This interim report presents an introduction to a research study designed to develop educational procedures for modifying deviant behavior in children. A five-component treatment model was developed and research designed to evaluate the weights of each variable in the treatment process. Studies were designed to define strategies that would facilitate the generalization and persistence of treatment across time and setting, to study the teacher as a variable and to evaluate strategies to control behavior in regular classrooms. These three studies are summarized: (1) Stimulus Generalization, intending to maximize generalization and maintenance of modified behaviors, (2) Efficient Social Engineering, to increase efficiency of learning theory applications in applied settings, and (3) The Teacher as a Behavioral Engineer, to modify teacher behavior to strengthen reprogramming efforts in applied settings. (BP)
INTERIM REPORT

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Assessment and Treatment of Deviant Behavior

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Title Page

Assessment and Treatment of Deviant Behavior

U. S. O. E. Contract OEG 4-6-061308-0571

Robert H. Mattson
Nancy K. Buckley
Christine L. Walken
Hill M. Walker

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University of Oregon
Eugene, Oregon
Introduction

The content of this report is programmatic in nature. The data presented and discussed in the following sections were generated by a research study whose purpose is the development of educational procedures for modifying deviant behavior in children. The objective of the project is unitary but it has been necessary to divide the study into discrete but related units in order to satisfactorily accomplish this objective.

For example, the authors developed a treatment model, with five component treatment variables, which was both efficient and effective in modifying deviant behavior within the special classroom setting. However, the authors were not able to specify which treatment variables were critical in producing behavior change; so it became necessary to design a separate experiment for the purpose of evaluating the weight or influence of each treatment variable in the modification process.

The ultimate purpose of any special or experimental classroom for children with behavior disorders is the reintegration of these children back into the regular classroom as soon as it is behaviorally and academically feasible. It has been the authors' experience that the academic and social behaviors of disturbed children come under rapid stimulus and reinforcement control in an experimental class setting. However, this control quickly breaks down upon re-entry into the regular
classroom since the necessary controlling stimuli, as a rule, are not programmed in this setting. It was incumbent upon the project staff to design a study of various strategies which would facilitate generalization and persistence of treatment effects across both time and classroom setting.

As the project developed, it became obvious that the classroom teacher's manipulation of such variables as: deprivation states, setting events, stimulus material, social and non-social reinforcers, and aversive stimuli established her as a major controlling agent of the learning climate in which deviant behavior is produced. Thus, the teacher variable is a critical dimension in both the referral of disturbed children to special classes and in the reintroduction of disturbed children into the regular classroom following treatment. The authors were required to design a study of the relationship between teacher behavior and pupil performance before attempting to manipulate this variable in a social engineering context.

Finally, in the identification of children for inclusion in the experimental class setting, it became obvious that many children were being referred who could be better treated in the regular classroom. Such children produced minor classroom disruptions, were poorly motivated, were academic underachievers, and had very low rates of academic productivity. To cope with this problem area, a study was designed which evaluated three instructional strategies for controlling the behavior of these
children within the regular class setting.

All of these component studies are related to the general objective of the project in a programmatic fashion. Each study investigates a discrete unit or dimension which is essential to the development and implementation of efficient procedures for modifying deviant behavior in children. The current report presents data and results from three of these studies. Section one contains the results of an inter-subject replication of the design, procedure, and results of a treatment model which was developed during the academic year 1966-67. Section one also describes an experimental analysis of the effects of three treatment variables upon the attending behavior of subjects in grades four, five, and six. Section two contains the results of an evaluation of the effects of three instructional and two control strategies upon the attending behaviors and learning rates of children with behavior disorders in grades four. Section three contains results of a pilot study on teacher behavior which was conducted during the 1966-67 school year. The project staff are currently operating studies on: 1. *Stimulus Generalization*, 2. *Efficient Social Engineering*, and 3. *The Teacher as a Behavioral Engineer*. The objectives of these studies are: 1. To develop and evaluate strategies which will maximize generalization and maintenance of modified behaviors across time and across settings. 2. To develop procedures for increasing the efficiency of learning theory applications within applied settings.
3. To experiment with strategies for modifying teacher behavior in order to strengthen the application of reporgramming efforts in applied settings. Data from these three studies will be reported and discussed in subsequent interim reports.

R. H. M.
N. K. B.
C. L. W.
H. M. W.
Title: Assessment and Treatment of Deviant Behavior

Personal Authors: Mattson, Robert H., Buckley, Nancy K., Walken, Christine L., and Walker, Hill M.

Institution (Source): University of Oregon, Eugene, Oregon, College of Education, Department of Special Education

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Abstract:

Section One: Two groups of experimental subjects were discussed in this section. The first group provided an inter-subject replication of the design, procedure, and results of an earlier application of a treatment model to the behavior of male subjects in grades four, five, and six. The model was very effective in producing changes in both attending behavior and academic proficiency. Follow-up data indicated that the behavior of the six subjects was maintaining at a 72% level of efficiency at three months after the termination of treatment.

Three components of the treatment model: token reinforcement,
social reinforcement, and aversive controls were evaluated in terms of their efficiency or potency in controlling the behavior of a second group of five subjects. The results indicated that social reinforcement exercised the greatest control over the subjects' behavior while aversive controls were slightly less effective in controlling the same behavior. Token reinforcement exercised surprisingly little control over the subjects' attending behavior.

Section Two: The study evaluated the effects of: (1) Token reinforcement, (2) Token reinforcement and Programmed Learning Materials, (3) Programmed Learning Materials upon the attending behavior and learning rates of behaviorally disturbed males in grade four. Twenty-five males with behavior disorders were randomly assigned to three experimental and two control groups. Results of the study indicated that the three instructional strategies produced statistically significant differences (gains) in pre and post behavioral measures following treatment. Subjects in the three experimental groups received significantly higher scores on these measures following treatment than those assigned to the control groups.

Section Three: Research providing meaningful quantitative information concerning the teacher as a variable which influences and controls the adaptive and nonadaptive behavior of children in the classroom has been extremely limited. This report summarizes an initial attempt to investigate these parameters through
abstracting pertinent literature and utilizing a pilot study to investigate and generate hypotheses. The pilot data based on questionnaires and ratings of 27 elementary school teachers yielded three important variables closely related to the effectiveness criterion: a) smoothness of transition periods between classes; b) teacher involvement with outside activities (negative correlation) and; c) approach to lesson plan preparation.

The authors formulated four major hypotheses of teacher variables, which can be systematically observed and quantified, that should serve as antecedents for further research.