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THE UNIVERSITY OF ALBERTA

A Descriptive Study Of Six Behavior Disordered Pupils

by

Christopher M.P. Diachuk

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled A Descriptive Study Of Six Behavior Disordered Pupils submitted by Christopher M.P. Diachuk in partial fulfilment of the requirements for the degree of Master of Education.

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Date: September 30, 1986

ABSTRACT

This study was designed to investigate the effects of several behavior management strategies in modifying inappropriate behavior and fostering appropriate ones, in behavior disordered boys placed in a self-contained experimental classroom for behavior disordered elementary school children.

The experimental subjects of the study consisted of six boys identified by the school system as having behavior disorders severe enough to warrant placement in a self-contained special education classroom for one year. The independent variables consisted of six intervention strategies based on the psychoeducational, group managerial and teleoanalytic models of classroom management. Some specific behavior management strategies based on these models included planned ignoring, verbal encouragement, proximity control, interest boosting, antiseptic bouncing and life space interviewing. The ecological model of behavior disorders provided the conceptual framework for applying the behavior management strategies.

Instruments used in the study included the Walker Problem Behavior Identification Checklist, the Child Home Checklist, the Child School Checklist, the Child Community Checklist and the Psychosituational Classroom Intervention measure. Affective variables were measured by the Student's

Perception of Ability Scale and the Nowicki-Strickland Locus of Control Scale for Children.

Analysis of the data was both quantitative, to determine statistical significance of pre-/post-test differences in the behavioral measures used, and qualitative, to describe the psychological significance of changes observed in various ecological settings. Five hypotheses were tested and the ANOVA 12 (Ferguson, 1966) was used to analyze the quantative data obtained.

Data analysis revealed that Hypothesis 1, which predicted a significant reduction in school problem behaviors, as well as Hypothesis 2, which predicted a significant decrease in home problem behaviors, were confirmed. Hypothesis 3, which predicted a significant reduction in community problem behaviors, was also confirmed. However, Hypotheses 4 and 5, which predicted a significant increase in academic self-concept and a significant increase in internal expectancy of control respectively, did not reach the .05 level of statistical significance. Generally, both quantitatively and qualitatively the data revealed that the intervention strategies used were effective in significantly improving the behaviors of the experimental subjects and that such improvements generalized to environments other than that of the experimental classroom during the 12 week intervention period. These results were generally consistent with those

of Demagistris and Imber (1980) and Beck, Roblee and Johns (1982).

The results of the investigation are discussed with reference to the efficacy of the strategies used and the conceptual ecological framework, which provided the basis for them. Implications for theory, research and practice are discussed with emphasis on practical suggestions for classroom management for severe behavior disordered children.

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Lastly, I wish to thank my wife, Gail, and my son, Jesse, for their constant love and understanding. Without their patience and cheerfulness during this busy time of our lives, this research would not have been possible. Consequently, I dedicate this thesis to them.

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I. THE PROBLEM

A. Background To The Problem

> Children who arouse negative feelings and induce negative behaviors in others...are not typically popular among or leaders of their classmates and playmates. They usually experience both social and academic failure at school. Most of the adults in their environment would choose to avoid them if they could. Their behavior is so persistently irritating to authority figures that they seem to invite punishment or rebuke. Even in their own eyes these children are usually failures, obtaining little gratification from life and chronically falling short of their own aspirations. They are handicapped children - not limited by diseased or crippled bodies but by behaviors that are discordant with their social and interpersonal contexts (Kauffman, 1977, pp.5-6).

Many teachers, physicians and mental health professionals have been exposed to children similar to the those described by Kauffman (1977). Although estimates of the prevalence of behavior disorders in the school-age population range between 2% and 30% (Cowan, 1978; Rubin and Balow, 1978; Dow and O'Reilly, 1981), Cullinan, Epstein and LLoyd (1983) concluded that 4% is the most common figure. However, Apter and Conoley (1984), using a most conservative estimate, stated that only 2% of these children receive special education services. In Edmonton, it appears that 4% might be an approximate estimate of the behavior disordered school population (Alberta Education, 1983).

The wide array of definitions and definitional issues that characterize the study of children's behavior problem

largely account for the lack of precision of these estimates. Individual judgements made by professionals coming from different theoretical perspectives often result in a situation in which a particular child, for example, may be regarded as mentally ill by a psychiatrist, as emotionally disturbed by a psychologist, and as behaviorally disordered by a special educator (Long, 1975, p.57). Kauffman and Hallahan (1981) note that the definition of a behavior disorder or emotional disturbance is, unavoidably, both subjective and nonstandard enough that it can be molded to serve nearly any purpose. Further, they conclude that disagreements at a conceptual or theoretical level are not likely to result in a generally accepted definition.

The "emotional disturbance" versus "behavior disorders" controversy referred to in the current literature (Grosenick and Huntze, 1980; Hewett and Taylor, 1980; Apter, 1982) represents a major conceptual disagreement. Due to the central role of theories in planning intervention strategies (McDowell, 1982) an examination of the theoretical basis of this controversy follows.

B. Theoretical Considerations

Over the years, innumerable divergent theories have been proposed in an attempt to understand and explain deviant human behavior. According to Kauffman (1977), "throughout history persons in every culture have sought to

conceptualize unusual or disturbing human behavior in terms of causal factors and to draw implications of those factors for eliminating, controlling, and preventing deviant acts. Human beings have been variously conceptualized, for example, as spiritual beings, biological organisms, rational and feeling persons, and as products of their environments" (p.42). Several conceptual models specifically concerned with both the etiology of deviant behavior and aberrations in the growth and development of children have been developed. Newcomer (1980) has suggested that these models can be grouped into three major orientations, namely the disability, deviance and ecological perspectives of children's behavior problems. The following section will describe each of these perspectives, as well as the specific conceptual models associated with them.

The Disability Perspective

The disability perspective, basis for the emotional disturbance label, views inappropriate behavior as a disease caused by internal neurological or psychological disorders. Consequently, a child's disturbed behavior is perceived to be symptomatic of an underlying illness. Once emotional disturbance has been diagnosed, physicians and therapists attempt to measure the child's internal functioning in order to focus on what has caused the behavior. Emotionally disturbed states are believed to be fixed conditions that

are neither culturally or environmentally induced. Treatment and intervention strategies, therefore, focus on curing the child's underlying pathology, rather than simply removing symptoms (Newcomer, 1980). The biophysical and psychodynamic models are both representative of this perspective. A brief examination of each model follows.

From the biophysical point of view, emotional disturbances are the result of some biogenetic weakness or malfunction within the child. Proponents of this model adhere to the belief that organic factors such as inherited genetic traits (Lorenz, 1966; Wilson, 1975), nutritional disorders (Rutter, 1980; Birch and Gussow, 1970), chemical imbalances (Lipton, DiMascio and Killam, 1978) and neurological dysfunctions (John, 1977) account for a range of mental and emotional disturbances (Sagor, 1972; Knoblock, 1983). The principal criteria currently used by physicians and psychiatrists to classify and label children's behavior problems is contained in the Diagnostic and Statistical Manual of Mental Disorders (DSM-III, 1980). The DSM-III stresses developmental disorders in a multiaxial classification system and recommends that each child be classified on the basis of five axes. The first three axes provide symptom descriptions, developmental data and biological bases, which constitute an official diagnostic evalution. The remaining two axes take into account environmental factors that may be useful in planning

treatments and predicting outcomes. A description of each of these axes and the diagnostic criteria for attention deficit disorders can be found in Appendix A.

Mattison, Cantwell, Russell and Will (1979) reported that interrater agreement for the diagnostic categories of the DSM-III ranged from 20% to 100% with a mean of 54% for child referrals. The higher levels of agreement were found for mental retardation, psychosis, conduct disorder and hyperactivity, while the lowest levels were obtained for anxiety disorders and the subtypes of depression. Criterion validity was established by comparing the classifications of referral children with those of "experts" (Cantwell, Russell, Mattison and Will, 1979). The average agreement between the experts and the raters was less than 50% and this was highest for mental retardation, psychosis, hyperactivity and conduct disorder.

Treatment approaches based on this model, including drug therapy and diet, generally follow a medical orientation (Feingold, 1975). These treatment approaches have been criticized, however, for their lack of attention to the social and interactional forces impinging on the child (Schrag and Divoky, 1975). Noting the teacher's lack of active participation in medical interventions, Reinert (1980) has suggested that school staff maintain a supportive role by communicating effectively with physicians and by monitoring the progress of identified children. Beyond this

suggestion, few firm educational interventions and conclusions have been drawn from these theories (Paul and Epanchin, 1982). On the other hand, the psychodynamic model has made several important contributions to educational programming for disturbed children (Apter, 1982). A brief review of this model follows.

The psychodynamic model, which incorporates various theories and points of view, is based upon several key assumptions. One such assumption is that all children have some basic psychological needs that must be met in order to develop a healthy personality. Examples of such needs include the need for love, security, belonging and success (Juul, 1978). A second assumption is that each child passes through several psychosocial stages of emotional growth (Erikson, 1963). Traumatic experiences and deprivations may interfere with this growth and result in lasting personality disturbances. Thirdly, psychodynamic theorists contend that the quality of the child's emotional relationship with his family and significant others in his life is of crucial significance (Juul, 1978).

The basic premise of the psychodynamic model is that disturbed behavior is largely determined by psychological processes. Psychopathology is determined by the way in which the child's psychological make-up, thoughts, feelings, perceptions and needs, responds to the environmental influences of everyday life. Psychodynamic theorists

contend that although all children bring inherited potentialities to life situations, it is the specific manner in which those genetic or biological factors interact with particular aspects of the child's personality that results in the development of maladaptive or disturbed behavior (Apter, 1982). Figure 1 depicts Long's (1966) conceptual framework for understanding children with social and emotional disturbances. In essence, the emotionally disturbed child is seen as being unsuccessful in negotitating the various intrapsychic and external conflicts faced in the process of psychological and physiological maturity (Reinert, 1980). Behaviors that reflect a state of emotional disturbance are believed to be caused primarily by internal psychic pathology.

Identifying the etiology of a child's disturbed behavior is viewed as being crucial to providing effective treatment. Psychodynamic theorists maintain that the child is not consciously aware of the source of the problem. Therefore, treatment typically involves changing the child by providing insights into past conflicts unearthed from the unconscious. Changing the child's overt behavior is seen as less important than dealing with the underlying conflicts that cause the behavior, since surface treatment only results in symptom substitution.

When a child's — Innate Biological Potentials such as:
Intelligence-maturational rate,
Energy level-congenital anomaly,
Sensitivity-capacity for adaptation

are subjected to — Early Environmental Forces such as:
Insufficient affection/acceptance,
Inconsistent management,
Overprotection
Communication of fears
Parental dissension
Nurtural deprivation
Physical damage

the — Resulting Anxiety

leads to an attempt to regain balance by developing — Rigid Defense Mechanisms such as:
compulsion, regression, projection,
conversion, withdrawal,
denial, repression, displacement

These symptoms usually result in further social emotional disturbances in school with — Authorities
Peers
Self
Learning

which perpetuate the psychopathological cycle

Figure 1
Conceptual Framework For Understanding Children With Social and Emotional Disturbances
Adapted From Long (1966), in Apter (1982)

Therapeutic interventions, ranging from "life-space interviews" (Redl, 1959) to "psychoeducational teaching" (Long, Morse and Newman, 1980) are diverse and often combine efforts to help children become aware of their behaviors and how to improve them. More detailed examinations of these two specific intervention techniques will be presented later in this study.

In summary, both of these disability models include some attempt to measure internal functioning in order to determine the cause of the child's inappropriate behavior, which is viewed as an illness. In addition, emotionally disturbed states are believed to be fixed conditions, rather than as culturally or environmentally induced. Treatment approaches center on curing the child's underlying pathology instead of simply removing behavioral symptoms (Apter and Conoley, 1984).

Clearly, there are several advantages to the disability perspective. By closely focusing on etiology, physicians and psychiatrists are able to place a disturbed child within a culture-free classification system. Early and humane treatment of emotionally disturbed children is also an essential component of this approach. The psychodynamic model has also made three positive contributions to the attitude that teachers take towards these children. First, teachers have learned that emotionally disturbed children do not always consciously plan and cannot always consciously

control disruptive behaviors. Therefore, when they misbehave they should not always be treated punitively. Second, hostility directed to the teacher should not be viewed as a personal insult since it might stem from a variety of motivations and does not necessarily mean that the child dislikes the teacher. Third, children respond emotionally rather than rationally to internal conflicts, therefore, inconsistencies in behavior should be expected (Newcomer, 1980).

The disability perspective also has several notable weaknesses. The inability to accurately measure and verify the internal forces and underlying pathological states used to determine emotional disturbance often leads to disagreements about the diagnosis of behavior problems. Relatedly, since emotionally disturbed children in this view may be regarded as ill, it might be considered best to remove them from contact with normal children and to educate them in separate special facilities. In addition, since the illness is seen as coming from within the child, teachers may feel that little attention need be paid to changing the classroom environment. Instead, a great deal of effort is directed toward isolating the exact nature of the child's disability, through the use of comprehensive batteries of diagnostic tests. That is, if change is to occur, it must occur within the child. Finally, the stigma associated with the label of mental illness, or emotional disturbance, may

far outweigh the potential benefits of treatment (Newcomer, 1980). The deviance perspective also has clear advantages and disadvantages. A review of this orientation and the conceptual models associated with it follows.

The Deviance Perspective

The deviance perspective, encompassing both the behavioral and sociological models, views behavior disorders as being relative to the culture in which they occur. Problem behavior is not seen as a fixed condition, but rather as a variable state dependent upon environmental circumstances (Newcomer, 1980). In essence, community judgements determine who is labelled as behavior disordered. Since many behaviors which are viewed as being inappropriate are commonly displayed by many school-age children, it may only be the frequency, intensity and duration of such behaviors that separates deviant children from their normal peers. Interventions based on this perspective generally involve teaching such children socially appropriate behaviors so that they can honor socially prescribed rules. A brief examination of the behavioral and sociological models that are representative of this perspective follows.

The behavioral model includes several theories and points of view about observable human behavior, especially behavior associated with learning. Although there is a certain amount of controversy and disagreement among these

variations, two points most clearly define the behavioral model. One point is the assumption that all behavior is acquired and regulated by certain experimentally determined principles of learning. A second defining characteristic of the model is a commitment to scientific methods of studying behavior and behavior change (Cullinan et al, 1983). Clearly, the most important variation of behavioral methodology is operant conditioning (Apter, 1982). First introduced by Skinner (1953), operant learning is based on the principle that all behavior is determined by its consequences. Skinner theorized that a consequence may strengthen an operant behavior (increase the probability that it will occur again in the future), weaken it (decrease its probability of reoccurrence), or have no effect. In order for a consequence to strengthen or weaken the operant behavior it follows, it must usually be contingent upon the occurrence of that behavior. A contingent consequence is one that takes place only after a particular behavior is performed. A noncontingent consequence, one that happens whether or not that behavior is performed, ordinarily does not affect operant behavior. Figure 2 provides a representation of operant conditioning processes. This notion of pleasant consequences reinforcing behavior has had an overwhelming impact on the diagnoses and treatment of children's behavior disorders.

Post-behavior Environment	Future Likelihood of Behavior: Strengthened	Future Likelihood of Behavior: Weakened
Stimulus Added	Positive Reinforcement	Punishment
Stimulus Removed	Negative Reinforcement	Punishment
No Change		Extinction

Figure 2 Operant Conditioning Processes

Future Likelihood of Behavior

Adapted From: Cullinan et al, 1983, p. 78

Based on these principles of operant conditioning, the behavioral model promotes the idea that behavioral deviance is essentially maladaptive behavior that has been learned and maintained just like other more appropriate behaviors through positive and negative reinforcement and punishments (Bandura, 1969; Meichenbaum, 1977; Patterson et al, 1975; Reinert, 1980). Behavioral theorists assume that disruptive behaviors result from learning of socially inappropriate behaviors at home and at school (Walker and Buckley, 1973). Such theorists maintain that instances of maladaptive behavior can be reduced significantly by restructuring children's educational and emotional experiences for predictability of appropriate behavior. Experiences can also be designed to reveal to children the relationship between behavior and its consequences (Homme et al, 1969; Kounin, 1970; Kazdin, 1975; Bandura, 1977, Knoblock, 1983). Another conceptual framework which places great emphasis on the influence that environment has on behavior is the sociological model.

The central notion of the sociological model of deviance is that individuals must behave in ways that are generally predictable and expected by others for human interaction to proceed. In order to assume that most people behave in a dependable fashion, societies and groups exercise social control. Goffman (1971) has suggested that self-control is the primary mechanism by which social

control is maintained. Self-control depends on the fact that group members, such as the children in a classroom, are capable of achieving it, and that such members value the requirements placed upon them. A second form of social control is informal control. In the classroom, informal control is usually manifested as corrective feedback, gentle reminders and direct instruction. Many sociologists, including Parsons (1951), view informal control as the primary means by which social learning occurs. A final mechanism by which social control is maintained is through the application of formal sanctions and official disapproval, such as a referral to the principal's office or a formal suspension from school (Paul and Epanchin, 1982).

According to sociological theory, behavioral deviance refers to a condition in which a child violates a social rule or norm and this violation is addressed by persons who have the authority to impose sanctions, one of which can be punishment. Social deviance, therefore, involves not only the violation of a rule but it also involves others seeing the violation and deeming it to be of sufficient importance to act towards it in some negative way. For a child to be considered deviant, then, it is not sufficient to know that a rule has been violated; it must also be known what meaning others, especially others in authority, give to the rule violation (Paul and Epanchin, 1982). In essence, the behavior disordered label applies not only to what goes on

within the child, but also to the interaction between the child and others. The sociological model of behavior disorders is explicitly concerned with the nature of rule violation, social controls imposed by institutions and persons in authority and the social interactions between the disturbed child and others.

As noted by Reinert (1980), the labeling process is the most distinctive feature of this theory. Lemert (1962) and Des Jarlais and Paul (1978) adhere to the premise that labeling alone is a powerful inducement toward deviance or conformity. Further, these theorists have suggested that labels can stigmatize children in school and beyond by creating inappropriate expectations of their academic and social behavior. Another example of the negative impact of labelling was reported by Ysseldyke and Foster (1978), who asked teachers to view a videotape of a normal child. Teachers who were told that the child was emotionally disturbed rated the child's behavior as much more deviant than did teachers who were told they were viewing a normal child.

Educational implications of this model largely consist of alternate ways of viewing the behavior disordered child in the classroom. Apter and Conoley (1984) note that sociological intervention strategies are typically broad-scale efforts aimed more at social and attitudinal change than at modification of any one child's behavior.

Paul and Epanchin (1982) concede that although teachers may not have much impact on the way in which society is organized, they do have considerable influence on the way in which the minisocieties that exist in their classroom are organized. Further, they recommend that teachers reexamine the effects of expectations, rules and various labels on children's self-concepts and educational success.

In summary, the sociological model is more concerned with the wider environment, which includes institutions, communities, culture and society, than its behavioral counterpart. However, both of these deviance models focus on understanding how external forces can produce particular behaviors in children and groups of children. Further, this perspective demands that the context in which the behavior occurs be investigated. It emphasizes the transitory and arbitrary elements of the entire labelling process and focuses on specific, observable behaviors instead of implied underlying pathology (Apter and Conoley, 1984). The behavioral model has had an important influence on the education of behavior disordered children through its development of numerous behavioral intervention strategies, assessment techniques and research designs (McDowell, 1982).

According to Newcomer (1980), the deviance perspective also has three major shortcomings. First, it seems to equate normality with mere conformity to the rules and regulations of a particular society. Conversely,

nonconformity to socially acceptable behaviors may result in a child being diagnosed as being behavior disordered. Apter and Conoley (1984) note that this is a difficult assumption to support, since a behavior such as vandalism may be socially acceptable to a group of juvenile delinquents, while being viewed as pathological to society at large. In addition, nonconformity may be necessary for scientific and artistic advancement. Secondly, if conformity and social acceptable behavior is the critical issue, therapists and teachers may be faced with teaching currently acceptable behavior while reducing the chance for advancement that comes from nonconforming experimentation. As Newcomer notes, "under these circumstances the Wright brothers might have been punished for working on their airplane and rewarded for building better bicycles" (p.20). Finally, both the deviance and disability perspectives focus on the individual child as both the repository of the emotional disturbance - behavior disorder and as the sole target for intervention. Neither perspective concentrates on the interaction between the child and the particular system in which the disturbance occurs, be it the home, school or community. As a result, needed changes in these systems are neglected as the disturbance remains part and parcel of the individual child (Apter and Conoley, 1984). In contrast, the ecological perspective focuses on the relationship between the child and the environment or ecosystem, to

explain behavior and to identify intervention strategies (Mandell and Gold, 1984). This approach will be described in the next section of this study.

The Ecological Perspective

The ecological perspective represents both an alternative approach to conceptualizing and defining children's behavior problems and, perhaps, a resolution to the emotional disturbance - behavior disorders controversy. The ecological approach is an emerging, relatively recent conceptual development (Knoblock, 1983) that offers professionals the best choice for integration of all theoretical approaches (Reinert, 1980). Its unique view of children's behavior problems permits professionals to make maximum use of the information gleaned from each of the other perspectives in order to formulate a therapeutic intervention (Paul and Epanchin, 1982). A brief examination of the historical roots, underlying assumptions and educational implications of this perspective follows.

The ecological model grew out of the concepts from several disciplines including anthropology, sociology and ecological psychology (Kauffman and Hallahan, 1981). Human ecologists all view behavior as a product of the interaction between internal forces and environmental circumstances. Beginning in the early 1900's, anthropologists have focused primarily on the cultural context in which deviant behavior

occurs. Similarily, sociologists have studied the relationship between significant social conditions and high rates of deviance. For instance, Farris and Dunham (1939) described social disorganization and concentric zone theory and their relationship to the incidence of mental illness. They proposed that three conditions are necessary to have a mentally healthy child: (1) intimacy and affection between the child and some permanent group, (2) a consistency of influence, and (3) some harmony between home and outside situations. They also noted that insanity is not defined by a list of actions but, rather, by a lack of fitness between actions and situations (Apter and Conoley, p. 85).

Ecological psychologists such as Barker (1965, 1968) originated the concept of behavior settings, small ecosystems that call forth particular behaviors, as an appropriate ecological unit for studying the interactions between children and environments. In doing so, they discovered the importance of synomorphy, the fit of individual behavior to a particular behavior setting, and concluded that mental illness is a term used to represent behavior that is poorly fitted to a setting. Further, they noted that since behavior can be significantly different in different settings, it appears invalid to diagnose deviance on the basis of only one setting, such as school, or one part of one setting, such as a classroom.

Although ecological psychologists have developed involved assessment techniques for observing human behavior in natural settings, they are uninterested in intervening or manipulating the environments or its inhabitants in any way (McDowell, 1982). This approach represents a key distinction between ecological psychology and the ecological perspective regarding children's behavior problems. The latter discipline has systematically explored the synomorphy between an individual child, his level of development, temperment, motivation and intelligence. It also involves a given behavior setting consisting of aspects of teacher expectation, the physical environment and some programming (McDowell, p. 80). Researchers (Gump, 1975,1977; Kounin, 1970; Prieto and Rutherford, 1977) have completed extensive studies to determine the nature and cause of the faulty adaptation between the child and the environment which has resulted in disturbed interactions. Collectively, these authors and others (Rhodes, 1970; Swap, 1978; Hobbs, 1975) have formulated several assumptions about the interaction between a child and the environment. A description of these five postulates follows.

First, proponents of the ecological model assume that emotional disturbance does not reside exclusively within the child. Instead, they presume that disturbance results from a faulty interaction between the child and a particular environment (Rhodes, 1970; Hobbs, 1975). Several factors

may prompt a faulty interaction. The environment may present conditions that elicit disturbing behaviors in the child. For instance, a child may react in a physically aggressive manner to the taunts and teasing of his classroom peers. In addition, unusual characteristics in a child, such as autism, may elicit disturbing responses in different settings. More frequently, however, a disturbance is caused when either: (1) a disjunction exists between a child's characteristics and the expectations of a particular setting, or (2) the child learns a pattern of behavior that is adaptive in one setting but creates problems in another (McDowell, 1982).

A second assumption of this model is that interventions designed to eliminate a disturbance must focus on altering the total system in which the disturbing behavior occurs. Three implications follow from this assumption. First, a concerted effort must be made to discover, identify and classify the personal and environmental variables that contribute to the disturbance. This may involve normalizing both child and adult behaviors. The child is seen, not as disturbed, but as reacting to the disjunction between his or her personal characteristics and the behavioral expectations of a given setting. Similarily, the adult is regarded, not as inadequate or pathological, but as temporarily unable to structure the setting so that the child can respond appropriately. Thus, by focusing on changing specific

discordant interactions in particular behavior settings, ecological theorists (Rhodes, 1970; Hobbs, 1975) tend to deemphasize individual deficits in both adults and children. Adults and, to a lesser extent, children are assumed to be competent partners in the problem-solving process. Another pont of view is that ecologists believe that several different interventions can occur simultaneously. Consequently, the way to help a child may not necessarily focus only on the child. It may be more productive to direct efforts to other parts of a child's ecosystem, as well. This broader view of the treatment of children's behavior problems gives rise to three major target areas for intervention: changing the child, changing the environment and changing attitudes and expectations (Long, Morse and Newman, 1980).

The third assumption made by ecological theorists is that interventions are eclectic and often involve a multidisciplinary team. Hobbs (1975) describes a variety of intervention strategies appropriate to this model. These include helping the child gain competencies, change his or her priorities and acquire needed resources. Mental health professionals may also help key individuals in the system revise their perceptions, gain new competencies and change their priorities or expectations. As a last resort, the child may be temporarily removed from the discordant situation (p. 120). Therefore, effective interventions may

involve the participation of a variety of professionals assigned to separate, yet related tasks.

The notion that interventions in a complex ecological system may have unanticipated consequences is the basis of this model's fourth assumption. Apter (1982) and Willems (1977) have suggested that since all elements in a child's ecosystem impact on one another, it is possible to intervene in one area and see additional effects, both intended and unintended, in another. This assumption is illustrated by the following example:

> Ann was a seriously disturbed twelve year-old in a residential school for disturbed children. At the time of referral, the public school was more concerned with her behavior and adjustment than her family was. In fact, her family was not particularily upset at Ann's behavior. They had a low income, little education, and minimal expectations for Ann's academic and social development.
>
> In the residential school, Ann made considerable progress. Besides the changes in adjustment, however, the school inadvertantly fostered other changes that subsequently proved disruptive. In particular, the school encouraged such behaviors as bathing every night, appropriate verbal manners, and eating with correct utensils. When Ann returned home after treatment she immediately began attacking her family for such things as not bathing every night.
>
> Needless to say, the family was quite upset with Ann; they were more upset with Ann at the end of treatment than at the beginning. Thus, because the ecology of Ann's home was not taken into consideration in treatment, the actual program tended to make Ann dysfunctional in that setting (McDowell, 1982, pp. 77-78).

Clearly, improvements in any one part of a given system can have an impact on other parts of it.

A final assumption of the ecological perspective is that each interaction between a child and a particular behavior setting is unique. In essence, a different set of personal and environmental variables is perceived to be operating in each discordant interaction. As noted by McDowell (1982), this assumption underscores both the advantages and disadvantages of the ecological perspective. By assuming that no two children and settings are exactly alike, ecologists stress that it is inappropriate to predict which particular variables have a bearing on a given child's behavior. Similarily, the results of a specific intervention strategy cannot be generalized from one case to another. Proponents of this approach (Hobbs, 1975; Apter, 1982; Apter and Conoley, 1984) do not have preconceived, limited notions about the causes of dysfunctional interactions. Similar inappropriate behaviors may have different origins and so demand different interventions.

The assumption that each interaction between a child and particular behavior setting is unique characterizes the ecological perspective's advantages. By assessing the variables of each discordant system objectively, an individualized intervention plan can be formulated for a particular child. As noted, this plan may consist of a number of strategies implimented by a multidisciplinary team of teachers, physicians and mental health professsionals. Unlike traditional psychotherapy, these interventions may be

conducted in the child's natural behavior settings. Thus, the promotion of growth and competence in members of the system helps to avoid the potentially significant consequences of being labelled as pathological, disturbed or inadequate. Another advantage of this perspective is that interventions that alter an ecological system can often benefit not just the target child, but many other children as well. As interventions are applied to increasingly complex or large ecological systems, particularily at the school or community level, this advantage becomes increasingly important (McDowell, 1982, p.98).

In summary, the ecological perspective offers an alternative conceptual approach to understanding and evaluating children's emotional disturbances and behavior disorders. It is based on the assumption that every child is a member of a unique ecosystem, in which other members are defined by their interactions with the child. When many of those interactions are negative, the child may be identified as emotionally disturbed or behavior disordered. Ecological interventions are designed to increase opportunities for the child to succeed, to help parents, teachers and others to increase their skills, and at times, to change the composition of the ecosystem (Lewis, 1982, p. 149). In light of the perceived limitations of the disability and deviance models, the ecological perspective is adopted for the purposes of this study. The implications

that this perspective has towards defining emotional and behavior problems in children is the focus of this investigation.

C. Definition Of Terms

Introduction

Although many definitions of emotional and behavior problems in children have been proposed, no single definition, however, has been found to be adequate for the purposes of all professionals who work with these identified children. As a result, a variety of terms have been used to describe this condition, including the following: asocial, behavior disabled, delinquent, disruptive, emotionally handicapped, personality disordered and socially maladjusted (Reinert, 1980). Obviously, as Kauffman (1980) pointed out, the use of a particular definition does not remove the need for clinical judgement (p. 524). However, the definition must serve the purpose of the social agents who use it (Kauffman, 1981, p. 15). For the purposes of this study, the term behavior disordered (Grosenick and Huntze, 1980; Kauffman, 1981) is used to describe children who chronically and markedly respond to their environment in ways that deviate significantly from age-appropriate expectations and significantly interfere with their own learning and that of others. The presenting behaviors that characterize these

children are outlined in Appendix B. These behaviors presently form the basis of definitions used by the American Federal Register (1981) and Alberta Education (1983) to guide the delivery of services to pupils with behavior disorders.

Explanations and definitions of various terms used in this study are now presented.

1. Academic Self-Concept: An individual's appraisal or evaluation of himself in terms of what it is appropriate, desirable and possible for him to learn (Boersma and Chapman, 1977, p. 5); academic self-concept is operationally defined by the Student's Perception of Ability Scale (1977) under the following categories: general ability, arithmetic, school satisfaction, reading/spelling, penmanship/neatness, confidence.

2. Behavior Disordered Child: The experimental subjects were identified as behavior disordered by their acceptance into a self-contained special education classroom for children with chronic behavior problems. Placement was based on assessments of behavior deviations by parents, teachers, psychologists and other service delivery personnel. Each of the subjects had

received two or more suspensions from their referring elementary schools and were judged to be a threat to the safety of either themselves or their classroom peers.

3. Locus Of Control: It is assumed that individuals develop a general expectancy regarding their ability to control their lives. Individuals who believe that the events that occur in their lives are a result of their own behavior and/or personality characteristics are said to have an "expectancy of internal control", while individuals who believe events in their lives to be a function of luck, chance, fate, powerful others or powers beyond their control or comprehension are said to have an "expectancy of external control" (Harre and Lamb, 1983, p. 358). Locus of control is operationally defined by the Nowicki - Strickland Personal Reaction Survey (Nowicki and Strickland, 1973).

4. Problem Behavior: Behavior that is at least somewhat antisocial or abnormal and, hence, creates a problem for the individual or those about him or her (English and English, 1976, p. 409). Problem behavior is operationally defined by the specific presenting behaviors described by

the Walker Problem Behavior Checklist (Walker, 1976), such as temper tantrums, physical aggression towards objects and persons and continually seeking attention.

D. Statement Of The Problem

The main thesis of this study is that, given effective instruction based on a number of theoretically relevant intervention stategies which constitute a behavioral plan of instruction for modifying the behavior of behavior disordered children, there should be a significant quantitative and qualitative improvement in appropriate behaviors, including that of locus of control and academic self-concept, when reassessed over a twelve week experimental period.

The experimental subjects of this study were six elementary school-aged boys in a self-contained special education classroom. The independent variables were six intervention strategies used to manipulate the problem behavior of the pupils. The psychoeducational model spurned four of these techniques: proximity control, interest boosting, antiseptic bouncing and life space interviewing. Planned ignoring and verbal encouragement, based on the group managerial and teleoanalytic models respectively, represent the two other strategies that served as independent variables. A brief explanation of the rationale

underlying each strategy and a description of how they were applied by the teacher is included in the third chapter of this investigation.

