Development of a Training Program to Increase the Use of Reinforcement in Informal Teaching by Mothers of Educationally Disadvantaged Children.


ABSTRACT

One way that educationally disadvantaged children can be helped to succeed more often in schools is to ask their parents to join in an educational partnership with teachers for the benefit of their children. The acquisition of teaching skills allows the parents to focus their efforts. The use of positive verbal reinforcement was selected as the skill parents would be helped to acquire. The research was conducted in three phases. The first was designed to determine if the literature that described the use of reinforcement by parents was accurate for both middle class mothers and for the target population of lower class mothers. During this phase the learning strategies most helpful to parents to learn reinforcement skills were developed. During phase two, one parent was worked with for 15 weeks using the strategies developed in phase one. Phase three consisted of working with six mothers using the same design as that of phase two, in order to evaluate whether the reinforcement skills training program had similar effects on other parents. New strategies were developed as these became necessary. Although a considerable amount of responsibility is given the parent in this program, no diminishing of education or accountability is implied. (Author/JM)
Development of a Training Program to Increase the Use of Reinforcement in Informal Teaching by Mothers of Educationally Disadvantaged Children

by David W. Champagne and Richard M. Goldman

**Background**

We (co-authors) as teachers and teachers of teachers continually see instances of the public school systematically excluding parents from "their" schools. The methods used to exclude the parents vary:

1. Parents are allowed to visit the school and classroom only after going through a maze (e.g. calling for an appointment 2-3 days before their visits, waiting like unwanted visitors in an office for 20 minutes or more to see the principal or teacher, visiting the school when the time is a convenient time for the school personnel).

2. Educators regularly develop "new curricula" with new jargon which many parents have difficulty understanding; often the purposes and methods of these "new curricula" remain unexplained to parents.

3. Educators tell parents not to interact with their children to help with the school assigned tasks.

We as educators change our exclusion patterns for some parents (usually when the child is in trouble) when we tell the parents, "You better help your child or he will fail."

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1. This work began as part of the doctoral research program of Richard H. Goldman. It has continued with some teachers in the Pittsburgh Public Schools. Adaptions of some of the strategies by both authors from Dr. Goldman's original work will be published in book form during the winter of 1970-71. Generally it is the adaptions which we are having discussed here. Adaptions developed by the authors for this book are currently being tested for application in one of the Follow-Through model's parent/community involvement training components.

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From our observations of schools, in both lower-class and middle-class constituencies, the behavior of the school personnel is similar.

Middle-class parents tend to ignore the advice of school personnel and interact with their children. Lower-class parents tend to follow the advice of educators. They interact infrequently with their children to help with school-related tasks. We make no claims that the reasons for these behavior patterns are caused by class differences. Other researchers have found similar behavior by parents and schools across the country:

It is vitally important that adults in the slums--preferably parents--become involved in pre-school programs. This means what those in charge of programs must reach out to the homes and, wherever possible, start to transform the children's home environment, too.

(Hechinger, 1966, p. 11)

More likely than not, nobody explains to the parents how they can help or be important factors in the education of their child, and the whole process of their child's education--even for the few who become active in the PTA's--remains foreign and alien, and often their contact with the school carries a condescending quality.

(Deutsch, 1966, p. 17)

They (professional educators) think that when middle-class kids come out well, it's because of their wonderful programs--it's just that middle-class kids get enough out of their general backgrounds to come out well.

(Pines, 1966, p. 25)

...the typical (lower-class) mother tries to socialize her child for scholastic achievement by laying down verbal rules and regulations about classroom conduct, coupled with punishment of detected transgressions. But she does not do enough to guide and encourage her child's efforts of verbal-syntactic mastery.

(Katz, 1968, p. 64)
3.

The present data suggest why the minorities that began with an educational disadvantage continue this disadvantage through twelve years of school: The school appears unable to exert independent influences to make achievement levels less dependent on the child's background.

(Coleman, 1966, p. 297)

We believe one way that educationally disadvantaged children can be helped to succeed more often in schools is to ask their parents to join in an educational partnership with teachers for the benefit of their children. The next sections describe the rationale, research problem, the design, findings, and implications of a program we developed which attempts to give meaning to a partnership of this kind by helping parents acquire specific teaching skills. The acquisition of these teaching skills allows the parents to focus their efforts to help their children succeed in school.¹

Research Problem: We selected the use of positive verbal reinforcement as the skill we would help parents to acquire. There are several reasons for the choice of one focus. There are equally strong reasons why positive reinforcement was selected for this major focus.

