

## DOCUMENT RESUME

ED 062 005

24

PS 005 540

AUTHOR Kremer, Barbara, Comp.  
TITLE Behavior Modification in the Classroom: An Abstract Bibliography.  
INSTITUTION ERIC Clearinghouse on Early Childhood Education, Urbana, Ill.  
SPONS AGENCY Office of Child Development (DHEW), Washington, D.C.; Office of Education (DHEW), Washington, D.C.  
BUREAU NO BR-0-0288  
PUB DATE Dec 71  
CONTRACT OEC-0-70-2623 (519)  
NOTE 26p.  
AVAILABLE FROM College of Education Curriculum Laboratory, University of Illinois, 1210 W. Springfield Avenue, Urbana, Ill. 61801 (Catalog No. 1300-1, \$0.45)

EDRS PRICE MF-\$0.65 HC-\$3.29  
DESCRIPTORS \*Abstracts; \*Annotated Bibliographies; \*Behavior Change; Behavior Theories; Early Childhood; Educational Programs; \*Literature Reviews; \*Operant Conditioning; Research

## ABSTRACT

An annotated selective bibliography of documents on operation conditioning which are found in the ERIC microfiche collection and in journal literature is presented. Abstracts of these documents were taken from Research in Education (RIE) and Current Index to Journals in Education (CIJE). Included are published and unpublished studies focusing on theory and educational uses of behavior modification, the application of behavior modification to cope with inappropriate and disruptive classroom behavior, and descriptions of various programs employing behavior modification in the academic instruction of young children. There are also abstracts of two bibliographies on behavior modification. A total of 42 entries is made, and order information is given. (Author/CK)

U.S. DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
OFFICE OF EDUCATION  
THIS DOCUMENT HAS BEEN REPRO-  
DUCED EXACTLY AS RECEIVED FROM  
THE PERSON OR ORGANIZATION ORIG-  
INATING IT. POINTS OF VIEW OR OPIN-  
IONS STATED DO NOT NECESSARILY  
REPRESENT OFFICIAL OFFICE OF EDU-  
CATION POSITION OR POLICY.

PA-24  
BR-O-0288  
OEC-O-70-2623(S19)

ED 062005

BEHAVIOR MODIFICATION IN THE CLASSROOM:  
AN ABSTRACT BIBLIOGRAPHY

Compiled by

Barbara Kremer

ERIC Clearinghouse on  
Early Childhood Education  
805 W. Pennsylvania Avenue  
Urbana, Illinois 61801

Available from the

College of Education Curriculum Laboratory  
University of Illinois  
1210 W. Springfield Avenue  
Urbana, Illinois 61801

Price \$ .45

(Catalog No. 1300-1)

December, 1971

PS 005540

## Foreword

The Educational Resources Information Center/Early Childhood Education Clearinghouse (ERIC/ECE) is one of a system of 20 clearinghouses sponsored by the United States Office of Education to provide the educational community with information about current research and developments in the field of education. The clearinghouses, each focusing on a specific area of education, (such as early childhood, reading, linguistics, and exceptional children), are located at universities and institutions throughout the United States.

The clearinghouses search systematically to acquire current, significant documents relevant to education. These research studies, speeches, conference proceedings, curriculum guides, and other publications are abstracted, indexed and published in Research in Education (RIE), a monthly journal. RIE is available at libraries, or may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Another ERIC publication is Current Index to Journals in Education (CIJE), a monthly guide to periodical literature which cites articles in more than 560 journals and magazines in the field of education. Articles are indexed by subject, author, and journal contents, CIJE is available at libraries, or by subscription from CCM Information Corporation, 909 Third Avenue, New York, New York 10022.

The Early Childhood Education Clearinghouse (ERIC/ECE) also distributes a free, current awareness newsletter which singles out RIE and CIJE articles of special interest, and reports on new books, articles, and conferences. The ERIC/ECE Newsletter also describes practical projects currently in progress, as reported by teachers and administrators. For more information, or to receive the Newsletter write: ERIC/ECE Clearinghouse, 805 W. Pennsylvania Avenue, Urbana, Illinois 61801.

## TABLE OF CONTENTS

Foreword	
Introduction	1
Bibliographies	
A. Theory and Practice of Behavior Modification	3
B. Behavior Modification in the Classroom	5
C. Behavior Modification with Pre-School Children	14
D. Using Behavior Modification while Working with Disadvantaged Children	17
E. Selected Bibliographies on Behavior Modification	20
Additional References	21
Order Information	22

This paper was produced pursuant to a contract with the Office of Child Development, partially supported by a contract with the Office of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment. Points of view or opinions stated do not, therefore, necessarily represent official Government position or policy.

## INTRODUCTION

Principles of operant conditioning have been widely used to attempt to produce changes in behavior. Operant conditioning, or behavior modification, entails the use of consequences (rewards) to strengthen or weaken individual responses under specified stimulus conditions. Positive rewards that strengthen operant behavior are termed "reinforcers." Negative rewards that weaken operant behavior are termed "punishers."

This bibliography has been compiled to alert educators to operant conditioning, or behavior modification, documents found in the ERIC microfiche collection and in journal literature. Abstracts of selected documents were taken from Research in Education (RIE) and journal article citations from the Current Index to Journals in Education (CIJE). Included are published and unpublished studies focusing on theory and educational uses of behavior modification, the application of behavior modification to cope with inappropriate and disruptive classroom behavior, and descriptions of various programs employing behavior modification in the academic instruction of young children. There are also abstracts of two bibliographies on behavior modification for the reader who desires additional perspective on the topic.

Major descriptors (marked with an asterisk\*) and minor descriptors appear after each title. Descriptors are subject terms which are used in RIE and CIJE to characterize the entries and will help users of this bibliography to identify topics covered in the selections.

Most of the entries are available from the ERIC Document Reproduction Service (EDRS) in either of two forms, microfiche (MF) or hard copy (HC).

Each entry is assigned an ERIC document (ED) identification number, which appears after the title information. Directions for ordering are given on the last page of the bibliography. Journal citations have an (EJ) identification number.

