential; our interest is in exploring the consequences of particular management techniques, not in specifying or evaluating individuals.

The procedures used seemed to be effective within a very short period of time. The children's labor contributing to effective changes was free; it is certainly less costly to employ pupils, using reinforcement readily available in the classroom, than it is to pay clinical personnel within the traditional medical model to change behavior.

DEVIANT CHILDREN CHANGE NORMALS

Another experiment consisted of training special education children (officially designated as emotionally handicapped) to modify the behavior of "normal" children. This was again done using the rationale of the social deviancy model and the need the experimenters felt to change the interface between children who were clashing. We observed that often the "normal" children scapegoated special education children, using derogatory terms such as "retards," "rejects from the funny farm," and "tardos." A popular game for normal children was "Saluggi": Bigger children throw one child's cap around while the unfortunate owner runs around vainly trying to reclaim his property. Being teased, ignored, and ridiculed are part of the social roles thrust upon special education children.

Method

The work with special education children consisted of individual counseling by two resource teachers. They explained and illustrated operant theory to the children. The counseling consisted of one 30-minute session per week for a nine-week period. Each special education child was asked to list those children who made school unpleasant for him. He specifically described the behavior of those children whose behavior he wanted to change and those children he wished to spend more time with.

Among the things recorded were the number of hostile physical contacts that took place on the playground with each child's archenemy, if that was the problem, or the

number of snubs or hostile remarks encountered. Positive contacts with particular children were recorded and quantified if the special education child's goal was to increase such interactions. The data collection was done by the special education children and handed in each day to their counselors.

This comprehensive effort to reintegrate special students into regular classrooms indicated that providing a student with academic skills is not sufficient. In most cases the student lacks the ability to make friends and deal with his peers effectively enough to avoid social ostracism. Teachers and administrators began working with small groups of students to develop a program in which the emphasis would shift from structuring a child's environment to giving a child the tools to manipulate and adjust the environment himself.

Organization of Peer Behavior Modification Project

The "Peer-to-Peer Behavior Modification Project" operated with children in learning opportunity classes and classes for the educationally handicapped. Learning opportunity classes are for "incurable" kids. Each includes students who have been on probation or who have been arrested. In most districts the school was completely segregated and separated from the regular campus. The students are usually sent to one of these schools for the duration of their education. The schools were on the regular campuses, and the goal was to quickly reintegrate the children into the regular program.

Atypical Children and Social Relationships

One teacher, Charles Wilson, described the students he deals with as suffering from the "sick chicken syndrome."

In some ways these children are as atypical as sick chickens. I found that through our special education program we could take these atypical students, give them a highly prescriptive type of program, and return them to the regular classroom. I am not saying that we could return them on grade level or that they would be at the top of the class, but I could give them the academic skills to return to the regular classroom and not be the low man on the totem pole.

However, I found constant failure in the area of social relationships. What could we do to keep the special education student from being a sick chicken, from being unhappy on the playground, from being picked on by his peer group, from being a loner, from being excluded from recreational situations? What skills could we give him so that he could join in and be part of the group, have a better

feeling about himself, be once again included, and not only have his academic skills raised but also be able to do something about social situations as well?

Students Join Scientific Experiment

To begin the project, the staff selected several special education students who were either fully or partially integrated into the classroom. They told these students they wanted to conduct a scientific experiment and asked if they would be a part of it. They told the students they wanted to train them to change the behavior of other students. Most of the students responded very well to this suggestion. The staff also explained how important it was to collect scientific data accurately. Each special education student selected three students whose behavior he wanted to change, three students with whom he either wanted to reduce the amount of negative contact or to increase the amount of positive contact.

Each student was given a 3 x 5 card for each of his target students on which he kept a count of how many positive and negative contacts the two of them had. The program started with a trial period of five days to be sure the students had the right idea about collecting and turning in data. The counts turned in at the end of 10 days served as baseline data.

In order to check the reliability of the students' counts, trained observers were used. The observers were trained through viewing video-taped situations that could happen in the classroom or on the playground, so they could learn to differentiate between positive and negative contacts. The reliability checks were made at recess, lunch hour, and physical education time.

