COUNSELLING CHILDREN WITH BEHAVIOR PROBLEMS IN A SPECIALIZED SOCIAL LEARNING CLASSROOM

By

CAROLINE ANN WESTWOOD

B.Sc., B.Ed. University of Lethbridge, 1986 A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS

in

THE FACULTY OF GRADUATE STUDIES

(Department of Counselling Psychology)

We accept this thesis as conforming to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

December 1990

© Caroline Ann Westwood, 1990

In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the head of my department or by his or her representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of <u>COUNSELLING PSychology</u>

The University of British Columbia Vancouver, Canada

Date December 22, 1990

ABSTRACT

In order to measure counselling effectiveness on three male primary school-aged children with behavior problems, an interrupted timeseries analysis was done on each child's daily classroom behavior scores for a time period of three months. Three experimental subjects received 20 bi-weekly individual counselling sessions, while three primary-aged control male subjects (ages 7 and 8) from the same social learning classroom received no counselling intervention. The experimental subjects showed significant gradual increases in daily behavior point scores. This result indicated they made significant gains in displaying more appropriate school behaviors while the control subjects did not. Pre and post scores on the Piers-Harris Children's Self-Concept Scale (1969) and the Joseph Pre-School and Primary Self-Concept Screening Test (1979) indicated that the experimental subjects' self-concept scores decreased after three months of counselling; while the control subjects' self-concept scores slightly increased. Explanations for these results are discussed.

TABLE OF CONTENTS

Chamber I	Page
Introduction	1
Chapter II Literature Review of Children with Behavior Problems	13
Chapter III Literature Review of the Self-Concept of a Child with Behvior Problems	46
Chapter IV Literature Review of Play Therapy As Treatment For Children with Behavior Problems	60
Chapter V Methodology	79
Chapter VI Results	88
Chapter VII Discussion and Conclusions	93
References	106
Appendix A: Social Learning Program Rules For Behavior Points	124
Appendix B: Letters of Consent	127
Appendix C: Time-Series Analysis Methodology	132
Appendix D: Time-Series Analysis Applied to Subject A's Time-Series	142
Appendix E: Standardized Tests	146
Appendix F: Graphs of Time-Series Results	155

.

.

LIST OF TABLES

	Page
Raw Scores for General Self-Concept and Subscales on the Piers Harris Children's Self-Concept Scale March 30 and June 26, 1990.	92
Table II Raw Scores for General Self-Concept Classification on the Joseph Pre-School and Primary Self-Concept Screening Test	93
Table III Criteria for Modelling a Time-series and Intervention Effects on Experimental Subject A	143

	Page
Graph 1 Time-Series (T1) For Experimental Subject A	153
Graph 2 Time-Series (T2) For Experimental Subject A	154
Graph 3 Time-Series (T3) For Experimental Subject A	155
Graph 4 Time-Series (T1) For Experimental Subject B	156
Graph 5 Time-Series (T2) For Experimental Subject B	157
Graph 6 Time-Series (T3) For Experimental Subject B	158
Graph 7 Time-Series (T1) For Experimental Subject C	159
Graph 8 Time-Series (T2) For Experimental Subject C	160
Graph 9 Time-Series (T3) For Experimental Subject C	161
Graph 10 Time-Series (T1) For Experimental Subject X	162
Graph 11 Time-Series (T2) For Experimental Subject X	163
Graph 12 Time-Series (T3) For Experimental Subject X	164
Graph 13 Time-Series (T1) For Experimental Subject Y	165
Graph 14 Time-Series (T2) For Experimental Subject Y	166

	Page
Graph 15 Time-Series (T3) For Experimental Subject Y	167
Graph 16 Time-Series (T1) For Experimental Subject Z	168
Graph 17 Time-Series (T2) For Experimental Subject Z	169
Graph 18 Time-Series (T3) For Experimental Subject Z	170

.

CHAPTER I: INTRODUCTION

Background to the Problem

Children who do not learn in regular classroom settings because of their maladaptive social behavior are often segregated and placed into self-contained special education settings. These children may be intellectually and physically above average, but are either unable or not willing to adapt to the social behavior required for regular classroom learning. Coleman (1986) states that prevalence estimates for such children vary widely, but that many researchers believe that approximately 2% of school-aged children are severely behavior disordered, with another 7-10% with behavior severe enough to warrant attention for remediation.