A few titles are not available through EDRS but must be ordered from the publishers, and addresses and prices are listed with each of these citations.

## A. Theory and Practice of Behavior Modification

From Microfiche Collection (RIE)

1. Munoz, Leo. Behavior Modification. NASEC Monograph Series I. 22p. Oct 68, ED 030 917

\*Behavior Change; \*Learning Theories; \*Operant Conditioning;  
 \*Positive Reinforcement; \*Rewards; Behavior Development;  
 Motivation Techniques

Behavior can be modified because it is governed by its consequences. Observable behavior, excluding its causes, is modified by the application of techniques derived from B.F. Skinner's operant learning theory. Optimum effects can be achieved only after thorough knowledge of the child is gained, particularly in the area of his capabilities. The reinforcers which influence the child must be discovered by observation. A positive reinforcement schedule is then employed, rewarding the desired behavior in various ways. Shaping may be used, in which partial or approximate behaviors are rewarded until the actual desired behavior occurs. Decreasing undesirable behavior occurs when an incompatible desirable behavior is shaped by: 1) securing the desired response, 2) shaping small segments of the desired behavior, 3) using a high reinforcement ratio, and 4) gradually decreasing the reinforcement. The concept of contingent results must be clearly understood. A case study is given in which operant learning theory is applied to modify the behavior of a seventh grade boy.

2. Patterson, Gerald R.; Gullion, M. Elizabeth. Living with Children: New Methods for Parents and Teachers. 128p. 68, ED 051 887

\*Behavior Problems; \*Behavior Change; \*Reinforcement; \*Learning;  
 \*Behavior Development; Observation; Reinforcers; Social Reinforcement; Parent Child Relationship; Aggression; Hyperactivity;  
 Withdrawal Tendencies' (Psychological)

Written in the form of programmed instruction, this book is designed to help parents and teachers understand and correct situations in which a child's behavior is distressing. The book utilizes the social learning approach (that people learn most behavior patterns from other people). The first section discusses how parents and children learn and teaches about reinforcers, how children train parents, accidental training, and how to observe and retrain one's child. The second section on changing undesirable behavior presents clues for helping belligerent, reluctant, overly active, dependent, frightened or withdrawn children. Sample behavior graphs are provided.

From Journal Literature (CIJE)

1. Meichenbaum, Donald H.; Goodman, Joseph. Training Impulsive Children to Talk to Themselves: A Means of Developing Self-Control. Journal of Abnormal Psychology; v77 n2, pp115-126, Apr 1971. EJ 037 136

\*Behavioral Science Research; \*Behavior Change; \*Self Control;  
\*Child Development; \*Inner Speech (Subvocal); Psychological  
Studies

2. Semmelroth, Carl. The Regulation of Behavior by the Behavior of Others. NSPI Journal, v9 n8, pp10-13, Oct 1970. EJ 027 823

\*Behavior Change; \*Reactive Behavior; \*Social Reinforcement

3. Wasik, Barbara H. The Application of Premack's Generalization on Reinforcement to the Management of Classroom Behavior. Journal of Experimental Child Psychology; v10 n1, pp33-43, Aug 1970. EJ 028 634

\*Behavior Change; \*Reinforcement; \*Class Management; Behavior  
Problems; Teacher Behavior; Grade 2

A behavior management procedure was successfully employed in a demonstration school for culturally deprived children to increase appropriate behavior in a second-grade classroom of twenty children.

4. West, Joel D.; And Others. Modifying Risk-Taking Behavior. Child Development; v41 n4, pp1083-1088, Dec 1970. EJ 032 891

\*Behavior Change; \*Males; \*Neurotic Children; \*Therapy;  
Testing; Task Performance

A six-week program in a physical development clinic was successful in increasing risk-taking behavior in 49 boys. The change seemed to represent a generalized behavior shift.

## B. Behavior Modification in the Classroom

From Microfiche Collection (RIE)

1. Becker, Wesley C.; And Others. Reducing Behavior Problems: An Operant Conditioning Guide for Teachers. 20p. Nov 1969, ED 034 570

\*Operant Conditioning; \*Behavior Problems; \*Classroom Techniques; \*Guides; Preschool Children; Elementary School Children; Reinforcement; Negative Reinforcement; Positive Reinforcement; Behavior Change

Classroom management and what teachers can do to make it possible for children to behave better, which permits learning to occur, are the subjects of this handbook. The authors hypothesize that the first step toward better classroom management is a teacher's recognition that how children behave is largely determined by the teacher's behavior. When teachers employ operant conditioning they systematically use rewarding principles to strengthen children's suitable behavior. Ignoring unsuitable behavior will discourage its continuance. Behavior can be changed by three methods: 1) Reward appropriate behavior and withdraw rewards following inappropriate behavior, 2) Strengthen the rewards if the first method is unsuccessful, and 3) Punish inappropriate behavior while rewarding appropriate behavior if methods (1) and (2) fail. The booklet explains each method and offers supporting research and evaluations of the use of different methods. It outlines step-by-step procedures and has appeal for parents, teachers, and anyone involved in training children.

2. Behavior Principles Structural Model of a Follow Through Program, Dayton, Ohio: Model Programs. Childhood Education. 16p. 1970, ED 045 783

\*Behavior Change; \*Compensatory Education Programs; \*Elementary Education; \*Programmed Instruction; \*Reinforcement; Disadvantaged Youth; Educational Technology; Elementary School Students; Negro Students; Reading Instruction; Teacher Relationship; Teaching Methods

Prepared for a White House Conference on Children (December 1970), this report describes a program in which first-through third-graders in three schools in Dayton, Ohio participate in a model of a Follow Through program sponsored by Siegfried Engelmann and Wesley Becker of the University of Oregon at Eugene. All teachers chose to participate, many moving up a grade each year with their students. The program's approach is based on the fact that disadvantaged children are considerably behind middle-class children in learning skills when they enter school and, if these children begin at normal rates, they will always remain behind average children in school. The Engelmann-Bereiter approach uses programmed materials so that children will not encounter tasks that are too difficult for performance.