In this study, the dependent variable, problem behavior was measured by a norm-referenced behavioral checklist, three structured ecological interview checklists and by an ecological observation technique. The norm-referenced behavior checklist was the Walker Problem Behavior Identification Checklist (Walker, 1976). The structured ecological interview checklists were the Child Home Behavior Checklist, the Child Community Behavior Checklist and the Child School Behavior Checklist (Wahler and Cormier, 1970). The classroom teacher completed both the Walker Problem Behavior Identification Checklist and the Child School Behavior Checklist for each child. Each child's parent(s) completed the Walker Problem Behavior Identification Checklist, the Child Home Behavior Checklist and the Child Community Behavior Checklist. Psychosituational Classroom Intervention (Bardon, Bennett, Bruchez and Sanderson, 1976), the participant observation approach employed in this study, was conducted by a behavior management resource counsellor and a psychologist during separate 30 minute observation periods once each week.

The dependent variable of academic self-concept was measured by the Student's Perception Of Ability Scale (Boersma and Chapman, 1977). The dependent variable of

locus of control was measured by the Nowicki-Strickland Personal Reaction Survey (Nowicki and Strickland, 1973). Each child completed both of these instruments. The next section details the specific hypotheses related to this study.

E. Specific Hypotheses

1. Hypothesis 1

As a function of the intervention strategies used in the classroom, the number of target problem behaviors exhibited by the subjects in the behavior disordered classroom will be significantly reduced. Problem behaviors were operationally defined and measured by the Walker Problem Behavior Identification Checklist (WPBIC), Child School Checklist (CSC) and Psychosituational Classroom Intervention (PCI) observation format.

2. Hypothesis 2

Following the intervention program, there will be a significant decrease in the number of problem behaviors exhibited by the subjects at home, as measured by the WPBIC and Child Home Checklist (CHC).

3. Hypothesis 3

Following the intervention program, there will be a decrease in the number of problem behaviors exhibited by the subjects in the community, as measured by the Child Community Checklist (CCC). Community is operationally defined for this study as the child's own yard, a neighbor's yard or home, shops, public park, church, downtown, community swimming pool and the family car (Wahler and Cormier, 1970, p. 282).

4. Hypothesis 4

Following the intervention program, there will be a significant increase in the subject's level of academic self-concept as operationally defined and measured by the Student's Perception of Ability Scale (SPAS).

5. Hypothesis 5

Following the intervention program, there will be a significant increase in the subject's internal expectancy of control as operationally defined and measured by the

F. Design

This study involves a one-group pre-test-post-test design (Stanley and Campbell, 1966). Use of this particular

design was necessitated by the fact that a second self-contained class of behavior disordered children, which ideally could have been used as a control group, was not available in the Edmonton area. The age, gender and teacher variables were controlled in this study. In order to overcome some of the weaknesses of this particular design, both a qualitative and quantitative approach to assessment, data analysis and interpretation was used. An in depth description of the behavior of each of the six individual pupils is given at the pre- and post-test phases as the qualitative input. Gain scores based on differential pre/post-test data are analyzed and interpreted as the quantitative aspect of the study. A .05 level of significance is used as the cut off point to determine statistical significance.

G. Limitations Of The Investigation

Several limitations were apparent in this investigation. These included limitations in one of the tests used, the length of time for the investigation, the size of the sample and absence of a control group.

Measurement Limitations

The Walker Problem Identification Checklist (WPBIC) seemed to represent inadequately the complete behavior

assessment process recommended by Mace (1984) in the Ninth Mental Measurements Yearbook. The occurrence, non-occurrence scoring in the WPBIC left several dimensions of behavior, such as frequency, duration and celeration, unaddressed. In essence, this inadequacy prevented the researcher from examining the behavior change of the subjects in greater detail. The unavailability of the Child Behavior Checklist (Achenbach and Edelbrock (1978), which measures several aspects of problem behavior, may very well have influenced the findings of this investigation.

Time Limitations

A second limitation of the investigation involved the length of time taken for the treatment. It was possible that the effectiveness of the behavioral intervention could not be measured over a twelve-week period. It is probable that an investigation over a period of one school year may have produced significant changes in the subjects' academic self-concepts and locus of control orientations.

Sample Limitations

A fourth limitation involved both the absence of a control group and the small size of the sample in the present study. The presence of an equivalent control group may have provided further confirmation of the effects of the

behavioral intervention and may have produced different results. A larger sample size may have increased the likelihood of achieving statistical significance in the results of the study. In addition, the availability of a larger number of subjects may have increased the ability to generalize the findings of this investigation to other similar populations.

H. Significance Of The Study

Pastor and Swap (1978), Gump (1975) and Sommer (1977) have stated that there is a great need for further naturalistic research to be done in educational environments. Additionally, Curran and Algozzine (1980) have concluded that more classroom research is needed to study a critical ecological assumption - that a better "fit" between teacher and child can reduce the number of disturbances in classrooms. Further, McDowell (1982) has stated that a wider application of ecological intervention strategies would be aided by more examples of ecological intervention programs in the literature. It is hoped that the present study will contribute to the existing literature by demonstrating that classroom-based interventions can produce positive changes in a child's behavior in other behavior settings, such as at home and in the community.

II. LITERATURE REVIEW

A. Overview

This review involves a survey of those factors, present and past, that have directly and indirectly affected the current intervention strategies used with disturbed children. Many current notions of causation, assessment and treatment of children's behavior disorders are clearly extensions or refinements of earlier ideas. A brief historical examination of the changes in attitudes towards and the treatment of behavior problem children will illustrate the evolving nature of this multi-disciplinary field of study.

Although special education for children with behavior disorders has important roots in past centuries, it is essentially a recent phenomenon (Cullinan et al, 1983). The teaching of these children incorporates two major considerations: theories of behavior, that is, the nature of the problem, and theories of instruction and classroom management, that is, the educational task. A discussion of the research relevant to current trends in both of these areas is also presented.

This review also includes a discussion of two psychological constructs, namely, locus of control and academic self-concept, which have been associated with disturbed children's school difficulties. Knowledge of

these affective qualities may provide assistance for the teacher in terms of both instructional planning and evaluation. Lastly, current issues in assessing children's problem behaviors will also be reviewed.

The review of the research literature is conducted under the following headings:

1. Historical Perspectives On Children's Behavior Disorders
2. Research Relevant To The Ecological Perspective Of Behavior Disorders
3. Models Of Classroom Management And Related Research
4. Locus Of Control
5. Academic Self-Concept
6. Issues In Assessing Children's Problem Behaviors

B. Historical Perspectives On Children's Behavior Disorders

Introduction

Although the systematic study and treatment of children's behavior problems is largely a twentieth century phenomenon, its evolution and development can be traced back to much earlier times. This evolution is marked by profound changes in the perceived causes, assessment and treatment of children's behavioral disorders. In essence, these changes can be linked to larger societal forces such as the religion, politics and economics of the prevailing culture

of a given time. A brief examination of two major developmental periods, Pre-Twentieth Century, from 400 B.C. to 1900 A.D., and Twentieth Century, from 1900 A.D. to the present time, follows.

Pre-Twentieth Century

Fragmentary archeological evidence and anthropological findings suggest that early man viewed behavioral deviance in terms of supernatural influences. Stone Age skulls have been found which show signs of "trepining", a procedure in which holes were chipped in the skull itself, apparently to allow possessing demons to escape. Similarly, some early Hebrew writings support the demonic possession model of deviance. These scripts indicate that disruptive behavior was interpreted as the possession of the body by evil demons, sent by God as an expression of his displeasure. Shamans and priests attempted to "heal" individuals through prayer, potions, sacrifices, exorcism or even through physical abuse. No distinction was made, at this time, between mental and physical illness (Schwartz and Johnson, 1981).

Although this view of disturbance was commonplace until well into the eighteenth century (Kanner, 1962), these assumptions were challenged as early as 400 B.C. During the Greek and Roman era, Hippocrates rejected the demonic possession interpretation of behavioral and physical

disorders. Instead, he postulated that these illnesses were caused by an imbalance between the four basic body "humors": Blood, Phlegm, Yellow Bile and Black Bile, (Lewis, 1941). Clearly, this notion was an early precursor to the present biophysical model of emotional disturbance. In 375 B.C., Plato reasoned that disturbed individuals should not be held responsible for criminal acts they had committed due to the lack of control they had over themselves. Later, in 90 B.C., Asclepiades formulated a rudimentary psychiatric classification of mental illness and, in doing so, advocated humane treatment of disturbed individuals (Coleman, 1964).

Similarly, in 100 A.D., Cicero and Arataeus emphasized the role of personal and emotional characteristics in producing mental disorders (Coleman, 1964). They placed great value on such interventions as reasoning and discussion, therapeutic exercise and diet, and a pleasant rehabilitative environment. The roots of present day psychotherapy and humane treatment for emotionally disturbed individuals appear to stem from their beliefs. In viewing the causes of behavioral deviance as being either organic or psychological, treatments became a medica concern - the domain of the physician rather than a pr: st, (Cullinan et al, 1983).

As the Middle Ages dawned, the emotionally disturbed again became persecuted as Western society reinforced its belief in demonic possession and superstition as the chief

causes of mental illness. As noted by Schwartz and Johnson (1981):

> in the Middle Ages, the deranged and mentally ill were turned over to the clergy and feudal secular powers, who combined to punish the "agents of the Devil" by burning them at the stake or otherwise disposing of them...(this) practice did not completely die out until the eighteenth century (p. 7).

During the period of the Inquisition, the Christian Church viewed both physical and mental disorders as the result of sin, guided and encouraged by the Devil. Torture and death were recognized as an acceptable means of both saving the person's soul and protecting society at large (Zilboorg and Henry, 1941). This point is clearly illustrated in the following excerpt, translated from an autobiographical novel written by Gottfried Keller (Reinert, 1980):

> "this 7-year old girl, the offspring of an aristocratic family, whose father remarried after an unhappy first matrimony, offended her "noble and god-fearing stepmother by her peculiar behavior. Worst of all she would not join in the prayers and was panic-stricken when taken to the black-robed preacher in the dark and gloomy chapel. She avoided contact with people by hiding in closets or running away from home. The local physician had nothing to offer beyond declaring that she might be insane. She was placed in the custody of a minister known for his rigid orthodoxy. The minister, who saw in her ways the machinations of a "baneful and infernal" power, used a number of would-be therapeutic devices. He laid her on a bench and beat her with a cat-o'nine-tail.. He locked her in a dark pantry.. He subjected her to a period of starvation. He clothed her in a frock of burlap. Under these circumstances, the child did not last long. She died after a few months, and everybody felt relieved. The minister was amply rewarded for his efforts by Emerentia's parents..." (p. 9).

The decline of the Church's influence and the subsequent end of the Dark Ages gave rise to a different perspective on mental disturbance and behavioral deviance. Renaissance thinkers such as Erasmus, Francis Bacon, Thomas More and Juan Luis Vivres placed great emphasis on individual rights, freedoms and potential. Collectively, they challenged traditional notions of behavioral and emotional functioning by maintaining that there was a clear distinction between the human soul and human behavior. Erasmus, in particular, expounded enlightened views on both the humane treatment of behaviorally disordered persons and the education of children, in general. Although these ideas had little immediate impact upon the treatment of the emotionally disturbed, they did set the stage for the changes that occurred in the eighteenth and nineteenth centuries.

Phillipe Pinel is generally credited with instituting the use of the "moral treatment" with mental patients in 1792 (Cullinan et al, 1983). At Bicetre Hospital in Paris, he literally unchained inmates who were formerly put in strait jackets and isolated in dark, damp cells. In doing so he maintained that "these mentally ill are intractible only because they are deprived of fresh air and of their liberty", (Zilboorg and Henry, 1941). Similarly, the French physician Itard assumed that social and emotional deprivation and isolation could account for the behavior of

a "wild boy" found running in the woods of Aveyron (Sh[illegible] 1980). The therapeutic treatment administered to this boy is described by Deutsch and Schuner (1970) as an early forerunner of what is now referred to as "multisensory teaching" - a set of techniques designed to elicit reponses through systematic use of all the sensory modalities.

The nineteenth century was dominated by the viewpoint that mental illness and emotional disturbance were disease processes - that the individual was unhealthy or organically flawed (Knoblock, 1983). Treatments tended to follow a medical orientation through which institutions such as mental hospitals and asylums were constructed to "rehabilitate" children and adults alike. In his book, "Children Through The Ages", Greenleaf (1978) maintains that placement in such institutions did little more than segregate and isolate disturbed children from society. Schools, as institutions, also achieved little success in effectively altering the behavior of these children. The extreme forms of discipline they adhered to constituted their major behavioral interventions for deviant pupils.

The latter half of the nineteenth century, however, was marked by a keen scientific interest in "insane" children. Physicians began to observe and describe the behavioral characteristics of these children in elaborate and detailed case studies. The beginnings of two major perspectives on emotional disturbance arose from these studies. The organic

viewpoint, whose major proponents were Charcot and Kraepelin (Reinert, 1980), emphasized such factors as genetic inferiority, atmospheric conditions and dietary imbalances as causes of mental illness. Kraepelin developed a classification system based on this perspective which identified two major clusters of symptoms: manic-depressive psychoses and schizophrenia (Apter and Conoley, 1984). The functional perspective, on the other hand, stressed the importance of the relationship between the individual's personality and the development of mental illness. Different schools of psychiatric treatment arose culminating in the development of psychotherapy as an intervention approach (Newcomer, 1980).

In summary, present perspectives on children's behavior disorders have been shaped by the attitudes, events and societal forces of past times. Prior to the twentieth century, children were typically perceived as miniature versions of adults and when children's disorders were given consideration at all, they were mistakenly seen as downward extensions of adult disorders (Achenbach, 1974). Demonic possession, biophysical dysfunction and personality weaknesses were alternatively perceived as causes of emotional problems, in which the affected individual was assumed to have responsibility for his or her condition. In general, little distinction was made between physical and mental illnesses. Interventions and treatments, which

tended to be both punitive and harsh, were administered by shamans, priests and, later, by physicians. Special education for disturbed children simply did not then exist.

Twentieth Century

Until the year 1900, few formal attempts to study children and their unique behavioral problems were made (Kanner, 1957). However, the twentieth century was to become "the century of the child", just as Ellen Key, a Swedish sociologist, predicted in 1900 (Reinert, 1980). Significant advances in the knowledge of children's psychological development and their physical and emotional well-being lead to several new perspectives on the treatment and education of disturbed children. In essence, these new theoretical perspectives on children's behavior problems formed the conceptual foundations upon which several present-day special education alternatives for disturbed children are based. The following section will highlight some of the pertinent academic interventions, social changes and cultural conditions that contributed to the increase in special education programs for disturbed children during the past thirty-five years.

The study and research dealing with various aspects of children's psychological development began, in earnest, early in the twentieth century. Although actual studies of severe emotional disturbance in children were not conducted

prior to the 1930's (Kanner, 1962), several key notions about children's behavior in general were formulated much earlier. From the work of Wilhelm Preyer, G. Stanley Hall, an American psychologist and educator, adopted a technique involving the use of an observational questionaire to gather data about children. He also propounded the concept that the child passes through phases of development that simulate the stages of evolution from animal to man (Hall, 1904). Although later discredited, this recapitulation theory served to emphasize change in behavior as a characteristic of childhood (Thomas, 1979). Hall's work also helped establish the modern view that the child is not mentally, anymore than physically, a miniature adult whose intellectual capacities can be compared with those of adults.

Relatedly, the work of Alfred Binet, a French psychologist, emphasized the notion of individual intellectual differences between children. Inorder to differentiate between normal and feeble-minded children and to predict success in school, Binet devised his first intelligence scale (1905). Later, at Louis Stern's suggestion, test items were rearranged by chronological order inorder to arrive at an evaluation of mental age (Schwartz and Johnson, 1981). This lead to the assumption that a child at a certain age should be conversant with certain areas of knowledge. Thus, the relationship between

achievement and chronological age became the standard to compare the performance of school children with that of their peers (Erickson, 1982). This early notion continues to have important ramifications towards the diagnosis and selection of children for special education placements.

Other aspects of children's development were also researched and studied in the years following the writings of Hall and Binet. Such research led to the rise in popularity of a new science called developmental psychology. Inorder to describe and measure the observable changes in a child's growth and behavior from birth to adolescence, new assessment techniques were devised. Louis Terman and Arnold Gesell, among others, pioneered a new longtitudinal approach to studying the individual variations among children the same age (Terman and Oden, 1959; Gesell, 1930, 1946; Gesell and Ilg, 1949). By tracing the development of a particular group of children over a number of years, these studies demonstrated that children undergo a course of development at different rates of advancement, depending upon both physiological and sociological factors. Combined with the clinical methods of Kurt Lewin (1936, 1939), Jean Piaget (1950, 1963) and other developmental psychologists, these longtitudinal studies have facillitated the establishment of objective norms for the physical, social, intellectual, emotional and behavioral development of children at different ages. These norms, in turn, provide important

criteria for standards and judgements about the nature and extent of a particular child's deviant behavior.

A second major outgrowth of the increased study and research of children's development during the first half of the twentieth century has been the formulation of several major developmental theories. Each of the five major perspectives on children's behavior problems described earlier in this study has clearly been influenced by the contributions of several notable developmental theorists. For instance, the psychoanalytic concepts that Sigmund Freud developed in the 1920's and 1930's had a profound effect on society's attitude towards childhood. Although these concepts were not based on direct observation of children, he contended that adult neuroses had origins in early childhood experience. Freud's hypotheses focused attention on the child-parent relationship and laid great responsibility upon parents for properly rearing their children. Overall, his theory of child development exerted significant influence over a number of areas of child psychology, including the analyses and diagnosis of personality dysfunction and the therapeutic treatment of deviant types of development (Thomas, 1979).

Responding to the emphasis that both the psychoanalytic and behavioral models placed on environment as a determinant of children's behavior, Alfred Adler, Karen Horney and Harry Stack Sullivan added new dimensions to the study of

disturbed children. Incorporating Benedict's (1934) findings that suggested that a relationship between sociocultural factors and mental illness existed, these psychiatrists included parents, siblings, peers and significant others in their studies of childhood deviance. As noted by Rhodes and Sagor (1974), this development contributed to the fusion of organic, psychological and sociological viewpoints into a holistic approach.

By the end of the 1930's, the level of academic and societal concern for disturbed children had risen significantly. Child guidance clinics (Kanner, 1957; Knopf, 1979) were set up based on three premises: (1) there were a surprisingly great number of behavior and emotional problems among children, (2) existing services were totally inadequate for children with behavior disorders, and (3) most children's behavior disorders were neither hopeless or permanent (Rie, 1971).

In such clinics, a multidisciplinary approach was used to treat children and adolescents. After having their children interviewed and assessed by psychologists, parents were contacted by social workers and treatment was provided by psychiatrists (Achenbach, 1974). The clinic staff also interfaced with both the schools and juvenile courts. Relatedly, both the Council for Exceptional Children (1922) and the American Journal of Orthopsychiatry (1924) were founded to address the emotional and educational needs of

by psychiatrists (Achenbach, 1974). The clinic staff also interfaced with both the schools and juvenile courts. Relatedly, both the Council for Exceptional Children (1922) and the American Journal of Orthopsychiatry (1924) were founded to address the emotional and educational needs of disturbed children. In 1935, Lauretta Bender and her colleagues organized two classrooms for psychotic and schizophrenic children at Bellevue Psychiatric Hospital in New York. This "hospital school" program was successful and eventually became a model for others (Kauffman, 1981).

World War II had a definite impact on the growth of special education. With the return of many servicemen suffering from a variety of physical, sensory and psychological disorders, many parent organizations began to demand more appropriate services, including special education, for their handicapped children. While surveys of children's behavior disorders were being conducted, two antithetical trends developed. Theorists such as Kanner (1949), Mahler (1952) and Bergman and Escalona (1949) maintained that differences in the etiology of illnesses such as autism, psychosis, mental retardation and schizophrenia existed. Further, they held that these differences had direct implications for treatment. In contrast, Rank (1949) and Szurek (1956) supported an indefiniteness in the classification and labelling of

childhood disturbances. They favored the term "atypical child" to designate any severe disturbances of childhood.

Throughout this debate, a host of educational intervention formats, including consultation, special classes and special schools, were initiated. Bruno Bettelheim and Fritz Redl established early forerunners of today's group homes to provide a therapeutic, educational environment for aggressive and delinquent boys. As noted by Apter and Conoley (1984), special education for disturbed children in public schools was close to becoming an established discipline by the 1950's. Residential treatment centres were also being established based on both Carl Fenichel's League School with its psychoeducational curriculum model and Leonard Kornberg's psychodynamic program at Hawthorne-Cedar Knoll School (Cullinan et al, 1983). During this period, the psychodynamic model established itself as the major underpinning of both the public education and residential treatment model of disturbed children.

By the late 1950's and into the 1960's the behavioral model, with its principles of contiguity and reinforcement, began to have an exceptional impact on the education of disturbed children. Viewing behavioral deviance as essentially maladaptive behavior that has been developed and maintained through reinforcement and punishment, this approach offered numerous practical applications to the

classroom setting (Woody, 1969; Cowen, 1963; Hewitt, 1968). Applied behavior analysis and behavior modification, two related, yet separate behavioral interventions, were widely used throughout 1960's and 1970's with disturbed children. Hewitt's "engineered classroom" (1968), Quay et al's "token economy resource room" (1971, 1972) and Hops and Walker's "CLASS program" (1976) represent but a few of the many applications of behavioral principles. Behavioral researchers also contributed a profusion of behavioral assessment techniques (Haynes and Wilson, 1978) and single case experimental designs for determining treatment effectiveness (Hersen and Barlow, 1976).

Educational programs and strategies based on other perspectives on children's behavior disorders also appeared in the late 1960's and into the 1970's. Applying psychoeducational interventions, Nicholas Long (1974) set up the Hillcrest residential and day-school treatment program for behaviorally disordered children. Similarly, Mary Wood (1972, 1975) founded the Rutland Center to prevent the need for institutionalizing disturbed children by providing a comprehensive, multidisciplinary intervention within the community. Also using a psychoeducational approach, William Morse (1971, 1976) developed the "Crisis/Helping Teacher" model as an alternative to special class placement.

As described by Gadow (1979), the use of psychotropic medication to change the behavior of disturbed children also began in the 1960's. In addition to receiving an educational intervention from their teachers, these children were concurrently placed under a physician's care for medical therapy. In diagnosing the disturbed child's behavior as the result of physical disease or defect, the physician perceived the major contribution of the teacher to be the provision of the educational program. Few educational implications beyond this role were stressed (Newcomer, 1980).

Viewing children's behavior disorders from an ecological perspective, Nicholas Hobbs (1966, 1974) was instrumental in the development of the "Project Re-ED" program. Hobbs endorsed the notion that a behavior disorder is a dysfunction in one or more of a given child's ecosystems - family, school, community - rather than the sole property of the child. While a child was enrolled in the Project Re-ED program, additional staff members worked directly with the disturbed ecosystem inorder to increase tolerance for the child's deviant behavior and to encourage more appropriate ones (Cullinan et al, 1983). Figure 3 indicates the close relationship that Hobbs (1966) encouraged among various components of the child's primary socializing systems.

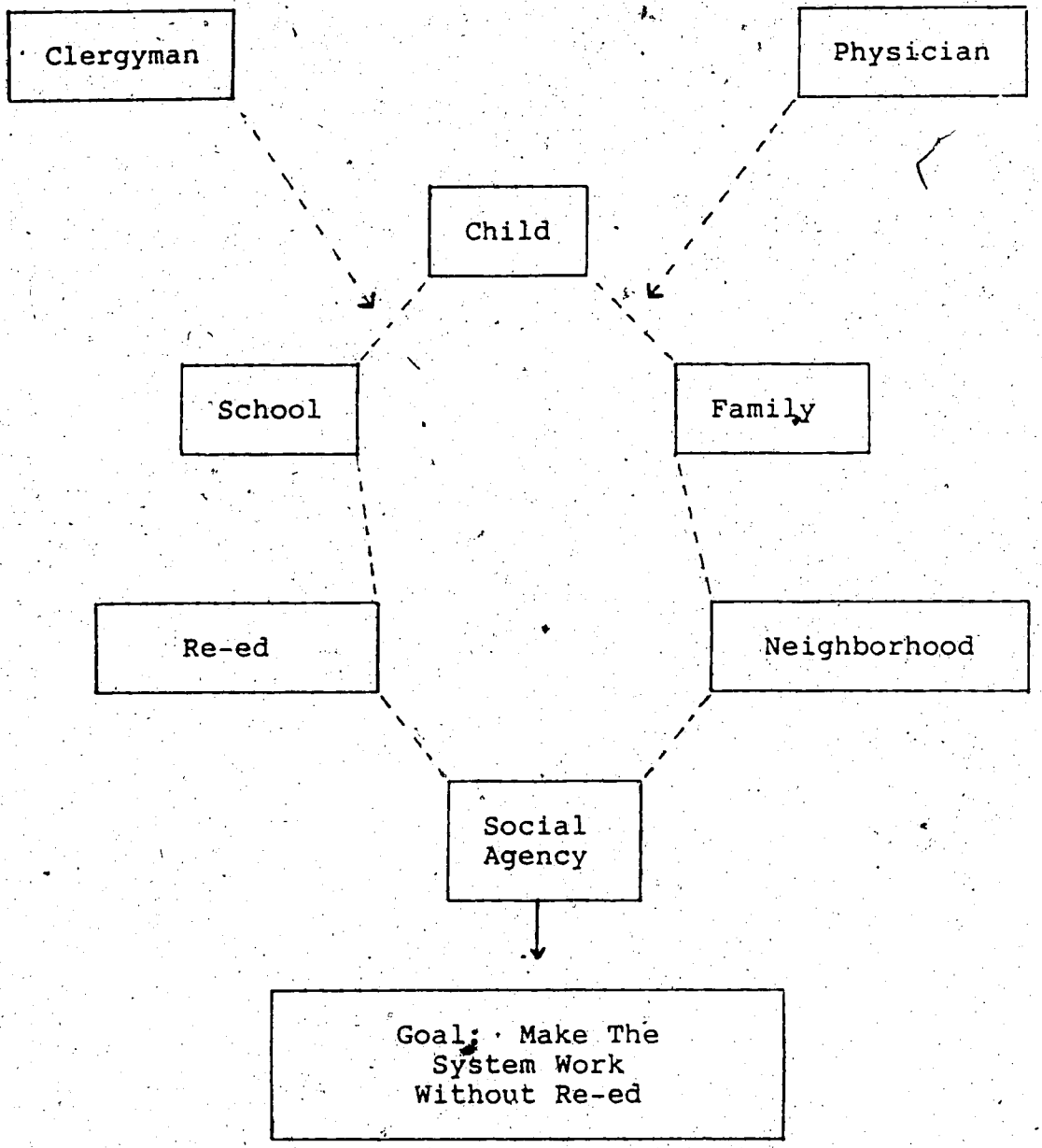


Figure 3
Project Re-Ed
Adapted From: Reinert, 1980, p. 112.

In essence, differing perspectives on the causes of children's behavior disorders have resulted in a great diversity of interventions by a variety of mental health professionals over the past thirty-five years. Although no single perspective has gained universal acceptance, each model has had an impact on the special education provisions for these children. In addition, each conceptual framework has developed several effective intervention techniques and strategies. Reinert (1980) has suggested that a synthesis of these theoretical approaches may best equip the teacher to manage the disturbed child in the classroom.

Towards this end he proposed the following ecological model of childhood deviance illustrated in Figure 4. Reinert envisioned the child at the centre of this model and acknowledged that both internal and external forces have a bearing on his or her behavior. Further, he assumed that when biophysical factors are intact the child has a solid foundation on which to develop. Conversely, if this biophysical base is impaired through prenatal or postnatal injury, genetic disease or a chemical imbalance, the child's opportunities for normal physical, mental and emotional growth are reduced. The left side of the triangle includes both the appropriate and inappropriate learned behaviors that shape the child's future. The psychodynamic factors acknowledge that childhood

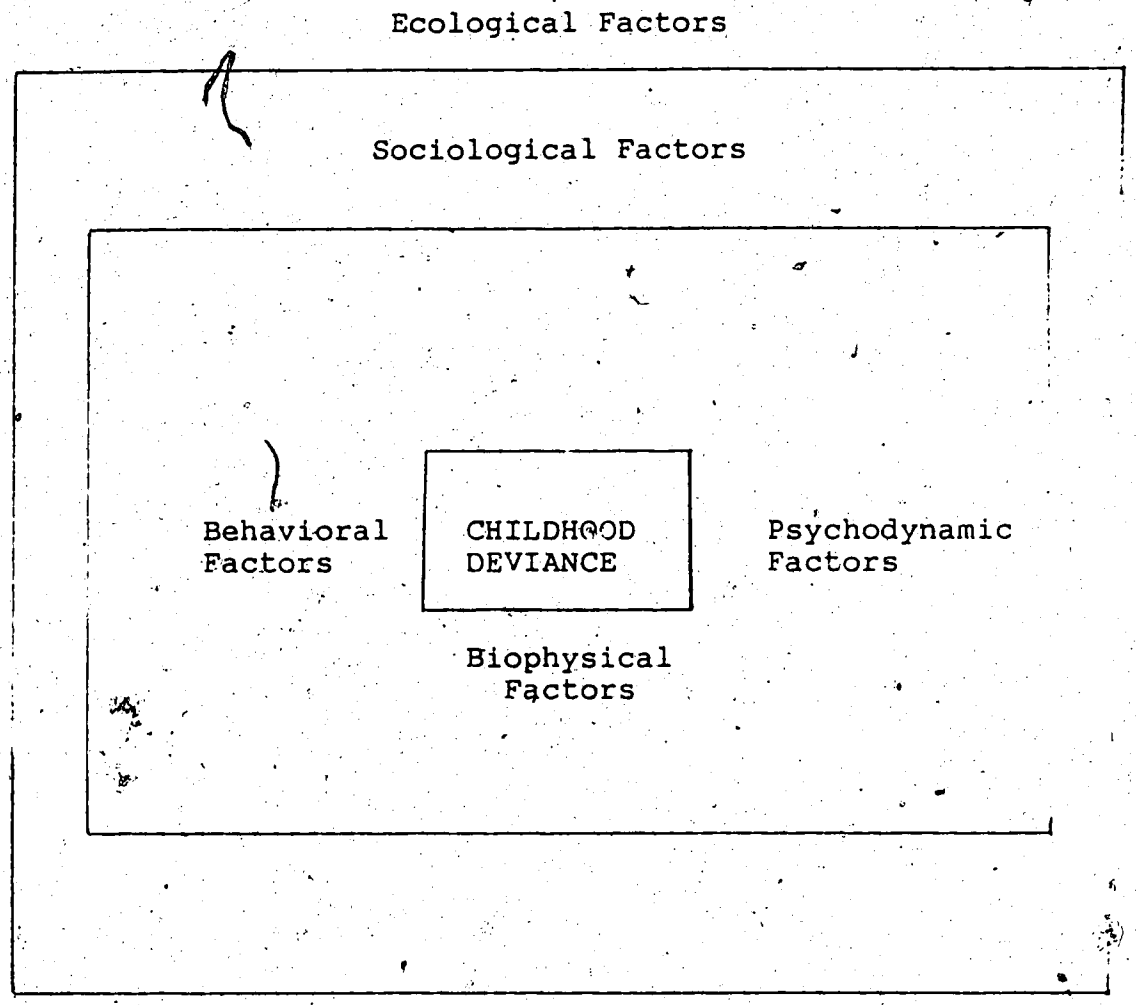


Figure 4
The Ecological Model
Of Deviance
Adapted From: Reinert, 1980, p. 132.

experiences, child-rearing practices and other facets of psychological development have an influence on the child's personality. Lastly, both sociological and ecological factors encompass the child's growth and development. The next section of this review presents the research findings relevant to this ecological perspective.

B. Research Relevant To The Ecological Perspective Of Children's Behavior Problems

Introduction

The ecological orientation, which forms the basis of this study, views the emotional and behavioral problems of disturbed children from a much broader perspective than either the deviance or disability approaches do. It stresses the importance of examining a child's entire "life-space" for sources of disturbance. Disturbance is perceived to be a mismatch between a child's abilities and the demands of his or her environment. Interventions that either increase a child's abilities to cope with social situations or decrease environmental pressures can reduce disruptive behaviors (Apter, 1982). As noted by Paul and Epanchin (1982), uniquely ecological interventions simply do not exist. Instead, intervention strategies developed in other conceptual models are adapted to fit into an ecological framework. Therefore, research relevant to the ecological model focuses on the various systems

(Bronfenbrenner, 1979) that children are a part of and that influence their behavior. The following section attempts to establish the relevance of ecological factors, namely the environmental and social circumstances in which children grow up (Quay and Werry, 1979), in both assessing and remediating behavior problems.