In British Columbia, the number of children in the category of severe behavior problems was 0.8% during the 1983/84 school year (Csapo, 1985). When children are assessed as behavior disordered and placed in a classroom with other behavior problem students, special educators often employ behavior modification techniques in order to help the child learn more socially appropriate behaviors.

Behavior modification has been reported to be one of the most successful and quick methods of trying to modify problem behavior (Fisher, Burd, Kuna, & Berg, 1985; Ross & Ross, 1982); but its effects have also been cited as short lived (Griest & Wells, 1983).

Although behavior modification techniques can teach a child how to behave more appropriately at school they do not deal with the reasons behind the child's misbehavior (Nystrul, 1986). Even after new adaptive behaviors are learned and full integration back into the regular classroom occurs, old maladaptive behaviors can resurface when the structured reinforcement schedule is removed (Van Hasselt, Griest, Kazdin, Esveldt-Dawson, & Unis, 1984). Unless the new behaviors can be reinforced continually, the behavioral model falls short of meeting the needs of children with behavior problems.

The cognitive-behavioral approach often utilized in social learning classrooms adds a verbal explanation for each reward earned or taken away. The assumption being that once a child learns which behaviors are appropriate and can explain why they are more functional, they will then choose them more often in order to gain rewards. The rewards in this approach are still mostly external to the child (McCarney, 1985). This model does not explain internal rewards such as feelings of acceptance, love, and respect and is still largely dependent on antecedents and consequences.

In order to help a child foster his or her positive feelings of selfworth, counselling may be beneficial in helping the child with behavior problems discover some of his or her positive inner strengths (Friesen & Der, 1984).

The effectiveness of counselling students who have less severe behavior problems (who are still in regular classrooms) has yielded conflicting results. Marchant (1972) and Whitely and Sulzer (1970) found significant behavioral changes in students receiving counselling

while others (Mayer, Branzier, & Matthes, 1967) found no significant changes in behavior between students receiving counselling and those not receiving counselling. Cant and Spackman (1985) found that regular 10 year olds who received 20 minute group counselling meetings twice weekly for three months showed greater gain scores in self-esteem and reading levels. Friesen and Der (1984) found significant differences between three counselling models used with regular classroom children identified with learning or behavior problems. After 5 months of counselling student reading scores improved significantly in comparison to control group reading scores. Friesen and Der (1984) also found that counselling teachers, parents and students was the most effective model utilized. It produced more cooperative relationships between these parties than the parent, teacher or student models of counselling implemented.

Maynard, Warner, and Lazzaro (1969) utilized group counselling with verbal reinforcement and client-centered approach to improve the behavior of emotionally disturbed students.

Other researchers of elementary school counselling have found that promising behavior change results from reinforcement programs (Hosford & Bowles, 1974) from behavior contracts (Thompson, Prater & Poppen, 1974) and from various group counselling and group guidance approaches (Omizo, Hershberger, & Omizo, 1988; Cant & Sparkmen, 1985). Downing (1977) found that group counselling designed to

modify the behavior of sixth-grade children had the additional benefit of significantly improving achievenent.

Although research on counselling children with behavior problems is sparse and inconclusive, the U.S. Office of Education states that approximately 2% of school-aged children do have severe behavior problems. Others, such as Kauffman (1985) find this figure to be conservative.

Csapo's (1985) survey indicated that in the province of British Columbia a considerable number of behavior problem children especially at the elementary level, receive no effective intervention.

To date, this author has not found any studies that have examined individual counselling effectiveness on elementary behavior problem students who have been segregated into special social learning classrooms.

Statement of the Problem

The purpose of this investigation was to examine whether or not individual counselling in addition to a social learning program resulted in changes in a child's or self-concept and/or school behaviors as measured by: the Piers Harris Children's Self-Concept Scale (1969); the Joseph Pre-School and Primary Self-Concept Screening Test (1979); and the daily behavior points totals earned by each student in the social learning classroom.

<u>Subproblems</u>

- Do children with behavior problems typically have a low selfconcept?
- 2. Does a more positive self-concept lead to more positive school behavior?
- 3. Is counselling related to the enhancement of self-concept and school behaviors of children with behavior problems?

Definitions

Children With Behavior Problems

In British Columbia 48% of school districts do not have formulated criteria for defining and identifying students with behavior problems (Csapo, 1985). The others (52%) use the Ministry of education's criteria which is a provincial funding category for children with behavior problems in B.C. Because this study incorporates behavior problem children in B.C., the following definition was utilized for the purpose of this study.