PS005540

The materials require many verbal responses for each child. Teachers systematically reinforce desired behaviors, using praise, food, or prizes as reinforcers. This program is used in the first three grades at three schools in West Dayton in impoverished areas. Most of the children have attended kindergarten and have been in Head Start programs. About 98 percent are black. For other booklets in the series see UD 011 120-121 and 011 124-125.

Availability: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (Catalog No. HE-5.220:20155, \$0.15)

3. Benson, F.; Arthur, M., Ed. Modifying Deviant Social Behaviors in Various Classroom Settings. Monograph No. 1. 80p. Feb 1969, ED 043 168  
[Not available from EDRS]

\*Behavior Change; \*Classroom Techniques; \*Exceptional Child Research; \*Intervention; \*Socially Deviant Behavior; Conditioned Response; Parent Participation; Peer Acceptance; Positive Reinforcement; Special Classes; Teacher Role

Behavior modification procedures appropriate to the classroom for altering socially deviant behaviors in young children are described. In the first section (Teachers, Peers and Parents as Agents of Change in the Classroom), the classroom is not only the focus of study but also the setting in which treatment, in the form of intervention programs, occurs. How treatment is effected by the teacher, the peer group, and the parents is illustrated. Intervention and conditioning procedures, including a reinforcing work box placed on the student's desk, are discussed, and results with individual experimental subjects reported. The second section, Special Class Placement as a Treatment Alternative for Deviant Behavior in Children, describes the development and evaluation of a treatment model designed to modify hyperactive, disruptive classroom behavior. Special attention is given to the generalization of effects when the student leaves the special classroom for his normal one. Research data is reported.

Availability: Department of Special Education, College of Education, University of Oregon, Eugene, Oregon 97403.

4. Demak, Leonard S. New Ideas in Michigan Education; Behavior Modification. 30p. Apr 1969, ED 033 184

\*Behavior Change; \*Experimental Programs; \*Reinforcement; \*Teaching Procedures; Behavioral Objectives; Behavior Problems; Delinquent Behavior; Instructional Innovation; Instructional Technology; Learning Laboratories; Learning Processes; Post Testing; Pretesting; Program Costs; Program Descriptions

This document provides summary descriptions of a dozen ESEA Title III programs using behavior control techniques on various populations of school-age youth, for different objectives. Each program summary gives the title, population served, approximate annual cost, procedures, a brief evaluation, and whom to contact for further information.

5. Ferritor, D.E.; And Others. Effects of Contingent Reinforcement for Attending Behavior on Work Accomplished. 29p. 71, ED 049 337

\*Academic Performance; \*Behavior Change; \*Elementary School Students; \*Inner City; \*Reinforcement; Behavior Problems; Classroom Techniques; Intervention; Learning Processes; Mathematics Instruction; Misbehavior; Problem Solving; Student Behavior; Teaching Techniques; Urban Schools

The effects of behavioral and performance contingencies on classroom behavior and on academic performance were investigated. The subjects, third grade students from an inner city elementary school, were exposed to a series of conditions including baseline, behavior contingencies, performance contingencies and a mix of behavior and performance contingencies using a reversal design. The students worked 100 randomly selected mathematics problems for 20 minutes each day during each period. Behavioral contingencies improved attending and decreased disruptions but did not improve performance. Performance contingencies increased per cent correct problems but attending declined and disruptions increased. The combined contingencies increased both performance and attending. The experiment was replicated with another class of children varying the sequence of conditions and the amount of token reinforcement that could be earned. The findings emphasize the importance of designing specific contingencies for specific target behaviors. Behavioral contingencies did not have the positive effect on performance often implied, nor were performance contingencies alone able to maintain acceptable classroom behavior.

6. Glaser, Edward M.; Sarason, Irwin G. Reinforcing Productive Classroom Behavior: A Teacher's Guide to Behavior Modification. Final Report. 48p. Sep 1970, ED 049 469

\*Behavior Change; \*Behavior Problems; \*Case Studies; \*Teacher Role; \*Teaching Guides; Class Management; Operant Conditioning; Classroom Environment; Elementary Schools; Reinforcement

Designed to be of help to classroom teachers who may not be trained in the application of operant conditioning methods to classroom behavior, this guide to behavior modification attempts to provide practical suggestions which have been validated in research studies. Contained in the guide are descriptions of some common elementary classroom problems, the principles and ethical considerations in the use of behavior modification, suggestions for creating a better learning climate in the classroom, examples of practical applications of behavior principles, and several illustrative case studies based upon research investigations. Appended is a glossary of behavioral terms and an annotated bibliography. While the examples for the guide are drawn from the elementary level, teachers working with older children may find helpful suggestions applicable to their own classrooms.

7. Glaser, Edward M.; Sarason, Irwin G. Reinforcing Productive Classroom Behavior: A Teacher's Guide to Behavior Modification. PREP-18. 42p. Nov 1970, ED 042 061

\*Behavior Change; \*Classroom Environment; \*Discipline Problems; \*Educational Objectives; \*Positive Reinforcement; Elementary School Students; Nondirect Counseling; Teaching Guides

An interpretive studies project on applying reinforcement principles in the classroom was conducted by Dr. Edward M. Glaser of the Human Interaction Research Institute, Los Angeles, California and Dr. Irwin G. Sarason of the University of Washington, Seattle. PREP kit No. 18 has been adapted from the teacher's guide to behavioral modification entitled "Reinforcing Productive Classroom Behavior" resulting from that study. This guide, which reflects the contributions of teachers, principals, psychologists and counselors, contains a description of some common elementary classroom problems, suggestions for establishing a classroom climate that leads to increased learning, examples of practical applications of behavioral principles, and illustrative case studies based upon research investigations. A brief glossary is appended, as well as an annotated bibliography and a list of related documents available from EDRS.