Ecological Research On Children's Behavior Problems

Rutter (1975, 1979, 1981) and his colleagues conducted several studies which examined the impact of social systems on psychological disorders of children. In 1975, Rutter, Cox et al investigated the behavior of ten year old children living in two very different areas of Britain - an inner London Borough (ILB) and a semi-rural area on the Isle of Wight (IOW). Teachers were asked to complete a children's behavior questionaire (Rutter, 1967), from which a number of children in each area, plus a randomly selected group were intensively studied. The mothers of both groups of children were interviewed to gain information concerning family relationships and social circumstances. Fathers were interviewed separately, for briefer periods of time. Further information from classroom teachers was also systematically obtained. Results of this study indicated that inner-city children were rated as deviant about twice as often as their semi-rural counterparts (ILB boys, 24.5%; ILB girls, 13.2%; IOW boys, 13.8%; IOW girls, 7.1%). The checks that the authors made to ensure that teacher

thresholds were not different in the two areas provided strong support for the notion that there was a real difference in the deviance rate of the two areas. Similarly, the rate of prevalence of psychiatric disorder was twice as high in the city children (25.4%) as it was for the semi-rural sample (12.0%). The authors noted that these findings could not be explained in terms of migration of disturbed families into the city, because the proportion of parents of disturbed city children who had moved into the borough was not higher than in the randomly selected nondisturbed group.

Rutter and Cox identified four variables inorder to explain the within-area and between-area differences. First, disturbances of family relationships, as evidenced by the number of marital breakups and the number of times that a child was given up to the custody of local authorities, was much more common in both groups of disturbed children. A later study by Lavik (1977) produced similar results. Secondly, the disturbed group had a higher proportion of mothers, but not fathers, with psychiatric illnesses. Other investigators (Buck and Laughton, 1959; Hare and Shaw, 1965; Richman et al, 1975) using an epidemiological approach also established that mental illness in parents, especially mothers, is closely linked to psychological disorders in children. Third, no clear-cut association between socioeconomic status and

children's psychological disturbances was found. Gath (1977) did, however, find a correlation between guidance clinic referrals and housing types in London. Finally, several school factors had a bearing on the rate of disturbed children. Disturbed children were more likely to attend schools that had a high pupil/teacher turnover, a high percentage of children receiving free meals (an index of poverty and deprivation), a high rate of pupil absenteeism and a high proportion of immigrant children. In essence, this study demonstrated that a wide variety of ecological factors were associated with the prevalence of children's behavior disorders.

In a followup review of later studies, Rutter (1981) found that the incidence of psychosocial problems of various kinds tended to be much higher in the inner cities than in small towns or rural areas. The city influences seemed to be of at least two very different kinds:

> on the one hand, the greatest effect seems to be on early onset, chronic disorders in children which are associated wtih severe family pathology. In this instance, the city influences appear to act mainly on the parents and on the family, and only indirectly on the children. On the other hand, there are also a variety of immediate and direct effects on adolescent behavior which operate through both schools and community circumstances (pp. 623-24).

Rutter concluded that the ecosystems in which children live can have an adverse effect on their behavior.

In order to ascertain the ecological factors that were associated with successful residential treatment, Lewis

(1982) reviewed a number of studies that followed up disturbed children after they were released from treatment centers. He concluded that the children's level of adjustment was not related to improvements made during treatment, but instead, to several ecological system factors. Successful children were found to be different from their unsuccessful counterparts in three ways. First, the successful children's "support-stress" ratio was significantly more supportive at discharge, despite ratings being identical at admission. Secondly, the average number of family contacts while the child was in residence was greater for successful children. Thirdly, the percentage of these contacts that were judged to be positive was also greater. Lewis concluded that ecological support was necessary to maintain growth made by disturbed children and youths in treatment.

Moos and Fuhr (1982) conducted a single-case descriptive study to investigate the use of ecological concepts to develop interventions for a disturbed, depressed fifteen year old girl. Beth, an only child whose parents were both highly successful in their jobs, had dropped out of school and socially isolated herself from her peers. A therapist assigned to work with the girl found it very difficult to develop a relationship with her, as she continually provided ambiguous information about her academic and socioemotional difficulties. Inorder to

gather data without disturbing the natural interplay of environmental forces, the investigators utilized Bronfenbrenner's (1979) ecological systems format. Briefly, this involved gaining information about each of the components that Bronfenbrenner identified in his conceptual framework, namely the microsystem, the mesosystem, the ecosystem and the macrosystem. The authors administered the Social Climate Scales, a series of semi-structured interviews and four structured questionaires, to the family in two two-hour sessions. Three of the questionaires, Classroom, Family and Work Environments, consisted of two forms, Real and Ideal. The fourth questionaire, Health and Daily Living, provided information about other relevant personal and environmental factors such as the family's social activities, stressful life events, social support system and areas of disagreement. Once this comprehensive data-gathering process was completed, Moos and Fuhr were able to conclude that:

> a relatively clear picture of Beth's situation emerges from the foregoing information. Mr. and Mrs. B. were highly committed to and satisfied with their jobs and described their relationship to each other quite favorably. They both worked hard, enjoyed considerable responsibility, and were interested in pursuing their professional careers and obtaining higher level managerial positions. In contrast, Beth was very critical of both home and school. Although the family status quo was satisfactory for Mr. and Mrs. B. in view of their demanding and rewarding work environments, it did not meet Beth's need for parental warmth and support, expression of feelings, or the

> sense of belonging [illegible] that emerges from shared participation in family activities (p. 118).

Moos and Fuhr concluded that an ecological perspective helped to establish a connection between a discordant family system and Beth's problematic behavior, as well as to suggest suitable interventions. Further, they indicated that the information derived from ecological assessment procedures can sensitize clinicians to the relevant factors and interrelationships in the micro-, meso- and exosystem influences and to the subtle ways in which such influences can disrupt a workable equilibrium among other environmental systems (p. 121).

Edmund W. Gordon, editior of the American Journal of Orthopsychiatry, noted in 1982 that the ecological perspective was being applied to primary prevention in pediatrics, clinical intervention in the treatment of children and youth and towards understanding the complex problems associated with the learning-disabled child. The next section of this review will examine the application of ecological principles in classroom management.

D. Models Of Classroom Management And Related Research

Introduction

As previously indicated, the teaching of behavior disordered children incorporates two major considerations: theories of behavior, that is, the nature of the problem and theories of instruction and classroom management, that is, the educational task. The next section of this review will address the latter consideration, namely, maintaining discipline and order in the classroom.

C.M. Charles (1981) has stated that, "discipline's not everything; its only a small part of teaching. But it's like the foundation of a house: nothing can be built without it," (p.13). Several conceptual models concerned with the development and maintenance of classroom management have been proposed. Each of them tries to encourage the social and interpersonal behaviors that are likely to maximize the learning and teaching of any group of pupils and teachers. Individually, however, these models reflect divergent approaches and attitudes towards achieving this goal. The following section will begin with a description of the three broad categories under which each of the existing conceptual models of discipline can be classified. Next, a brief examination of three models that are particularily pertinent to the present study, Redl and

Wattenberg's psychoeducational approach, Kounin's group managerial approach and Dreikur's teleoanalytic approach, will be presented. Finally, an eclectic, consensus framework for integrating these three theoretical perspectives, the systematic instruction model, will be outlined.

Preventative Discipline

Charles (1981) has stated that there is significantly more to discipline that simply correcting children's misbehavior. Basically, he has suggested that discipline has three, equally powerful components: preventative, supportive and corrective discipline. Preventative discipline refers to a series of ten factors that the teacher can manipulate in order to prevent misbehavior. Six of these factors occur during preparation to teach. They include, (1) the physical setting of the classroom, including seating patterns, lighting and room temperature, (2) curriculum, including a challenging variety of objectives, activities and materials, (3) a decisive attitude of the teacher, (4) realistic expectations and limits, (5) clearly identified support systems, including parents, other teachers and administrators and (6) preparing for special and unexpected events, which involves the use of substitute teachers and the preparation for emergencies. The final four factors relate directly to the

teacher's performance, (7) the management of teaching with attention to routines and the delivery of lessons), (8) the mannerisms, gestures and speech the teacher uses while directing lessons, (9) genuine, congruent communication with students and (10) fostering a sense of acceptance and belonging with pupils (Charles, pp. 220-225).

Supportive Discipline

Supportive discipline strategies are designed to be used at the first signs of incipient misbehavior in the classroom. This facet of discipline consists of several subtle techniques that the teacher can implement to assist pupils to maintain self-discipline. Supporting self-control refers to a group of interfering strategies that the teacher can use to get a pupil back on course, often unnoticed by others. These strategies closely resemble the first eight surface behavior management techniques described by Long, Morse and Newman, (1980).

Another means of applying supportive discipline is the ongoing reinforcement of good behavior. Informal nods, smiles and words of encouragement demonstrate to pupils that the teacher is aware of them, their work and their behavior. The teacher can also keep pupils on task by requesting appropriate behavior. Such requests can be accomplished by using cues and questions to remind pupils what they are supposed to be doing.

In addition, the teacher can apply supportive discipline by resolving conflicts that arise in the classroom without producing major disruptions in class routines. Charles (1981) has also suggested that techniques, such as verbal reinforcement and active listening can be an effective means of strengthening a teacher-pupil bond in order to [illegible]ate misbehavior. Finally, providing a variety of [illegible]ss experiences can motivate pupils and build th[illegible]lf-concepts, while removing many of the causes of their misbehavior (Charles, pp. 225-230).

Corrective Discipline

Corrective discipline consists of a variety of techniques that teachers can apply to suppress, correct and rechannel misbehaviors. These techniques are used only after preventative and supportive disciplinary strategies have failed to reduce inappropriate behavior.

According to Long, Morse and Newman (1980), putting pupils' names on the blackboard, confronting their misbehavior verbally and sending them to the principal's office are examples of this type of discipline. In essence, the primary aim of these strategies is to stop the disruption and then assign meaningful consequences to the pupils for their behavior. For example, all of a teacher's preventative and supportive attempts to have a pupil stop

rocking in his desk may have failed. Therefore, the teacher emphatically states to the pupil how displeased he is with this behavior. As a logical consequence to the misbehavior, the teacher insists that the pupil stand beside his desk, rather than sit in it, for the next class period. Clearly, redirecting a pupil's maladaptive behavior into a more appropriate form is the primary aim of corrective discipline. As noted by Charles (1981), different conceptual models of classroom management advocate a great diversity of corrective interventions.

In summary, Charles (1981) has concluded that effective classroom management puts equal emphasis on preventative discipline, supportive discipline and corrective discipline. While this approach will not eliminate all discipline problems, it will permit classroom teachers to build a system of discipline that matches the needs of both the pupils and themselves (Charles, p.231). Together, the three models of classroom management selected for the purposes of this study embody the three facets of discipline that Charles has proposed as illustrated in Figure 5.

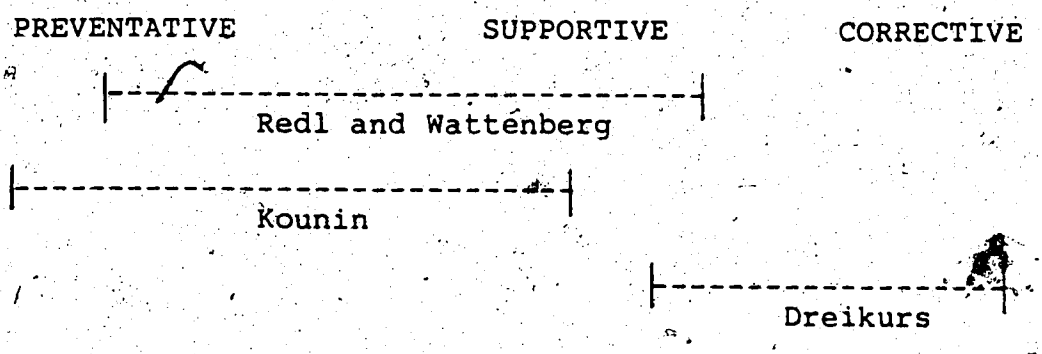


Figure 5
The Three Facets of Discipline
and
The Conceptual Models of Classroom Management
Adapted From: Charles, 1981, p. 232

A brief review of the basic assumptions and concepts associated with the Redl-Wattenberg, Kounin and Dreikurs models follows.

The Redl-Wattenberg Psychoeducational Model

The psychoeducational model of classroom management was devised by persons trained in the concepts of psychodynamics, but who became dissatisfied with the emphasis on individual psychotherapy and permissivism. While not abandoning psychodynamic concepts altogether, the proponents of the psychoeducational model attempted to deal with academic failure and classroom misbehavior directly. That is, while concern for unconscious motivation and underlying conflicts was not entirely set aside, techniques were developed for dealing with the surface behavior problems of groups of children (Kauffman and Hallahan,

1981, p. 171). Redl and Wattenberg's approach to classroom management focuses on the social and psychological forces that affect children's emotional development and behavior in the classroom. A description of the four underlying assumptions of this model, as well as the four groups of intervention strategies it suggests follows.

One assumption that Redl and Wattenberg make is that pupils behave quite differently in groups than they do as individuals. They maintain that group expectations, norms and values strongly influence individual behavior, and individual behavior, in turn, affects the group. Specific roles, such as the leader and the classroom clown, are accepted by individual pupils because they feel that the group expects or enjoys them. By accepting such a role, a pupil finds a niche within the group and becomes a functioning part of it. In this respect, Redl and Wattenberg view the classroom group as an organism that creates conditions such that its members will behave in certain ways because they belong to it; at the same time, the manner in which the parts function affects the whole (Redl and Wattenberg 1959, p. 267).

The related notion that groups create their own psychological forces that influence individual behavior is another assumption of this model. Psychoeducational theory suggests that teachers require an awareness of group dynamics in order to maintain effective classroom

management. Quite simply, group dynamics are the psychological forces behind the group's unwritten codes of conduct. When these codes are contrary to the teacher's own codes, conflict and disruptive behavior occur. Scapegoating, which occurs when a group attempts to displace its hostility onto an unpopular individual or subgroup, represents one form of group dynamics.

A third assumption of this conceptual framework is that the manner in which individuals and groups behave in the classroom is strongly influenced by their perceptions of the teacher. According to Redl and Wattenberg, the teacher is assigned many psychological roles by the classroom group, as illustrated in Figure 6. In effect, the specific roles that the teacher assumes are determined by the group's needs. Redl and Wattenberg emphasize that it is the teacher's responsibility to be both steady and consistent in the roles that are adopted.

Once the teacher has a clear understanding of the effect that group dynamics and expectations have on individual and class behavior, a general approach to resolving classroom conflicts can be applied. This approach, labelled diagnostic thinking by Redl and Wattenberg, represents this model's fourth assumption. When a classroom conflict erupts, these authors recommend that the teacher first form a hunch based on his or her general feelings towards the conflict. After gathering

1. Teachers are representatives of society. They reflect and develop values, moral attitudes and thinking patterns of the community.

2. Teachers are judeges. They judge the quality of student's work, behavior and progress.

3. Teachers are a source of knowledge, a resource from which to extract information.

4. Teachers help students to learn by removing learning obstacles and facilitating problem solving.

5. Teachers are referees. They arbitrate and make decisions when disputes arise.

6. Teachers are detectives, maintaining security in the classroom and handing out consequences.

7. Teachers are models. They model values, manners and beliefs that students should imitate.

8. Teachers reduce anxiety by maintaining standards of behavior, consistent environments and schedules.

9. Teachers support student egos by building self-confidence and bettering self-images.

10. Teachers are group leaders. They facilitate harmonious and efficient group functioning.

11. Teachers are surrogate parents. They are a source of approval, affection and advice.

12. Teachers are also adversaries to parents. They introduce different attitudes and values to round out children's viewpoints.

13. Teachers are targets of hostility.

14. Teachers are friends and confidants. They can be talked to and confided in.

15. Teachers are objects of affection, of crushes and hero worship.

Figure 6
Psychological Roles of the Teacher
Adapted From: Charles, 1981, pp. 36-37

obvious facts about the incident, the teacher should then search for any hidden factors that may be involved. Knowledge of a particular child's background or involvement in a [illegible]ly volatile situation are examples of such hidden factors. Next, the teacher should apply the facts, motivations and hidden factors that they are aware of towards a tentative solution. Should t[illegible]ution prove to be either incorrect or inadequate, th[illegible]eacher may have to diagnostically reexamine the data in order to generate an alternative plan of action.

Influence techniques represent a major strategy of this model. A description of each of these techniques is located in Figure 7. Redl and Wattenberg suggest that there are four categories of influence techniques: (1) supporting self-control, (2) offering situational assistance, (3) appraising reality and (4) invoking the pain-pleasure principle. The techniques considered to be part of the first category include signal interference, proximity control, interest boosting, tension decontamination through humor and planned ignoring. These techniques are designed to reduce misbehavior caused by momentary lapses in self-control. The aim of these five strategies outlined is to help pupils gain control of their own behavior.

1. Planned ignoring: If the behavior is not likely to disrupt or spread to others, and the teacher feels confident that it will eventually run its course, the behavior can be ignored.

2. Signal interference: Nonverbal communication techniques (eg. eye contact, hand gestures, facial frowns) can signal to the student a feeling of disapproval and control.

3. Proximity control: Standing near a child or carefully placing one's hand on the child's shoulder can suppress inappropriate behavior, and additionally be a source of protection, strength and identification for the agitated student.

4. Interest boosting: Showing interest or enthusiasm in a child's work can renew his or her attention to and interest in the task.

5. Tension decontamination through humor: A humorous comment or joke may alleviate a tense and anxiety-producing situation.

6. Hurdle lessons: Teacher assistance to a child who is frustrated by the immediate assignment can prevent frustration-induced misbehavior and allow the child to "hurdle" the assignment.

7. Restructuring the classroom assignment: In situations in which the lesson may be creating irritability, boredom or conflict, classroom tension should be alleviated by immediately changing the lesson.

8. Support from routine: A predictable daily schedule or program can be used to allay the pupil's feeling of anxiety from uncertainty.

9. Direct appeal to value areas: An appeal to whatever values a child has internalized (eg. teacher-child relationship, reality of the consequences, peer reaction and behavior code, or teacher's position of authority) can reestablish control.

Figure 7
Surface Behavior Management Techniques
(Long, Morse and Newman, 1980)
Adapted From: Cullinan et al, 1983, p. 156.

10. Removing seductive objects: Whistles, balls, candies and paints are examples of objects that seductively trap impulsive children to misbehave and their removal avoids power struggles and group disintegration.

11. Antiseptic bouncing: Temporarily removing the child or asking him to leave a problem situation (eg. to carry a note to the office) usually permits everyone to return to a normal procedure.

12. Physical restraint: If the child has lost control of his emotions or a threat of harm exists to someone, careful physical restraint can interrupt the behavior problem and show the pupil that the teacher cares enough to protect him from his own uncontrolled impulses.

Figure 7 (Continued)
Surface Behavior Management Techniques
(Long, Morse and Newman, 1980)
Adapted From: Cullinan et al, 1983, p. 156.

Hurdle lessons, restructuring classroom assignments, support from routine, removing seductive objects, antiseptic bouncing and physical restraint are the specific techniques by which the teacher can provide situational assistance. Redl and Wattenberg suggest that these strategies should be used when pupils cannot regain their self-control without teacher assistance.

Through reality appraisal techniques, the teacher calls on pupils to examine their behavior in a conflict, see its underlying causes and foresee the probable consequences of their actions. Due to the high level of emotional stress present during conflict situations, Redl and Watterberg recommend that such discussions are most effective when held during a calm period following the disturbing incident.

After the teacher has supported self-control, offered situational assistance and helped appraise reality, behavioral disruptions may still occur in the classroom. Redl and Wattenberg state that teachers may then have to invoke the pain-pleasure principle by using rewards, promises, threats and punishments to reduce misbehavior. Aware of potential disadvantages of this particular group of techniques, these authors caution that they should only be used as a last resort.

While Redl and Wattenberg suggest that psychoeducational strategies are effective in modifying the maladaptive behavior of behavior disordered pupils, little scientific research is available to support such claims. However, two recent studies do appear to provide evidence of the efficiency of these intervention techniques.

DeMagistris and Imber (1980) investigated the effects of Redl's life space interviewing techniques on the academic and social performance of eight emotionally disturbed adolescent boys. These researchers concluded that the use of these strategies resulted in both a decreasing frequency of maladaptive behavior and an increase in the amount of time spent on academic work. More recently, Beck, Roblee and Johns (1982) investigated the effects of two of Redl's surface behavior management techniques on specific target behaviors of eight elementary school pupils who were placed in a special classroom for the emotionally disturbed. The two techniques which served as independent variables were interest boosting and direct appeals to values. A within-subject design was used with a pre - treatment baseline of ten days, a treatment period of twenty days and a post - treatment baseline period of ten days. During all three phases of the research, frequency counts of the target behaviors chosen for each student were made for ten minute intervals three times a day using random time sampling procedures. These three frequency

counts per day were then averaged across the eight students and three research periods, yielding a mean number of misbehaviors per subject for each period. These means were then analyzed using an analysis of variance for a single-factor repeated measures design in conjunction with the Newman-Keuls post hoc test of comparison (p. 233).

The results of the study supported the conclusion that the use of these two techniques was effective in reducing maladaptive behavior. Both interest boosting and direct appeals to values were found to be particularily effective with frustration behaviors such as "I can't do it", aggressive behaviors such as teasing peers, withdrawl behaviors such as looking at the floor while talking and off-task behaviors such as making noise with an object. Citing a .01 significant difference between the pre-intervention and intervention, and a .05 significant difference between pre-intervention and post-intervention, the researchers suggested that these strategies had both an immediate and a carry over effect after their use was terminated. They attributed the carry over effect to the pupils having incorporated the two techniques into their internal coping processes. Based on the results of this study, Beck, Roblee and Johns concluded that their own findings also provided indirect evidence for the utility of Redl's other surface behavior management techniques

(p.234). Clearly, further research is needed to support this claim.

In summary, the psychoeducational model assumes that while teachers may be sensitive to a given pupil's psychological needs and problems, they still have to deal with the spontaneous disruptive behavior that occurs in the classroom. Clearly, the child cannot be permitted to act out all of his feelings of emotional stress. Therefore, the teacher's task is to find ways of interfering with the behavior so that it does not disrupt the group and still may be helpful to a particular child. Redl and Wattenberg have identified four groups of specific influence techniques that can be applied towards the goal of positive classroom management. Although this model is still based on the concept of interpsychic influence on emotions and behavior, it places considerable emphasis on events in the home and community environments that may cause a pupil's disordered behavior. As Charles (1981) observed, the major contributions of this perspective have been in the areas of preventative and supportive discipline.

A second theoretical approach that also emphasizes preventative and supportive discipline, namely Kounin's group managerial model, will now be examined.

Kounin's Group Managerial Model

The major focus of Kounin's group managerial model is on techniques to prevent behavioral disruptions from occurring in the classroom. Through his own research into the associations between teacher actions and pupil's disruptive behavior, Kounin (1977) has demonstrated that there are a number of specific teacher skills which appear to be clearly correlated with increased pupil work involvement and decreased disruptive behavior among pupils. In essence, Kounin mintains that if pupils are properly motivated and involved in classroom learning activities, disruptive behavior will be greatly reduced. Towards this end, Kounin has identified five major teaching variables that he believes are basic to effective classroom management and discipline: withitness, smoothness of transition, group alerting, learner accountability and ripple effect (Martin, 1981; Charles, 1981). The following section will describe each of these five variables, as well as the specific teaching skills associated with each. One such variable is withitness.

Withitness refers to a teacher's overt behaviors that demonstrate to the pupils that he or she is aware of what is going on in all areas of the classroom at all times. Kounin postulated that it was effective only if pupils were convinced that the teacher actually did know what was going

on. In a 1977 study, Kounin established a correlation of .62 between teacher withitness and pupil's work involvement, and a correlation of .53 between withitness and the absence of disruptive behavior (Martin 1981, p. 111). Four specific teaching skills demonstrate withitness: desists, suggesting alternative behavior, concurrent praise and description of desirable behavior [illegible]3). Desists involve telling the pupils to stop [illegible] off-task behaviors.

[illegible] stresses that to be effective, such desists must [illegible]red before disruptive behavior spreads or [illegible]ous and they must be directed at the pupil who [illegible] the disruption. A teacher may demonstrate withitness by diverting the attention of a disruptive pupil to an alternative, more positive behavior and may concurrently ignore a pupil who is exhibiting off-task behavior while praising the non-disruptive behavior of other pupils. This teaching skill simultaneously permits the teacher to avoid a confrontation with the pupil while providing him or her with a more positive means of gaining the teacher's attention. Finally, the teacher may describe, or have the disruptive pupil describe, the desirable behavior which should have been exhibited in a given classroom situation.

One useful variable identified by Kounin is a smooth transition from one classroom activity to another. Kounin

(1977) determined that the ability of a teacher to deal with classroom disruptions in ways that did not interfere with ongoing classroom activities and which led to smooth transitions between different topics, correlated .60 with pupil work involvement and .49 with freedom from deviancy. This variable may be demonstrated by three teaching skills: delayed response, timely interjections and smooth transitions. Delay response refers to a situation in which the teacher delays responding to an unrelated pupil stimulus until a natural break in the classroom activity. Timely interjections can also be a useful means of demonstrating a smoothness of transition. Using this skill, a teacher waits for an opportune moment to interrupt either a lesson or a pupil activity to introduce new or unrelated information. Finally, the specific skill of smooth transition refers to bringing closure to one classroom activity before starting on another. Having a definite beginning and conclusion to learning activities enables the pupils to maintain their concentration and remain on-task.

Group alerting, another of Kounin's teaching strategies, involves focusing the attention of all class members on the desired activity at all times. Kounin determined that keeping pupils alert increased their on-task behavior and reduced disruptive behavior in the classroom. In fact, Kounin (1977) found that group

alerting skills correlated .44 with freedom from deviant behavior during question-answer discussions between teacher and pupils. Borg (1973) has stated that positive questioning techniques, positive recitation strategies and alerting clues are the three specific teaching skills which best demonstrate this variable. Using positive questions requires the teacher to pause 3 to 5 seconds after asking a question before calling on a pupil for a response. This ensures that each pupil will have an opportunity to consider the question before answering. Positive recitation strategies simply refers to having the teacher call on pupils to answer questions at random, as opposed to following a predetermined sequence. Through the use of alerting clues, the teacher alerts uninvolved pupils that they may be called upon to answer questions.

One important technique suggested by Kounin is learner accountability, which refers to the notion that each pupil in a classroom is responsible for the concepts and learning activities related to a lesson. In Kounin's study, use of the specific teaching skills associated with accountability, namely, goal-directed prompts, work sharing and peer involvement correlated .49 with work involvement and .39 with freedom from disruption during classroom recitation lessons. All three of these teaching skills involve the teacher showing an awareness of how each pupil is progressing, in order to demonstrate learner

accountability. Using goal-directed prompts, the teacher focuses on the work plans or work progress of individual pupils. Work sharing involves the teacher holding the pupils accountable by having them either show their actual work or demonstrate particular skills or knowledge. Peer involvement refers to calling on some pupils to evaluate or comment on the work assignments or verbal responses of others.

Kounin's fifth and final major teacher variable is the ripple effect. It refers to the manner in which teachers issue desists, a teaching skill associated with the previously mentioned withitness variable. Kounin observed that the way in which teachers use these remarks, which are designed to suppress misbehavior, influences the pupils that witness them. In short, the effects of the desist given to a particular pupil ripple outward to other pupils. Kounin studied the ripple effect in four settings: college, kindergarten, high school and summer camp. The author concluded that this effect is very powerful at the elementary school level, but it weakens at the high school and college levels, where it depends on the popularity and prestige of the teacher. In the kindergarten study, Kounin tried to determine whether the quality of the desist influenced the degree of the conforming behavior.

Three qualities of desists, clarity, firmness and roughness, were examined. Clarity involved the teacher

naming the disruptive pupil, specifying the behavior that was unacceptable and listing the reasons for the desist. Firmness, an "I-mean-it" attitude, was projected through the application of consequences following misbehavior. Roughness referred to the teacher's use of anger, threats, physical handling and punishment. Kounin discovered that increased clarity tended to increase conforming behavior in pupils who witnessed the desist. Firmness in the desist increased conformity only in pupils who were also misbehaving at the time. Finally Kounin found that roughness did not improve behavior. Instead, it upset the pupils in the classroom, making them anxious, confused and restless. He also noted that the ripple effect was very pronounced the first day of school, but tended to diminish as the year wore on (Charles, 1981, p. 48).

As noted throughout this section, Kounin's own studies (1970, 1977) which examined the associations between teacher actions and pupil's disruptive behavior provide major research support for the model. Martin (1981) observed that the statistical significance of these associations attest to the empirical validity of Kounin's claims. However, more recent studies have further confirmed Kounin's findings. For instance, Emmer, Evertson and Anderson's much quoted Texas Teacher Effectiveness Studies (1979) indicated that effective classroom

management was closely inter-related with effective instructional management, as evidenced by higher levels of pupil work engagement and achievement.

In this investigation, the researchers employed Kounin's withitness and smoothness of transition strategies. The findings of this investigation suggested that the more effective managers clearly established themselves as the classroom leaders. They worked on rules and procedures until the children learned them. The teaching of content was important for these teachers, but they stressed, initially, socialization into the classroom system. By the end of the first three weeks, these classes were ready for the rest of the year. In contrast to the more effective managers,, the poorer managers did not have well worked-out procedures. This was most evident in the behavior of beginning teachers. For example, one new teacher had no procedures for using the bathroom, pencil sharpener, or the water fountain; the children seemed to come and go as they pleased. Consequently, children wandered about, enormously complicating the teacher's organizational tasks. In essence, the major distinguishing characteristic of the more effective managers was that they monitored students carefully and when disruptive behavior occured, they stopped it promptly (Alberta Education, 1980, pp.36-37). Emmer, Evertson and Anderson interpreted this

finding as a clear example of Kounin's principle of withitness.

In summary, Kounin's model stresses effective and efficient group-management techniques in order to promote optimal learning and to reduce disruptive behavior. The general intent of the specific teaching skills that Kounin has identified is to prevent misbehavior from occurring in the first place and, alternately, to help pupils maintain self-control. Unlike the Redl and Wattenberg model, the group managerial approach deemphasizes the importance of the teacher's personality traits in maintaining classroom discipline and control. However, neither model places a great deal of emphasis on corrective discipline. Little or no emphasis is placed on effective ways of confronting, stopping and correcting misbehavior that is certain to occur in even well-managed classrooms. By contrast, Dreikers teleoanalytic model focuses directly on dealing with misbehavior that occurs despite the teacher's use of preventative and supportive discipline techniques. A brief examination of the underlying assumptions of this model follows.

Dreikur's Teleoanalytic Model

The teleoanalytic model of classroom management is based directly on Alfred Adler's view of individual developmental psychology. Using Adlerian principles,

Dreikurs attempts to provide teachers with an insight into the goals and motivations that underly children's misbehavior in the classroom (Dreikurs et al, 1982). He has suggested that an initial understanding and analysis of these existing motives is necessary to change or alter behavior. In essence, he uses the term teleoanalytic to refer to this analysis of purposes or motivations. Dreikurs also outlines several corrective techniques designed to alter mistaken goals of behavior in order to preserve the social and personal well-being of individual learners and of the classroom group. The next section of this literature review will present a discussion of the basic premises and corrective techniques associated with this model of classroom management.

According to Dreikurs and Cassel (1974), five psychological premises form the basis of the teleoanalytic model. These researchers explained that man is a social being with a strong desire to belong to a group, in order to gain status and recognition. All behavior is purposefully exhibited to help children and adults to belong and gain significance within a social context. The specific behaviors that are selected to achieve this goal of belonging are theoretically chosen early in life and reflect an individual's lifestyle. Misbehavior indicates that an individual has chosen socially inappropriate ways to belong and to be significant. Dreikurs and Cassel also

posited that individuals have the capacity to choose to behave or misbehave; however, they may sometimes be unaware of the decisions that they have made. These investigators also held the gestalt view that behavior cannot be understood through an analysis of partial characteristics. The whole is perceived always as being greater that the sum of the parts. In order to comprehend an individual, it may be necessary to observe entire patterns of behavior which indicate underlying motives and purposes. Each individual has a different perception of reality. In essence, the specific lifestyle chosen by an individual acts as a subjective basis for interpreting all of the social actions of others. Sometimes, however, these interpretations and perceptions may be biased or mistaken.