Severe Behavior Problems

Definition. Students with severe behavior problems are those who exhibit a variety of excessive and chronic deviant behaviors, ranging from impulsive and aggressive to depressive, withdrawal behaviors which seriously interfere with the student's own learning and/or the learning of classmates.

These students frequently exhibit a significant discrepancy between academic performance and potential.

The Ministry of education recognizes the population of students with severe behavior problems as pertaining to less than 1% of the school-aged population. In order to qualify for ministry special education funding under Section 3 of the financial management system, students with severe behavioral problems must be receiving specialized educational services related to their problem.

(Csapo, 1985, p. 31)

Self-Concept

There is much confusion over the terms self-concept and selfesteem in the literature. While the two have been used interchangeably for many years (Shavelson, Hubner, & Stanton, 1976) they actually represent two distinct dimensions of self-perceptions (Beane, 1986).

Beane (1986) refers to self-concept as the description an individual attaches to himself or herself. The self-concept is based on the roles one plays and the attributes one believes he or she possesses. Each of these items is descriptive and whether or not an item is actually true or false, it is perceived to be true by the individual and therefore is part of the personal self-concept.

For the purposes of this study, this writer has chosen Piers' (1984) definition to operationally measure self-concept.

Self-concept is a relatively stable set of self attitudes reflecting both a description and an evaluation of one's own behavior and attributes.

(Piers, 1984, p. 1)

Self-Esteem

Self-esteem, on the other hand, refers to the evaluation one makes of the self-concept description, and more specifically, to the degree to which one is satisfied or dissatisfied with it, in whole or in part (Beane & Lipka, 1986).

Self-esteem involves the individual's sense of self-worth or selfregard manifested in feelings such as "I am happy with myself" or "I don't like myself" (Beane & Lipka, 1986, p. 6).

For the purpose of this study this author has chosen to adopt Battle's (1981) definition.

Self-esteem refers to the perception the individual possesses of his or her own worth. An individual's perception of self develops gradually and becomes more differentiated as he or she matures and interacts with significant others.

(Battle, 1981, p. 14)

School Behaviors

Various school behaviors were monitored to see whether counselling in addition to a social learning program facilitated behavioral changes in primary students with behavior problems. The following behaviors earned (or lost) points in the social learning classroom where the teacher utilized a cognitive-behavior modification approach (token economy coupled with verbal reinforcement) of instruction:

- 1. Using manners (Temper tantrums, being rude)
- 2. Staying on task (off task)
- 3. Being a friend (teasing)

- 4. Following instructions (arguing)
- 5. Minding own business (intruding into someone else's business) (See Appendix A)

Counselling

The theoretical orientation of counselling employed in this study was based on an Egan's (1975) model with interventions from Adlerian psychology (Driekurs, Grunwald, & Pepper, 1971). Three major stages were used in the counselling process: exploration, understanding and action (Friesen & Der, 1984).

The exploration stage was directed toward building a relationship with the clients. It included verbal and non verbal expressions, such as painting, drawing and play, with the goal being to facilitate client exploration.

The understanding stage involved assisting the clients to better understand their perceptions of themselves, significant others and their perceptions of their problems.

The action phase involved assisting the clients in devising a plan of action to resolve their problems. Both the client and the counsellor considered various plans the client could act upon (Friesen & Der, 1984).

Parents and teachers were also involved in the counselling process in either group or individual conferences. By talking to parents and teachers, the counsellor had an opportunity to learn about the expectations and values held by both the family and school, and hence, what the child's environment was like. Consultations were held at the convenience and interest of parents and teachers.

Due to the availability and access of only one primary social learning class in a suburban school district, subjects aged 6 - 8 were all come from the same classroom. Because the investigator had access to the counselling room only two half-days per week, only three students were able to receive individual counselling sessions. A recommendation for the other students to receive counselling followed the investigation. Because the investigator did not have the funds to hire the services of another counsellor, the investigator also acted as counsellor. However, behaviors were recorded by the teacher and teacher aide. The resident school counsellor who administrated the standardized tests utilized in order to avoid investigator bias.