8. Hayes, J. Eric; Hawkins, Robert P. An Analysis of Instruction Duration as a Consequence for Correct and Incorrect Answers. 36p. Sep 1970, ED 044 889

\*Behavior Change; \*Behavior Problems; \*Exceptional Child Research; \*Teaching Methods; \*Time Factors (Learning); Theories; Response Mode; Teacher Attitudes

To determine the effects on behavior problem children of providing various quantities of teacher instruction following correct and incorrect answers, two elementary school children in a special education classroom were studied. The four teaching conditions studied for percentage of errors were: 1) giving much instruction following incorrect answers and little instruction following correct answers, 2) giving little instruction following incorrect answers and much instruction following correct answers, 3) giving little instruction following both correct and incorrect answers, and 4) giving much instruction following correct and incorrect answers. The only teaching condition which resulted in a decrease in errors was the second one. Results suggested that the traditional approach of extra help when the child is not doing well may, in certain cases, retard academic achievement.

9. Katz, Lilian G. Condition with Caution: Think Thrice Before Conditioning. (Rough Draft). 7p. Feb 1971, ED 046 539

\*Behavior Change; \*Operant Conditioning; \*Emotional Problems; \*Social Immaturity; \*Behavior Problems; Children; Learning

Innovative models for education are often quickly adopted. Behavior modification, or operant conditioning, is an example of a technique which has been widely used because, when properly applied in the classroom, it "works." However, the application of a technique should be carefully thought through in terms of the learning of the behavior in question. For example, three children may exhibit the same disruptive behavior, or phenotype. Yet the geneses, or genotypes, of the behavior may be very different. The child may have learned this behavior through reinforcement at home or at school; the behavior may be an expression of an emotional injury; it may indicate a lack of social skill or knowledge of alternative ways of response; or there may be other causes. For all genotypes, behavior modification may be successful in changing undesirable behavior, but it does not always address itself to the underlying cause of behavior. A paradigm is given showing possible phenotype-genotype/treatment relationships.

10. Martin, Marian. Behavioral Research Relevant to the Classroom. 56p. Apr 1970, ED 039 036

\*Research Reviews (Publications); \*Behavior Change; \*Behavioral Science Research; \*Reinforcement; Classroom Techniques; Classroom Research; Class Management

Behavioral research presents an analysis of the classroom in which sources of academic success or failure are sought in contingencies of reinforcement functioning in the child's learning environment. Motivation is analyzed in behavioral terms, and behavior principles are proposed as a powerful tool for teachers for the amelioration of behavior problems and the individualization of curriculums and experiences. Much of the research reported in this paper took place in natural environments of children and involved complex behaviors as dependent variables. Numerous investigations have shown that social reinforcement dispensed by adults functions as a positive reinforcer for many behaviors of children. Other studies indicate that token reinforcement, as part of well-designed programs, is effective in behavior modification and in promoting academic achievement. The studies reported deal with hyperactivity, behavioral and learning disabilities, remedial programs, and parent involvement. The behavioral analysis of complex academic behaviors, such as speech pathology and reading difficulties, has also shown promising results. The paper concludes with a discussion of methodological considerations, implications for education, and the value judgments involved in behavioral research.

11. Nimnicht, Glen; And Others. Preliminary Analysis of 1968-69 Booth Achievement. Occasional Research Report Number 1. 10p. Nov 1969, ED 045 201

\*Achievement; \*Discovery Learning; \*Cognitive Processes; \*Typewriting; \*Disadvantaged Youth; Mechanical Teaching Aids; Language Development; Grade 1; Kindergarten; Discrimination Learning

The Responsive Model Program uses the typing or learning booth as an important part of its autotelic (self-rewarding) environment, to help children develop the mental processes involved in discovery of relationships, such as the association of sound with symbols, or discovering the rules of a game. The typing booth also helps children to develop independence in problem-solving behavior and causes rapid language development. Child-control over initiation and termination of booth activities is emphasized. Language development phases reflecting typing booth achievement are described: (1) Free Exploration, (2) Search and Match, (3) Discrimination, (4) Typing Words and Stories, and (5) Classroom Related Activities. This paper reports the progress of 801 kindergarten and 300 first grade children, mostly from low-income homes, from 9 communities, during the first year (1968-69) of the program. Tables give data on booth achievement for both groups of children, and the number of months the booths were in operation (a gross index of how long children spend in the booths). In general, differences in booth achievement from district to district, and the apparent relationship between the length of time the booth was in operation and booth achievement, reinforce the importance of booth training for children in the Responsive Follow Through Model.

12. O'Leary, K. Daniel. A Token Reinforcement System in the Public Schools. 16p. Sep 1968, ED 036 323

\*Reinforcement; \*Rewards; \*Student Behavior; \*Behavior Change; Student Teacher Relationship; Discipline; Teaching Techniques; Behavior Theories; Public Schools; Grade 2

A token reinforcement system was introduced into a second grade classroom, and seven (out of 21) class members and the teacher were observed for 8 months. Each of the eight phases of the study lasted from 2 to 5 weeks. The first four phases established a base period and determined the separate effects of classroom rules, half hour academic lessons, and teacher praise. In the Token I phase each child in the afternoon classes received points for desirable behavior, which were exchanged for back-up reinforcers including comic books and dolls. The percentage of disruptive behavior significantly decreased. Tokens and back-up reinforcers were then withdrawn, and disruptive behavior increased, but not significantly. Tokens and back-up reinforcers were again reinstated and withdrawn and then replaced by the use of more usual classroom reinforcers by the teachers. At this time disruptive behavior was 37% compared to 53% during the base period. Results indicated student gains on the California Achievement Test, higher class attendance, and the teacher's increased use of praise and decreased use of criticism and threats.