Students Learn Intervention Techniques

At the end of the 10 days, Charles Wilson began training the students to use certain intervention techniques, to act in certain ways in an effort to control or shape the behavior of their target students. The special education students realized that in order to do this they had to impart to the target students a certain amount of reinforcement theory. The students had to have within their grasp the idea that if one wants a behavior to reoccur it must be positively reinforced, and if one wants a behavior to disappear it must not be reinforced, it must be ignored. The ignoring technique was very popular with the students, much more so than the praising. Apparently this technique gave them the feeling of really being a teacher's tool. Each

made his intervention with target student #1 beginning the third week, with target student #2 the fourth week, and with the target student #3 the fifth week. Therefore, the baselines for target students #2 and #3 were longer than for #1. After the intervention stage, the students were asked to discontinue all forms of positive reinforcement to see if the negative behavior of their target students would again increase.

Carol Utilizes Praising and Ignoring Techniques

One of the students in the program was Carol, a 12-year-old girl in a regular classroom. This girl had previously been in a class for the educationally handicapped for two years. She was reintegrated into the regular classroom on a part-time basis.

Basically, Carol had difficulty establishing any kind of social relationship with other children. She always seemed to be on the outside looking in. This was the reason she was chosen for the project. She was referred to Charles Wilson who asked her if she would like to take part in a scientific project whereby she might actually be able to increase her positive relationships with other children.

Since she was having difficulty on the playground, in the classroom, and with her teachers, Carol agreed to take part in the project. Mr. Wilson and Carol talked about what it was they were going to check and what type of behaviors really bothered her. She complained that the kids were picking on her and were laughing at her. So they isolated just one behavior that she would actually count.

One boy in her classroom was giving her a very bad time, especially picking on her on the playground. This boy was also in the special classroom part-time. Carol counted the number of times this boy made negative remarks to her on the playground. Each time one of these incidents occurred, she marked a 3 x 5 card containing 100 little circles. Every day after school Carol turned in her card to the school secretary.

This is the method by which the data was collected. Reliability checks were made to assure that the child was turning in accurate data. A trained observer went out onto the playground with the girl, remaining in the background, yet following the girl around under the pretense of being a needed playground supervisor. The observer turned in a card indicating the number of negative comments she had heard. The reliability was slightly about 90%. This percentage was achieved on all subjects, not just Carol. The actual observations continued for two weeks.

At the beginning of the third week, Mr. Wilson and Carol talked about specific techniques that could be used to change the boy's patterns of behavior. They decided on two techniques—the ignoring technique to extinguish the behavior and, once that was well established, the reinforcing technique of praising. Basically, these same two techniques were used with all subjects.

Along with this training session, Mr. Wilson used simulation and role playing techniques. He played the part of the boy who picked on Carol by making negative remarks, while she practiced ignoring his negative comments and offering praise when he exhibited positive behavior. This really gave her the feel of using behavior modification techniques. Then Carol went back out on the playground and continued to count the frequency of the boy's behavior. However, at the same time, she used the intervention skills of ignoring his negative behavior and praising his positive behavior as she had been taught in the training sessions. She continued to collect the data and turn it in daily. All this time the data was being plotted and graphed. The students often came in after school to look at the charts to see how they were doing and what progress they were making. The intervention phase of the project lasted approximately six weeks.

There was a considerable decrease in the incidence of negative verbal behavior. At the end of six weeks, all reinforcers were withdrawn. Carol was told, "We want to take away all the things you've done to see if the behavior will revert to the previous level." It did. It took awhile, but the negative behavior shot back up again. In Carol's case, it increased.

David Reinforces Positive Behavior

Mr. Wilson also worked with David, who constantly was referred to the principal's office for having difficulty with his teachers and other students. Mr. Wilson gave an example of how much trouble David had fitting in with other kids.

We had a seminar here last January involving Dr. William Glasser. David's class was selected to be a part of the demonstration. During the class meeting, in front of every teacher in the district, these kids began to pinpoint David's behavior. They were complaining about him right there in front of 600 teachers. This gives you some idea of the predicament he was in.

Later the principal referred David to Mr. Wilson. The experiment was explained to David. He was turned on by the idea. He said it really sounded crazy, but he was willing

to give it a try. Mr. Wilson asked for the names of three students with whom he had a great deal of conflict and asked him to pinpoint that conflict. Exactly, what was it that took place? They pinpointed two single behaviors—the students either swore at David or hit him. They finally selected one student with whom David felt he had the greatest amount of conflict—a boy in class who cursed at David. David began counting and found that this behavior occurred anywhere from 5 to 10 times a day. He counted 41 incidents per week for the first two weeks.