Dreikurs has stated that children often act on the mistaken perception that misbehavior of various kinds will give them the social belonging and acceptance that they desire. He has identified four basic mistaken goals of children's misbehavior: undue attention, power, revenge and displaying inadequacy (Dreikurs and Cassel, 1974; Dreikurs, Grunwald and Pepper, 1971). The attention-seeking child is influenced by the mistaken assumption that he or she has significance only when he or she is the center of attention. As a result, the child develops great skill at exhibiting attention-getting mechanisms. When positive means for gaining attention

fail, the child switches to negative, often disturbing methods such as talking out of turn or refusing to do schoolwork without the teacher's attention (Charles, 1981). Giving attention to these children does not improve their behavior, it reinforces it.

Dreikurs also suggests that the attention-seeking child may quickly develop an insatiable appetite for attention, requiring ever-increasing amounts of it to maintain a social position and a sense of belonging. Initially, the attention-seeking child will temporarily cease misbehaving when reprimanded or given attention. However, a struggle for power, the second mistaken goal, occurs after a teacher has tried for some time to stop forcibly the child's demands for attention (Dreikurs and Soltz, 1964). In essence, the child mistakenly associates complying with a teacher's requests with a loss of personal power and esteem. He or she then becomes determined to use power to defeat the teacher. This need for power may be expressed by lying, arguing, contradicting or temper tantrums (Charles, 1981). In a constant struggle with authority, the power-oriented child will tend to escalate his or her misbehavior when reprimanded.

According to Dreikurs, the mistaken goal of revenge arises from the intensification of a power contest. When teacher and pupil become increasingly involved in a power struggle and each tries to subdue the other, a transaction

[redacted]ntense retaliation may develop. Openly hostile, [redacted]s and defiant, the child may proceed to seek revenge in order to feel significant and important (Dreikurs and Soltz, 1964). At this stage, the pupil senses a lack of personal power and actively attempts to project feelings of emotional hurt on others. The goal of displaying inadequacy is used by a pupil who is deeply discouraged and has essentially given up all hopes of significance, expecting only failure and defeat. With very little self-esteem, the pupil uses inability to shield what little self-worth remains. In doing so, the child avoids taking any personal or academic risks, seeking only to avoid any situation which may cause embarassment or humiliation (Martin, 1981). The student becomes helpless and exaggerates any real or imagined weakness or deficiency to avoid any task that may result in failure.

To summarize, these four m.staken goals represent increasing degrees of behavioral disruptions and discouragement. Dreikurs insists that it is imperative for teachers to understand that a misbehaving child is only a discouraged child trying to gain a sense of significance and belonging. To help teachers recognize the four goals of misbehavior Dreikurs identified four types of attention-getting mechanisms (AGMs) or patterns of misbehavior. The four AGMs are derived from combinations of bipolar factors. Behaviorally disordered children may

be classified as active or passive and they may use constructive or destructive methods. The combination of the active-passive factor with the constructive-destructive factor gives rise to four distinct AGMs: (1) active-constructive, (2) active-destructive, (3) passive-constructive and (4) passive-destructive (Dreikurs and Cassel, 1974). A comprehensive view of a child's misbehavior may be obtained by associating each of the four goals with one or more of the four patterns of misbehavior (AGMs). Figure 8 illustrates this notion. Once the teacher has identified which of the four goals of misbehavior which motivates a child, corrective strategies can be implimented. Figure 9 describes the specific procedures associated with each goal.

Dreikurs staunchly maintains that punishment is rarely corrective in nature, but it is usually retaliatory (Dreikurs and Grey, 1972). For this reason, Adlerian theorists (Pepper and Roberson, 1982; Nelson, 1985) recommend that teachers use natural and logical consequences as an alternative to punishment. Natural consequences are based on the natural flow of events and take place without adult interference. They are the unavoidable consequences or inevitable reactions entailed by a child's actions when no one interferes to prevent these consequences from occuring. Thus, a small boy receives scraped knees as a result of running too quickly

Useful/Acceptable Behavior		Useless/Unacceptable Behavior		Goal
Active Constructive	Passive Constuctive	Active Destructive	Passive Destructive	
"success"	"charm"	"nuisance"	"laziness"	1
		"rebel"	"stubborn"	2
		"vicious"	"violent passivity"	3
			"hopeless"	4

Figure 8
Identifying The Goals of Children's Misbehavior
Adapted From: Dreikurs and Cassel, 1974, p. 33

Child's Action And Attitude	Teacher Reaction	Goal	Corrective Procedure
Nuisance Shows off Lazy	Annoyed	1 Attention	Ignore child Give positive attention
Stubborn Argues Lies	Defeated	2 Power	Avoid power struggles
Vicious Sullen Defiant	Deeply Hurt	3 Revenge	Convince him that he is liked
Feels Hopeless Gives up	Feels Helpless	4 Display of Inadequacy	Make him feel worthwhile

Figure 9
How To Correct Children's Misbehavior
Adapted From: Dreikurs and Cassel, 1974, p. 44.

on concrete, children quickly learn from experience that hot things should not be handled, etc. Logical consequences, on the other hand, involve adult interventions. However, while logical consequences are structured and arranged by the adult, they must be experienced by the child as logical in nature. For a child who cannot sit in his chair, or who constantly tips it, a logical consequence might be to remove the chair and allow the child to stand. To be logical, the consequence administered should be directly related to the misbehavior in question (Martin, 1981, p. 127). Hartwell-Walker et al (1985) note that these can also be referred to as "arranged" consequences.

Use of encouragment techniques is another critical feature of this model of classroom management. Encouragement is defined by Dreikurs, Grunwald and Pepper (1982) as a continuous process aimed at giving the pupil a sense of self-respect and of accomplishment. It is used to support pupils as they attempt to develop self-confidence and recognition of their own abilities. Pepper and Roberson (1983) describe encouragement as the selective timing of carefully programmed experiences for the pupil, particularly in the form of well-chosen reinforcers and well-designed prompts. In this respect, they note that it is very similar to the process of shaping in behavioral theory. The crucial distinction between praise and

encouragement is that the former recognizes the actor, while the latter acknowledges the act itself. For instance, a statement such as "You are a good boy?" reflects praise, whereas a comment like "The most important thing is that you enjoy playing soccer", demonstrates the use of encouragement. In essence, praise gives an external evaluation of the actor, while encouragement assists the actor in valuing and appreciating his/her own skills and actions (Dinkmeyer and Losoncy, 1980; Martin, 1981).

In summary, the teleoanalytic model does not view discipline as a procedure for stifling inappropriate behavior, but rather as an ongoing process in which pupils learn to impose limits on themselves, to be responsible for their own actions, to respect themselves and others and to take the responsiblity for influencing others to behave well. In order to demonstrate the practical applications of this model, a discussion of the relevant research studies follows.

The teleoanalytic approach contends that children with emotional disorders often emerge from families characterized by a poor interpersonal and environmental ecology. Citing Bronfenbrenner's (1980) study that directly related early inadequate socialization with higher incidences of truancy, vandalism, suicide and violent crimes, Schneider and Schneider (1983) contended that these children have basically learned to belong negatively rather

than positively to society. They describe these children as being present-oriented and centered on maladaptive goals that focus on immediate gratification rather than long-term investments in future goals. Recent educational interventions for these children have been centered around the notion of Individual Education (IE).

Reeducation programs emanating from the teleoanalytic perspective on classroom management have incorporated the four R's of Individual Education (IE): Responsibility, Resourcefulness, Respect and Responsiveness (Manaster and Corsini, 1982). The responsibility component is an educational actualization of the teleological principle that all behavior is purposive and within the control of the individual. Resourcefulness refers to the pupil's movement toward active and useful goals. Respect focuses on the development of both self-respect and interpersonal respect. Within this component the pupil helps personalize his or her program to maximize personal feelings of accomplishment without fostering competition. Responsiveness refers to the development of true social interest and interpersonal empathy, whereas positive discipline is viewed as being the primary socialization process in schools offering the IE program. In this model, three basic school rules are stressed in IE schools. These include, do nothing dangerous that could harm yourself, others or school property, always be in a supervised area

or en route from one supervised area to another, and, finally, if in class a teacher should point at you, leave the room immediately and in silence (Corsini, 1979).

Pratt (1985) reported that IE programs were offered in nine schools, six located in the United States and three elsewhere. Several research studies related to the effects of the discipline and classroom management found in these IE programs have been conducted. Generally, the results of these studies have been quite positive. Whittington (1977,1980) examined the effects of the Adlerian discipline and classroom management program in place at Hale O'Ulu School on Oahu, Hawaii on the incidence of problem behavior. The researcher reported that many of the pupils had past records of truancy, arrests, drug abuse and aggressive behavior. Using school records, Whittington determined that during the three years before the school adopted the IE program, 600 fights and confrontations occurred. Remarkably, in the first 3 post-IE years, only 2 occurred. Similar reductions were found in the number of arrests, incidents of substance abuse and non-attendence. A follow-up study on the post-IE status of 35 pupils was also conducted by Whittington (1980). Data was obtained for 31 of the pupils one year after they were discharged. There were only 2 arrests for the entire year. Other follow-up data showed that 21 of 30 previously enrolled students were continuing to attend school or be employed

and that 28 of 31 had no problem with the use of drugs or alcohol.

Lane (1984) conducted a school survey to determine the perception of parents of the discipline program being enforced at Jefferson Elementary School (JES) in Pueblo, Colorado. The results of this survey indicated that a high percentage of the respondents positively endorsed the IE discipline process. Specifically, 95% of the parents viewed the discipline system as fair and consistent, while 68% felt that it helped their child assume greater responsibility. Similarily, Pratt (1984) asked three IE school principals to complete a questionnaire relating to the discipline arrangements and levels of problem behavior in their schools. When asked what percentage of their students violated any of the three IE rules more than twice per year, their responses varied from 10 to 70%.

The researcher also indicated that the principals' responses to questions about rule-violation patterns over time confirm that IE schools experience the most frequent violations shortly after installation of the system and early in the school year with the frequency then falling off substantially. The same three principals reported that consistency of IE discipline arrangements helps attain an orderly school. Typical administrator comments were: "Fighting is rare here, and back-talk is practically non-existent"; "Staff is enthusiastic and spend less energy

on discipline and more on instruction; parents even use our techniques at home"; "The discipline system helps create a fine atmosphere for learning" (Pratt, 1984). In answering "How pleased or displeased are you, on the whole, with how IE discipline arrangements have worked out in your school?" all three principals chose one of the two most favorable judgements on a given six-point scale.

Based on the existing research literature, Pratt (1985) concluded that IE schools experience substantially fewer discipline problems than traditional schools. Moreover, the positive benefits of the IE approach, when consistently applied were clear, as judged by the strong endorsement given by teachers, parents and principals. It should be noted that these results and conclusions may be questionable for several reasons. Pratt (1985) noted that reporting the results of existing studies has been difficult because of the fact that there has been no formal uniform method of reporting research findings. Further, a lack of commitment or money for research by various schools has complicated research efforts. Finally, some of the research material and data collected have not been made available, for unstated reasons, to the researchers (pp.40-41). As a consequence, Pratt recommended that future researchers should seek agreement on fuller, more systematic methods of collecting and analyzing data in

order to afford a more rounded understanding of the IE program.

In conclusion, the teleanalytic, group managerial and psychoeducational models all have notable strengths and weaknesses. The following section will present both a rationale and a conceptual framework designed for synthesizing these three theoretical approaches.

The Systematic Instruction Model

Charles (1983) has stated that the most important tool that any teacher can have is an effective system of discipline, one that stops misbehavior, corrects it, fosters positive relationships and builds self-discipline within each child (p. 63). As stated previously, each of the major models of classroom management tries to encourage the social and interpersonal behaviors that are likely to maximize the learning and teaching that takes place in the classroom. None of these theoretical approaches, however, is effective for all teachers at all times. Both Charles (1981,1983) and Martin (1981) have suggested that teachers construct their own personal systems of discipline, in order to ensure a goodness of fit between their own strengths and personalities and the demands of a given situation, problem or pupil. Rossi's (1979) research on the evaluation of human services delivery systems indirectly supports this notion. Rossi defined human

services as those that depend on direct interpersonal contact between a deliverer, such as a teacher, and a client, such as a pupil. In essence, these evaluation studies suggested that effective human services treatments are typically delivered by exceptionally devoted persons who use their personal skills and strengths to their greatest advantage. This certainly typifies the role of the teacher responsible for the education of behavior disordered pupils.

In selecting models of classroom management for the purposes of this study, a concerted effort was made to match specific theoretical strategies and approaches to the BMC program teacher's own strengths and personality. As a result, a synthesis of the psychoeducational, group managerial and teleoanalytic approaches was formulated. In order to systematically and logically combine these diverse theoretical perspectives into a framework which could be applied to the practicalities of the BMC program, an adequate integrative model was needed. The systematic instruction model (DeCecco and Crawford, 1974; Dick and Carey, 1978; Popham and Baker, 1970), which is illustrated in Figure 10, was selected for this purpose. In essence, this model helps to ensure that the factors of teacher and pupil characteristics and their interactions, relevant school and community variables and intended outcomes are all given adequate consideration. These five factors were

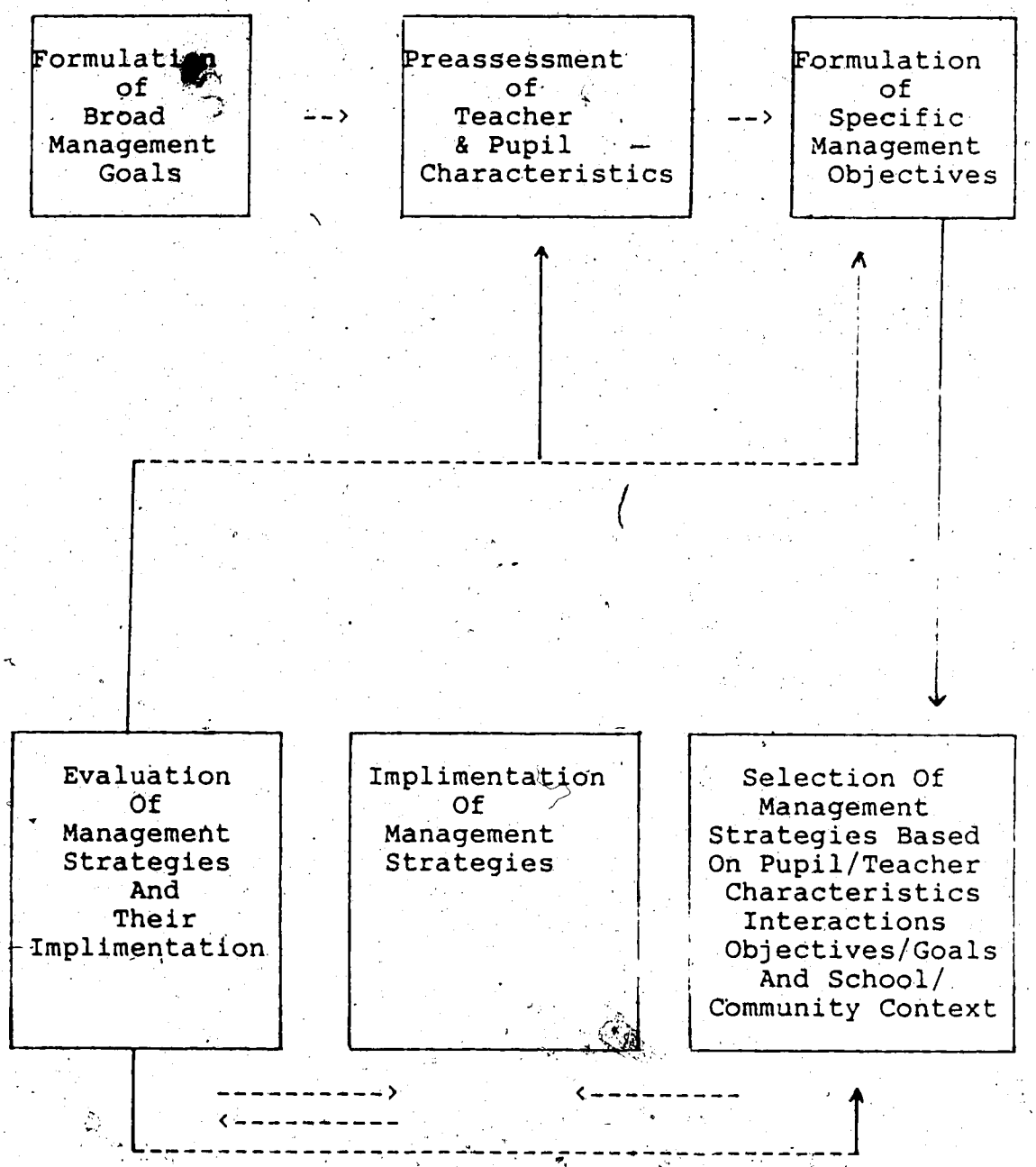


Figure 10
The Systematic Instruction Model
Adapted From: Martin, 1981, p. 159.

identified by Centra and Potter in their review of school and teacher effects (1980).

Teacher characteristics refers to the match between an individual teacher's strengths and personality and specific management techniques. Elements of the teacher's personality and style, such as enthusiasm and degree of structure, are carefully considered when selecting problem-specific disciplinary methods. Similarily, pupil characteristics refer to the notion that pupils differ in terms of personalities, abilities, skills and behavioral repertoires. Classroom management strategies must be matched both to individual pupil variables and to the composite character of the classroom group. For instance, the use of physical restraint and corporal punishment with a pupil who had been physically abused at home would certainly be inappropriate.

Teacher-pupil interaction combines these last two factors and suggests that a teacher may interact quite differently with different pupils. Research conducted by Cooper, Burger and Seymour (1979) suggested that teachers may have to employ a variety of approaches in order to form positive, productive interactions with different pupils. School and community variables refers to social factors that act as either constraints or supporting resources in selecting classroom management strategies. The County of

Strathcona's recent (1986) ban on corporal punishment in public schools constitutes an example of this type of variable. Finally, the determination of intended outcomes simply refers to the setting of behavioral criteria through which the use of a management strategy can be evaluated.

For the purposes of the present study, the systematic instruction model served as a useful aid to the development, implimentation and ongoing evaluation of several diverse classroom management strategies. In keeping with Charles (1981) recommendations, it enabled elements of preventative, supportive and corrective discipline to be utilized in planning classroom interventions. Further, it provided the flexibility needed to enable the BMC teacher to select problem-specific intervention techniques from each of the three underlying models of classroom management of this study. Lastly, the systematic instruction model permitted the problem-specific use of psychoeducational, group managerial and teleoanalytic strategies to be systematically planned and implimented as a major intervention focus.

The next section of this literature review will present the research relevant to the locus of control construct.

E. Locus Of Control And Related Research

Introduction

Behavior disordered children, like those with learning disabilities, frequently experience both academic and social failure. They are unable to persist at activities such as reading and mathematics when their immediate inclinations are to play, daydream or to socialize with their peers. For these children, the promise of future satisfactions derived from academic effort is not always obvious. As a result, they often exhibit problem behaviors that interfere with teaching and learning in the classroom (Evans and Smith, 1977; Leviton and Kiraly, 1979).

Prior to the 1960's, academic underachievement was most commonly attributed to a low level of intelligence. More recently, however, personality and affective characteristics relevant to academic success have begun to receive extensive attention. In particular, the empirical relationships between locus of control and achievement-related behavior have been the subject of numerous investigations. The following section will briefly describe the theoretical basis of the locus of control construct and will present a review of the empirical research relevant to it.

The Locus of Control Construct

The locus of control construct originated from Rotter's (1966) social learning theory. According to this theory, the potential for any given behavior to occur is a function of the individual's expectancy that the behavior will be effective in securing a desired end or reinforcement. In a particular situation, a classroom for example, the probability that a pupil will make an effort to achieve is directly related to the degree to which the pupil believes or assumes there is a contingency between his or her efforts and outcomes such as the teacher's approval and good grades (Coleman et al, 1966,1971). In essence, an internal locus of control refers to the perception that events are consequences of one's own actions and potentially are under personal control. An individual with an external locus of control orientation believes that events are determined by factors over which he or she has little or no control, such as fate, luck, chance or powerful others (Rotter, 1975).

The locus of control construct is also a key element of the attributional model of achievement motivation (Weiner, 1972). This theory focuses on the causal explanations that individuals give for their successes and failures, as well as how these explanations affect subsequent expectancies and behavior. Weiner (1972) postulated that the explanations given for outcomes rely on

a combination of four causal elements: ability, effort, task difficulty and luck. Ability and effort are seen as internal qualities, while task difficulty and luck are viewed as external qualities. Two of these elements, ability and task difficulty, are seen as being relatively stable qualities,, whereas effort and luck may vary by situation. Overall, the perception that progress is prevented by circumstances beyond one's control can account for various behavioral and academic deficits (Carver and Scheier, 1981).

Related Research

As noted by Lefcourt (1982), a large number of research studies concerned with the locus of control construct have been conducted in the pas t twenty-five years. Early studies have shown that children having an internal locus of control orientation are more perceptive, inquisitive and efficient in processing information (Lefcourt, 1976); are better able to delay gratification (Mischel, Zeiss and Zeiss, 1974), are superior in intentional and incidental learning (Wolk and Ducette, 1974) and obtain higher scores on measures of academic achievement (Lefcourt, 1976). Overall, these findings suggest that internally oriented children enjoy an advantage in the classroom. Conversely, a high external locus of control has been associated with poor academic performance (Lefcourt, 1976; Serafica and

Harway, 1979) and social adjustment problems (Bryan and Bryan, 1977; Bryan and Pearl, 1979; Pearl, Bryan and Donahue, 1980).

Several investigators (Gorman, 1968; Penk, 1969; Smith, 1970) have attempted to use locus of control as a criterion or outcome measure for studies pertaining to behavior modification and psychotherapy. In many of these studies, locus of control scales have been employed as the primary assessment devices, a procedure that has some measured validity difficulties. Common sense would suggest that if a person were seeking help he would be ill-advised to speak of himself as competent and in potential control of his life events. It seems more likely that helplessness and a deference toward the helping other would be displayed because these are more appropriate help seeking strategies. Likewise, upon discharge from treatment, many clients either through gratitude to a helpful therapist or through a wish to justify termination of the therapeutic relationship might wish to express more of an internal orientation (Lefcourt, p.154).

Fortunately, a few educational investigators (Reimanis, 1971; DeCharms, 1977, 1981; Koenigs et al, 1977) have reported data of a less potentially reactive sort. In essence, these researchers have focused on the behavioral changes from which shifts in locus of control have either been inferred or measured as a secondary intervention

effect. Three recent investigations are now presented to illustrate this notion.

Autry and Langenbach (1985) conducted a study that investigated the change of locus of control orientations that resulted from classroom training in self-regulating procedures to control behavior. Three hypotheses were tested: (a) within self-regulating conditions, pupils will show increased internality of locus of control; (b) within self-regulating conditions pupil's constructive behaviors will be increased and maintained longer than those achieved through external monitoring; and (c) within self-regulating conditions, pupil's disruptive behavior will be decreased and maintained longer than decreased rates achieved through external monitoring.

Pupils identified by regular classroom teachers and categorized in the upper 50% of disruptive behaviors reported by observers during prebaseline observations constituted the sample. This sample included 40 grade four, grade five and grade six pupils. Only male subjects were used in the experiment to control for gender-related differences. Subjects were randomly assigned to one of four groups: (a) self-regulation group to monitor constructive behaviors (SR+), (b) self-regulation group to monitor disruptive behaviors (SR-), (c) external regulation group (ER), and (d) no regulation control group (NR). Self-regulating was defined as situations in which an

individual evaluates his own behavior and provides his own reinforcers contingent with learned criteria (Autry and Langenbach, p.77). Children in the ER group were instructed that they could gain reinforcements for both increased constructive behaviors and decreased disruptive behaviors, as solely judged by external observers.

Results of this study indicated that both the external and self-regulating procedures were effective in increasing internal locus of control orientations. Significant differences were found when scores of all four groups were compared using analysis of variance, $F(3, 36) = 6.16$, $p < .01$. Self-regulating procedures were also found to be effective in establishing and maintaining decreases in disruptive behaviors and, to a lesser extent, increases in constructive behavior. Autry and Langenbach (1985) concluded that the lack of superiority of the self monitored treatments over the externally monitored treatments in effecting a more internal locus of control required further research.

A second study that examined pupil's pre and post-intervention locus of control orientations was conducted by Williams, Omizo and Abrams (1984). Using 38 volunteer parents and their learning disabled children, these researchers attempted to determine the effects of parental participation in a highly structured Systematic Training for Effective Parenting (STEP) program (Dinkmeyer

and McKay, 1976). Each parent-child pair was assigned to one of two groups through a table of random numbers. The two groups were then randomly assigned to either experimental or control conditions by a flip of a coin. Each group consisted of 19 parent-child pairs. The parents' child-rearing attitudes were measured by the Parent Attitude Survey (PAS) (Hereford, 1963). This instrument was administered to all parents one week before treatment and one week after treatment. Similarily, the children were given the Locus of Control Inventory for Three Achievement Domains (LOCITAD) (Bradley et al, 1977) at approximately the same times. The LOCITAD is a 47-item instrument that measures perceived acceptance of responsibility for both success and failure in the domains of intellectual activities, physical activities and social activities. The results of the LOCITAD provide six subscales, each indicating the degree of internality-externality perceived by the individual in relation to success and failure within each of the three domains (P. 128). Treatment group parents participated in the STEP program for nine consecutive weeks, for approximately 2 hours per session. The control group parents and their children were not provided with treatment and were essentially permitted to follow their daily routines.

The results of this investigation indicated that experimental group parents were significantly different from the control group parents in that they were more accepting and trusting after participation in the STEP program. They also perceived their own behavior as more of a causative factor in their children's behavior. The findings further suggested that the treatment group parents' child-rearing attitudes had changed, implying that the environment provided by the parents was more positive. In addition, a multivariate analysis of variance indicated significant differences between the experimental and control group children on the LOCITAD. Post hoc univariate F's revealed that the experimental group of learning disabled children were more internal in the Success Social Domain and Success Physical Domain at the .05 level and were more internal at the .01 level for the Failure Intellectual Domain and Failure Physical Domain (p. 131).

Williams, Omizo and Abrams stated that the experimental treatment (STEP) could have had an effect on the children of the participating parents. Reiterating that an internal locus of control refers to the perception that events are the consequences of one's own actions and are potentially under personal control, they concluded that, "the child with an internal locus of control would be at an advantage in many social, emotional and academic situations", (pp. 131-2).

A third recent study that investigated the locus of control orientation of special needs pupils was conducted by Rogers and Saklofske (1985). This investigation was designed to determine whether learning disabled (LD) children differed from normal achievers (NA) in five different affective variables, including both general and academic locus of control. A second purpose was to determine whether differences occurred with respect to these variables when children newly enrolled in special programs for the learning disabled (NLD) were compared with learning disabled children who had been placed in special programs for more than one-half year (ELD). Finally, both locus of control measures and three other instruments were analyzed as possible predictors of teacher-rated academic success for learning disabled pupils having more than six months of experience in special programs (p. 274).

Ninety children (60 males and 30 females) aged 7 years - 6 months to 12 years - 9 months from Saskatoon elementary schools took part in the study. Forty-five of the subjects had been classified as severely learning disabled by their school system, while the remaining children were normal achievers, paired with the LD sample on the basis of age and sex. The LD sample (30 boys and 15 girls) were receiving part-time (5-8 hours weekly) resource room aid in programs developed and monitored by specially trained resource room teachers. These children had demonstrated

significant discrepancies between apparent ability to learn and academic achievement, as determined by selected standardized tests. Thirty-five of the LD children in the ELD group had more than one-half year of experience in special programs for the learning disabled. The second LD group, the NLD, consisted of 10 pupils who had less than six months of resource room experience. The normally achieving children (NA) were judged by their teachers to be of average ability and were functioning normally in school, based on classroom performance and on cumulative file data. They had no histories of learning problems or of special classroom placement. They were chosen from the same classrooms as the LD children when possible.

Academic locus of control was measured by the Intellectual Achievement Responsibility Questionnaire (IAR) (Crandall, Katkovsky and Crandall, 1965), while general locus of control was assessed by the Nowicki-Strickland Locus of Control Scale for Children (N-S) (Nowicki-Strickland, 1973). All ninety pupils completed all five affective scales over three separate testing sessions. Additionally, resource room teachers completed academic success questionnaires shortly after all the student test data was collected.

The results of this study indicated that significant differences were found between the LD and NA children on each of the individual affective measures. Rogers and

Saklofske reported that LD children consistently received more negative scores than their NA peers. Specifically, such LD students were considerably more external on the N-S measure of general locus of control and took significantly less responsibility for their academic successes and failures on the IAR. However, no significant differences were found between the NLD and ELD groups, in terms of either general or academic locus of control orientations.

Among the affective variables, only general and academic locus of control and academic self-concept were found to be significant predictors of the extent to which LD children were successful in their academic programs. LD children with external academic and general locus of control orientations and high academic self-concepts were more successful than children with internal orientations and low academic self-concepts. The positive relationship between external orientation and success contradicted previous research results with normal achievers (Gilmore, 1978; Stipek and Weisz, 1981) (p. 276).

Rogers and Saklofske accounted for this contradiction by noting that although LD children generally have lower self-concepts and more external locus of control orientations than normal achievers, they also differ among themselves on these variables (p. 276). The authors further suggested that this variation may hold important implications for planning and implimenting special

programs. Citing Bendell et al's (1981) findings, they observed that, LD children with external locus of control orientations may function better under highly structured conditions, whereas internals may function better under conditions of low structure. It was explained that the child who blames his or her failures on a lack of ability may benefit from different intervention strategies than the child who blames his or her failures on chance or luck (pp. 276-77).

The statement concerning the ecological match between specific intervention techniques and individual pupils has definite implications for the present study. Rogers and Saklofske concluded that thorough and ongoing assessments of a child's affective characteristics, including locus of control beliefs, should be conducted both at the time of diagnosis and when planning academic programs and placements (p. 277). They strongly stress the importance of exploring the reasons given by special needs pupils for their successes and failures at school.

The next section of this literature review will examine academic self-concept, another affective variable related to children's academic and social performance. Research literature relevant to this construct will also be reviewed.

F. Academic Self-Concept And Related Research

Introduction

According to Byrne (1983), developing the basic academic skills of students and enhancing their self-concepts are two of the most important roles played by schools today. The relationship between these two tasks and the means of achieving them through the education system have received much attention from educational researchers (p. 115). Several findings suggest that the ability to achieve academic success appears to be a significant factor in determining a pupil's feelings about personal adequacy to meet various challenges (Goodstein and Dollier, 1978; Maron, 1980). In fact, the feelings that are fostered by the mastery of subject matter and academic skills appear to be very important in determining a pupil's feelings of self-worth (Vandergriff and Rust, 1984, p. 172).

Children who experience learning difficulties at school often have negative feelings about themselves. Bryan and Pearl (1982) have suggested that these low levels of self-esteem are often manifested in negative, inappropriate classroom behavior. Results of their study supported Sharp's earlier findings (1977) which state that academically inadequate pupils often have lower self-concepts and exhibit [illegible] behaviors than their

normal achieving peers. Similarily, Purkey (1970) indicated that children who doubt their ability to learn in school become their own enemies. More recently, several researchers have continued to investigate the relationship between self-concept, classroom behavior and academic achievement. Prior to examining a number of these studies, a brief description of the definitional issues relevant to the academic self-concept construct will be presented.

Definitional Issues

Although self-concept, in general, has been the focus of considerable research in recent years many researchers (Scheirer and Kraut, 1979; Shavelson, Hubner and Stanton, 1976; West and Fish, 1973; Wylie, 1979; Zirkel, 1971) have expressed concern, bewilderment and dismay with the degree to which the research findings have been inconsistent and indeterminate (Byrne, p.115). Wylie (1979) contended that the weakness of the findings may be attributable in part to confusion about the various definitions used.