13. Peterson, Nancy Laraine. Behavior Modification Technology: Its Application to the Development of Creativity in Elementary School Children. 340p. 69, ED 046 950

\*Behavior Change; \*Creativity; \*Elementary Education; \*Language Arts; Academic Ability; Grade 4; Grade 5; Intelligence Quotient;

The study was designed to determine whether (1) creativity training using behavior modification techniques would produce significant gains in test scores of experimental over control subjects; (2) conditioned skills would generalize to a different problem operation--for which training was not given; and (3) training in fluency and flexibility would result in an increase in the originality scores of trained subjects. Selected from each of three schools were 24 subjects who scored low on group and individual pretests for creativity, and who were then subdivided equally into fourth- and fifth grades, high and low I.Q., and boys and girls within Experimental, Control-1, and Control-2 groups. Experimental subjects obtained significantly higher scores on post test measures of fluency and flexibility, the generalization task on the individual test, and originality measures on similar tasks for which training was given. Results indicated superior performance of high over low I.Q. subjects and fifth- over fourth-grade subjects on group but not on individual tests, thus suggesting that creativity scores on group measures were highly affected by I.Q., grade, and academic skills.

14. Severson, Roger A. A Comprehensive Early Intervention Program Employing Behavior Modification Techniques. 13p. Mar 1970, ED 040 258

\*Behavior Change; \*Early Childhood Education; \*Intervention; \*Primary Grades; \*Teaching Techniques; Academic Achievement; Curriculum Development; Educational Diagnosis; Elementary School Students; Kindergarten; Kindergarten Children; Paraprofessional School Personnel; Reinforcement; Reinforcers; Teacher Aides

This paper describes an application of behavior modification techniques and new means of presenting academic materials to the 450 children in the kindergarten and first grade of a small semi-urban community. Four years of research on behaviors useful in educational diagnosis and prediction of future success revealed two tests highly related to the achievement goals of the first grade; these are knowledge of vocabular and visuoperceptual memory. Screening is the program's first phase: the second is establishment of intervention strategies with regard to children diagnosed as highly susceptible to academic failure. The lowest children were initially treated individually by paraprofessionals trained to be instructional aides. Academic materials were often presented in a gamelike format to provide continuing reinforcement of learning. Techniques with a lower cost per pupil were selected for learning enhancement at other levels. These included cassette programming, the training of individual classroom teachers in behavior modification, the modification of the curriculum format, and the active involvement of parents in their children's education.

15. Spaulding, Robert L. Educational Intervention in Early Childhood: Abstracts of the 1965-1970 Special Studies Research and Evaluation Report. Final Report, Volume III. 179p. Apr 1970, ED 050 816

\*Intervention; \*Educational Programs; \*Behavior Change;  
 \*Cognitive Development; \*Social Relations; Disadvantaged  
 Youth; Infants; Parent Child Relationship; Learning; Abstracts

This volume is the last of three which report the results of the five-year Education Improvement Program in Durham, North Carolina. Volume III consists of abstracts of special studies conducted by the investigators in the program. Some of the studies have been published in professional journals. The three volumes, together, constitute the final report to the Ford Foundation. Followup studies using the data gathered during the five-year span of the program will be conducted during the next few years and reported in the appropriate professional journals. A 25-page annotated bibliography is included in this document. Volume I of this report appears as PS 004 675, and Volume II is PS 004 676.

From Journal Literature (CIJE)

1. Anastasiow, Nicholas; And Others. Use of an Evaluation Model To Individualize Learning. Viewpoints, v46 n6, pp119-127, Nov 1970. EJ 028 542

\*Individualized Instruction; \*Teaching Models; \*Evaluation;  
 \*Behavior Change; \*Teacher Education; Evaluation Methods

2. Carlson, Jon; Mayer, G. Roy. Fading: A Behavioral Procedure to Increase Independent Behavior. School Counselor, v18 n3, pp193-197, Jan 1971. EJ 031 812

\*Behavior Change; \*Elementary School Counselors; \*Counseling;  
 \*Techniques; Behavior Patterns; Group Counseling

Fading allows counselors to assist children in acquiring, with minimal frustration and errors, independent behavior at an age earlier than previously thought possible. Beginning responsibility training at an early age will enhance the development of the pupil's capacity for self direction and will increase decision making skills.

3. Ferinden, William, Jr.; Van Handel, Donald. Elimination of Soiling Behavior in an Elementary School Child through the Application of Aversive Techniques. Journal of School Psychology, v8 n4, pp267-269, Winter 1970. EJ 031 769

\*Behavior Change; \*Elementary School Students; \*Operant  
 Conditioning; \*Behavior Problems; Physiology; School Psychologists;  
 Mothers; Parent Child Relationship

This report lends confirmation to the feasibility of employing punishment in modifying or eliminating socially unacceptable behavior, and is another example in which amelioration of symptomology seemed to precede a thorough investigation of etiological factors.

4. Gronert, Richard R. Combining a Behavioral Approach with Reality Therapy. Elementary School Guidance and Counseling, v5 n2, pp104-113, Dec 1970. EJ 029 423

\*Behavioral Counseling; \*Rational Therapy; \*Behavior Change;  
\*Conflict Resolution; Reinforcement; Individual Psychology;  
Self Concept

Two comprehensive case studies present the careful use of a "Time Out" approach to behavior modification with elementary school students. These sessions should be undertaken only under supervision of the school psychologist since a "Time Out" can produce damaging psychological effects if used indiscriminately.

5. O'Donnell, Donald J.; Maxwell, Keith F. Reality Therapy Works Here. Instructor, v80 n7, pp70-73, Mar 1971. EJ 034 024

\*Group Therapy; \*Elementary School Students; \*Behavior Change

6. Palarady, J. Michael. Classroom Management--More than Conditioning. Elementary School Journal, v71 n3, pp162-165, Dec 1970. EJ 027 827

\*Class Management; \*Behavior Theories; \*Student Behavior;  
\*Behavior Change; Self Control; School Environment; Stimulus  
Behavior; Teacher Behavior

Discusses limitations to the behaviorist approach to classroom management and suggests that schools must design strategies of prevention as well as remediation.

7. Ryback, David; And Others. Sub-Professional Behavior Modification and the Development of Token-Reinforcement Systems in Increasing Academic Motivation and Achievement. Child Study Journal, v1 n2, pp52-68, Winter 1970-1971. EJ 034 527

\*Behavior Change; \*Subprofessionals; \*Reinforcement; \*Parent Participation; \*Rewards; Academic Achievement; Motivation; Reading Instruction

The use of token-reinforcer systems is discussed, with particular reference to the Staats Motivation Achievement Reading Technique.