At the end of the second week Mr. Wilson began teaching David reinforcement techniques. They talked about the kinds of behavior they wanted to occur. Mr. Wilson said, "If I praise you, you kind of like that and would like it to happen again, wouldn't you?" David agreed. "And," Mr. Wilson continued, "if someone says something nice to you after you've done something, chances are you will want to do that again." Mr. Wilson explained to David that if he positively reinforced a behavior it would be more likely to reoccur, and that by ignoring negative behavior it would most likely decrease.

The staff had three training sessions with David during the first week of this intervention stage. As with Carol, role playing techniques were used to give David the feel of praising his target student each time he exhibited positive behavior and ignoring the student each time he exhibited negative behavior. David picked up these techniques very quickly. The number of times he was cursed at decreased to 21 at the end of the third week and was down to two by the end of the seventh week.

For the eighth and ninth weeks David was asked to stop reinforcing the target student's positive behavior. During this period the number of positive contacts decreased from 21 to 10, and the number of negative contacts increased from 2 to 10.

Mr. Wilson commented, "David did a great job during this study. In fact the principal who referred him to us just cannot say enough about what has gone on in this boy's life as a result. He says David is just not the same boy. He is adjusting to the regular class and is being accepted by his peers."

David, like the other students participating in this program, has learned how to "fit in."

Reliability. As with the student-to-teacher study, observers in the peer-to-peer experiment unobtrusively checked and recorded positive and negative comments by peer-clients. On positive contacts by peer-clients, correlation with the six student trainers and their observers ranged from .570 to .984. The average correlation across student-

observer combinations is .824, rather low as reliability coefficients should go, but given the inherent difficulties in making surreptitious observations in playgrounds and classrooms the best we could get.

The reliability for negative comments are about the same as for positive comments, ranging from .435 to .957, for an average of .876. In the peer-to-peer study each of the six students as behavior engineers had three client-peers who entered treatment on a staggered baseline, as schematized in Figure 2. Client A enters treatment after two baseline weeks, Client B after three weeks, Client C after four weeks. Reinforcements are subsequently withdrawn during two extinction weeks for all clients. Since there are six student-trainers, each line (A, B, and C) applies to six different client-peer combinations.

Results

Data were cast into separate analyses of variance, one for each frequency of positive and negative contacts by client-peers. Table 3 shows a summary of ANOVA for positive contacts.

If the staggered baseline has a reliable impact, we would expect significance for the interaction between Weeks and Treatment-Entry Conditions, the A X B interaction term. The interaction is significant with a probability of .06 (which we take seriously enough).

Figure 3 shows a plot of positive contact frequencies over the nine weeks of the experiment for client-peers in the three different entry conditions.

Things turned out pretty well according to plan with the exception that the difference between Week 2 (the last