Despite the fact that the term self-concept has appeared in the research literature for over forty years, no clear, concise and universally accepted definition presently exists (Shavelson et al, 1976). Zirkel (1971), in his review of the literature with respect to the disadvantaged, counted 15 definitions of self-concept that were explicitly cited and several other definitions that

were implicit in the selected instruments and designs of various studies (Byrne, p.116). Lecky's theory of self-consistency and his "nuclear theory of the mind" (1945) illustrates this notion of definitional vagueness. Lecky envisioned self-concept as the nucleus of one's personality. He postulated that the perceptions that one has about one's self are derived from the social environment and provide the culminating force that directs behavior. This behavior, in turn, was believed to influence the way one perceives one's self. More recently, self-concept has been generally defined as one's total perception of one's self. It is one's attitudes, feelings and knowledge about one's abilities, skills, appearance and social acceptability (Jersild, 1965; Labenne and Greene, 1969; West and Fish, 1973). According to Byrne (1983), this latter definition has been widely accepted by most self-concept theorists. It does not, however, reflect the current trend in the existing research literature. Benner, Frey and Gilberts (1983) have clearly demonstrated that there is little data available on the equivalence of the more than 200 various self-concept instruments reported in the literature. They concluded that as long as self-concept is measured as a unidimensional construct, problems with the generalizability of self-concept findings will exist. They cited Shavelson et al's (1976) notion of

the multidimensionality of self-concept as a viable means of improving the validity of this construct.

Shavelson, Hubner and Stanton (1976) and Shavelson and Bolus (1982) reviewed existing theoretical and empirical research and developed a theoretical model of self-concept. According to Shavelson's definition, self-concept is an individual's perception of self, formed through experience with the environment, interactions with significant others and attributions of his or her behavior. The organization of self-concept is multifaceted and hierarchical, with perceptions moving from inferences about self in subareas, such as self-concept in academic areas to broader areas, such as academic and nonacademic self-concept and finally to general self-concept. Shavelson also hypothesized that this organization becomes increasingly multidimensional as an individual approaches adulthood. In addition, he proposed that self-concept is both descriptive and evaluative, in that he does not distinguish between self-concept and self-esteem. In essence, he concluded that seven characteristics can be attributed to the self-concept construct. Specifically, he described self-concept as organized, multidimensional, hierarchical, stable, developmental, evaluative and differentiable. In addition, his findings revealed that most operational definitions include an academic component. More recently, researchers have developed self-concept instruments

specifically to measure facets of self that are at least loosely tied to Shavelson's conceptual model. Factor analyses of responses to these instruments have provided strong support for the multidimensionality of self-concept (Boersma and Chapman, 1979; Dusek and Flaherty, 1981; Fleming and Courtney, 1984; Harter, 1982; Soares and Soares, 1977).

On a theoretical basis, academic self-concept and general self-concept seem to be generally recognized in the research literature as separate constructs. Byrne (1982) and Shavelson and Bolus (1982) determined that although academic self-concept is correlated with general self-concept, it can definately be distinguished from it. In this study, academic self-concept was considered to be a separate construct. Further empirical support for the academic self-concept construct and its relationship to academic and social behavior will be presented in the following section.

Research Relevant To The Academic Self-Concept Construct

Several recent investigations appear to support strongly the construct validity of academic self-concept. In a review of construct validation research, Byrne (1984) found achievement/ability measures to be more highly correlated with academic than with non-academic self-concept. In addition, Marsh, Relich and Smith (1983)

determined that achievement in particular content areas was most highly correlated with self-concept measures in the matching content areas. Their findings showed that mathematics achievement was correlated substantially with math self-concept (p = .55), less correlated with self-concepts in other areas (reading, p = .21; and general school, p = .43) and uncorrelated with self-concepts in four nonacademic areas.

A recent study conducted by Marsh, Barnes, Cairns and Tidman (1985) has provided further support for the academic self-concept construct and the Shavelson model, in particular. The purposes of the investigation were to examine the structure of self-concept for preadolescent children and to explore developmental issues in the study of self-concept. The Self-Description Questionnaire (SDQ), an instrument designed to measure seven components of self-concept derived from Shavelson's model, was administered to 658 Australian public school children. These pupils, ranging in age from 6 to 11 years, were sampled from grade levels 2 to 5.

Separate factor analyses of their responses all clearly identified the seven SDQ factors. Correlations among these factors were consistent with the hierarchical organization of self-concept proposed by Shavelson. Developmentally, it was noted that these factors become more distinct with age. Large gender differences for two

factors (higher boy's Physical Abilities self-concepts and high girl's Reading self-concepts) and small gender differences for several other factors were consistent across different ages and were consistent with previous findings with older children. In addition, there was a strikingly linear, negative relationship between grade level and the total self-concept scores, the three academic self-concept scores and the two physical self-concept scores.

In a followup study, Marsh, Smith and Barnes (1985) assessed a sample of 559 fifth grade students to measure the multiple dimensions of self-concept and academic achievements. Using a revised form of the SDQ, the researchers again clearly identified the instrument's seven factors, plus a new General Self factor. Results indicated that girls had significantly higher achievement scores than did boys in both reading and math, as well as higher self-concepts in reading, but significantly lower math self-concepts. This result replicated earlier findings by both Meece (1982) and Relich (1983). Marsh et al interpreted this result by contending that sex differences in math achievement are due to stereotyped socialization patterns that produce traditional sex roles, attitudes and beliefs (p. 593). Further, they suggest that socialization produces self-concept differences which, in turn, produce achievement differences. In view of the fact that nearly

all of the subjects in this study attended single-sex classes, this hypothesis seems certainly plausible. The findings of this study also suggested that academic achievement scores, both objective test scores and teacher ratings, were uncorrelated with nonacademic self-concepts. At any rate, the researchers strongly suggested that these conclusions need further examination in longtitudinal studies and in studies conducted in coeducational settings (p. 594).

Conversely, Pottebaum, Keith and Ehly (1986) determined that there may not be a causal relation between self-concept and academic achievement. Longtitudinal data from a large, representative sample of 23,280 high school students were analyzed. The results of the study suggested that there is no siginificant causal relationship between self-concept and academic achievement, but rather that the observed relation is the result of one or more uncontrolled and unknown third variables (p. 142).

Pottebaum et al also cautioned that a nonsignificant difference does not necessarily support the null hypothesis and the several possible alternative explanations which are available. These researchers suggested that self-concept and academic achievement may cause each other equally in a cyclical nature. Another possible explanation offered was that self-concept may cause academic achievement or vice versa, but that the magnitude of the effect may be too

small to be detected. The researchers also indicated that the sample consisted only of high school sophomores and that a different pattern may well emerge with younger children. Finally, a different pattern may be apparent in investigations of academic self-concept and achievement (p.143).

In order to relate the results of the studies reviewed so far to the needs of behavior disordered pupils, the findings of one additional investigation is presented. Vandergriff and Rust (1984) investigated the relationship between classroom behavior and self-concept, using measures of achievement level, behavior level, gender and birth order. The study involved 104 second grade children from two suburban Tennessee schools. Children with behavior problems were found to have lower academic self-concepts than children without behavior problems. The test results overwhelmingly indicated that high achieving pupils had higher self-concepts than their low achieving peers (p. 176). The data also supported the hypothesis that high achieving pupils had significantly fewer behavior problems than low achieving children. Gender was found to have no significant effect upon self-concept or behavior. Birth order was shown to be significantly related to reading achievement, but unrelated to self-concept or problem behavior. Vandergriff and Rust concluded that educators would be well served to be aware of these relationships and

to attempt to enhance their pupil's feelings of self-worth (p. 177).

In view of these findings, as well as those of Rogers and Saklofske (1985) mentioned earlier, it appears thatacademic self-concept is an important variable to consider when educating behavior disordered children. However, in consideration of some of the measurement difficulties encountered in these studies, the assessment of behavioral change in children requires a closer examination. The next section of this literature review will examine current behavioral assessment issues in relation to the present study.

G. Issues In Assessing Children's Problem Behaviors

Introduction

As Abramovitch, Donstantareas and Sloman (1980) noted, perhaps the most difficult problem in evaluating the effectiveness of interventions designed to deal with psychological disorders of children is the difficulty of assessing whether change has taken place and in what direction (p. 133). For the most part, the assessment of change has involved psychometric testing and the use of rating scales before and after treatment. The following section will examine both the advantages and disadvantages

of this approach and will outline some alternative methods suggested by the current research literature.

Current Assessment Trends and Issues

Although there are a variety of ways to assess children's social and emotional behaviors and personality, no single assessment procedure can provide perfectly accurate, reliable and comprehensive data. For the most part, obtaining valid and reliable descriptions of children's behavior is a complex process that involves the interplay of many factors (Edelbrock, 1983). Over the past twenty years, many researchers have developed behavior rating scales and checklists in an attempt to measure children's problem behavior (Spivak and Swift, 1967; Conners, 1969; Walker, 1967, 1976; Quay and Peterson, 1975). Typically, these instruments utilize a multivariate statistical approach to identify clusters of behaviors which are highly intercorrelated and can therefore be hypothesized to represent a dimension of behavior. Rating scales have recognized advantages in that they are both time-efficient and cost-effective means of obtaining quantified data on children's behavior (Carlson and Lahey, 1983). However, several investigators (Abramovitch et al, 1980; Carlson and Lahey, 1983) have expressed some doubts that the scores obtained actually reflect reliable and valid changes in the children's actions. Edelbrock (1983)

described numerous technical problems and shortcomings involving the nature of the items, response scaling, time frame and standardization of several currently available instruments. However, he recommended that behavior rating scales can be valuable components of broader "multi-method" assessments involving direct observations and clinical interviews.

In contrast to rating scales, direct behavior observation has the disadvantage of being very time-consuming and the advantage of dealing directly with the actual behavior of the target population (Abramovitch et al, 1980, p. 133). Behavioral observation may be conducted within a variety of naturalistic, ecological environments, including the classroom, home and neighborhood (Carlson, Scott and Eklund, 1980). In addition, observational approaches allow the direct assessment of intervention and generalization, resulting in both the maintenance across time and transfer between settings (Keller, 1980). The use of observational assessment can also enhance collaborative consultation and communication among school personnel, including psychologists, teachers, administrators, support staff and with parents. Direct observation from multiple sources provides a common data base, with the advantage of varying professional and lay orientations. Parents and school personnel seem to perceive the school psychologist's use of

direct observation as an indication of genuine interest in the child. Anecdotally, they view such data as more pertinent to the assessment and planning process than difficult to understand indirect measures typically used and couched in vague terminology (Keller, p. 22). In particular, the utility of a participant observation approach called psychoeducational classroom intervention (Bennett, Bruchez and Sanderson, 1976) relates directly to the design of the present study. In addition to providing pertinent observational data, this specific approach can serve a modeling function for the teacher and pupils, enhance collaborative consultation and help to remove some of the mystique about psychological testing involving pupils and teachers alike. Lastly, observational techniques are particularily well-suited to the evaluation of changes in the social behavior and group structure of behaviorally disturbed boys (Abramovitch et al, p. 134).

Besides behavior rating scales and direct observation, a third type of assessment device that has been used extensively is the behavioral interview. In fact, several researchers (Haynes and Jensen, 1979; Linehan, 1977; Mash and Terdal, 1981; O'Leary and Johnson, 1979) have stated that psychological interviews, in general, are perhaps the most frequently used assessment method in both clinical and school settings. They note that school psychologists typically use interviews to gather information about

teacher or parent concerns, to identify factors that may be contributing to problem behaviors, to assess ways in which teachers or parents are currently dealing with problem behaviors and to evaluate the outcomes of interventions developed through consultation (Gresham,1984, p. 17). However, Gresham clearly differentiates between traditional interview formats and behavioral interviews. Traditional interviews typically focus on various types of historical information, inquire about global concerns of the teacher or parent and integrate interview information in order to arrive at a preliminary diagnosis (Cannell and Kahn, 1968; Linehan,, 1977; Morganstern, 1976). The data obtained in this type of interview usually lacks specificity, does not focus upon current environmental conditions and tends to view problem behavior as a reflection of underlying states or traits (Kratchowil, 1982).

In contrast, behavioral interviews attempt to specify and define target behaviors, to identify and analyze environmental conditions and to use this information to formulate and evaluate interventions (Keller, 1980). They have the additional advantage of having the capability of detecting irrational beliefs or unrealistic expectations that adults often harbour about children. Keller noted that other behavioral assessment methods, such as rating scales, self-reported checklists and observations typically do not yield information concerning the values, beliefs and

expectancies that adults possess regarding the classroom and home behavior of behavior disordered children (p. 18). Although the existing research base is very small, Keller advocates using a standardized interview format to increase the reliability and validity of behavioral interviews. Noting that traditional interviews are typically unstructured, nonspecific and unsystematic, he concluded that behavioral interviews may be a more time-efficient and problem-specific means of obtaining data on children's behavior disorders.

Based on this review of the current research literature, the present study will employ the broad multi-method approach advocated by Edelbrock (1983) to assess children's behavior. Both formal techniques, such as behavior rating scales and self-reported checklists, and informal approaches, such as psychoeducational classroom observations and behavioral interviews, will be a part of this investigation's assessment procedures. Specific descriptions of these instruments and their implementation will be presented in the following chapter.

III. METHODOLOGY

A. Introduction

The methodology for the present study is described in detail in this chapter. Information presented includes a description of the sample, as well as a description of the specifications of the test instruments used and the procedures for their administration. This chapter also discusses the details of the intervention techniques employed in the study and the relevant aspects of the study design.

Therefore, the description of the methodology will be conducted under the following headings:

1. Sample
2. Instruments
3. Intervention Techniques
4. Procedure

B. Sample

Six male pupils enrolled in a self-contained special education class for children with behavior disorders served as the subjects of this study. Ranging in age from seven years, five months to ten years, six months, each of the subjects had average to above average intellectual abilities. The mean chronological age of the subjects was approximately 110.5 months, with a standard deviation of

13.95. The mean IQ of the same subjects, as measured by either the Stanford-Binet or W.I.S.C.-R., was 112.67, with a standard deviation of 14.08. According to cummulative records, however, all of the pupils were achieving below their measured potential. Individually, each child had a history of chronic behavior problems, which resulted in multiple suspensions from their previous school placement. According to parents and previous teachers, the behavior of each subject had deviated to such a degree from his peers as to warrant placement in the Behavior Management Class (BMC) program. A complete summary of placement procedures and objectives has been included in Appendix B. A brief description of each of the six subjects in this study and the presenting behaviors they exhibited upon entry into the BMC program follows. The names of these children have been changed in order to maintain confidentiality.

Peter L. (seven years, five months)

Peter's behavior had been a great concern to his parents for the five years prior to his entry into the BMC program. In addition to receiving multiple suspensions from school, the boy was expelled from five daycare centres in less than three years. Peter would often throw severe temper tantrums, during which he would physically and verbally abuse significant adults, destroy property and run away. Occasionally, he would yell, scream as if in pain, and self-abuse himself by banging his head on cement floors and by kicking and punching walls. Despite having a very superior level of intellectual functioning, Peter was unable to concentrate on academic tasks for periods longer than five to eight minutes. Mr. and Mrs. L. also reported that their son was frequently stubborn and physically mean to other children without any apparent reason. A community psychiatrist diagnosed Peter as being clinically depressed

and prescribed appropriate medication, which the parents administered with regularity.

Len H. (eight years, five months)

Len, who had a long history of physical and sexual abuse, exhibited many severe problem behaviors upon entry into the BMC classroom. In particular, his physically aggressive behavior towards adults and children caused both his parents and school officials much concern. When Len was in kindergarten, he physically attacked his teacher, causing her to lose the baby she was carrying. As a result of this incident, he spent the next 18 months in the Glenrose School Hospital program for emotionally disturbed children. Diagnosed as having an attention deficit, Len was administered 10 mg. of methylphenidate, twice daily. After returning home, Len continued to have problems coping with the demands placed upon him by his teachers and parents. He still exhibited severe temper tantrums in the classroom, which resulted in his throwing his books, breaking pencils, swearing, tipping over his desk and tearing up notebooks. In addition, he frequently fought with his peers and distracted them by name calling and teasing. He was openly defiant of authority at home, in the community and at school. When applying for a special education placement for their son, Mr. and Mrs. H. indicated that they were "out of answers" and desperate for help. Len continued to receive his medication as he entered the BMC program.

Stan B. (ten years, two months)

In his four previous school placements, Stan failed to adapt to the social and academic environment. He refused to participate in oral lessons or to complete any written work. When questioned about the reasons for these behaviors, he typically would either refuse to speak or verbally lash out at his teachers. Both in the classroom and on the playground, Stan continually attempted to isolate himself physically and socially from his peers. He made a concerted effort in school and at home to withdraw from any human contact. Previous teachers, as well as the boy's father, noted that he showed little affection and became very tense when physically touched. This situation seemed to be magnified after his weekend visits to his natural mother's house. Frequent contact and home visits with Mrs. B. by Child Welfare workers revealed no plausible explanation for Stan's behavior. Considerable concern was voiced by Child Welfare and school officials and Stan's parents over the boy's continuing academic and social

failure. This concern resulted in his placement in the BMC program.

Tommy L. (nine years, nine months)

During his early childhood, Tommy experienced several family disruptions. Convicted of first degree murder, his father was incarcerated for life. Tommy's mother, then a member of a motorcycle gang, was judged to be an unfit parent. As a result, both of her children were apprehended by Child Welfare officials. Tommy was then placed in Mapleridge Residential Treatment Centre, a facility designed for children with social and emotional problems. Since being returned to his mother two years ago, Tommy has experienced a myriad of behavior problems at home, at school and in the community. Upset by the presence of Mrs. L.'s common law husband, the boy became increasingly violent and destructive. At school, Tommy would not remain in his seat for more than five minutes if a written activity was assigned. Easily distracted by the slightest noises or movements in the classroom, his attention span was extremely low. Due to sudden mood shifts, Tommy would swear and fight one minute and hug and kiss his teacher the next. Further, he was totally unable to cope in unsupervised settings. In the community, Tommy had frequent contact with the police as a result of his episodes of shoplifting and vandalism. A psychiatric assessment revealed that a combination of early childhood events and Mrs. L.'s prenatal use of narcotics may have caused the boy's hyperactivity and socio-emotional problems. Unable to provide the constant structure that the boy needed in a regular classroom setting, school officials suggested that he would be an excellent candidate for the BMC program. Both Mrs. L. and a community psychiatrist supported this placement.

David S. (nine years)

According to his parents, David was never able to express himself in an appropriate manner. Whenever the boy was either unhappy, upset or very happy, he would scream, yell and shriek. Understandably, these behaviors presented numerous problems both at home and at school. David also appeared to have very little respect for women, preferring to issue commands rather than simply requesting assistance. Inevitably, this caused several conflicts with his mother and female teachers. In addition, David continually expressed a very low opinion of himself and his work. Once finished an art project or a written assignment, he typically would either destroy it or vividly describe its

shortcomings. Mr. and Mrs. S. noted that their son was overly dependent and required constant supervision. However, a psychiatric assessment revealed no psychopathology. In light of the fact that David was unsuccessful in four schools in the past five years, his parents readily consented to his placement in a special education setting.

Greg E. (ten years, six months)

Greg's major presenting difficulty was his inability to bond with his peers. Since he entered school, the boy has gradually exhibited more severe and more negative behaviors towards his classmates. What began in grade one as teasing and fibbing had escalated to threats and physical assaults by grade five. One particular incident, in which Greg tied a classmate to a tree and proceeded to methodically cut him with a hunting knife, led to his suspension from school. Having lost their only other son in an accident, the parents were very protective of Greg and critical of the school. They proceeded to initiate a legal action against the school district, in support of their son's innocence. As a compromise, the boy was accepted into the BMC program. A psychiatric assessment failed to uncover any psychopathology. The report did conclude, however, that Greg would likely exhibit extreme behaviors in an attempt to gain structure and security from his parents.

C. Instruments

Three variables of concern in the present investigation, academic self-concept, locus of control and problem behavior were assessed by a total of three formal and two informal instruments. The three formal instruments used were the Walker Problem Behavior Identification Checklist (WPBIC: Walker, 1976), Student's Perception of Ability Scale (SPAS: Boersma and Chapman, 1978) and the Nowicki-Strickland Locus of Control Scale for Children (N-S: Nowicki and Strickland, 1973). The Child Home,

School and Community Checklists (CHC, CSC and CCC: Wahler and Cormier, 1970), a series of structured, ecological interviews and a participant observation approach called Psychosituational Classroom Intervention (PCI: Bennett, Bruchez and Sanderson, 1976) represent the informal measures employed in this study. A more complete description of each of these instruments will now be presented.

Walker Problem Behavior Identification Checklist (WPBIC)

The Walker Problem Behavior Identification Checklist (Walker, 1976) was designed to assist in the identification of elementary school children with behavior problems. It is composed of 50 observable, operational statements about problem behavior that were furnished by a representative sample of elementary school teachers. Each statement has a number ranging from 1 to 4, in one of the five columns to the right of the statements. The rating is accomplished by reading each of the statements and, for each statement that represents a condition that is present or correctly describes the subject's behavior, circling the number in one of the five columns to the right. These items are scored on five factor-analytically determined scales within the WPBIC:

(1) acting-out (disruptive, aggressive, defiant);

(2) social withdrawal (restricted functioning, avoidance behavior, low rates of peer interaction);

(3) distractibility (short attention span, inadequate study skills, high rates of non-attendence);

(4) disturbed peer relationships (inadequate social skills, negative self-image, high rates of coercive demanding, high rates of dispensing punishing stimuli in social interaction);

(5) immaturity (dependent, high rates of initiations to teacher, inadequate social and study skills).

As noted by F. Charles Mace in the Ninth Mental Measurements Yearbook (1984), each item carries a score weight that represents the handicapping influence of that behavior in the context of the child's adjustment. Score weights for occurrence-scored items are summed within each of the five subscales yielding a corresponding scale score which is then converted to a T-Score for interpretation. According to the manual, T-Scores of 60 or higher on any of the five scales suggest the need for referral for further evaluation and/or testing (p. 1345). However, Walker (1976) stressed that the WPBIC should be used as a supplement to the total identification and evaluation process rather than as an instrument to simply classify children as emotionally disturbed or socially maladjusted. This instrument also yields a total score, which represents the sum of the five scale scores.

Standardized on a group of 534 grade four, five and six children, Walker (1970) stated that the Kuder-Richardson split-half reliability of the instrument

was .9[illegible] In separate studies, test-retest reliability was estim[illegible]d to be .80 and .86 (Walker and Bull, 1970; Boldstad, 1974). Based on the original normative sample, a biserial correlation of criterion validity yielded an r of .68. This correlation was computed to assess the degree of relationship that existed between scores on the WPBIC and the construct of behavior disturbance as indicated by three criteria: (1) examination by a psychologist and subsequent referral to a psychiatric or clinical facility, (2) specific educational provisions being made for the subject with the school setting because of behavior problems, and (3) the subject received instruction at home because of an inability to profit from classroom instruction due to behavior problems (Walker, 1970, 1976). Further studies (Kerlin and Latham, 1977; Richmond and Waits, 1978; Mash and Mercer, 1979; Csapo and Friesen, 1979) have shown that the WPBIC is still widely used as a measure of elementary school children's problem behavior.

Student's Perception of Ability Scale (SPAS)

The Student's Perception of Ability Scale (SPAS), developed by Boersma and Chapman (1978), was designed primarily for use in research to measure the academic self-concepts of elementary school children. The instrument consists of 70 yes-no items that yield both a full-scale score and scores on six sub-scales, general

ability, arithmetic, school satisfaction, reading/spelling, penmanship/neatness and confidence. These raw scores are then compared with the sex and grade level means outlined in the test manual. In terms of administration, the test authors indicated that it is desirable for the examininer to read out loud both the instructions in the booklet and each item to the pupils, especially those at the younger grade levels (p. 22). In addition, pupils are allowed to erase and change their responses. Test administration time is estimated to be approximately 15 to 20 minutes, with items being presented at a rate of about three per minute.

Boersma and Chapman have stated that the SPAS may be particularily useful with students with learning and/or behavior problems in terms of assessing the accuracy and appropriateness of their self-perceptions of ability. Particular attention could be paid to extreme and incongruent SPAS scores as possible indicators of emotional disturbances. Relatedly, the test authors have suggested that the SPAS would also be a useful instrument for evaluating affective components of special programs for atypical students (Boersma and Chapman, pp.7-8).

Recently, Rogers and Saklofske (1985) employed the SPAS as part of their investigation, in which they examined the self-concepts, locus of control and performance expectations of 45 learning disabled (LD) and 45 normal achieving (NA) children. These researchers found that LD

children were significantly different from their normal counterparts. Specifically, the LD subjects had lower self-concepts, more external locus of control orientations and lower performance expectations. LD children newly enrolled in resource rooms (NLD) were also found to be significantly different in academic self-concepts, locus of control orientations and performance expectations from LD children with more than six months experience in such programs (ELD), on the same set of affective variables.

In a second recent investigation, Joseph (1985) also used the SPAS to measure the academic self-confidence of 166 boys and 194 girls from 18 grade five classes. Results of this study revealed that the subjects' ability to hold information in working memory and confidence in their academic ability, when combined with time of feedback, produced different levels of mathematical skill. Pupils who were high in academic self-confidence and high in recency-rehearsal proficiency displayed the highest long-term retention in the item-by-item and end-of-test feedback conditions. In contrast, pupils who were low in academic self-confidence and low in recency-rehearsal proficiency displayed the highest long-term retention of mathematics skills when test results feedback was delayed for one day.

With regard to the psychometric characteristics of the test, the authors reported a test-retest reliability

coefficient of .834 for full-scale scores. This estimate was based on a sample of 603 grade three, four, five and six pupils (Chapman, Boersma and Maguire, 1977). In terms of internal consistency, these researchers estimated that the average full-scale alpha was .915, while subscale alphas ranged between .855 and .686. Discriminant validity was assessed by correlating the scores of 622 children on the Piers-Harris Children' Self-Concept Scale with scores on the SPAS. The results of Chapman and Boersma's (1979) study indicated that the two instruments were measuring two distinct domains and was supportive of the notion that academic self-concept is an entity distinguishable from general self-concept (pp. 34-5). This finding also supported Shavelson's (1976) conclusion that self-concept is a multidimensional construct.

Nowicki-Strickland Locus of Control Scale for Children (N-S)

The Nowicki-Strickland Locus of Control Scale for Children (Nowicki and Strickland, 1973) was designed as a measure of generalized expectancies for internal versus external control of reinforcement among school-aged children. This instrument is a 40 item, yes-no, pencil and paper test that measures locus of control as defined by Rotter (1966). Questions are answered by circling either yes or no next to each individual item. The items describe reinforcement situations across interpersonal and

motivational areas such as affiliation, achievement and dependency. Overall, the N-S yields a total raw score that is compared with sex and grade level means outlined in the test manual.

With regards to the reliability of the instrument, the authors reported the following estimates of internal consistency via the split-half method, corrected by the Spearman-Brown Prophesy Formula: r = .63 (grades 3-5), r = .68 (grades 6-8), r = .74 (grades 9-11) and r = .81 (grade 12). Approximate sample size for each of the first three groups was 300, while n = 87 for the grade 12 group. Test-retest reliabilites were sampled at three grade levels, six weeks apart with undisclosed sample sizes. Nowicki and Strickland reported correlations of .63 for the third grade, .66 for the seventh grade and .71 for the tenth grade.

In terms of validity, the authors correlated the N-S with the Intellectual Achievement Responsibility Questionnaire (Crandell et al, 1965) using two sample groups of 182 grade three and 171 grade seven pupils. Although correlations with low internality were not significant, correlations with high internality were significant for both groups, r = .31 and r = .51, respectively. In addition, a correlation of .41 with the Bialer-Cromwell Scale (Bialer, 1961) was found in a sample of 29 nine, ten and eleven year old children. Nowicki and

Strickland (1973) also found that internality increased with age. In summary, this particular test was chosen for the purposes of this study because it is regarded as one of the most reliable and valid generalized measures of locus of control (Patterson, 1975).

The Child Home, School and Community Checklists (CHC, CSC, CCC)

Wahler and Cormier (1970) noted that the ecological interview checklists serve two important and often interdependent functions. First, they develop a language system that insures that all concerned are observing and describing the same child behaviors. The CHC, CSC and CCC checklists of observable verbal and non-verbal problem behaviors provide a wide sampling of what the child is reported to do and say, rather than inferences concerning these events. The test authors have stated that non-professionals, such as parents, often vary tremendously in translating abstractions such as aggression and dependency into observable behaviors. Therefore, using behavioral descriptors such as "destroys toys or property" and "hangs on or stays close to adult", allows for little variance in translation.

A second function of the ecological interview checklists is their ability to map a child's behavior. Wahler and Cormier stated that it has been traditional to think of the deviant child's problem behavior as emanating

from a single, grossly defined environmental setting, such as his or her "home life". However, the test authors maintain that this is too broad an environmental setting to assess problem behaviors or the results of intervention efforts (pp. 284-5). For example, a negativistic child may exhibit problem behaviors at bedtime and at mealtime, but he may be quite cooperative at other times of the day at home. Similarily, the same child at school may be considered difficult to manage during the arithmetic lesson, but no problem whatsoever during the social studies lesson (p. 279). According to these researchers, ecological checklists can assist in mapping the kind of social consequences a child is receiving in a particular subsetting as a result of his or her problem behavior.

In essence, interview data obtained from the CHC, CSC and CCC checklists can yield an insight into the parent and teacher's perception of how long the problem has occurred, how serious it is believed to be, what approaches to the problem have been tried, what significant events have happened in the child's life, what feeling and frustrations have been experienced and how these feelings have been handled. In addition, the final interview may provide data on any behavioral changes that took place. From a psychometric standpoint, each checklist yields a single raw score that represents the total number of problem behaviors identified by the rater. In light of more detailed

ecological theory presented earlier in this study, use of these checklists seemed to be a particularily pertinent and valuable means of obtaining relevant ecological data.

Psychosituational Classroom Intervention (PCI)

As noted by Keller (1980), participant observation has been developed primarily from sociological theory and research. This approach is particularily well suited for obtaining information on phenomenological aspects of behavior, the individual's perception of the setting, his or her behavior and the personal meaning and affect attributed to the setting, the behavior and their interactions. Bardon, Bennett, Bruchez and Sanderson (1976) described a participant observation approach named psychosituational classroom intervention (PSI) that can serve numerous functions for the school psychologist. In addition to obtaining pertinent observational data, this approach can serve a modeling function for the teacher and pupils, enhance collaborative consultation and help to remove some of the mystique about the role of the psychologist (p. 22).

By definition, PCI includes a wide variety of activities and interventions performed totally or partially in a classroom by a psychologist for the express purpose of assisting a group of pupils to move towards predetermined goals (Bardon et al, p. 98). This observational approach

differs from other assessment methods in that it involves direct contact from the psychologist in one or another activity in the classroom while the teacher and pupils continue their regular classroom operations. Essentially, PCI is an outgrowth of the ecological point of view that social settings interact with, and tend to influence, persons in such settings.

The term "psychosituational assessment" was originally coined by Bersoff (1971) and later more fully described by Bersoff and Grieger (1971) as, "the analysis of behavior and the delineation of the immediate antecedent and consequent conditions that evoke, reinforce and perpetuate behavior...the major concern is that the individual is assessed as he interacts and is affected by the environment" (p. 896). Kuriloff (1973) later developed a rationale for the use of the psychologist as a psychecologist who enters a given ecology as an observer-participant to observe the nature of the transactions and to participate in creating ways to alter them in positive (ie. competence enhancing) directions (p. 823). This rationale conceptualizes behavioral disturbance as a faulty interaction between an individual and the external environment, rather than as the sole property of that person. A disturbance is also viewed as a symptom of social incompetence, which prevents an individual within a given behavioral setting from interacting in appropriate

ways. Since behavior has a ripple effect, interventions are regarded as an opportunity to promote change throughout a given ecological setting.

For the purposes of the present study, the observational procedures used by Autry and Langenbach (1985) were used to assess the incidence of disruptive behaviors in the BMC classroom. Disruptive behaviors were defined as (a) talking out or making inappropriate noises, (b) physically disturbing other pupils and (c) leaving one's desk without permission (Autry and Langenbach, p. 78). In essence, this assessment technique yields seven raw scores that represent the number of problem behaviors identified for each of six pupils, plus a total score. The total score represents the number of problem behaviors that the pupils exhibited.

D. Intervention Techniques

The independent variables in this study were six intervention strategies used to manipulate the problem behavior of behavior disordered pupils in a self-contained special education classroom. The psychoeducational model spawned four of these techniques: proximity control, interest boosting, antiseptic bouncing and life space interviewing. Planned ignoring and verbal encouragement, based on the group managerial and teleoanalytic models respectively, represent the two other strategies that

served as independent variables. A brief explanation of the rationale underlying each strategy and a description of how they were applied by the teacher in this investigation follows.