As teachers of teachers we have found that teachers tend to improve their teaching most rapidly if they focus on improving one pattern of their teaching at a time. (e.g. reinforcement patterns, questions of fact, non-verbal patterns.) We often choose to help beginning teachers develop skills in using positive reinforcement because of the secondary effects it has across a wide range of student's learning, attitude, and behavior. In addition, we have often found that when teachers change their reinforcement patterns, other patterns in their teaching change:

¹ Our definition of educationally disadvantaged is: "Those children who are not doing as well in schools as they could be doing in their parents or their teachers estimation."
they tend to tell less and ask more; they tend to talk a smaller ratio of the total talk; they tend to have the kids take more responsibility for their learning.

As we examined the literature related to the verbal interaction processes of parents of educationally disadvantaged children with their children, it suggested to us that parents, like teachers, should learn skills in using positive reinforcers.

Gray found that mothers of educationally disadvantaged children tend to use the following reinforcement pattern: children receive a small amount of reinforcement; parent tends to reward inhibitory rather than exploratory behavior; parent tends to reinforce by generalized approval or disapproval. (Gray 1968, 68-69) Bushell and Jacobson reported that parents who can acquire reinforcement skills tend to have more successful interaction with their children than those parents who control by physical punishment. (Bushell and Jacobson, 1968, 1)

Based on the above literature and our experiences as teachers and teachers of teachers we stated the following problem:

The research problem was to conceptualize, design, and carry out a program to train parents of educationally disadvantaged children to increase their use of positive verbal reinforcers as they interacted with their children on school related tasks.

Implicit in the research problem were other questions:

1. Will economically poor parents allow an educator to work with them?

2. What behaviors are appropriate for an educator to gain the trust of parents?
Design: The research was conducted in three phases. The first phase consisted of us asking two middle class mothers who had a teaching background and two lower class mothers whose children were not succeeding in school to interact for approximately 20 minutes with their primary age children using school related tasks. The mothers' interactions with their children were audio-taped. The tapes were rated using a time sampling category system to calculate the percentages of time samples of reinforcement, negative comments and total verbalization. Our objective was to ascertain whether or not the literature that described the use of reinforcement by parents was accurate for both middle class mothers and for the population with whom we were going to work. During this phase we began to develop the learning strategies which we felt would help parents to learn reinforcement skills.

During phase two we worked with one parent for fifteen weeks using the strategies developed in phase one. The fifteen weeks included:

Week one---Educator met the parent in her home after a previous telephone call and stated a rationale for teachers and parents to work together. He asked the parent to work with her child ten minutes a day for a week and to tape the interaction.

Weeks two to seven---Educator met with parent once a week in the parent's home. The educator helped the parent to increase her use of reinforcement through the use of preplanned training strategies. (description of strategies follows on pp. 6-9) Between meetings with the educator, the parent tape recorded her interaction with her child. At the beginning of each session with the parent, the educator gave the mother a new tape and took the used tape. The educator used a time sampling category system with each tape to evaluate the changes in the parents use of a positive reinforcement pattern.
Weeks seven to eleven---The parent received no formal training from the educator. Their only contact consisted of the educator giving the parent a new tape and his taking the completed tape. The time sampling category system was used with the completed tape.

Weeks eleven to fourteen---The educator and parent had no contacts.

Week fifteen---Post-test. The educator asked the parent to work with her child during the week and to tape the interaction. The educator used the time sampling category system on the new tape.

Phase three consisted of us working with six mothers using the same design described in phase two. We wanted to evaluate whether or not the reinforcement skills training program had similar effects on other parents. We were at the same time developing new strategies as these became necessary.

OVERVIEW OF STRATEGIES USED TO TEACH PARENTS REINFORCEMENT SKILLS

Brief description of each strategy used by us during the first weeks of the interactions with the parent follow. The use of specific strategies was based on the parent's individual progress.

Strategy 1--Introduction and Pretest. This strategy introduces the parent to the training program. It also allows the teacher to obtain pretest data on the parents' teaching. The objectives for this strategy are:

1. The parent will agree to take part in another training session.

2. The teacher will obtain pretest results on the parent's teaching, diagnose the results, and make a tentative plan for the parent's training.

Strategy 2--Listing Reinforcers. This strategy helps the parent develop a list of reinforcers and use the reinforcers as he works with his child. The objectives for this strategy are:

1. The parent and teacher will develop a list of reinforcers.
2. The parent will use reinforcers from the list as he works with his child.