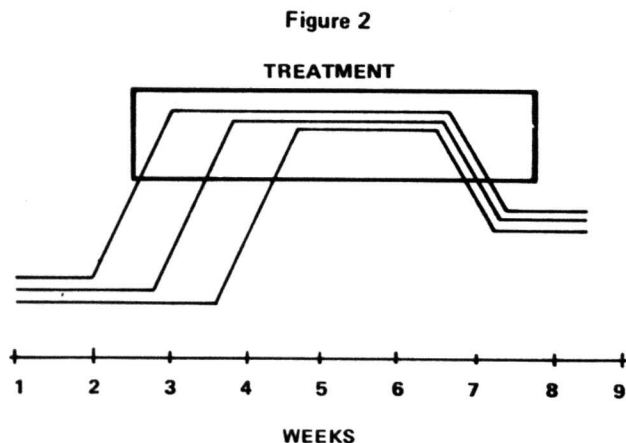


Table 3

ANALYSIS OF VARIANCE FOR POSITIVE CONTACTS IN PEER-TO-PEER SHAPING AS A FUNCTION OF WEEKS AND TREATMENT-ENTRY CONDITIONS

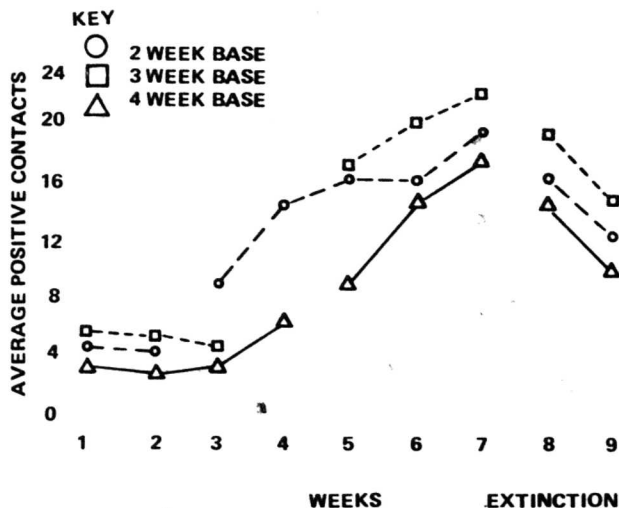
Source	df	ms	F
Subjects (S)	5	81.00	5.08**
Weeks (A)	8	571.75	35.89***
Entry Cond. (B)	2	202.50	4.47**
A X B	16	15.44	1.73*
A X S	40	15.93	
B X S	10	45.30	
A X B X S	80	8.95	

* $p = .064$

** $p < .05$

*** $p < .01$

Figure 3



baseline week) and Week 3, the first treatment week for A type clients, is not significant. The corresponding differences between the last week of baseline and the first week of treatment for B and C type clients are significant drops in positive contact frequencies. These drops are still well above the baseline rates for all three client groups. This can be contrasted to what happened to the teacher-clients who fell back to their base rates during extinction of positive contacts.

Table 5 shows the ANOVA for negative contacts in the peer-to-peer shaping. Here, we must dismiss the Weeks by Entry Conditions interaction term as nonsignificant. There is, however, a clear effect for Weeks.

Table 5

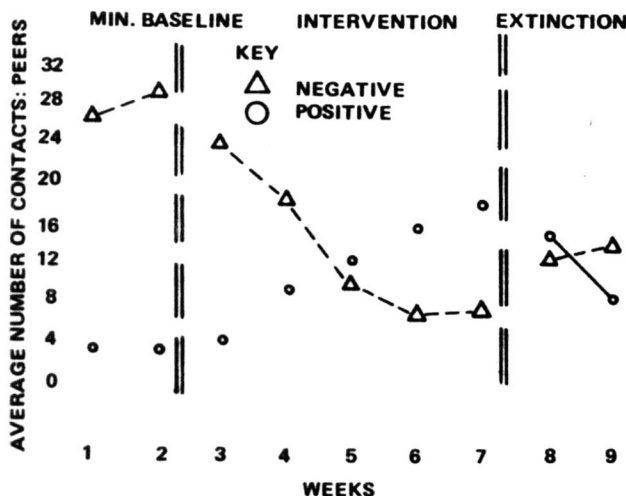
ANALYSIS OF VARIANCE FOR NEGATIVE CONTACTS IN PEER-TO-PEER SHAPING AS FUNCTION OF WEEKS AND TREATMENT-ENTRY CONDITIONS

Source	df	ms	F
Subjects (S)	5	665.40	12.76*
Weeks (A)	8	1321.88	25.36*
Entry Cond. (B)	2	129.00	1.46
A X B	16	34.69	1.33
A X S	40	52.13	
B X S	10	88.50	
A X B X S	80	26.08	

* $p < .01$

Figure 4 shows average positive and negative contact frequencies contrasted for all eighteen client-peers combined, ignoring the staggered baseline conditions. Notice

Figure 4



that negative contact rate shows a systematic drop with treatment beginning with Week 3, which actually reflects only a third of the client-peers in treatment. Extinction in Weeks 8 and 9 yields an increase in frequency of negative contacts, but once again these averages are still different from any of those for baseline weeks.

We note that, at least with reference to positive contacts, the students as behavior engineers are able to manage a fairly subtle posture, gradually bringing in a new client in successive weeks of treatment. They are doing about as well in exercising control over human behavior as many as a graduate does in a Ph.D. thesis or as professionals who charge \$50 an hour, for that matter.

Our conclusions from this data are that deviant children can change the behavior of "normal" children and that hostile physical contacts (instances of teasing, etc.) were considerably reduced. Moreover, approach behaviors (such as invitations to parties and invitations to play in ball games, etc.) were considerably accelerated. At no time did any teacher intervene with the normal children and encourage or limit their behavior.

CONCLUSION

Behavior modification appears to be a powerful tool which can give "deviant" children the social skills and power to change the behavior of others toward them. While the "deviant" children undoubtedly changed their own behavior, the important thing remains that they did dramatically change the behavior of others toward them.