8. Whiting, Anita. Six Small Boys and Marshall Dillion: Contribution of Hero Identification to Improved In School Behavior. California Personnel and Guidance Association Journal, v3 n1, pp13-18, Fall 1970. EJ 030 506

\*Identification (Psychological); \*Role Theory; \*Parent Participation;  
\*Behavior Change; \*Behavioral Objectives; Models

Summarized are several theoretical positions on identification together with one application in a case study. An autographed picture of their hero was presented to each of six underachieving and disruptive boys in an effort to provide an "interested" adult role model for them. The school staff reinforced this identification with projects in which success could be achieved. The boys responded favorably.

## C. Behavior Modification with Pre-School Children

From Microfiche Collection (RIE)

1. Berk, Laura E. Effects of Duration of a Nursery School Setting on Environmental Constraints and Children's Modes of Adaptation. 23p. Feb 1971, ED 047 812

\*Behavior Change; \*Environmental Influences; \*Nursery Schools; \*Program Length; \*Student Adjustment; Adaptation Level Theory; Adjustment (to Environment); Analysis of Variance; Behavior Development; Classroom Observation Techniques; Preschool Children; Sex Differences

This study is concerned with the way in which children's naturally occurring behaviors change over a period of time as they adapt to a nursery school setting. A set of seven varieties of environmental constraints and fourteen adaptations to these constraints was observed among 18 3-, 4-, and 5-year-olds in a nursery school classroom first in the fall, when the setting was newly initiated, and secondly in the spring, when the setting had been in existence for an extensive period of time. The findings showed that duration of the setting was significantly related to changes in several varieties of constraints and adaptations. The results illustrate a basic conception of ecological psychology, that the program of an environment's inputs to individuals changes if its ecological properties change--in this case, if the duration of the setting increases. ED 040 421 is an earlier version of this study.

2. Blasdel, Joan. Behavior Modification Procedures Applied to the Isolate Behavior of a Nursery School Child. 21p. Aug 1968, ED 041 635

\*Behavior Change; \*Peer Relationship; \*Reinforcement; \*Socially Maladjusted; Interaction; Prompting; Social Reinforcement; Therapy; Verbal Operant Conditioning

This study used reinforcement principles to investigate some procedures for helping a 4-year-old Mexican-American girl establish peer contact in a Head Start class. Although Diane was healthy and intelligent, she had a low rate of attendance at school and spent most of her time there in isolation. The first procedure employed in the study was the controlled use of adult social reinforcement. A teacher was supposed to go to, talk to, smile at, touch, and praise Diane for participating in peer interaction. Due to Diane's impoverished peer-play repertoire, however, there were very few responses to reinforce and other procedures had to be tried. The adults next structured play situations to include Diane and gave her other prompts intended to lead to peer interaction that could be reinforced. As a result of this procedure, peer contact was markedly

increased and prompting was subsequently phased out. It was also seen that the prompting-reinforcing process could be used to increase certain classes of behavior (such as verbal or nonverbal). In the final phases of the study, a rise in spontaneous, nonverbal behavior was seen and Diane's attendance at class became more regular. Behavior modification principles were therefore judged to be effective in remedying the subject's isolate behavior.

3. Bradfield, Robert H., Ed. Behavior Modification: The Human Effort. 218p. 70, ED 039 698

\*Behavior Change; \*Exceptional Child Research; \*Reinforcement; \*Teaching Methods; Behavioral Science Research; Disadvantaged Youth; Language Development; Learning Disabilities; Moral Values; Preschool Children; Productive Thinking; Reinforcers; Schizophrenia

To present the ideas and research of outstanding behaviorists which is directly related to the education of children, the authors tried to include a diverse group of educational situations. Two articles give an overview of behavior modification, while five educational applications are discussed. They concern learning problems, language acquisition, disadvantaged preschoolers, childhood psychoses, and thinking skills. Also considered are moral issues in behavior modification, the applied science of behavior therapy, and behavior modification as a very human endeavor.

4. Harris, Florence R. Field Studies of Social Reinforcement in a Preschool. 18p. Oct 67, ED 047 772

\*Behavior Change; \*Behavior Problems; \*Case Studies (Education); \*Reinforcement; \*Social Reinforcement; Child Development; Graphs; Preschool Children; Student Teacher Relationship; Teacher Behavior

This seminar paper reports case studies in the successful use of adult social reinforcement to modify problem behaviors of individual children in the Laboratory Preschool at the University of Washington, Seattle. After initially determining that teacher behavior functioned as a reinforcer in accordance with reinforcement principles, it became possible to study the effects of adult attention on behavior deficits such as excessive crying, extreme passivity, excessive isolate behavior, lack of speech, and hyperactivity. Through text and tables, a brief description of the reinforcement program for each of nine "problem" children is presented. Collectively, the case studies demonstrate the effectiveness of adult social reinforcement as a tool for helping children modify behaviors that handicap them.

5. Kolb, Doris H.; Etzel, Barbara C. A Program of Stimulus Control for Establishing a One-Minute Wait for Reinforcement in Preschool Children. 30p. Aug 1968, ED 042 492

\*Behavior Change; \*Conditioned Response; \*Reinforcement;  
\*Scheduling; Discrimination Learning; Error Patterns; Learning Processes; Preschool Children

As a result of findings of a previous study, this study, which sought to program preschool subjects to wait one minute for reinforcement, used pause-building procedures before delay conditions were started. The children, 3- to 5-year-olds, were designated either Baseline (control) subjects (n=3) or Programmed (experimental) subjects (n=5). Though procedures varied in detail for each subject, the general plan followed was for the Baseline subjects to be put right into 60 second delay periods (after initial pause-building training) and for the Programmed subjects to receive a program of training steps in addition to the pause-building training before facing the 60 second delay of reinforcement. These training steps involved multiple schedules of continuous reinforcement and progressive differential reinforcement, discriminative stimuli that were gradually faded out, and increasing delay of reinforcement. The pause-building training, apparently a prerequisite for successful entry into the training program was effective, and so was the programmed training for the experimental group, but only up to the point where discrimination stimuli for not responding were faded out.