Strategy 3---Counting Reinforcers--Taped. This strategy teaches the parent to count the reinforcers of another parent's interaction with his child. The parent keeps a written tally of each reinforcer used by the parent on the audio-tape. The objective for this strategy is:

1. The parent will keep a written tally of at least 80% of the reinforcers used by the parent on the audio-tape.

Strategy 4---Counting Reinforcers Live. This training strategy teaches the parent to keep a hand tally on the amount of reinforcers that he uses as he works with his child. It also trains the parent to trace his progress by using a bar graph. The objectives for this strategy are:

1. The parent will mark a tally each time he reinforces his child.
2. The parent will use the bargraphs to evaluate and report on his use of reinforcers to himself and others. (e.g. family, friends, teachers)

Strategy 5---Self Evaluation. At the beginning of each session with a parent, the teacher asks the parent to evaluate his use of reinforcers. The objectives for this strategy are:

1. The parent is able to evaluate accurately his teaching behavior and specifically his use of reinforcers, by the time the formal training ends.
2. The parent will be able to evaluate his teaching behavior, and specifically his use of reinforcers, a year or more after formal training ends.

Strategy 6---Alternative Statements to Negative Comments. After a number of training sessions (3-5), a parent may continue to use a consistently large number of negative comments. The objectives for this strategy are:
1. The parent will develop alternative statements for negative comments.

2. The parent will use the alternative statements for negative comments as he works with his child.

Strategy 7---Role Playing. This strategy has numerous variations depending upon the specific problem with the parent's teaching. (e.g. parent feels reinforcers have an adverse affect on his child, parent wants to practice doing unfamiliar school tasks). The objectives for this strategy are:

1. Parent will describe his feelings after playing the role.

2. Parent will state that he is more comfortable with his new teaching behavior.

Strategy 8---Simulated Teaching. The teacher plays an audio-tape of a parent working with a child. The parent on the tape does not use any reinforcers. After each response by the child on the tape, the teacher and/or the parent stops the tape; the teacher asks the parent to supply a reinforcer. The objectives for this strategy are:

1. The parent will supply a reinforcer each time the tape is stopped.

2. The parent will use a variety of reinforcers.

3. The parent will be able to state why he used a specific reinforcer.

Strategy 9---Listing Teaching Hints. After working with a parent for a number of training sessions (5-7), the teacher informs the parent that a list of teaching hints may be useful suggestions to help other parents improve their teaching. The objectives for this training strategy are:

1. The parent will state the generalizations that he has learned from working with his child.
2. The parent will commit himself to continue working with his child.

3. The teacher will use the teaching hints with other parents.

Strategy 10---Group Training. This strategy uses any one of the above strategies with a group of parents. The objectives for each of the training strategies remain the same for each parent in the group. The specific objectives for this strategy are:

1. The group will make decisions that reinforcers should be used when working with one's child.

2. The group will share successes and teaching strategies.

Results

Phase One---The objective for this phase of the study was to ascertain whether or not the literature that described the use of reinforcement of parents was accurate for both the middle class parents and for the population of parents with whom we were going to work. We concluded that his small sample of parents (none of whom received the reinforcement skills program) interacted with their children in similar ways to those reported in the literature.

The two middle class parents used positive reinforcers 22% and 28% of the time samples. The two parents of educationally disadvantaged children used positive reinforcers 5% and 6% of the time samples respectively. The variety and specificity of the reinforcers used differed between the two groups. The two parents of educationally disadvantaged children each used 5 different reinforcers. One middle class parent used 23 different reinforcers, and the other used 16. The middle class parents tended to be more verbal than the parents of educationally disadvantaged children; verbalization occurred in approximately 85% of the time samples as compared to 55%.
Phase Two—During this phase we worked with one parent for fifteen weeks using the strategies described above. On the pre-test, this parent used reinforcers 13% of the time samples and negative comments 8% of the time samples. During the post-test she used reinforcers 23% of the time samples and negative comments 4% of the time samples. Table 1 displays each sequence of parent-child interaction from pre-to post-test.

From our experiences with this parent we have made some tentative assumptions:

1. Parents can acquire skills in using reinforcers.
2. Parents, who have infrequently interacted with their children on a regular basis using school tasks, want to have teaching as one of their roles.
3. Parent's self concepts can improve after they become aware of specific competencies they possess and are learning.
4. Parents will welcome educators to their homes if the "contract" is clear; that is, specific skills are offered and the educator does not intrude nor comment on the rest of the life style, or value system of the parent.