Proximity Control, Interest Boosting and Antiseptic Bouncing: Rationale

Teachers of pupils with behavior disorders continually have to deal with surface behavior problems, such as teasing, cursing, arguing and running away, caused by emotional conflicts. Long, Morse and Newman (1976, 1980) conceptualized the proximity control, interest boosting and antiseptic bouncing strategies to protect individual pupils, their classroom peers and the program itself from the harmful effects of surface behavior problems.

Each of these intervention strategies is based on Nicholas Long's psychoeducational conflict cycle (Long, 1974). Designed as a framework through which the teacher can understand a pupil's disordered behavior and determine which interventions are needed, the conflict cycle posits that a pupil's behavior at any time reflects past events, mental states and environmental input, as illustrated in figure 4. According to Long (1974), each child has a unique personality structure formed early in life. One major influence on personality is how the child strikes a balance between satisfying basic biological and emotional needs and satisfying social requirements, such as parental

expectations. If basic needs are not satisfied, personality distortions will occur; the child will acquire a negative view of himself and the world, attributing incompetence, hostility, fear, and other negative characteristics to himself and others. These unhappy and negative perceptions are brought to school, where academic, social and behavior expectations activate feelings of stress and the child's negative self-concept. The child sees the situation as hostile, and behaves accordingly through aggression, hyperactivity, anxiety, withdrawal and failure to learn. Such behavior provokes negative reactions from peers and the teacher, confirming to the child that his perceptions were accurate. The situation becomes a self-perpetuating cycle of conflict (Cullinan et al, 1983, pp. 72-73). In essence, proximity control, interest boosting and antiseptic bouncing are designed to reduce a child's level of problem behavior, helping him or her to acquire a more positive self-concept and a more internal locus of control.

Proximity Control, Interest Boosting and Antiseptic Bouncing: Practical Application

Proximity control included a variety of physical gestures and movements used by the teacher increase the on-task behavior of the subjects. For example, when a pupil began to exhibit inappropriate behavior the teacher would either stand near him or her and carefully place a

hand on the pupil's shoulder. Similarily, when a pupil was having difficulty concentrating on an academic task the teacher moved into a desk close to the pupil's and mentioned that he was close by if assistance was needed. To illustrate, the BMC teacher observed that whenever Tommy wanted the teacher's attention he would hit one of his peers. To prevent this from happening, the teacher watched Tommy for any initial signs that he needed help, such as looking around the room to see where the teacher was. The teacher would then move towards him and either place his hand on Tommy's shoulder or stand beside him.

Interest boosting consisted of several verbal comments made by the teacher when a pupil's interest was waning and he was showing signs of restlessness. Following this approach, genuine interest was shown in the pupil's classroom assignment, such as asking whether or not problem 12 was hard for him or mentioning a personal interest in cars, athletic or some other area. The BMC teacher also tapped the specific areas of interest of individual pupils in an effort to elicit appropriate behavior. For instance, the teacher observed that Greg was rapidly losing interest in his addition and subtraction assignment. He responded to this observation by asking Greg how his hockey team had done the night before. After discussing the numbers that various members of his team wore, the teacher was able to renew Greg's interest in his assignment.

Antiseptic bouncing involved having a pupil temporarily leave the classroom. This technique was applied in two different ways. First, the teacher suggested that the pupil looked thirsty and may appreciate a drink at the water fountain down the hall. A second means of applying this application involved having a pupil deliver a particular, sealed envelope to the school secretary. The secretary was made aware of the purpose of this strategy at the beginning of the treatment period and, therefore, always received the envelope cordially and managed to engage the pupil in conversation for a few minutes. This short break away from the classroom permitted the teacher to alleviate the tension created between two pupils or a pupil and a frustrating assignment.

Life-Space Interviewing (LSI): Rationale

First introduced by Fritz Redl (1959), this cathartic technique is used by teachers during crisis intervention to guide the child through a problem at the time it occurs. The focus of the LSI is on helping the child articulate and conceptualize the issues going on in his or her immediate life space. The teacher helps the child reach a preliminary closure to the problem, and the agreed upon course of action is verbalized. Usually the interview is most effective when it is carried out in physical and temporal proximity to the problem (Paul and Epanchin, 1982,

p. 140). According to Redl (1959), the LSI is conducted in two phases, which include emotional first aid and the clinical exploitation of life events. By providing emotional first aid, the teacher assists the pupil to regain emotional composure so he or she can return to regular activities. Clinical exploration of life events, involves helping the pupil to confront and gain greater awareness of an emotional conflict or other issue that has eluded conscious consideration.

Life-Space Interviewing: Practical Application

Life-space interviews were conducted between the BMC teacher and a single pupil, in an empty room next to the classroom. When a particular pupil was experiencing a crisis situation, such as a violent conflict with a peer, the teacher informed the classroom aide of his intent to conduct an interview. Once in the adjoining room, the teacher established eye contact with the pupil and began the LSI. As noted earlier, the interview was structured into two parts. During the initial phase, emotional first aid, five specific strategies were used by the teacher to assist the pupil to regain his emotional composure:

1. The draining off of frustration acidity: As soon as eye contact was established, the BMC teacher made a comment such as, "You look like you're pretty angry with Len." This was stated in a calm, quiet tone of voice. The pupil would then proceed to "drain-off" a surplus of the

hostility-laden emotion, by yelling, crying and often both. While listening, the teacher made frequent, sympathetic comments, such as "That must have really hurt when he hit you."

2. Support for panic, fury and guilt: When the pupil was overwhelmed by panic, fury, guilt and other emotions, the BMC teacher stayed with him and made comments such as, "It's all right to cry...let it out and you'll feel better." The teacher also protected the pupil if he became a danger to himself. For instance, if Tommy became so angry that he was making gestures suggesting that he wanted to punch a window, the BMC teacher wrapped his arms around the boy from behind and then proceeded to explain that he couldn't allow him to hurt himself.

3. Communication maintenance in moments of relationship decay: Often, for example, after a particularily vicious attack upon another pupil, Len misperceived the BMC teacher's motives for breaking up the fight and felt betrayed. He would refuse to talk about the incident, making all of the teacher's attempts to discuss the incident quite fruitless. In order to prevent Len from becoming totally uncommunicative, the teacher kept the communication lines open using small talk which was most often trivial and completely removed from the issue at hand. Such comments as, "Where did you buy that watch, anyhow?" or "I think you can hear Mrs. D. two rooms over, it's so quiet!", were made by the teacher during this phase.

4. Regulation of behavioral and social traffic: Once the pupil was composed enough to speak about the incident again, the teacher reminded of a basic rule or social convention that he may have violated. This was done in a general way, without moralizing. For instance, the BMC teacher explained to Len that, "Most people don't like others to cut their hair with scissors...I know that I wouldn't like someone to do that to me."

5. Umpire services: When the pupil experienced inner conflict over choices of right and wrong, or external conflict with peers, the BMC teacher assisted in decision making and even made decisions that promoted an emotionally healthy situation. For instance, when another pupil's lunch box was smashed, the BMC teacher said, "It

isn't fair that you should have to pay for a new lunch box for Paul all by yourself, since both of you were jumping on it. Let's try to work it out so that you and Greg can both repay Paul."

Five main steps characterize the second phase of the LSI, clinical exploration of life events:

1. Reality rub-in: At this point, the BMC made the pupil cognizant of the actual events that occurred during the conflict. In the case of the broken lunch box mentioned earlier, David staunchly maintained that he wasn't anywhere near the incident. In an effort to overcome the boy's social nearsightedness, the teacher informed David that another teacher and three other pupils saw him help break the lunch box.

2. Symptom estrangement: During this part of the LSI, the BMC teacher concentrated on getting the pupil to recognize that his symptoms are not worth the trouble and need to be let go. For instance, the fact that his mother showed up at the school intoxicated one day cause Tommy to become very emotional. Convinced that his peers were alway's watching him, Tommy began to swear at them. The BMC teacher explained to him that this tendency to believe that others were looking at him wasn't often substantiated and gave several examples. Once this was established, he told Tommy that his inappropriate reactions caused others to look at him more than anything else.

3. Massaging numb value areas: In order to expain the ramifications of present events, the BMC teacher often appealed to potential values (eg. fairness) held by the pupil or peer group. In the case of Stan not waiting his turn, for instance, the teacher reminded him of an upsetting incident in which another pupil ate the chocolate bar that Stan wanted, even though it wasn't his turn to pick.

4. New-tool salesmanship: Through questions like, "Now what else could you have done when Len hit you at recess time, instead of tearing his shirt off?", the BMC teacher indicated a wider range of behavioral alternatives than that the pupil currently possessed. During this phase, the focus

was clearly on future sitations, rather than the present incident.

5. Manipulation of the boundaries of the self: Just before the conclusion of an LSI, the BMC teacher expressed confidence in the pupil's ability to react in a different manner during the next crisis situation. By convincing the pupil that he was capable of exhibiting more appropriate responses in the future, the teacher helped the pupil to feel greater self-worth and broadened his psychological boundaries to include a sense of affiliation with peers, adults or the setting. For instance, "Watch David carefully. You'll see how he ignores Len's namecalling and how Len gives up after [illegible] a minute or so. I l think you're strong enough to be able to do the same thing, don't you?".

Planned Ignoring: Rationale

One of the major variables associated with Kounin's group managerial model is withitness. This term refers to a teacher's overt behaviors that demonstrate to the pupils that he is aware of what is going on in all areas of the classroom at all times. One of the principle means that Kounin postulated that a teacher could demonstrate withitness is to refuse to give pupils the negative reinforcement that they are seeking when they exhibit inappropriate behavior. Planned ignoring represents one intervention strategy designed for this purpose.

Planned Ignoring: Practical Application

If the pupils exhibited an inappropriate behavior that was not likely to disrupt or spread to others, and the BMC teacher felt confident that it would eventually run its course, the behavior was often ignored. For instance, when a pupil elected to read a book to gain the teacher's attention, rather than complete a written assignment, this behavior was most often ignored. The teacher continued to unobtrusively observe the pupil and waited until the pupil was back on task before giving him positive attention. Alternately, the BMC teacher ignored the negative behavior while simultaneously praising other pupils for their appropriate behaviors.

Verbal Encouragement: Rationale

One of the cornerstones of the teleoanalytic model is the use of encouragement techniques. Adlerian theorists maintain that encouragement is more important than any other aspect of classroom discipline. In fact, they view it as being so important that the lack of it is considered the basic cause of misbehavior. Dreikurs and Soltz (1964) postulated that a misbehaving child is a discouraged child (p. 36). These authors perceive encouragement as a

continuous process aimed at giving the pupil a sense of self-respect and a sense of accomplishment.

Verbal Encouragement: Practical Application

The BMC teacher gave the subjects verbal encouragement throughout the treatment period. Comments such as, "You've worked very hard on this art project, you must enjoy working with clay!", were made by the teacher in an effort to reinforce the subjects' behavioral and academic efforts. When a child handed in a written assignment that was of generally poor quality, the BMC teacher would accentuate any positive aspect of the work that existed. For instance, he frequently directed comments such as, "That's a nice, neat capital "P" in the second sentence that you wrote; it makes it easier for me to read your work." The teacher also gave verbal reinforcement for behavioral efforts, such as, "I'm proud of the way you stayed out of that fight, Peter. That's two days in a row that you've been able to do that!".

E. Procedure

There were six parent-child pairs, a teacher, a classroom aide, a psychologist and a behavior management resource counsellor involved in this research study. The teacher had three years of teaching experience, including

the latter two in his present capacity. Educationally, he had earned a Bachelor of Education degree, but had taken no special education courses as an undergraduate. The teacher had received no graduate training. The classroom aide was a mother of four teenage children who had no formal training related to working with behavior disordered children. She had two previous years of classroom experience, both of which were in her present capacity. The psychologist involved in the study had twenty previous years of experience related to special education pupils. His present duties involved the assessment and placement of pupils in special education classrooms. The role of the behavior management resource counselor involved consulting with the teacher and parents and preparing recommendations for the management of the subjects both at school and at home. This individual had ten years of experience in a variety of roles relating to regular and special education pupils.

The investigation was conducted during the fall of 1985 and lasted twelve weeks, from September 27 to December 20. Prior to the study, the BMC teacher was trained for two weeks in the use of the intervention techniques, using materials from Long, Morse and Newman (1980). In addition, parents of the six behavior disordered pupils in the BMC program were contacted and asked consent for participation in the present research study. After consent was

obtained, these parents were interviewed, using the Child Home Checklist (CHC) and Child Community Checklist (CCC) ecological interview format outlined by Wahler and Cormier (1970). The parents were also asked to complete the Walker Problem Behavior Identification Checklist (WPBIC: 1976), to which they readily consented.

Two days before the use of the intervention techniques commenced, the investigator administered the pre-tests to the pupils in their classroom, as recommended by Chapman and Bersma (1978). The pre-tests included the Student's Perception of Ability Scale (SPAS: 1978) and the Nowicki-Strickland Locus of Control Scale for Children (N-S: 1973). In order to circumvent any reading problems that the pupils may have had, items were read aloud for them. The teacher was then interviewed by the researcher, using the Child School Checklist (CSC) ecological interview format. In addition, the classroom teacher completed the WPBIC for each of the subjects in the study. This WPBIC assessment was within the one to two month assessment interval recommended in the revised (1983) version of WPBIC test manual. The BMC teacher attended numerous case conferences in June, 1985 related to each of the subjects in the study and had interviewed each of them with their parents prior to the start of the school term. In view of these contacts and the fact that he had observed them in the classroom for four weeks, the BMC teacher was

sufficiently familiar with the pupils when the instruments were completed.

Psychosituational classroom intervention, the participant observation approach employed in this study, was conducted by the psychologist and the behavior management resource counsellor during separate 30 minute intervals once each week. Both days of the week and times of the day were alternated. Reliability, in terms of interobserver agreement was checked every fourth week by having both observers present during the same interval. The most frequently used method of calculating interobserver agreement (Haynes, 1978), based on agreement and disagreement within each sampling interval was by dividing the number of agreements by the the number of agreements plus disagreements. This approach was used in this study.

The classroom teacher used the intervention strategies outlined earlier in this chapter on an ongoing, daily basis. The Life Space Interviewing (LSI) technique was used only when a crisis arose in the classroom that could not be controlled through the use of the other strategies included in the intervention program. On these occasions, the teacher would meet privately with the troubled pupil in a small room adjacent to the classroom. The classroom aide would stay with the remainder of the class while the LSI was being conducted. On a more general level, the role of

classroom aide was to prepare classroom materials and to assist the teacher with the pupils. This latter role included helping them with art projects and on field trips.

Each school day began at 9:00 AM and ended at 2:30 PM. This schedule represented a shortened version of the school hours governing most regular classroom children. The fact that most of the BMC pupils had a three quarter hour taxi ride to and from school each day was the rationale behind the shorter school day. The BMC pupils went for recess with the regular classroom children and also shared a common lunchroom with them. The classroom itself was situated close to other regular classrooms. It was equipped with traditional furniture and equipment. The school administrators endeavored to meet as many of the BMC teacher's program needs as possible. They were very supportive of the teacher's efforts and tolerant of the pupils' behavior. In fact, the administrators and the BMC teacher had formulated a school policy that sought to avoid suspending pupils in the BMC program as much as possible. As a result, no suspensions took place during the course of the study.

At the conclusion of twelve weeks of intervention, all post-tests were readministered. The post-tests included the WPBIC, N-S and the SPAS. Alternative forms of these instruments were not available. Both the parents and the teacher were reinterviewed two days after the end of the

treatment period, using the appropriate ecological interview formats. All pre-tests, post-tests and interviews were administered and marked by the investigator to ensure uniformity in administration and scoring.

IV. RESULTS

A. Introduction

This study investigated the effects of several intervention strategies on six male pupils enrolled in a self-contained special education class for children with behavior disorders. Three formal and two informal assessment techniques were used in this pre-test/post-test design. To determine the quantitative effects of the intervention program, data from the WPBIC, SPAS and N-S were analysed using "t"-tests to establish the significance of differences between pre- and post-test scores. The ANOVA 12 analysis program (Ferguson, 1966, 169-171, 183-184) was used for the statistical analysis of the data, with a significance level set at $p < .05$. The quantitative analysis which follows focuses on the mean gain scores for each of the three measures used.

Ecological interviews and PCI participant observation represent the two informal assessment techniques used to gather data. As noted by Borg and Gall (1979), use of these approaches permits a researcher to gain insights and develop interpersonal relationships that are virtually impossible to achieve through any other research method (p. 345). These authors have further suggested that participant observation, in particular, allows an investigator to gain rapport with a

group and to develop a better understanding of the group's functioning and relationships. The interview and observation data gathered for the purposes of this study is, therefore, subjected to qualitative, non-statistical descriptive analysis (Borg and Gall, p. 408). This analysis specifically describes the effects of the intervention program in modifying the behavior of individual subjects (Saslow, 1982, p. 411).

In order to promote clarity, the chapter is divided into a number of sections. First, an overview of the results is presented as it relates to each hypotheses tested in the study. Each overview is then followed by both quantitative and qualitative analysis of the data.

B. Overview Of The Results

The major findings related to each of the five hypotheses tested are now presented. For the sake of convenience, the research hypotheses have been restated.

Hypothesis 1

As a function of the intervention strategies used in the classroom, the number of target problem behaviors exhibited by the subjects in the behavior disordered classroom will be significantly reduced. Problem behaviors were operationally defined and measured by the Walker Problem Behavior Identification Checklist (WPBIC), Child

School Checklist (CSC) and Psychosituational Classroom Intervention (PCI) observation format. This hypothesis was partially confirmed for the WPBIC, but was supported by the results of the CSC and the PCI.

Hypothesis 2

Following the intervention program, there will be a significant decrease in the number of problem behaviors exhibited by the subjects at home, as measured by the WPBIC and Child Home Checklist (CHC). This hypothesis was partially confirmed for the WPBIC, but fully confirmed by the results of the CHC.

Hypothesis 3

Following the intervention program, there will be a decrease in the number of problem behaviors exhibited by the subjects in the community, as measured by the Child Community Checklist (CCC). Community is operationally defined for this study as the child's own yard, a neighbor's yard or home, shops, public park, church, downtown, community swimming pool and the family car (Wahler and Cormier, 1970, p. 282). This hypothesis was confirmed.

Hypothesis 4

Following the intervention program, there will be a significant increase in the subject's level of academic self-concept as operationally defined and measured by the Student's Perception of Ability Scale (SPAS). This hypothesis was not confirmed.

Hypothesis 5

Following the intervention program, there will be a significant increase in the subject's internal expectancy of control as operationally defined and measured by the Nowicki-Strickland Locus of Control Scale for Children (N-S). This hypothesis was not confirmed.

Data is presented in tabular form, graphically and descriptively. The effects of the experimental treatment are represented by comparing group pre-test/post-test gain scores for each of the formal dependent variables used. For each hypothesis, quantitative analysis of the data is also followed by a qualitative description of the same results with the focus on psychological significance instead. Hypothesis 3 was tested by the use of the informal measures used and then subjected only to qualitative analysis. This analysis described on the experimental effects of the treatment on individual subjects and on the classroom group as a whole.

C. Hypothesis 1

Quantitative Analysis of WPBIC Data Collected From Teacher

According to Table I, teacher-rated pre-test/post-test gain scores for problem behaviors on the WPBIC were largely in the expected direction. The group obtained a full scale mean pre-test score of 25.833 and a full scale post-test score of 14.0, showing a mean gain score of 11.833. This result represented a statistically significant difference and may be indicative of the intervention treatment used.

With reference to the mean gain scores for individual subscales of the WPBIC, the mean gain score differences for Acting-out were significant beyond the .05 level of confidence. The most significant mean gain score difference was observed for this Acting-out subscale. This result, which closely approximates the full scale significant difference, may suggest that the treatment had the most dramatic effect on this particular type of problem behavior. The results of this subscale measurement greatly contributed to the significant group pre-test/post-test mean differences obtained. Although the mean pre-test/post-test gains displayed by the group on subscales II (Withdrawal), IV (Disturbed Peer Relations)

TABLE I

TEACHER-RATED

FULL SCALE AND SUBSCALE

PRE-/POST-TEST MEAN GAIN SCORES

ON THE WPBIC

Scale	Mean Pre-test	Mean Post-test	Pre-/Post-Test Mean Gain Scores	T-Value (df = 5)	Critical Value
Full	25.833	14.0	11.833	5.848	.0021*
I (Acting-out)	13.167	6.167	7.0	5.653	.0024*
II (Withdrawal)	2.333	0.333	2.0	2.236	.0756
III (Distractability)	4.50	4.667	-0.167	-0.126	.9050
IV (Disturbed Peer Relations)	3.0	1.667	1.333	.810	.4549
V (Immaturity)	2.833	1.167	1.6663	1.686	.1527

* Significant beyond the .05 level of confidence

and V (Immaturity) were in the expected direction, none of of them achieved statistical significance. However, although not statistically significant, it seems that the group tended to exhibit slightly less avoidance behavior, less peer conflicts and less dependency after treatment than before.

In essence, the results of the WPBIC partially substantiated Hypothesis 1 by confirming that the group did exhibit fewer incidences of acting-out behavior.

Qualitative Results of Hypothesis 1 Based on the Child School Checklist (CSC) and Psychosituational Classroom Intervention (PCI) Participant Observation

Results of the ecological interview between the researcher and the BMC teacher, using the Child School Checklist (CSC), strongly supported the full scale and acting-out pre-test/post-test gain score data findings of the WPBIC. As illustrated in Table II, each of the subjects exhibited fewer problem behaviors after treatment than before. As a group, the number of pre-/post-test problem behaviors was greatly reduced. The BMC teacher noted that this decrease in disruptive behaviors improved the level of cooperation among the pupils and made the classroom atmosphere much more positive. Further, he noted that the behavior of the pupils observed in other school settings, such as the lunchroom and hallways, also improved following the 12-week intervention period. The most

TABLE II

TEACHER-RATED

PRE-TEST AND POST-TEST DIFFERENCES

ON THE

CHILD SCHOOL CHECKLIST (CSC)

Subject	Number of Pre-test Problem Behaviors	Number of Post-test Problem Behaviors	Difference
David S.	22	10	-12
Len H.	86	44	-42
Tommy L.	62	50	-12
Greg E.	29	6	-23
Stan B.	53	24	-29
Peter L.	33	20	-13
Total	285	154	-131

dramatic change took place between week 2 and week 4.

Figure 11 graphically illustrates the individual performance of the subjects. These findings suggested that Len exhibited the greatest reduction in problem behaviors (48.8%), by diminishing his "talking to others", "moping around", "crying" and "out of seat" behaviors. In contrast, Tommy demonstrated the least reduction, as "fighting", "dawdling", "talking to others" and being "out of his seat" continued to be problems. During the ecological interview, the teacher noted that Tommy, in fact, did replace Len as the group's negative leader. As was the case at the beginning of the 12-week intervention, Greg continued to be the group's positive leader, according to the teacher. Overall, he exhibited the fewest pre-/post-test problem behaviors. In addition, the four subjects that exhibited the fewest post-intervention problem behaviors, David, Greg, Stan and Peter, were also the only pupils to be reintegrated into regular classrooms, on a limited basis.

A closer examination of the CSC data revealed that Stan made considerable behavioral improvements during the course of the study. After initially identifying the boy's major problems as being "selfish", "staying alone", "whining" and "acting silly", the teacher clearly indicated during the post-test interview that these behaviors were no

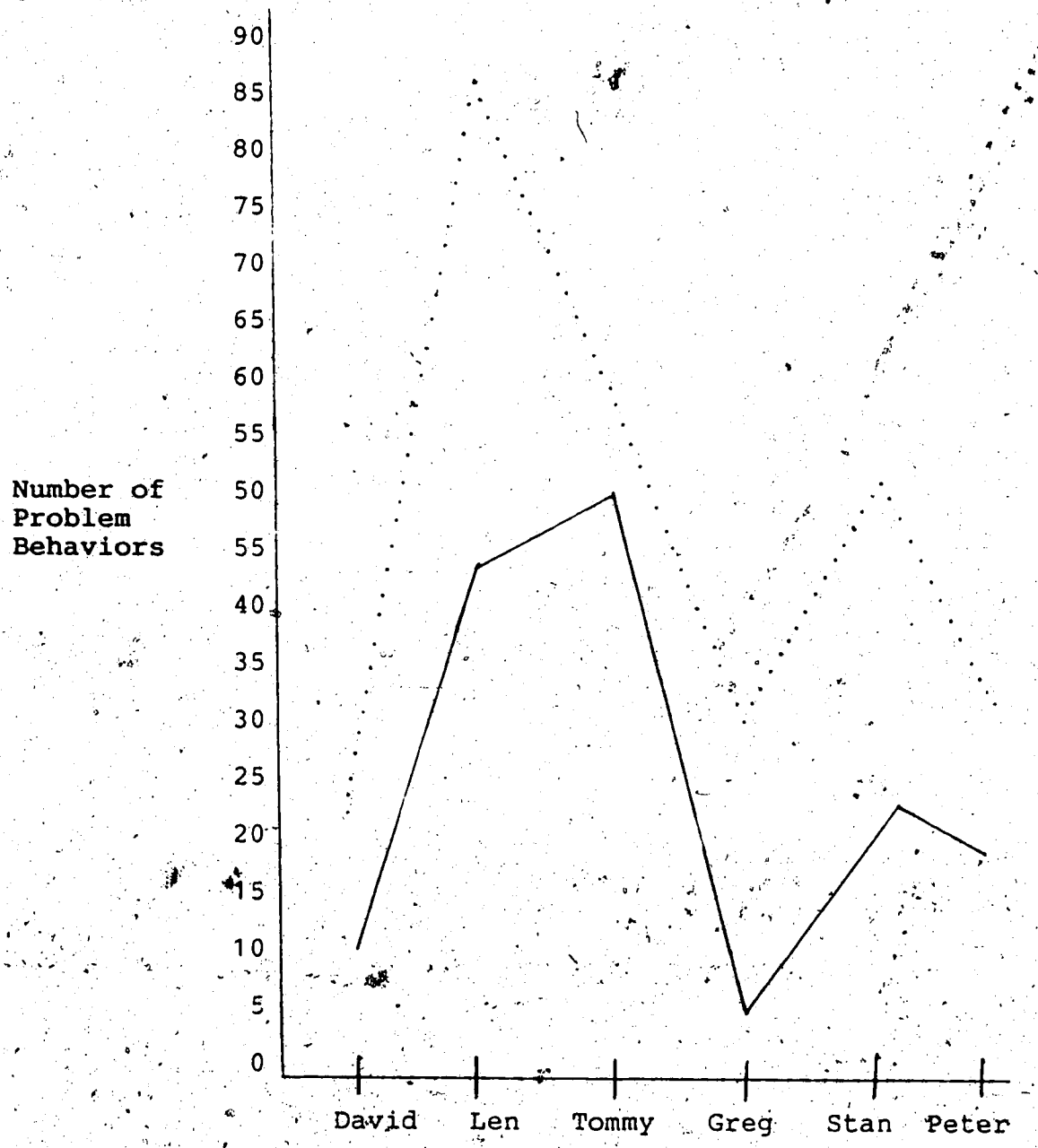


Figure 11
Number of Pre-test/Post-test Problem Behaviors On The Child School Checklist (CSC)

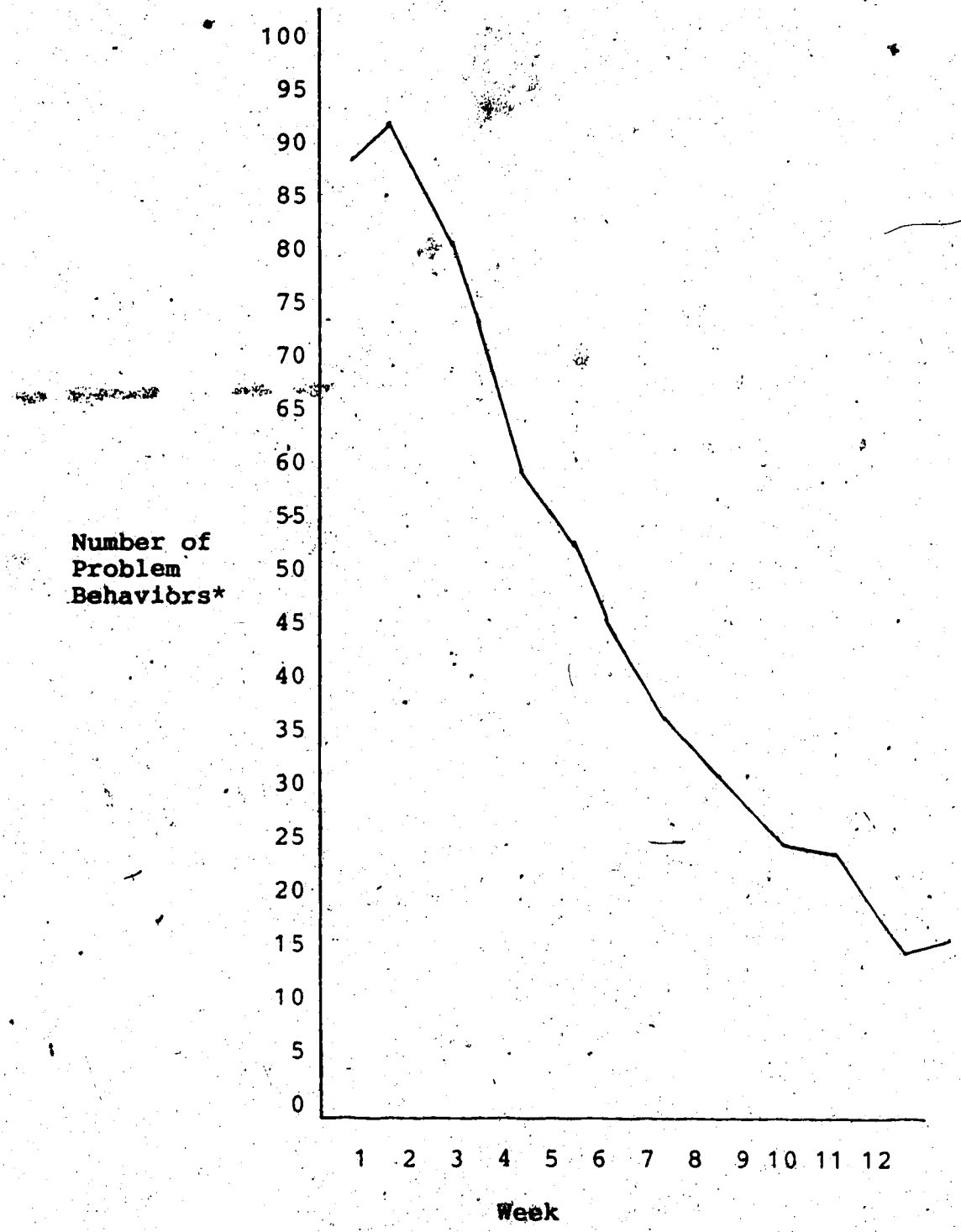
longer a concern. Stan was more willing to complete written assignments and, on occasion, had even volunteered answers orally. Similarily, the pre-test concerns voiced over Len and David's "sexual play" in the hallways and playground were not repeated during the post-test interview. In addition, an examination of the post-test CSC revealed that Len rarely exhibited the specific behaviors that characterized his earlier lack of school success, such as breaking pencils, tipping over desks and tearing up notebooks.

Post-test results of the CSC also suggested that Peter was "out of his seat" and "talked to others" during instructional periods considerably less than he was at the beginning of the study. Likewise, the BMC teacher indicated that David was more able to express himself in an appropriate manner at the end of the treatment period. This improvement was particularily evident in the presence of female supervisors in the lunchroom and hallways. Lastly, Greg reportedly reduced the number of threats and physical assaults he directed towards his peers. The teacher suggested that the close bond formed between Greg and himself and the strategies used may have had an effect on this improvement.

Findings based on the Psychosituational Classroom Intervention (PCI) observation data, supported the results of both the WPBIC and the CSC. The reliability of these

observations, in terms of interobserver agreement, was determined by having both observers make observations simultaneously at intervals of 4, 8, and 12 weeks. Based on the most frequently used method of calculating interobserver agreement (Haynes, 1978), reliability was determined to be .95.