Assumptions

Findings reported by a number of investigators indicate that selfconcept is related to behavior (Battle, 1981). Several authors have written books on how to enhance a child's self-esteem and achievement (Battle, 1981; Samuels, 1977; Beane and Lipka, 1986). However, few studies have been done relating counselling effects to a child's self-concept (Cant and Spackman, 1985) or problem behavior (Friesen and Der, 1984). This may be due in part to the only recent development of school programs for students with behavior problems (Csapo, 1985). In this study this investigator assumes there is a

relationship between self-concept and the behaviors of primary behaviored problem students.

Hypotheses and Rationale

The literature on counselling effectiveness at the elementary level is in its infancy. Some researchers have found that a consultative model of counselling students, parents and teachers has produced more positive student behavior (Cant & Spackman, 1985; Whitley & Sulzer, 1970; Dinkmeyer & Carlson, 1973; Dreikurs, Grunwald & Pepper, 1971; Marchant, 1972). McCarney (1985) states that through careful study of student values, counsellors can gain insight into how to approach teaching the appropriate behavior that is expected at school. Through behavioral ratings of students, by teachers and other personnel, counsellors can target behavioral patterns for goals, specific behaviors for objectives, and consider the form that behaviors take to determine interventions for improvement in the educational environment (McCarney, 1985). McCarney even claims that the counsellor is "the variable in the educational environment are in the best position to help the student learn responsibility for his or her behavior" (McCarney, 1987, p. 33).

Lipka, Beane, and Ludewig (1980) interviewed middle graders (grades 4 - 6) and found that the character of teachers, the nature of learning activities and the social nature of peers seem to be particularly related to positive self-esteem. Beane and Lipka (1986) reviewed

hundreds of studies and found a persistent relationship has been demonstrated between self-concept and self-esteem and several school related variables. For example:

"...learners with clear self-concepts and positive self-esteem tend to participate more, have higher school completion rates, exhibit more prosocial behavior, and demonstrate greater academic achievement than do peers with unclear or negative selfperceptions."

(Beane & Lipka, 1986, p. 190)

The above citations suggest there is a relationship between counselling and more positive school behavior, and that behavior is related to selfconcept.

However, no studies to this investigator's knowledge have compared the relationship between counselling and the segregated student's self-concept, and school behaviors. In order to evaluate counselling effectiveness with such students, the following hypothesis was tested:

- Primary behavior problem students who receive 20 counselling sessions will show no significant improvement in their school behavior point scores as measured by the behavior point system in Appendix A, in comparison to similar students who receive no counselling.
- 2. Primary students with behavior problems who receive 20 individual counselling sessions will show no significant improvement in self-concept scores on the Piers-Harris

Children's Self-Concept Scale (1969) the Joseph Pre-School and Primary Self-Concept Screening Test (1979).

Significance

The significance of this study is two-fold:

- 1. To extend current theory and knowledge about primary students who have behavior problems.
- To examine whether counselling in addition to social learning program enhances more appropriate school behaviors in primary students who have behavior problems.

CHAPTER II: LITERATURE REVIEW OF CHILDREN WITH BEHAVIOR PROBLEMS

The field of behavioral disorders and emotional disturbance possesses little consensus in its definition of the phenomenon (Balow, 1979; Bower, 1982; Forness, Sinclair & Russell, 1984). The absence of an agreed upon definition has been noted in surveys of legislative and administrative definitions and reveal wide discrepancy in form and content (Kavale, Forness & Alper, 1986).

The definition most widely used in the United States is provided by Public Law 94:142, The Education of the Handicapped Act, and is often used for funding purposes. The term serious emotional disturbance (SED) means:

a condition exhibiting one or more of the following characteristics over a long period of time or to a marked degree which adversely affects school performance: (a) an inability to learn which cannot be explained by intellectual, sensory, or health factors; (b) an inability to build or maintain satisfactory relationships with peers and teachers; (c) inappropriate types of behavior or feelings under normal circumstances; (d) a general pervasive mood of unhappiness or depression; or (e) a tendency to develop physical symptoms of fears associated with personal or school problems.

(Bower, 1959, p. 12)

Most professionals in special education consider both the term SED itself and its definition not only problematic but also a primary source of difficulty both in underidentification and state to state variations in school prevalence. Research reviewed over the past few years demonstrates that these five criteria bear little or no relationship to the types of emotional disturbance found in school-aged children, and do not relate to types of disorders in the diagnostic nomenclature now used by most mental health professionals (Forness & Kavale, 1989).