From Journal Literature (CIJE)

1. Beiswenger, Hugo. Linguistic and Psychological Factors in the Speech Regulation of Behavior in Young Children. Journal of Experimental Child Psychology, v11 n1, pp63-75, Feb 1971. EJ 034 540

\*Behavior Change; \*Stimulus Behavior; \*Verbal Stimuli; \*Preschool Children; \*Complexity Level; Error Patterns; Age Differences

2. Peterson, Barbara G. School Readiness Training at Home: A Case Study. California Personnel and Guidance Association Journal, v3 n2, pp66-68, Winter 1970-71. EJ 035 831

\*Behavior Change; \*Elementary School Counselors; \*Counseling;  
\*Behavioral Counseling; \*Parent Participation; \*Counseling Effectiveness; Counselor Role; Parent Child Relationship; Models

Behavior changes which improve school performance can be facilitated by cooperative efforts of elementary counselors and parents. Through modeling procedures and brief instruction in the principles of behavior modification, parents can be trained to systematically reinforce behavior which facilitates learning.

## D. Using Behavior Modification While Working with Disadvantaged Children

From Microfiche Collection (RIE)

1. Allen, K. Eileen; And Others. A Behavior Modification Classroom for Head Start Children with Problem Behaviors. 35p. [69], ED 040 535

\*Behavior Change; \*Behavior Problems; \*Emotionally Disturbed;  
 \*Exceptional Child Research; \*Preschool Programs; Case Studies  
 (Education); Child Research; Reinforcement

A demonstration Head Start class enrolled up to 15 children with problem behaviors. The class utilized behavior modification procedures with individualized programming and natural contingencies. Favorable results were noted; three case studies presented concern an aggressively disruptive child, a severely withdrawn child, and a child whose total behavior repertoire consisted of bizarre and maladaptive behaviors which delayed the acquisition of basic motor, social, and verbal skills.

2. Dunn, Charleta J.; Payne, Bill F. The Effects of Group Guidance Upon the Self-Esteem, Interpersonal Relationships, and Educational Achievement of the Culturally Different Child. 118p. Sep 1969, ED 042 197

\*Behavior Change; \*Culturally Disadvantaged; \*Program Development;  
 \*Self Esteem; \*Social Discrimination; Academic Achievement;  
 Disadvantaged Youth; Elementary School Students; Self Concept;  
 Social Disadvantage

The investigation was initiated in an attempt to identify action programs which may help the socioeconomically deprived overcome the psychological degradation and injury to the self-esteem which result from the negative evaluation society has placed upon them. A sample of approximately 200 fourth and fifth grade school students was randomly selected from a population participating in an Elementary and Secondary Education Act, Title I program. These pupils, enrolled in a consolidated school district covering five towns located in the East Texas Gulf Coast area, were divided into two groups. Data were collected and analyzed for both the control and experimental groups prior to and following group guidance sessions conducted for the experimental group every two weeks for 13 months. The report has included the measurement of the students' behavior as seen in attitude, school attendance, and academic achievement and a description of the program as well as an evaluation of the materials used in terms of their success in soliciting student participation and change.

3. Durrett, Mary Ellen; Pirofski, Florence. A Pilot Study of the Effects of Heterogeneous and Homogeneous Grouping on Mexican-American and Anglo Children Attending Prekindergarten Programs. 27p. Feb 1971, ED 047 862

\*Behavior Change; \*Cognitive Development; \*Heterogeneous Grouping;  
 \*Homogeneous Grouping; \*Mexican Americans; Anglo Americans;  
 Aspiration; Curiosity; Economically Disadvantaged; Intelligence  
 Tests; Pilot Projects; Preschool Children

Effects of heterogeneous and homogeneous grouping on the psychological functioning of Mexican American preschool children from economically disadvantaged families were investigated in a pilot project at San Jose State College Child Laboratory. Three experimental groups were composed of (1) 9 Mexican American children from low-income professional families (heterogeneous), (2) 18 Mexican American children from low-income families (homogeneous), and (3) 17 Anglo children from middle-income professional families (homogeneous). Four measures of cognitive functioning and 3 behavioral measures were individually administered at the beginning of the school year and again 8 months later. Comparisons of mean gain scores on pre- and post-tests were computed. Data demonstrated that heterogeneous and homogeneous grouping both have a facilitating effect on cognitive growth and behavior modification. Dimensions suggested in interpretation of data, were the teacher's mode of coping with problem situations and interacting with children, the role of the teacher as a model for behavior modification and an agent of reinforcement, the nature of the interpersonal relationships among children, and the social-climate properties of the group.

4. Sibley, Sally A.; And Others. Modification of the Classroom Behavior of a "Disadvantaged" Kindergarten Boy by Social Reinforcement and Isolation. 50p. [67] ED 045 181

\*Behavior Change; \*Kindergarten; \*Economically Disadvantaged; \*Operant Conditioning; \*Extinction (Psychology); Student Teacher Relationship; Behavior Problems; Classroom Techniques; Discipline; Class Management; Positive Reinforcement; Negative Reinforcement; Rewards; Social Reinforcement; Misbehavior; Tables (Data)

The goal of the investigation was to eliminate the disruptive, resistant and assaultive behaviors and increase the appropriate peer interaction of an economically disadvantaged kindergarten white boy. The treatment program involved presentation of adult (teacher) attention contingent upon desirable classroom behavior, withholding of attention contingent upon inappropriate behavior and social isolation contingent upon unacceptable behavior. The subject's behavior was classified according to the Coping Analysis Schedule for Educational Settings, and the teacher's interactions with the subject were categorized according to their content. Behavior and interactions were recorded by an observer. The program was carried out daily in the activities of free play, discussion, and rest. The subject's inappropriate and unacceptable behaviors significantly decreased when they were punished (isolation) rather than ignored. A reversal of the treatment program was introduced to demonstrate that the teacher's interactions were in fact the controlling variables. Reinstatement of data treatment had favorable results. The study indicates that the systematic use of social reinforcement techniques in the classroom can significantly change a child's behavior, even when the target is more comprehensive than the single operant.