Figure 12 strongly appears to suggest that the number of problem behaviors exhibited by the group as a whole sharply declined during the treatment period. The highest number of problem behaviors observed (92) was during week 2, while the lowest number (15) were exhibited during week 11. Both observers noted that the disruptive behaviors tended to occur in clusters, where one pupil would create an initial disturbance that would later involve other members of the group. It was observed early in the study that these group disruptions were frequently intended to interrupt the teacher's instructions and lesson presentation. These interruptions tended to support the negative behavior exhibited by individual pupils. In particular, the group often responded to Tommy's verbal and nonverbal disruptions with negative behavior of their own.



* Combined number of observations made by raters

Figure 12
Number of Observed Problem Behaviors
During a 12 Week Period
Using Psychosituational Classroom Intervention (PCI)

As the study progressed, however, this ripple effect had a considerably different focus.

As illustrated in Table III, the change in the group's reaction to Tommy's misbehavior is quite evident. During the first three weeks of treatment, the group tended to support his disruptions by exhibiting similar problems be[redacted] In contrast, the group appeared to respond to [redacted]ative leadership in a very different manner [redacted]inal three weeks of the study. Clearly, the [redacted]he other pupils showed a definite tendency [redacted]ignoring Tommy or themselves exhibiting more [redacted]behaviors. Both observers noted that the group became very supportive of the teacher's attempts to reduce Tommy's disruptive outbursts. Data gathered during the CSC interview with the BMC teacher further confirmed this notion.

At the beginning of the study, Stan's disruptive behaviors usually involved getting up and leaving his desk without permission. These behaviors were typically in response to teasing from his peers. After a series of life space interviews (LSI) during weeks 3 and 4, Stan began to ignore these taunts and remain on-task. Despite a lapse in weeks 7, 8 and 9, he managed to continue to refrain from his withdrawal behaviors during the remainder of the 12-week observation period.

TABLE III
SUMMARY OF
PSYCHOSITUATIONAL CLASSROOM INTERVENTION (PCI)
OBSERVATIONAL ASSESSMENT DATA

	Number Of Disruptive Behaviors Observed By Week*												
Subject	1	2	3	4	5	6	7	8	9	10	11	12	Total
David	11	15	12	11	8	8	5	7	4	2	0	1	84
Len	17	19	13	9	12	9	7	5	5	6	4	3	109
Tommy	22	21	25	20	16	14	11	12	10	13	11	11	186
Greg	9	12	8	6	6	7	3	0	0	1	0	0	52
Stan	14	12	9	5	0	0	3	4	2	0	0	0	49
Peter	14	13	11	7	9	2	5	0	2	1	0	1	65
Total	87	92	78	58	51	40	34	28	23	23	15	16	545

* Combined number of disruptive behaviors observed by both raters during separate 30 minute observation periods

The following section will recount the accompanying changes that occurred in the subjects' behavior at home.

D. Hypothesis 2

Quantitative Results and Analysis of WPBIC Data Collected From Parents

According to Table IV, parent-rated pre-test/post-test gain scores for problem behaviors on the WPBIC were all in the expected direction. Overall, the group obtained a full scale mean pre-test score of 50.5 and a full scale post-test score of 28.6, resulting in a significant mean gain score of 21.8. This result may be indicative of the ecological effects of the intervention treatment used with the group at school.

With regard to subscales of the WPBIC as measured by parents, an analysis of the gain score means for subscales I (Acting Out, $p = .0166$), III (Distractability, $p = .0258$), IV (Disturbed Peer Relations, $p = .0330$) and V (Immaturity, $p = .0058$) showed that significant differences existed. These results are similar to those obtained on the teacher-rated WPBIC where only acting-out behavior rose to significance. Each of these results by parents suggested that a strong treatment effect was present. Results of these subscales may indicate that parents tended to view the subjects as being less disruptive, less likely to withdraw, less aggressive with peers and less dependent after treatment than before.

TABLE IV

PARENT-RATED

FULL SCALE AND SUBSCALE

PRE-/POST-TEST MEAN GAIN SCORES

ON THE WPBIC

Scale	Mean Pre-test	Mean Post-test	Pre-/Post-Test Mean Gain Scores	T-value (df = 5)	Critical Value
Full	50.50	28.667	21.833	6.918	.0010*
I (Acting-out)	17.50	12.50	5.0	3.536	.0166*
II (Withdrawal)	5.167	2.833	2.334	1.688	.1522
III (Distractability)	10.833	6.50	4.333	3.135	.0258*
IV (Disturbed Peer Relations)	9.167	4.167	5.0	2.919	.0330*
V (Immaturity)	8.333	2.667	5.666	4.610	.0058*

* Significant beyond the .05 level of confidence

On subscale II (Withdrawal), although not significant, mean gain score differences were in the expected direction. The group obtained a mean pre-test score of 5.167 and a post-test score of 2.833, showing a mean gain score of 2.334. This finding may suggest that the subjects exhibited slightly less avoidance behavior after the intervention than before.

In summary, these WPBIC findings tend to confirm Hypothesis 2. Parents observed there was a significant decrease in the number of problem behaviors exhibited by the subjects at home and attributed this decrease to the effect of the classroom intervention used.

Qualitative Results of Hypothesis 2 Based on the Child Home Checklist (CHC)

Results of the ecological interview with the parents, using the CHC, are shown graphically in Figure 13. Like the pre-test scores, the post-test results describe considerable between-subject variance in terms of the number of problem behaviors exhibited at home by each subject. For instance, Tommy and Len's parents reported 75 and 64 pre-test problem behaviors, respectively, while Greg's parents described only 19. Similar trends were also evident in the post-test results. Figure 13 does suggest an overall decline in the number of home-related problem behaviors reported by the parents.

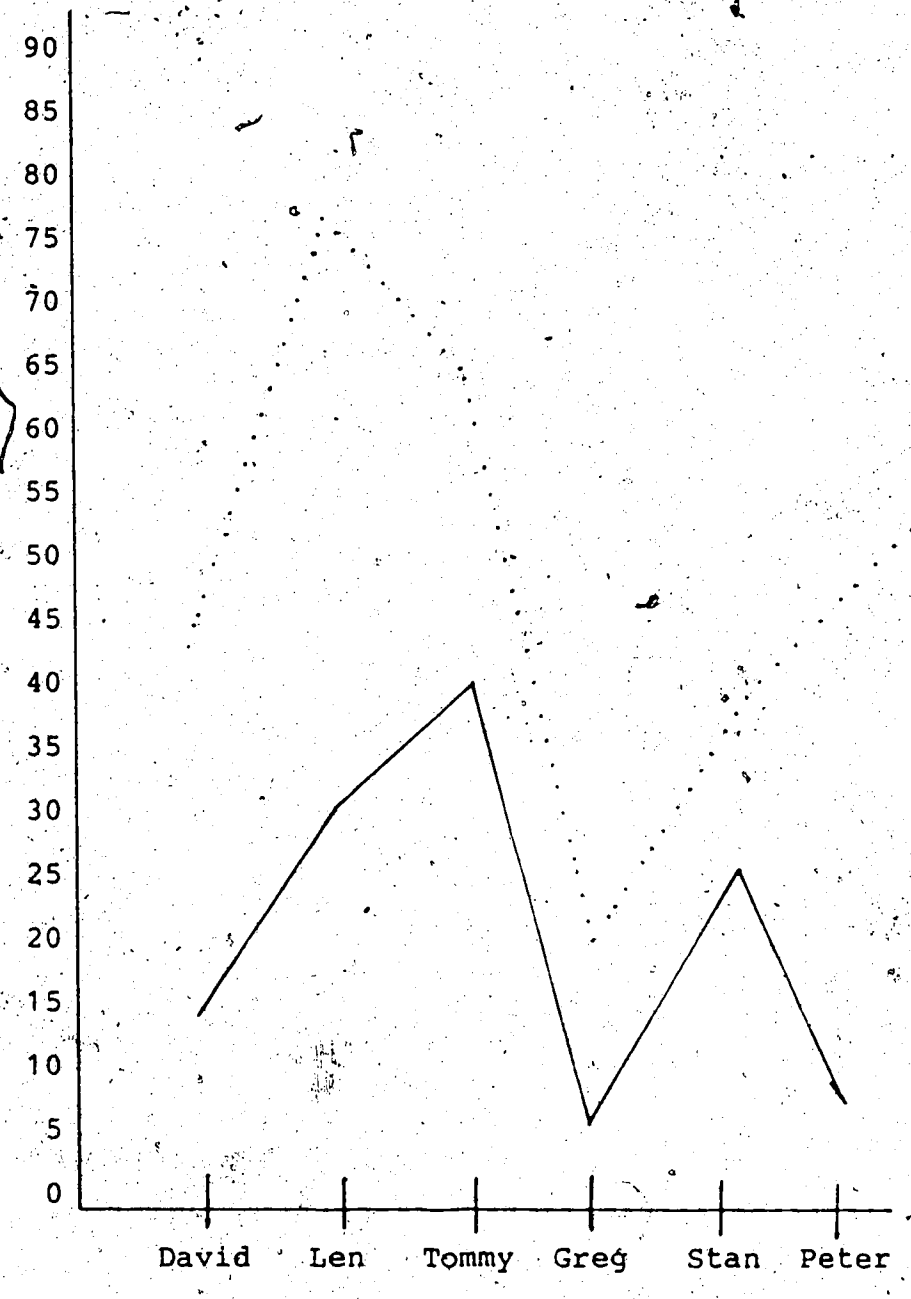


Figure 13
Number of Pre-test/Post-test Problem Behaviors On The Child Home Checklist (CHC) As Reported By Parents

Among individual pupils, Peter's parents noted that the incidence of self-abusive behavior had sharply declined during the treatment period. In addition, they stated that Peter argued and complained less at home and had fewer temper tantrums as the treatment progressed. His behavioral improvements were so significant that his parents reported that he was taken off his medication after consultation with the psychiatrist. Mr. and Mrs. L. described Peter's bedtime behavior, in particular, as a major area of improvement. Likewise, Len's parents expressed a great deal of satisfaction when they were able to discontinue his medication. They noted a definite improvement in Len's behavior both first thing in the morning and at bedtime, two periods of great concern to them. In particular, Len's "forgetting", "dawdling", "arguing" and "complaining" behaviors were greatly reduced. Similarily, bathroom routines, such as washing, brushing teeth and bathing, were improved.

The major improvement at home described by Greg's parents involved the fact that he no longer "always had to be told" to do such things as get dressed, do his chores and go to bed on time. Mrs. L. also reported that Tommy "moped around" the house and fought with his older brother considerably less following the treatment period. As a result, the number of problem behaviors that Mrs. L. described dropped from 64 to 38, as illustrated in Table V.

TABLE V

PARENT-RATED

PRE-TEST AND POST-TEST DIFFERENCES

ON THE

CHILD HOME CHECKLIST (CHC)

Subject	Number of Pre-test Problem Behaviors	Number of Post-test Problem Behaviors	Difference
David S.	42	13	-29
Len H.	75	28	-47
Tommy L.	64	38	-26
Greg E.	19	7	-12
Stan B.	39	27	-12
Peter L.	51	11	-40
Total	290	124	-166

Stan's father expressed relief during the post-test CHC interview noting that the boy made considerably fewer attempts to withdraw physically and socially at home. Rather than having to try to talk to the boy through a locked bathroom door, he was able to discuss family problems in a more open manner. Further, Mr. B. observed a greater capability on Stan's part to show affection and to express his feelings.

Finally, Mr. and Mrs. S. identified only 13 post-test problem behaviors, after reporting 42 on the pre-test measure. The greatest area of improvement that they noted centered around David's ability to express himself in a socially appropriate manner. Rather than fighting, destroying toys and yelling, the boy was better able to express his displeasure verbally.

A qualitative analysis of the subject's community behavior, as reported by their parents during the CCC interviews follows.

E. Hypothesis 3

Qualitative Results Based on the Child Community Checklist (CCC)

Consistent with the ecological tenets discussed earlier in this study, it appeared that the classroom intervention used also had a discernable effect on the

behavior of the subjects in the community. As evidenced by both Table VI and Figure 14, the number of observed pre-test problem behaviors was reduced from 105 to a post-test level of 54. This reduction represents a 48.6% decline.

On an individual subject basis, the concerns that Mr. and Mrs. E. expressed about Greg's behavior in his own yard and in the family car were not reiterated during the post-test interview. The number of problem behaviors identified on the CCC was reduced from 8 at the pre-test level to one at the post-test level. Mr. and Mrs. E. stated that they had a good deal of success implimenting many of the techniques that were used with Greg at school in their own dealings with him at home and in the community.

The physical aggressive behavior that Len exhibited in the community constituted the major concern that Mr. and Mrs. H. expressed during the pre-test CCC interview. These parents indicated that they were forced to supervise Len constantly in order to protect his siblings and peers from his unwarranted physical attacks. While this behavior remained a concern even after treatment, several improvements were noted. For instance, Len was able to play organized hockey for the first time in two years. Apparently, he had earlier been suspended from playing hockey for deliberately injuring an opposing player.

TABLE VI

PARENT-RATED PRE-TEST AND POST-TEST DIFFERENCES ON THE CHILD COMMUNITY CHECKLIST (CCC)

Subject	Number of Pre-test Problem Behaviors	Number of Post-test Problem Behaviors	Difference
David S.	14	1	-13
Len H.	19	10	-9
Tommy L.	33	21	-12
Greg E.	8	1	-7
Stan B.	12	3	-9
Peter L.	19	15	-4
Total	105	51	-54

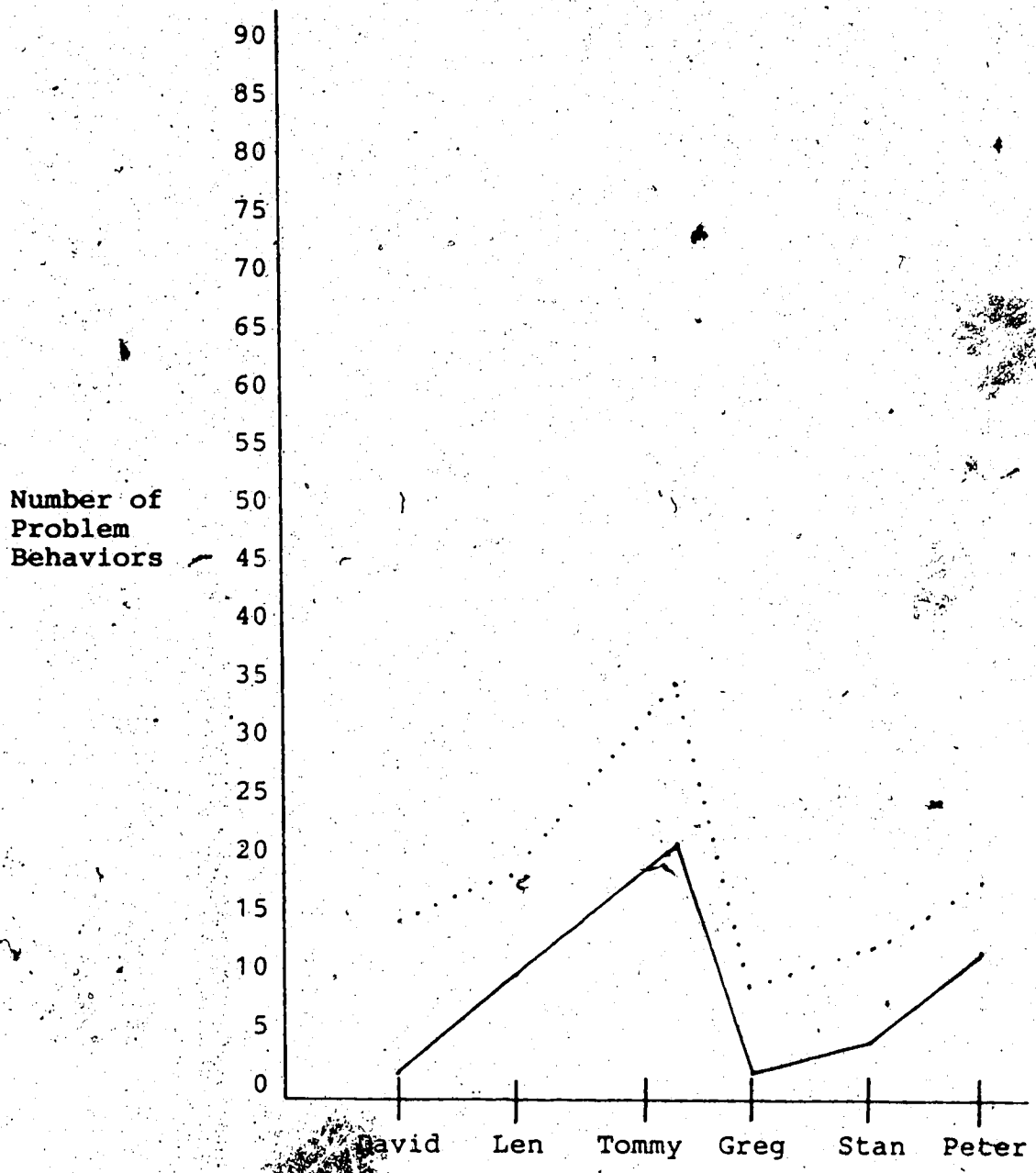


Figure 14
Number of Pre-test/Post-test
Problem Behaviors
On The
Child Community Checklist (CCC)

After indicating that Len's problem behaviors were reduced from 19 to 10, Mr. H. reported that Len seemed to be better able to control his temper after the 12-week intervention period.

While reporting the incidence of Tommy's post-test problem behaviors, Mrs. L. stated that she was relieved that her son had only one contact with the police in the past 12 weeks. She attributed this change to the fact that Tommy no longer went out of his way to "act silly" in shops and stores, public parks, neighbor's yards and "downtown". She also reported on the post-test Child Community Checklist that he then fought and stole less often.

According to Mr. B., Stan's community problem behaviors were reduced from 12 to 3 during the treatment period. The single setting in which Stan's behavior improved dramatically was while playing in neighbors' yards and in their homes. Mr. B. credited the boy's improved peer relations with the experimental behavior strategies used at school. Similarily, Peter's mother reported that her son's improved capacity to cooperate with neighborhood children was related to a decline in the number of problem behaviors he exhibited in the community.

Prior to treatment, Mr. and Mrs. S. described how David would purposefully complain, demand and whine in public places much to their embarrassment. During the post-test CCC interview, they stressed that these

inappropriate behaviors had changed dramatically. In essence, David's problem behaviors, as observed on the CCC interview, seem to be consistent with the point of view of his parents. His pre-test behaviors dropped from a high of 14 to 1 by the end of the intervention. In an attempt to account for this reversal, Mr. and Mrs. S. mentioned that David seemed to feel better about himself at school, at home and in the community.

F. Hypothesis 4

Quantitative Results of the Student's Perception of Ability Scale (SPAS)

As noted earlier 't'-tests for gain scores were used to determine whether significant differences existed between pre-test and post-test mean scores on the Student's Perception of Ability Scale (SPAS). An examination of Table VII indicates that Hypothesis 4 was not confirmed in that significant differences were not found for either the full scale ($p = .2009$) nor any of the subscales (General Ability, $p = .0556$), (Arithmetic, $p = .5761$), (School Satisfaction, $p = .2242$), (Reading/Spelling, $p = .2892$), (Penmanship/Neatness, $p = .1576$) and (Confidence, $p = .3774$). It should be noted that the General Ability subscale ($p = .0556$) was the only one to approach significance.

TABLE VII
PRE-/POST-TEST MEAN GAIN SCORES
ON THE
STUDENT'S PERCEPTION OF ABILITY SCALE (SPAS)

Scale	Mean Pre-test	Mean Post-test	Pre-/Post-Test Mean Gain Scores	T-value (df = 5)	Critical Value
Full	53.167	57.833	4.666	1.472	.2009
I (General Ability)	6.0	8.167	2.167	2.484	.0556
II (Arithmetic)	11.0	11.333	0.333	0.598	.5761
III (School Satisfaction)	10.667	11.50	0.833	1.387	.2242
IV (Reading/ Spelling)	9.833	10.667	0.834	1.185	.2892
V (Penmanship/ Neatness)	8.833	10.167	1.334	1.661	.1576
VI (Confidence)	6.833	5.833	-1.0	-0.968	.3774

* Significant beyond the .05 level of confidence

Qualitative Results of Hypothesis 4 Based on the Child School Checklist (CSC) and Psychosituational Classroom Intervention (PCI)

Although Hypothesis 4, which was concerned with improvement of academic self-concept, was not statistically significant, there was much of psychological signficance to report. As noted by Kauffman (1977) at the beginning of this study, behavior disordered children are usually failures, even in their own eyes. They typically obtain little gratification from life and chronically fall short of their own social and academic aspirations (pp. 5-6). Several observed behavioral indicators suggest that the treatment may have increased the academic self-concepts of the subjects.

At the beginning of the intervention period, the behavior of the subjects closely approximated those described by Kauffman (1977, pp. 5-6). They frequently exhibited behaviors that demeaned both their own academic efforts and those of their peers. During the ecological interview with the researcher, the BMC teacher reported that the pupils typically reacted to incorrect responses and errors made during oral reading by breaking pencils, overturning desks and tearing books. In addition, verbal statements that reflected a lack of academic confidence, such as "I can't get it!" and "I'm too dumb!", were common. When asked whether they wanted to display a particularily well done assignment or art project, David

and Len would immediately tear the work into small pieces. Conversely, Stan would react to such a request by putting his head down on his desk and refusing to speak. Tommy and Greg routinely responded to materials commensurate with their level of ability with comments to the teacher such as, "Haven't you got anything easier for us to do?". These inappropriate responses indicated both a lack of academic confidence and a low estimate of general ability.

The specific manner in which the subjects completed written assignments and cared for their notebooks also reflected a low level of academic self-esteem. The subjects used pencil crayons, pens and pencils interchangeably to do written work and often chose to discard notebooks containing several carefully completed assignments. Similarly, if they became angry with a classroom peer during an art lesson, they would not hesitate to throw their projects at him. In essence, the specific problem behaviors exhibited by the subjects clearly illustrated their academic and social frustrations.

As the level of problem behaviors exhibited in the classroom began to diminish, however, the behaviors associated with academic success seemed to increase. For instance, the subjects tended to express a more positive opinion of their work and often asked if they could take it home to show their parents. Similarily, they showed a great deal of enthusiasm towards the BMC teacher's requests

to have individual pupils read to children in the kindergarten classroom located within the school. By week 8 of the treatment period, two pupils were reintegrated within a regular classroom setting for one lesson each day. Both PCI raters observed that these pupils were clearly envied by their peers.

During the post-test CSC interview, the teacher stated that the subjects were academically on-task a greater amount of time at the conclusion of the treatment period than they were at the beginning. Participant observation data reflected an accompanying decrease in problem behaviors, such as desk overturning and the destruction of school equipment and materials. The teacher also indicated that classroom management was less difficult because of the subjects' increased ability to work independently. Fewer comments, such as "Why do we have to go to school?" and "I hate reading!", suggested a modest increase in school satisfaction among the subjects. Both PCI observers concluded that, overall, the academic behavior and verbally-expressed attitudes of the subjects were less negative.

In summary, the results of the Child School Checklist and Psychosituational Classroom Intervention suggested that the subjects improved their self-evaluations of what was appropriate, desirable and possible for them to learn.

G. Hypothesis 5

Quantitative Results of Nowicki-Strickland Locus of Control Scale for Children (N-S) Data

According to Table VIII, the results of the Nowicki-Strickland Locus of Control Scale for Children (N-S) were not in the expected direction. Contrary to prediction, the pre-test/post-test mean difference was a statistically significant ($p = .0482$) loss. This finding seemed to indicate that the subjects' internal expectancy of control decreased. Clearly, Hypothesis 5 was not supported.

Qualitative Results of Hypothesis 5 Based on the Child School Checklist (CSC) and Child Home Checklist (CHC)

Results of the Child School Checklist (CSC) strongly supported the findings of the N-S. During the initial CSC interview, the teacher stated that the subjects attributed their placement in the behavior management program to external factors, such as bad luck, former teachers, their parents and a lack of personal power. Similarily, they reasoned that their academic underachievement was due to previous teachers not teaching well, not liking and helping them. As the treatment progressed, the the subjects began to experience academic and social success, yet failed to change their external locus of control orientation.

TABLE VIII

PRE-/POST-TESTING MEAN GAIN SCORES

ON THE

NOWICKI-STRICKLAND LOCUS OF CONTROL SCALE FOR CHILDREN

(N-S)

Mean Pre-test	Mean Post-test	Pre-/Post-Test Mean Gain Score	T-value (df = 5)	Critical Value
20.167	15.833	-4.334	-2.60	.0482*

* Significant beyond the .05 level of confidence

According to the BMC teacher, the subjects showed a consistent tendency to attribute their academic and behavioral gains to his efforts rather than their own. In a very overt manner, they gradually became closely bonded to the teacher and the powerful effect that he represented. For instance, the teacher reported that the pupils often requested him to come home with them, eat dinner and accompany them on family outings in order to help them sustain their improved behavior. They explained that he should help them to behave appropriately so that they didn't get into trouble with their parents. In the classroom, other external attributions among the subjects were reported by the teacher. When Tommy received a reprimand for his inappropriate behavior during a reading lesson, he attributed his difficulties to the fact that he had not been sitting closer to the teacher. In this regard, the teacher was seen as both a form of good luck charm and a powerful significant adult, two externalized control factors.

Interviews with the parents using the Child Home Checklist (CHC) yielded similar data. During the pre-test interviews, the parents frequently expressed the view that they had little or no control over their children. Following the 12 week intervention, however, they tended to attribute the subjects' behavioral improvements primarily to the effect of the teacher. When questioned about this

situation, they explained that their children attributed success as being due to the effect of the teacher.

In summary, it appeared that the subjects failed to take personal responsibility for the successes and failures that they encountered during the treatment period. The subjects continued to attribute their actions and subsequent outcomes to external factors, such as luck and the effect of the BMC teacher.

V. DISCUSSION AND IMPLICATIONS

A. Introduction

The main purpose of this study was to investigate whether a behavioral plan of instruction, based on a number of theoretically relevant intervention strategies, was effective in modifying the behavior of six behavior disordered children. It was hypothesized that there would be a significant qualitative and quantitative improvement in the appropriate behavior, locus of control and academic self-concept of the subjects, when reassessed over a twelve week experimental period. This chapter discusses the major findings of the study and its theoretical, research and practical implications.

B. Problem Behavior

The present investigation used an ecological assessment approach to gather test data from parents, the BMC teacher, the classroom setting and from the subjects themselves. The central notion of the first three hypotheses of this study was that a classroom-based intervention would significantly reduce the number of problem behaviors exhibited by a group of behavior disordered children at school, at home and in the community. This was partially substantiated for Hypotheses

1 and 2 and fully confirmed for Hypothesis 3. As expected, the intervention produced a significant change in the subjects' inappropriate behavior in each of the ecological settings examined. These findings were consistent with research literature related to both the specific intervention strategies used and to the ecological perspective, in general.

Intervention Strategies and Behavioral Changes

Consistent with the findings of this study, DeMagistris and Imber (1979) reported a significant decrease in the inappropriate behavior of eight behavior disordered pupils following the use of Redl's life-space interviewing (LSI) technique. These researchers directly attributed their findings to the use of this strategy during a 20 day treatment period and, in particular, to its potential for expanding the behavioral repertoire of the subjects in the study. In essence, DeMagistris and Imber concluded that the LSI strategy helped the subjects to generate behavioral alternatives to inappropriate behavior, which could be used in future crisis situations.

Another investigation concerned with Redl's psychoeducational management strategies was conducted by Beck, Roblee and Johns (1984). Using a within-subject pre-/post design with eight behavior disordered subjects, these researchers employed interest boosting and direct

appeal to values as the independent variables of the study. A pre-baseline period of ten days was followed by a treatment period lasting twenty days and a post-treatment baseline period of ten days. They attributed a statistically significant decline in frustration, aggressive, withdrawal and off-task behaviors to the use of these two strategies. Beck, Roblee and Johns (1982) also attributed the behavioral changes that took place at home and in the community to the children having incorporated the intervention strategies into their internal coping processes. Consistent with the results of the present study, these researchers concluded that behavior disordered children can assume responsibility for the maintenance and control of their own behavior.

Results of the Walker Problem Behavior Identification Checklist (WPBIC) and Psychosituational Classroom Intervention (PCI) observation data suggested that the intervention had a direct effect at school and an ecological effect at home. Overall, parents and the BMC teacher reported that the subjects exhibited significantly fewer full scale problem behaviors at the conclusion of the treatment period than they did before. Similarily, both PCI raters observed a dramatic decline in the number of problem behaviors displayed in the classroom. This finding was consistent with the full scale WPBIC results obtained by Kerlin and Latham (1977) and Csapo and Friesen (1979).

Kerlin and Latham (1977) investigated the intervention effects of a crisis-resource program on a group of behavior disordered grade three pupils. Twenty-one male subjects were randomly selected and assigned to one of three settings: E1, E2 and C. E1 consisted of males exhibiting problem behaviors served by a crisis-resource teacher who assisted regular class teachers in establishing individualized programs. E2 consisted of those served by a crisis-resource teacher only, while C consisted of those in the regular classroom without services from a crisis-resource teacher. An analysis of variance revealed no significant differences among the three groups on the pre-test WPBIC. At the end of an eight-week intervention period, post-test measures were taken by having teachers complete the WPBIC and having a trained observer record appropriate and inappropriate behaviors. The post-test data indicated that the subjects in the experimental groups significantly changed their behavior in a positive direction, in that inappropriate behaviors were fewer and appropriate behaviors were greater than the behaviors of those in the control group. The researchers also found that the children in E2 were significantly different ($p < .05$) from the control group on the full scale WPBIC and on three subscales, acting-out, withdrawal and distractability. Kerlin and Latham concluded that crisis-resource intervention may, therefore, be effective

in changing the inappropriate behavior of behavior disordered elementary school pupils. Further, these researchers suggested that a self-contained special education classroom, similar to the one investigated in the present study, may be the most viable option for educating these children.

Csapo and Friesen (1979) also found significant pre-/post-test differences on the full scale WPBIC following a behavior modification training program with parents of twenty behavior disordered adolescents. Ten parents and their children were assigned to an experimental group and ten to a control group. The subjects of both groups were matched on sex, age and demographic criteria, such as parental employment/unemployment, standard/substandard housing, intact/single parent families and whether or not recipients of social assistance. Both groups of parents completed the WPBIC before and after the study. The comparison between the pre- and post-test full scale WPBIC scores showed statistically significant differences between the groups. Experimental group parents reported a sharp decline in problem behaviors following the five month training program. After comparing these findings with both observation data and the number of officially recorded criminal offenses committed by the subjects, the researchers concluded that the WPBIC results

accurately reflected the behavioral improvements made by the experimental group.

Among the WPBIC subscales in the present study, both parents and the BMC teacher identified the highest number of pre-/post-test problem behaviors on subscale I (Acting Out). This finding suggested that the subjects exhibited disruptive, aggressive behavior more often than any other type of problem behavior. This finding was consistent with the results of Vanderduim's (1975) investigation, which involved 94 regular classroom pupils and an equal number of behavior disordered Junior Adaptation class children. The subjects, who ranged in age from 8 to 13 years, were administered the Walker Problem Behavior Identification Checklist (WPBIC). Vanderduim reported that the behavior disordered group exhibited acting-out behaviors more often than the problem behaviors described by any of the other WPBIC subscales. He attributed this finding to the fact that disruptive, acting-out behaviors were potentially more problematic for the teacher and, therefore, more noticeable. In the present study, the significant mean gain score difference on subscale I (Acting-out) was the only significant subscale change reported by both the teacher and parents. This finding emphasized the highly visible nature of acting-out behaviors and suggested that the intervention produced a dramatic change in the expected direction both at home and at school.

In contrast, subscale II (Withdrawal) was the only subscale in which no significant differences were noted by either the teacher or parents. This may have been an artifact of the WPBIC instrument itself, however. Consistent with the findings of this study about subscale II, Vanderduim (1975) found no significant differences existed between 188 regular and Junior Adaptation pupils on this subscale. This researcher attributed this lack of significance to the composition of the WPBIC itself. Of the 50 items on this instrument, only 5 measured this particular subscale, whereas between 10 and 14 items per subscale were represented on the remaining subscales. This small number of items was considered to be a source of validity weakness. Vanderduim concluded that increasing the number of items on this subscale may have had some effect on measuring withdrawal behaviors more effectively (p. 88).