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ALERT

ACLD

The 1976 International Conference of the Association for Children with Learning Disabilities will be held March 3-6, 1976, at the Seattle Center, Seattle, Washington. For further information, contact:

ACLD Conference Headquarters
217 9th North
Seattle WA 98109

CEC

On April 4-9, 1976, the 54th Annual International Convention of the Council for Exceptional Children will be held in the Conrad Hilton Hotel, Chicago, Illinois. For additional information, contact:

The Council for Exceptional Children
1920 Association Drive
Reston VA 22091

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CLASSROOM FORUM

*Edited by Alwyn Holloway, Center Coordinator
South Dekalb Children's Center*

Our school is now utilizing the open classroom concept. I have a Primary II class with several students with moderate behavior problems. I am having some difficulty with classroom control and structure, as with motivating these students. Do you have any suggestions for modifications in an open class that might help me to better meet the needs of these children?

Though much enthusiasm and work in planning are needed in the open classroom, there are indeed some ways in which you can make adaptations in your program. We have put into effect a program employing learning centers utilize challenging and stimulating experiences in both academic and enrichment areas. Children work at their respective levels, modalities, and rates to ensure success in academics and behavior. It has proved to be an exciting, fulfilling experience for teachers and students. Undoubtedly, some of our ideas can be adapted and utilized elsewhere.

The behavior management program is based somewhat on Frank Hewett's (Stillwell, Artuso, Hewett & Taylor, 1970) model of the engineered classroom, which concentrates on bringing the overt behavior of the child into line with standards required for learning. These standards include adequate attention span, orderly response in the classroom, ability to follow directions, completion of all tasks, and cooperation with peers. To promote successful development of these standards, as well as of self care and intellectual skills, the child is assigned carefully graded tasks in a learning environment in which he receives both structure and rewards.

At the start of the program "appropriate behavior" is decided upon by the entire class. Stars are earned for appropriate student behavior at each table. When a child shows positive behavior, he is automatically rewarded. Since children are rewarded by table, they learn

to work cooperatively with each other. The stars accumulated are worth many reinforcing activities plus the immediate reinforcement of praise—a wink, a smile, etc.—from the teacher. Daily rewards include 15 minutes free time for a snack break for 9:45-10:00; 15 minutes free time after lunch for a chat; 15 minutes free time at the end of the day for free play or a dance party. Those students not participating in free time are required to place their heads down on their tables and, therefore, are removed from all reinforcement. The length of free time should not exceed 15 minutes, because too much free time leads to chaos and diminishes effectiveness. Daily stars are negotiable for snacks and play periods which are analogous to school recess.

Weekly rewards must be varied for example, popcorn party, goodie box, popsicles, or field trips. Successive approximation can be applied with rewards; for example, 50 stars for popsicles eventually become 75 stars for popsicles.

Tables are rewarded in groups of two or three, thereby placing more emphasis on positiveness. Individuals may also earn stars for their tables, thus giving an opportunity for individualized reinforcement. Tables are rotated so that the same children do not always sit together.

All inappropriate behavior is ignored, which will lead to extinction in most cases. If by chance a bizarre behavior occurs, remove the child to a time-out box where he should sit and gather his thoughts while removed from all reinforcement. The length of time in the time-out box is three to five minutes. Another method employed for

inappropriate behavior involves taking away the child's privilege of earning stars for 15 minutes. The occurrence of behavior at one table while all other tables simultaneously earns stars for appropriate behavior causes the students at the first table to check their own actions. Members of a child's peer group may help in the modification process. Interest is aroused in each group, and children learn to commend the work of others.

Less time is spent in classroom control when positive behavior is reinforced, thus increasing teaching efficiency. Reinforcement eventually becomes more intrinsic instead of extrinsic, thus enabling children to work more independently and effectively. This classroom situation is based on warmth, love, feelings of self-worth, and communication between teacher and students.

Stillwell, R. J., Artuso, A. A., Hewett, F. M., & Taylor, F. D. An educational solution. *Focus on Exceptional Children*, 1970, 2(1).

We wish to thank Jeannie Boohaker and Vivian Helson, Teachers, Dekalb County Schools, Georgia, for writing this column.

Editors Note: Ms. Helson and Ms. Boohaker have successfully utilized this procedure at Oak Grove School, DeKalb County, Georgia. It was so successful that one teacher in the team decided to discontinue the system. Within a week, she reinstated the procedure. It works!

AH