Phase Three—We worked with six parents in this phase. The purpose of the study was to obtain additional data on the effect of the training strategies on the parents' use of reinforcement with their children.

Table 2 displays the pre/post changes in the use of reinforcers and negative comments for each parent. A comparison of the post test results of these parents with the middle-class mothers in phase one who did not receive the training demonstrated similarities between the two groups. For example, the average percentage for the parents as a group in the third phase for the use of reinforcers was 20%. The average percentage of reinforcers for the middle-class parents as a group was slightly higher—25%. As a group the parents in phase three used a lower percentage of negative comments than did the middle-class mothers—3% compared to 6%.
### TABLE 1

PERCENTAGE OF REINFORCERS AND NEGATIVE COMMENTS USED BY MOTHER DURING EACH SEQUENCE OF INTERACTION

**MRS A**

<table>
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<th>SESSION TYPE</th>
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Legend:
- **PT**: PRE-TEST
- **TS**: TRAINING SESSION
- **ET**: BETWEEN TRAINING SESSIONS
- **UT**: UNSUPERVISED TRAINING
- **PO**: POST-TEST
TABLE 2
AVERAGE PERCENTAGE REINFORCERS AND NEGATIVE Comments USED:
PRE AND POST TESTS
Other changes occurred in the parents' interactions with their children. The average variety of reinforcers for the group increased from 3 on the pretest to 9 on the post test. As the training progressed the parents had less contact with us. We expected our decreased amount of contact with the parents to be matched by a decreased number of interactions of parents and children. Our expectation was incorrect; all the parents except one; either continued at the same rate or increased the rate of tutoring sessions. Our experiences with these parents give consistent support to the tentative assumptions reached in phase two. All of the assumptions, except the one dealing with self concept, can be quantitatively supported by our data. We have feelings about the self concept question, but since they can not be supported by any data with any weight, they do not belong in this report.

The data reported above suggested that a program can be developed to help parents of educationally disadvantaged children to increase their use of positive verbal reinforcement. Questions implied in the research problem may be as important or more important than the problem itself:

1. Will economically poor parents allow an educator to work with them? The answer seems to be a "yes", if the educator has appropriate behaviors.

2. What behaviors are needed by an educator to gain the trust of parents? We audio-taped our interactions with the parents. We analyzed the tapes to find behavior patterns that seemed to be appropriate. In addition we asked the parents to describe the behaviors that enabled them to trust us. Listed below are a sample of the behaviors.
a. The educator must make the "contact" clear to the parents. The educator is asking the parent to join an educational partnership. The educator is not: studying the environment of the home; asking personal questions regarding income, husband's employment, child rearing practices, etc.

b. The educator must deliver on all of his promises (e.g. bring additional material, keeping appointments).

c. The educator must display that he has trust for the parent (e.g. leaving the parent materials, timers, tapes).

d. The educator must be task oriented. (e.g. helping the parent with his teaching). He must avoid talking down to the parent on all topics.

e. The educator must select with the parent a meeting time and place that is convenient for the parent.

f. The educator must be accepting with the parent if the parent is not ready to deal with the task (e.g. parent may be finishing house work and the educator may have to fit into the parent's agenda).

g. The educator must accept the parent's attempts at hospitality.

h. The educator must reinforce the parent as he acquires teaching skills.

The parent with whom we have worked kept 94 of 96 appointments we made with them. The parents as a group had had unsuccessful experiences as students in school and had very few contacts with the school as parents. We were told by medical personnel in the community where the parents lived that three of the parents rarely kept appointments at a health center. We are hypothesizing that our success with the parents was not based on any
unique behaviors that we have, but on behaviors that many teachers probably
have or could acquire.

Implications

We started by saying that we believe one way to significantly help
educationally disadvantaged children to succeed in schools is to form a
partnership between the teachers in the schools and the parents in the
home.

Viable partnerships are formed on the basis of mutual needs to
achieve a common goal. Those partnerships which succeed do so because each
partner has some identifiable skills to help achieve that common goal. Each
partner must have a sense of his own worth, and of his own potential
contribution toward the goals. Our experiences have been and continue to
be that almost all parents of educationally disadvantaged children wish
their children to succeed in school. This program helps the parent learn
some specific skills which contribute to these shared goals of the teacher
and the parents i.e. to help the children succeed in school. At the same
time this program consciously does not operate on nor judge the parents' life
style or values except in this one very specific area.