Another finding concerning subscale II (Withdrawal) was that by Louttit (1957) who justified his findings by citing the very nature of withdrawal behavior as a probable cause of the weakness of this subscale. He explained that shyness, seclusiveness or withdrawal is perhaps one of the least disturbing patterns of behavior:

> Such behavior is generally not regarded as a serious behavior problem, as indicated by parent or teacher judgments of severity of behavior problems...it is of interest to note that in the cases studied by Martens and Russ (1932), 42 percent of the problem children and 52 percent on the non-problem children were found

> to be shy and bashful. This particular contrast further suggests that children who meet situations by withdrawal are not likely to be thought of as problems (p. 272).

In essence, both explanations concerning the lack of significance of subscale II scores may have had a bearing on the results of the present study.

One additional variable which had a bearing on the results of this study was the small size of the sample used. As in previous studies (DeMagistris and Imber, 1979; Beck, Roblee and Johns, 1982; Pratt, 1984, 1985), the small size of the treatment group enabled the teacher to provide the pupils with considerable amounts of individualized attention. In addition, the teacher was able to detect small behavioral changes in the subjects and to build a strong rapport between individual pupils and himself. In the case of the present study, the BMC teacher needed this individualized time to be able to apply the previously-described intervention strategies. Classroom routines and expectations were also more individualized and, therefore, more appropriate to the individual needs of the pupil. In addition, adjusting educational demands to the pupils' abilities likely lowered the level of academic frustration and, hence, the potential for problem behaviors.

Ecological Variables

Results of the Child Home Checklist (CHC) and Child Community Checklist (CCC) strongly suggested that the intervention had generalized to the subject's home and community. Each of the subject's parents reported a decline in the number of inappropriate behaviors displayed in a variety of behavioral settings, including shops and stores, church and neighbor's yards and homes. These findings are consistent with those obtained by Moos and Fuhr (1982) following a single case study investigation concerned with the inappropriate behavior of an adolescent girl. Using ecological assessment techniques similiar to those employed in the present study, these researchers were able to conceptualize environmental factors which were used to formulate relevant intervention strategies. They attributed the girl's behavioral improvements in one ecological setting to interventions made in another. In essence, both these findings and the present results provided empirical support for Swap, Prieto and Harth's (1982) position that classroom-based interventions can produce ecological changes in other behavior settings as well.

Another ecological variable that may have had a bearing on the present results was the strong support that the parents gave the BMC teacher. As a group and as individuals, they verbalized a postive attitude towards the

BMC teacher, the intervention strategies he employed and towards the BMC program itself. Consistent with this notion, Lewis (1982) found that ecological support was essential in order to maintain the personal gains made by children during treatment. This researcher observed that the parents of successful children were in more frequent contact with the program than their unsuccessful counterparts. Further, he concluded that change in the child's family and community support system were important factors influencing an ecological treatment program.

The parallel use of the intervention strategies at home by the subjects' parents may have also been a factor in the ecological outcomes of the study. During the initial ecological interview, each of the parents admitted that they very much wanted to acquire new techniques for disciplining their children, as their present approaches were largely unsuccessful. As the treatment progressed, each of the parents regularly questioned the teacher regarding the use of the strategies, in order to learn how to reapply them at home. Although not investigated in this study, the possible use of the intervention strategies at home may have had a bearing on the present results.

A final ecological variable that influenced the findings of this study was the ecological nature of the intervention itself. When asked during the Child School Checklist (CSC) interview about which strategies worked

better than others, the BMC teacher indicated that it was not possible to separate them out in this fashion. He explained that each of the intervention strategies was ecologically matched to the needs and learning style of individual pupils. The teacher stressed that having several intervention strategies to choose from also enabled him to ensure a goodness of fit between particular subjects and specific classroom situations. In this sense, the strength of the behavior plan of instruction as a whole was greater than the sum of its parts, the individual intervention strategies. Within the present study, this diversity of classroom intervention approaches was similar to the behavioral-educational orientation developed by Hewett and Taylor (1980). Originally known for designing the "engineered classroom", these researchers instructed teachers to match classroom objectives, materials and interventions to the learning and behavioral competencies of individual pupils. They referred to this approach as a procedure for orchestrating success.

Teacher and Parental Perceptions of Problem Behavior

Another factor that may have influenced the findings of this study was the relationship between teacher and parental perceptions of problem behavior. As found by Maselli, Brown and Veaco (1984) teacher perceptions of aggressive, acting-out behavior were lower overall than

parental perceptions. These researchers attributed this finding to the fact that the teacher may not have been aware of or exposed to all the specific aspects of a particular pupil's problem behavior seen by his parents. In the present investigation, this explanation may account for the fact that only the parents saw significant differences in the children's behavior on WPBIC subscales III, IV and V. Increased communication and consultation between parents and the Behavior Management Class (BMC) teacher may have increased the teacher's awareness of potential problem behaviors, resulting in a higher correlation of teacher and parental perceptions. In this sense, the short duration of the study may have also been an artifact that influenced the results of the study.

An Illustrative Case of Behavioral Change

Among the individual subjects of this study, Len's pre-/post-test reduction in problem behaviors represented a dramatic change. Both at home and at school, he displayed far fewer inappropriate behaviors following treatment than he did before. The fact that Len's parents reported that they were able to discontinue his medication further highlighted the significance of his behavioral improvements. Clearly, this case illustrated the ecological interplay of variables discussed earlier in this chapter. Mr. and Mrs. H. provided strong support and a

high degree of acceptance toward the BMC teacher and the intervention strategies used. As noted by Lewis (1982), this was an important factor in the successful maintenance of behavioral gains made during treatment. In addition, the classroom-based intervention produced behavioral changes that carried over into several behavior settings. This illustrated the ecological notion that since all elements in a child's ecosystem impact on one another, it is possible to intervene in one setting and see additional effects, both intended and unintended, in another (Willems, 1971, 1977; Apter, 1982). These changes may have been attributed to Mr. and Mrs. H.'s ability to change some elements in the home environment and to change their attitudes and expectations of their son.

C. Academic Self-Concept

As evidenced by the data collected during the CSC, CHC and CCC ecological interviews with parents and the BMC teacher, the experimental treatment did produce qualitative changes in the subjects' academic self-concept. Contrary to Hypothesis 4, however, the findings of this study did not confirm a statistically significant increase in the subjects' overall level of academic self-concept, following the 12-week classroom intervention. However, this result was consistent with the quantitative findings of several

other researchers who conducted studies in special education settings.

Lloyd (1979) found no significant changes in the self-concept of nine behaviorally disordered pupils following a twelve week social skills training program designed for disadvantaged youths. This researcher attributed these findings to the short duration of the intervention. Similarily, Mickelson (1983) determined that there was no significant increase in the self-concept of 20 learning disabled pupils following the same social skills training program used by Lloyd (1979). She attributed this result to a lack of academic success experienced by the subjects and to the negative out-of-school events experienced by some pupils.

Another finding concerning academic self-concept was reported by Soldan (1983). This researcher detected no significant difference in the academic self-concepts of slow-learning students following a one year special education intervention. In fact, data from this investigation suggested that as the length of time in special education increased, self-concept decreased. This result was attributed to artifacts of measurement and methodological problems, including investigator bias and inability to ensure authentic subject responses.

In a more recent study, Rogers and Saklofske (1985) compared the academic self-concepts of 10 learning disabled

(LD) children newly enrolled in resource room programs with 35 LD pupils with an average of 13 months experience in special programs. These researchers found no significant differences existed between the two groups on the Student's Perception of Ability Scale (SPAS). These non-significant findings were attributed to the fact that the experienced pupils may have been discouraged by slower-than-expected academic progress.

The non-significant findings of the present study may be attributed to several research variables, including measurement and definitional imprecision, the small size of the sample, the short duration of the study, as well as ecological factors, such as the out-of-school events, the use of individualized academic programs and the BMC teacher.

Measurement and Definitional Issues

As found by Soldan (1983), the non-significant findings of the present study may have been an artifact of the measurement of the academic self-concept construct. After reviewing numerous studies involving the self-concept construct, Scheirer & Kraut (1979) concluded that these investigations often fail to produce significant results or to clarify underlying theoretical processes. They cited the imprecision and ambiguity of self-concept definitions and validity and reliability of the instruments as the

major factors affecting the efficiency of measuring the self-concept construct. Similarily, Lindsey (1978) observed,

> While the importance of self-concept for educational and psychological consideration has been theoretically and empirically demonstrated, the construct itself has not been precisely and unambiguously defined with any consistency or general acceptance (p. 35).

In essence, the measurement and definitional problems surrounding the academic self-concept construct, in general, may have affected the present results.

Sample Size and Duration of the Study

Another variable that influenced the present results was the small size of the sample. Among the non-significant SPAS findings of this study, only subscale I (General Ability) approached statistical significance ($p = .0556$). As Saslow (1982) noted, however, an increased sample size would have increased the likelihood of achieving statistical significance on this subscale. To illustrate, Boersma, Chapman and Battle (1979) found significant pre-/post-test SPAS differences existed for three groups of normal achieving (NA), learning disabled (LD) and educable mentally handicapped (EMR) pupils. The sample sizes of the groups these researchers studied were notably larger than the BMC group in the present study: NA ($n = 83$), LD ($n = 50$) and EMR ($n = 18$).

The short duration of the present investigation may have also influenced the findings of the study. The significant findings reported by Boersma, Chapman and Battle (1979) followed a 12 month special education intervention. In light of the severity of the behavior problems exhibited by the subjects in the present study, a 12 week intervention period may not have been a sufficient period of time in which to significantly change their academic self-concepts.

Ecological Variables

The ecological variables which may have affected the findings of this study included out-of-school events, the individualized academic program and the BMC teacher. Negative out-of-school events experienced by the subjects, such as family disruptions and home-based social problems, may have influenced individual pupil's responses during either the pre-test or post-test administration of the Student's Perception of Ability Scale (SPAS) or both. As Camp and Bush (1981) noted, some students experience such complex and difficult lives outside school that even the most positive school experience could not provide a counterbalance. Mickelson (1983) attributed the non-significant findings of her study to a similar ecological factor.

The individualized academic program that each subject was assigned represented another ecological variable in this study. Specifically, the high success-low frustration curriculum materials given to the pupils prior to the start of the intervention period may have instilled a sensation of academic mastery in them that they had not previously had in a regular classroom setting. The relatively high pre-/post-test SPAS scores suggested that the BMC pupils may have held a positive view of their academic ability and achievement during the course of the entire study. To illustrate this notion, Boersma, Chapman and Battle (1979) reported that 83 normal achieving pupils obtained a mean full scale SPAS pre-test score of 48.42. In comparison, a group of 50 learning disabled children had a mean score of 37.34, while 18 educable mentally handicapped pupils showed a mean score of 37.11. The mean pre-test score obtained by the subjects in the present study was considerably higher, at 53.167, than any of the three groups in the Boersma, Chapman and Battle investigation. In fact, the BMC subjects appeared to be more similar to the 45 normal achieving pupils in Rogers and Saklofske's (1985) study, who obtained a mean full scale SPAS score of 52.60.

A final ecological variable that may have influenced the present results was the consistent praise and encouragement that the BMC teacher imparted to the subjects during the entire treatment period. In light of the close

and that existed between the teacher and pupils, it is possible that the subjects may have internalized the teacher's positive comments about their academic ability and efforts.

D. Locus of Control

Hypothesis 5, which postulated a statistically significant increase in the pupils' internal expectancy of control, was not confirmed. In fact, an analysis of the Nowicki-Strickland Locus of Control Scale for Children (N-S) mean gain scores showed a significant decrease in internality. However, this finding was consistent with the unexpected externality of grade four subjects reported by Nowicki & Strickland (1973) and Anderson (1976). Commenting on earlier studies with unexpected results (Katz, 1967; Nowicki & Roundtree,1971; Stephens, 1973), Lefcourt (1982) noted that relationships between various measures of locus of control and academic behaviors are often riddled with inconsistent results (p. 87). The non-significant findings of the present study may be attributed to several research variables and artifacts, including small sample size and severe behavioral characteristics and the short duration of the study.

Sample Size and Characteristics

The small sample size may have greatly influenced the results of this study. As previously indicated by Saslow (1982) a small sample tends to reduce the likelihood of the achievement of statistical significance and reduces the ability to detect anything but extremely large independent variable effects.

The subjects' inability to accept attributions for their own behaviors may also have been an artifact of the sample that affected the present results. After reviewing data obtained from the ecological interviews with the parents, it became evident that they attributed a great deal of their success to the BMC teacher. They spoke at great length about the efficiency of the intervention strategies that the teacher used in the classroom and the corresponding effect that such interventions had on their children's academic and social behavior. Similarily, both raters observed the pupils in the classroom and expressed the view that they would have a difficult time coping in school if their teacher were not with them. In a very real sense, the hero worship of the students became an unplanned psychological role of the teacher (Charles, 1981, pp. 36-37). In fact, this pupil-teacher bonding was interpreted by the teacher as a kind of unwanted dependency. He indicated that it was critical for the

pupils to accept responsibility for both their own failures and successes. Their apparent unwillingness or inability to accept personal attributions certainly influenced the non-significant N-S findings of this study. Perhaps at the end of twelve weeks, the pupils were not yet able to make this behavioral leap.

Duration of the Study and Severity of Problem Behaviors

The results of the present study were contrary to the findings obtained by Williams, Omizo and Abrams (1984) and Autry and Langenbach (1985). Williams, Omizo and Abrams reported significant pre-/post-test differences in 19 learning disabled children following a nine week educational intervention administered to their parents. Similarily, Autry and Langenbach found significant pre-/post-test differences in locus of control attributions in three experimental groups. Forty regular elementary classroom children, who were reported to exhibit varying degrees of disruptive behavior by their teachers, constituted the sample. The subjects received three different self and external regulation treatments during a intervention period that lasted 56 days. However, in view of the relative severity of behavioral problems in the present study, the intervention period may have been too short a time to effect changes in their locus of control orientations.

Measurement and Instructional Factors

Locus of control scales, like many other personality instruments, have suffered from measurement and definitional difficulties and confusions. One particular measurement variable, the influence of the teacher, likely had an influence on the non-significant findings of this investigation. Lefcourt (1982) acknowledged that locus of control scores can shift with relevant environmental events, such as exposure to a particular event or individual (p. 153). Certainly, a teacher who was perceived as a catalyst for several positive behavioral and academic changes could conceivably be regarded in this manner. Exposure to the BMC teacher may have caused the subjects to attribute their behavioral and academic successes to the teacher rather than themselves.

The non-significant N-S findings of this study may also be an artifact of the instruction provided to the subjects. Recent research by Rogers and Saklofske (1985) indicated that learning disabled children with external locus of control orientations and high academic self-concepts were more successful in their academic programs than children with internal orientations and low academic self-concepts. These researchers noted that the positive relationship between externality and success contradicted logical expectations based on previous research with normal achievers (Gilmore, 1978; Stipek &

Weisz, 1981). They cited the nature of the instruction in a special education classroom as a possible explanation for the subjects' unexpected externality. Specifically, they adopted Lawrence and Winschel's (1975) contention that the overzealous use of praise found in some special classrooms tends to promote externality and is incompatable with the internalized responsibility required in regular classrooms. In essence, it appeared that the artifact of instruction may have accounted for the unexpected externality of the subjects' N-S mean gain scores in the present study.

E. Theoretical Implications

The results of the present study provided empirical support for several of the underlying assumptions of the ecological model and the interaction between a child and various environments. Data collected from the ecological interviews and WPBIC confirmed that the behavior of an individual child varies from one behavior setting to another. Some of the behaviors that parents identified as major problems at home or in the community were clearly not exhibited in the school setting. Conversely, behaviors which were deemed inappropriate in the classroom, such as reading silently instead of completing a written assignment, were, in fact, welcomed at home.

The use of both psychoeducational and teleoanalytic intervention strategies in this investigation lent support

to the ecological view that interventions can be eclectic. Behavioral observations in the classroom confirmed that although pupils sometimes exhibited similar inappropriate behaviors, these behaviors often had different origins and, therefore, demanded different types of interventions. For instance, the BMC dealt with the physically aggressive behavior of a previously-abused child quite differently than that of other pupils.

Generally, this study upheld the ecological assumption that a multidisciplinary team of mental health professionals can provide a series of interrelated interventions to benefit a particular child. In Len's case, for instance, a community psychiatrist continued to prescribe medication and therapy, while the BMC teacher provided the classroom intervention. Concurrently, a family counselor was working with Mr. and Mrs. H. to promote growth and competence in members of Len's home ecosystem. The goal of these latter sessions paralleled another ecological premise, namely, that of benefitting not just the target child, but parents and other siblings, as well.

Finally, since all elements in a child's ecosystem impact on one another, it was possible to intervene in the classroom and see additional effects, both intended and unintended. The fact that the parents reported an change in the children's home and community behavior as a result

of the intervention at school, underscores the validity of this assumption. It also tends to support the ecological model as a viable basis for conceptualizing and practicing behavior therapy.

F. Research Implications

Implications for future research were also apparent from the results of this study. As noted by Curran and Algozzine (1980) and McDowell (1982), there is a great need for more ecological research, particularily in classrooms designed for behavior disordered children. Further study is required to test the critical ecological assumptions that a better "fit" between teacher and pupil can reduce the number of disturbances in classrooms. In addition, a closer examination of the whole area of ecological assessment procedures is needed in order to detect the effects of classroom interventions on the child's behavior in other behavioral settings. As recommended by Mace (1984), use of the Child Behavior Checklist (CBC: Achenbach & Edelbrock, 1978) could be of considerable benefit in such an investigation. Alternately, use of the Behavior Rating Profile (BRP: Brown and Hamill, 1983) could facilitate an ecological approach to behavioral assessment. This instrument includes measures of the student's home, school and peer group behavior. It also includes a parent rating scale and a classroom sociogram, all designed to assess

behavioral interactions and dysfunctions. Very little research has been done using the BRP.

Although some measure of support for the specific group of intervention strategies used in this study was present, it was difficult to generalize these results to other populations given the small number of subjects used and the absence of a control group. Additional research is needed to investigate claims that Redl's behavior management techniques are, in fact, effective with behavior disordered children. Additional investigations with behavior disordered children using alternate research designs could also be of considerable benefit. For instance, the inclusion of a special program control group or a residential treatment control group may yield both interesting and valuable results. Similarily, multiple baseline designs that have been commonly used in clinical settings could be used as alternative means of detecting intervention effects.

More qualitative research using the case study approach, in particular, could lend further support to the ecological perspective on behavior disorders. An in-depth assessment of the effects of classroom interventions on siblings of behavior disordered children would be well-suited to a qualitative, case study approach. This type of research may also be useful in determining the long

term effects of a one year special class placement on the problem behavior of behavior disordered pupils.

Further research with behavior disordered children is also needed to address dimensions of behavior that Mace (1984) stated were ignored by the WPBIC, such as frequency, duration and celeration. Frequency refers to the number of times per day or per week that a particular behavior, such as temper tantrums, occurred. Duration, a measure of severity of the behavior, indicates how long the temper tantrum lasted. Celeration describes whether the temper tantrums were getting better, worse or about the same. In the present study, data from the WPBIC indicated only the occurrence or non-occurrence of a particular problem behavior. While this type of data provided some indication of the direction of a pupil's behavior, it did not present a full description. For instance, a particular pupil may be regarded as having become more disruptive in a classroom by a teacher, despite a notable reduction in the sheer number of problem behaviors he exhibited. An increase in the frequency and duration of a single behavior, such as physical attacks on the teacher, could account for the teacher's judgement.

Another research implication emanating from this investigation is the need for more reliable and valid instruments to measure the locus of control construct. As noted by Anderson (1976), theoretical problems are inherent

in most locus of control scales, the N-S included. One major problem noted to date is that they tend to be unidimensional, based on Rotter's theory that locus of control is a generalized expectancy which holds for a variety of situations. However, it is possible that children may not have a control expectancy which holds for all possible academic and non-academic situations. A second problem of these scales deals with item content. For instance, some N-S items are contaminated by an "expectancy of success" element, such as: "I feel I can succeed if I try hard enough". This theoretical contamination, plus the considerable homogeneity of the items as indicated by the Kuder-Richardson correlation coefficients, can make data interpretation difficult (p.75). Unfortunately, it is not always clear whether the reason behind an unsupported hypothesis is the expectancy theory or the poor reliability of the instrument. The development of a multidimensional locus of control instrument, based on additional empirical research, could be of considerable benefit to professionals using affective variables as part of behavioral screening or assessment process.

Further investigation into the use of the SPAS instrument with behavior disordered children is also needed. In particular, development of a set of specific norms for this population could be of considerable benefit.

G. Practical Implications

The current investigation dealt with an educational intervention designed primarily to reduce the number of problem behaviors exhibited by six behavior disordered children. Several practical implications for behavior disordered pupils, their parents, special program teachers and administrators were apparent following this investigation. A description of the implications for each of these individuals follows.

Behavior Disordered Pupils

Generally, the intervention used had a positive effect in modifying the behaviors of the pupils who took part in this study. The ecological perspective used in this investigation had a definite implication towards the manner in which children's behavior disorders are conceptualized and defined. The present findings confirmed the ecological assumption that behavioral disturbances did not reside exclusively with the child. The intervention procedures used in the BMC classroom were designed to alter faulty interactions between the child and a particular environment, such as the classroom. This approach had a profound effect on the perceptions that the BMC subjects had of their own behavior. Prior to the intervention, they attributed their problem behavior to personal

characteristics, such as mental illness and a lack of moral goodness. They expressed an extremely pessimistic view of their ability to change their behavior enough to be able to rejoin their regular classroom peers. In contrast, they tended to view certain behaviors as being inappropriate for certain behavioral settings following treatment. As described by their parents and teacher, they also expressed a greater sense of optimism towards the improvement of their behavior.

Parents of Behavior Disordered Children

One major implication of this study for the parents of behavior disordered children concerned the level of support and acceptance that they exhibited towards the BMC teacher and program. The present findings, coupled with those of Lewis (1982), indicated that parents of the most successful children not only communicated more frequently with the teacher, but the quality of the communication was more supportive and optimistic. The positive attributions that the parents made toward the teacher and program in this study had a similar ecological effect on the subjects of the study. As evidenced by teacher and parental reports, the pupils became notably more positive towards their own progress and improvements. The intervention used seem to have had a positive effect on parents, as well.

Another practical implication arising from this investigation centered around the use of the intervention strategies in other behavioral settings, such as the home. Certainly, the interest and approval shown towards these strategies by the parents raised the possibility that they could be used as part of a parent study component of the BMC program. In the case of the teleoanalytic strategies, the precedent of imparting these techniques to parents has been well-established, as Adlerian guidance clinics for parents have existed for decades. Providing a consistent disciplinary approach between home and school was of considerable benefit to behavior disordered and regular classroom children alike. Parents tend to benefit from an effective intervention program directed at their behavior disordered children, even in a twelve week intervention period.

Teachers and Administrators of Behavior Disordered Programs

One practical implication for teachers arising from this study involved the apparent efficacy of the intervention strategies employed for the purposes of this study. From a pedagogical standpoint, the implementation of these strategies required very little inservice preparation of administrative supervision. The BMC teacher appreciated the "hands-on" nature of the techniques, as well as their applicability to both regular and special

education pupils. In view of the findings of the present study, it also appeared that considerable teaching experience was not a prerequisite for the successful use of these strategies.

This study also provided evidence that the design of the classroom, including the ratio of six pupils to one teacher assisted by an aide, was an effective arrangement. The BMC teacher also indicated that having the classroom situated within a regular elementary school was very useful. It enabled the behavior disordered pupils to interact with their regular classroom peers and to be reintegrated into some classes taught by other elementary teachers. Further, it afforded the BMC teacher an opportunity to have contact with other teachers, in order to exchange materials, strategies and ideas. It also provided the pupils with an opportunity to apply their newly acquired behavioral skills.

On a more general level, the results of this investigation suggested that at least some behavior disordered children can be managed within a special classroom setting. Following Alberta Education's Special Services Provisions (1983) and Public Law 94-142 in the United States, it appeared that a self-contained classroom within a regular school was a viable means of providing the least restrictive environment for these particular behavior disordered pupils. Attending the BMC program while

continuing to live at home was certainly less disruptive to the child's home ecosystem than a residential treatment program would be. From a monetary standpoint, the experimental arrangement was less costly both socially and financially when compared with the alternative of institutionalization.

Summary

In conclusion, this investigation demonstrated that the use of eclectic interventions within an ecological model of behavior disorders could be of benefit to behavior disordered children, their parents and teachers. Furthermore, it provided evidence of the ecological effects of a classroom-based intervention of children's behavior in other settings, such as the home and community. Lastly, the results of this study emphasized the importance of synomorphy, the fit of an individual's behavior to a particular behavior setting and, relatedly, the careful use of specific intervention strategies with individual pupils.

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APPENDIX A
DSM - III
Diagnostic Criteria
For Labelling Children's
Behavior Problems

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Diagnostic Criteria
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Axis I — Clinical Psychiatric Syndrome(s) and Other Conditions (includes the following major categories):

- Disorders usually arising in childhood or adolescence (except specific developmental disorders)
- Organic mental disorders
- Substance use disorders
- Schizophrenic disorders
- Paranoid disorders
- Psychotic disorders not classified elsewhere
- Affective disorders
- Anxiety disorders
- Somatoform disorders
- Dissociative disorders
- Psychosexual disorders
- Factitious disorders
- Disorders of impulse control not classified elsewhere
- Adjustment disorders
- Psychological factors affecting physical condition
- Conditions not attributable to a mental disorder

Axis II — Personality Disorders (adults) and Specific Developmental Disorders (children and adolescents)

- Developmental reading disorder
- Developmental arithmetic disorder
- Developmental language disorder
- Developmental articulation disorder
- Mixed specific developmental disorder
- Atypical specific developmental disorder

Axis III — Physical Disorders

Used to indicate any physical problem that may be relevant to the understanding or management of the client. The classification system used is the latest

revision of the International Statistical Classification of Diseases (1978).

Axis IV Severity of Psychsocial Stressors

Used to indicate specific psychosocial stressors that are judged to be contributing to the child's problem; in addition, a rating of the severity of the stressor(s) is made using the following guidelines:

Code	Term	Child or Adolescent Examples
1	None	No apparent psychosocial stressor
2	Minimal	Vacation with family
3	Mild	Change in school teacher, new school year
4	Moderate	Parental fighting, change in school, illness of close relative, birth of sibling
5	Severe	Death of peer, divorce of parents, arrest
6	Extreme	Death of parent or sibling
7	Catastropic	Multiple family deaths

Axis V Highest Level of Adaptive Functioning Past Year

Used to describe the child's highest level of adaptive functioning in the past year as reflected by a composite of social relations, occupational functioning and use of leisure time (a 6-point scale ranging from superior to grossly impaired).

Diagnostic Criteria For Attention Deficit Disorder

The child displays, for his or her mental and chronological age, signs of developmentally inappropriate inattention, impulsivity, and hyperactivity. The signs must be reported by adults in the child's environment, such as parents and teachers. Because the symptoms are typically variable, they may not be observed directly by the clinician. When the reports of teachers and parents conflict, primary consideration should be given to the teacher's reports because of greater familiarity with age-appropriate norms. Symptoms typically worsenk in situations that require self-application, as in the classroom. Signs of the disorder may be absent when the child is in a new or a one-to-one situation.

The number of symptoms specified is for children between the ages of 8 and 10, the peak age range for referral. In younger children, the more severe forms of the symptoms and a greater number of symptoms are usually present. The opposite is true of older children.

1. Inattention (at least three of the following):

    a. Often fails to finish things he or she starts
    b. Often seems not to listen
    c. Is easily distracted
    d. Has difficulty concentrating on schoolwork or other tasks requiring sustained attention
    e. Has difficulty sticking to a play activity

2. Impulsivity (at least three of the following):

    a. Often acts before thinking
    b. Shifts excessively from one activity to another
    c. Has difficulty organizing work (this not being due to cognitive impairment)
    d. Needs a lot of supervision
    e. Frequently calls out in class
    f. Has difficulty awaiting turn in games or group situation

3. Hyperactivity (at least two of the following):

    a. Runs about or climbs on things excessively
    b. Has difficulty sitting still or fidgets excessively
    c. Has difficulty staying seated
    d. Moves about excessively during sleep
    e. Is always "on the go" or acts as if "driven by a motor"

4. Onset before age of 7

5. Duration of at least six months

6. Not due to schizphrenia, affective disorder, or a severe or profound mental retardation

Source: American Psychiatric Association, Diagnostic and statistical manual of mental disorders, 3rd ed. (Washington, D.C.: American Psychiatric Association, 1980), pp. 43-44.

Appendix B

Presenting Behaviors of Behavior Disordered Children

Appendix B

Presenting Behaviors of Behavior Disordered Children

Children with behavior disorders are those who chronically and markedly respond to their environment in ways that deviate significantly from age-appropriate expectations and significantly interfere with their own learning and/or that of others. Such children demonstrate more than one of the following characteristics:

a) severe inability to establish or maintain effective relationships with peers or adults, e.g. repeated conflict, inability to participate in group activities, antisocial behavior, resentfulness and defiance;

b) frequent demonstrates of inappropriate behavior or feelings under ordinary conditions, e.g. timid, withdrawn, excessive attention-seeking, emotionally unresponsive;

c) a generally pervasive mood of unhappiness or depression;

d) severe difficulty in facing reality, e.g. excessive use of fantasy;

e) very poor self-concept, e.g. strong feelings of inferiority;

f) frequently demonstrates a tendency to develop physical symptoms or fears associated with personal or school problems;

g) severe difficulty in coping with the learning situation in spite of appropriate educational remedial measures, e.g. needs an unusual amount of urging, is inattentive and indifferent (Alberta Education, p. 14).

In essence, behavior disorders must be seen as a continuum. All children exhibit maladaptive behavior in some places. At one end of the continuum are pupils who exhibit such behaviors infrequently, for relatively short periods of time, or in relatively few settings, or to a moderate degree. At the other end of the continuum are a much smaller number of children who exhibit behavior disorders for extended periods of time, in all settings, and to an extreme degree.

Appendix C

Behavior Management Class (BMC) Program

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Behavior Management Class (BMC) Program

Program Description

The BMC program is located at Mount Carmel School, in South Edmonton. The class is taught by a male teacher, who is assisted by a full-time female aide. The teacher has a proven ability to work on both an individual and small group basis with children who frequently exhibit disruptive behavior. Both a psychologist and a behavior management resource counsellor (BMRC) provide weekly service in the areas of observational assessment and direct consultation. They also coordinate the monthly parent support group activities that are viewed as a vital component of the program. A community-based psychiatrist is also retained on a consultative basis.

Upon entry into the program, an Individualized Behavior Plan (IBP) ils prepared for each child. This document focuses on specific behavioral objectives and remedial techniques to be worked on within the school context. Evaluation and revision of the IBP is done every three months.

Placement Procedures

A child identified at the school level as being behavior disordered is referred to a behavior management resource counsellor. If, after all remedial resources have been exhausted, the problem continues or, in fact, accelerates, procedures are initiated to refer the child to the BMC program. The following data is then obtained:

1. Comprehensive report from the BMRC,
2. Complete medical examination and report from an Edmonton Board of Health pediatrician,
3. Complete psychiatric examination and report,
4. Psychological and achievement testing,
5. School history, including reports from the administrator and classroom teacher outlining specific presenting problems and behavioral interventions,
6. Full academic report, including strengths and weaknesses and,
7. Written essay from the child's parents describing both their concerns and the efforts they have made in an attempt to remediate their child's problem behavior.

Each case is evaluated by an admissions panel, taking into account the above-mentioned information. The six elementary children judged to be the most severely behavior disordered are then selected for placement in the BMC program. All children are prescreened in order to ensure that they possess average to above average intelligence.

Program Objectives

Following is a list of objectives under which the BMC program functions:

1. To provide an educational service to behavior disordered children as close to their home community as possible, in the least restricted setting in which the children can function.

2. To have as a primary focus, development of adequate and appropriate behavior patterns that will equip the child to function in society at large.

3. To ensure that academic skills will be approached in keeping with each child's ability and achievement level.

4. To provide parents with the opportunity to become closely involved with the rehabilitative process through learning better parenting skills and ways of reinforcing classroom-based behavior changes.

5. To assure that techniques for enhancing self-concept are implimented throughout the program.

6. To have the teacher maximize successful experiences foir these discouraged children.

7. To delimit clearly for each pupil what appropriate behaviors are and to help them strive for responsibility.

8. To provide integration with regular classroom children to the greatest extent possible, based on the needs and the progress of the individual pupil.

9. To emphasize the concept of mutual respect as a central theme of the program.