From Journal Literature (CIJE)

1. Bresnahan, Jean L.; Blum, William L. Chaotic Reinforcement: A Socio-Economic Leveler. Developmental Psychology; v4 n1, pp89-92, Jan 1971. EJ 035 371

\*Grade 1; \*Behavior Change; \*Reinforcement; \*Performance Factors; \*Socioeconomic Status

Data provides evidence that the inconsistent reinforcement histories of lower socioeconomic children contribute to their typical ineffectual performance.

## E. Selected Bibliographies on Behavior Modification

From Microfiche Collection (RIE)

1. Behavior Modification and Related Procedures. Exceptional Children Bibliography Series. 8p. Nov 1969, ED 036 030

\*Behavior Change; \*Exceptional Child Research; \*Handicapped Children; Abstracts; Bibliographies; Educational Methods; Operant Conditioning; Reinforcement; Testing

The bibliography contains 27 abstracts and descriptive terms of documents dealing with behavior modification, diagnosis, and research into new developments. An author and subject index are included as are information for the user and cost information for the total volume or for individual documents.

### Additional References

The reader is referred to the following documents for additional information within each of the topic areas:

- |   |            |
|---|------------|
| I. General Considerations   | ED 045 579 |
|   | ED 042 281 |
|   | ED 040 536 |
| II. Instructional Programs Using a Behavior Modification Approach                       | ED 041 966 |
|   | ED 044 855 |
|   | ED 042 499 |
| III. The Behavior Modification Approach to Coping with "Problematic" Classroom Behavior |            |
| A. Guides   | ED 027 671 |
| B. Programs and Case Studies  | ED 042 095 |
|   | ED 043 381 |
|   | ED 035 140 |
|   | ED 032 577 |
|   | ED 023 462 |
|   | ED 029 442 |
|   | ED 030 143 |
|   | ED 030 683 |
|   | ED 033 415 |

## ORDER INFORMATION

References which have ED numbers may be ordered from ERIC Document Reproduction Service (EDRS), at Leasco Information Products, Inc. (In those few cases where availability is other than through EDRS, ordering information is given after the individual title and annotation.)

1. Address orders to:

EDRS  
Leasco Information Products, Inc.  
P.O. Box Drawer 0  
Bethesda, Maryland 20014

2. Give the title and ED number for each item ordered.

3. Price Schedule:

- a. The price for each title ordered in Microfiche (MF) (transparent filmcard) is \$0.65. (To read MF you need a microfiche reader, available in most libraries.)
- b. The price for each title ordered in Hardcopy (HC) (photocopy reproduction) is computed according to the number of pages listed with the entry.

Pages	Price
1 - 100	\$ 3.29
101 - 200	6.58
201 - 300	9.87
301 - 400	13.16
401 - 500	16.45
Each additional 1 - 100 page increment	3.29

4. Postage is included in the above rates. There is no handling charge.
5. Payment must accompany orders under \$10.00
6. Orders must be in writing.

The ERIC Clearinghouse on Early Childhood Education is one of a system of clearinghouses supported by the U.S. Office of Education (HEW), for the purpose of collecting, storing and disseminating information on current research and practice in education. Information about the types of material available and lists of publications may be obtained by writing to individual clearinghouses listed below.

**ADULT EDUCATION**

Syracuse University  
107 Roney Lane  
Syracuse, New York 13210

**COUNSELING AND PERSONNEL SERVICES**

University of Michigan  
611 Church Street  
Ann Arbor, Michigan 48104

**DISADVANTAGED**

Columbia University  
Teachers College, Box 40  
New York, New York 10027

**EARLY CHILDHOOD EDUCATION**

University of Illinois  
805 West Pennsylvania Avenue  
Urbana, Illinois 61801

**EDUCATIONAL MANAGEMENT**

University of Oregon  
Library-South Wing  
Eugene, Oregon 97403

**EDUCATIONAL MEDIA AND TECHNOLOGY**

Stanford University  
Institute for Communication Research  
Stanford, California 94305

**EXCEPTIONAL CHILDREN**

Council for Exceptional Children  
1411 South Jefferson Davis Highway  
Suite 900  
Arlington, Virginia 22202

**HIGHER EDUCATION**

George Washington University  
1 Dupont Circle, Suite 630  
Washington, D. C. 20036

**JUNIOR COLLEGES**

University of California  
405 Hilgard Avenue  
Los Angeles, California 90024

**LANGUAGES AND LINGUISTICS**

Modern Language Association of America  
62 Fifth Avenue  
New York, New York 10011

**LIBRARY AND INFORMATION SCIENCES**

American Society for Information Science  
1140 Connecticut Avenue, N. W.,  
Washington, D. C. 20036

**READING**

Indiana University  
200 Pine Hall  
Bloomington, Indiana 47401

**RURAL EDUCATION AND SMALL SCHOOLS**

New Mexico State University  
Box 3AP, University Park Branch  
Las Cruces, New Mexico 88001

**SCIENCE AND MATHEMATICS EDUCATION**

Ohio State University  
1460 West Lane Avenue  
Columbus, Ohio 43221

**SOCIAL STUDIES/SOCIAL SCIENCE EDUCATION**

855 Broadway  
Boulder, Colorado 80302

**TEACHER EDUCATION**

American Association of Colleges for Teacher  
Education  
1 Dupont Circle, Suite 616  
Washington, D. C. 20036

**TEACHING OF ENGLISH**

National Council of Teachers of English  
1111 Kenyon Road  
Urbana, Illinois 61801

**TESTS, MEASUREMENT, AND EVALUATION**

Educational Testing Service  
Rosedale Road  
Princeton, New Jersey 08540

**VOCATIONAL AND TECHNICAL EDUCATION**

Ohio State University  
1900 Kenney Road  
Columbus, Ohio 43212



CLEARINGHOUSE ON EARLY CHILDHOOD EDUCATION  
805 W. Pennsylvania Avenue, Urbana, Illinois