The program says that positive reinforcement of success responses
is a superior teaching strategy to other teaching strategies. It also
says that a continuing interest by the parent in the child's learning has
a modeling function important to the child's concept of the importance of
learning. Few teachers would challenge this position's utility for the
tasks and attitudes that children learn in school. For most children verbal
praise from significant adults in their life constitutes one form of positive
reinforcement. We accept the conclusions of many researchers that positive
verbal reinforcement is less common in homes of educationally disadvantaged
children.
Most parents who learn and consciously practice this basic teaching pattern begin incidentally to give differentiated praise statements which are more appropriate to the level and type of response from their children than the type of generalized reinforcers commonly reported in the literature as characteristic of economically poor parents.

Clift introduces his article "Curriculum Strategy Based on the Personality Characteristic of Disadvantaged Youth" by stating:

In a very real sense, the traits listed represent disabilities, handicaps, or disadvantages which the individual has that make it very difficult, and almost always impossible for him to function in school up to an acceptable level.

.....All of the love the teacher may have for poor children, all of the respect she may be able to muster for minority children, all of the "hip" language she may use with children, and all of the other similar tricks and devices she may use are of no avail. Instead the successful teacher of the disadvantaged must be a clinician who can help young people deal with traits or factors we know to be limiting the ability of these children to learn.

This being true, the daily teaching act, class period after class period, must focus on ameliorating traits or problems characteristic of the disadvantaged.

(Clift 1969, p. 94.)

Clift goes on to say that all aspects of the curriculum must be organized and presented to help students deal realistically with the special characteristics peculiar to their learning styles.

Baratz and Baratz make a similar but more specific point when they plead for the school to adopt its teaching so that the life styles and language patterns of the disadvantaged are built upon rather than desinigrated.

(Baratz & Baratz, 1970, p. 29.)
We accept both of these points, even though, the two authors are operating from different philosophical bases, and would probably disagree violently with this lumping of them together. They are both saying that we as educators must make the school more meaningful to the educationally disadvantaged child by starting where he is and making him feel like a successful person with inherent worth.

We feel very strongly, however, and we do not feel that either author would disagree with our suggested practices, that we should teach this positive reinforcement pattern to parents of educationally disadvantaged parents to use with their children, even if this pattern conflicts with the life style of the parents.

We are in no way suggesting that participation in this or similar programs by parents should be anything but voluntary. The first teaching strategies we use as part of our program clearly explain the program objectives to the parent, and ask him if he wishes to continue with the program.

A potentially far more serious challenge to this kind of proposal for an educational partnership is posed by an attitude which may underly some writers position (again refer to Baratz Harvard Educational Review February, 1970, for this implied position). This position simply put is that it is the school's job to teach and if they don't succeed, without any excuses based on home, society, etc., then the people occupying the teaching and administrative roles should be immediately replaced. This position has been explicitly stated as (but not Baratz) "I'll help my kid at home if I want to, but that's not my job that's yours, and don't you come around telling me I should be helping my kid regularly. Either you produce or I'll get rid of you." Of course teachers and administrators must be accountable for their actions. This is the definition of a professionally responsible person. This means that parents or their representatives must be able to remove educators who, having had competent help in attempting changes in their behavior, are not meeting kids needs.
However, we reject the position quoted above for the reasons given earlier concerning the modeling effects of continuing supportive interest by the parents, and because regular help at home with positive reinforcement of success may reduce the child's perceived discontinuities between the school world and the home world.

Whether or not we accept the two cultures position, the child usually must succeed in school to have the strong positive self image necessary for continued success in an essentially hostile majority culture.

We also reject this position for, in addition to the above reasons, it implies a hostility and continued confrontation between home and individual teacher which will interfere with the teacher's openness to the child. If this attitude is of suspicion and hostility is shared with the child, he is less likely to feel trusting or open in the school setting. An anxious, untrusting child is less free to risk and try. Both of these attitude/behaviors will again work to the child's disadvantage.

Yes of course, we must change the school's approach to children and its curriculum for them.

The educational problem of lower-class culturally different Negro children, as of other groups of culturally different children, are not so much related to inappropriate educational goals as to inadequate means for meeting these goals. 
(Baratz & Baratz, 1970)

We agree generally with Baratz and Baratz that educational goals in general are not inappropriate. We do feel, however, that an important means for meeting these goals is to form a teaching partnership between teachers, parents, and children.
Bibliography


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