Recent studies have also demonstrated that one of the largest subgroups of children with emotional or psychiatric disorders are likely to have been diagnosed as having conduct disorders, a disturbance not only in need of treatment itself but also having symptomatic components commonly seen in association with childhood depression and schizophrenia or as early indications of these two disorders (Forness & Kavale, 1989). Special education professionals have therefore increasingly viewed the term "behavior disorders" as a more reasonable term than SED, one that encompasses children with both internalizing (withdrawn, anxious, etc.) and externalizing (acting out, aggressive, etc.) behavior.

There are two major reasons for defining and labeling children with behavior problems: for research purposes (Chenbach, 1978) and for provision of services (Hobbs, 1975). Epstein, Cullinan and Sabatino (1977) outline a number or pragmatic implications of a definition:

(1) the chosen definition dictates the type of intervention and program description that is used to communicate the goals to others, (2) the definition affects prevalence estimates and thus influences decisions about who will receive services, and (3) the definition influences the areas of legislation, advocacy, and personal preparation for employment.

(Epstein, Cullinan & Sabatino, 1977)

Coleman (1986) also points out that definitions may describe a general population but are not specific enough to allow individuals to be identified; instead, state and local education agencies must create regulations which outline specific criteria for identification purposes.

In the province of British Columbia, Canada, Csapo (1985) did a survey to determine the existence or extent of under identification of behavior problem children in special education programs as well as issues of definition and identification which might promote or restrain the availability of services. The provincial funding category for children with "severe behavior problems" according to the British Columbia Manual of Policies Procedures and Guidelines for Special Education (1981) states:

Students with severe behavior problems are those who exhibit a variety of excessive and chronic deviant behaviors, ranging from impulsive and aggressive to depressive, withdrawal behaviors which seriously interfere with the student's own learning and/or the learning of classmates.

These students frequently exhibit a significant discrepancy between academic performance and potential.

The Ministry of Education recognizes the population of students with severe behavior problems as pertaining to less than 1% of the school-aged population. In order to qualify for ministry special education funding under Section 3 of the financial management system, students with severe behavioral problems must be receiving specialized educational services related to their problem.

(Csapo, 1985, p. 31)

This manual also provides a suggestive procedure for

identifying children with Severe Behavior Problems:

Identification of these students usually begins at the classroom level. The classroom teacher should document as fully as possible the specific behaviors causing concern, the frequency of the behavior, and the circumstances or setting leading to the behaviors. In focus of this teacher assessment should be the educational context of the behaviors.

The first referral should be to the school-based team which can identify resources within the school. Observations of the student in the classroom environment by the learning assistance teacher, principal, counsellor is usually necessary to provide data on the rating, the specific behaviors and the effects of the intervention.

Referral to special education district services should be through the school-based team. It may be that community agencies, the Ministry of Human Resources, or Mental Health personnel needed to be involved in the identification process. A medical referral is essential if a student is viewed as having severe behavior problems.

For purposes of establishing that a student has severe behavior problems, the assessment should describe behaviors which distinguish between common disciplinary problems and severe behavior problems. For purposes of distinction, the following behaviors serve as examples of common disciplinary problems:

- (a) truancy
- (b) defiance of certain but not all school personnel (e.g. one teacher or bus driver)
- (c) abusive behavior toward selected peers, but satisfactory relations with others
- (d) disruption of certain classes, but voluntary self-control in other environments (e.g. auditorium, recess, etc.)

It must be noted that while prevalence of severe behavior problems is difficult to determine, there is a tendency to overestimate the number of such children. (Csapo, 1985, p.33)

Characteristics of Behavior Disorders

Behavior disorders occur frequently in combination with other problems, such as learning disabilities. Cullinan, Epstein, and Lloyd (1983) point out that the difference between normal and disturbed behavior is one of degree not kind. The types of behavior that most children exhibit are essentially the same. Crying, spitting, fighting, throwing tantrums and urinating are behaviors found in normal as well as disturbed children. Only the situations in which disturbed children perform these acts and/or the frequency and duration at which they occur set them apart from normal children (Cullinan, et al., 1983). Kauffman (1979) refers to these processes as behavioral excesses or deficiencies. Too much or too little of behaviors that would be considered normal in an appropriate quantity are the characteristics of disturbed behavior. As an example, the child may show excessive antisocial behavior (i.e. hitting, kicking, teasing) and be deficient in social skills (i.e. making friends). A child with behavior problems also exhibits such behavior in unusual, unwarranted circumstances. Hitting children, taking belongings of others and swearing may be tolerated or even encouraged in the child's neighborhood but is likely to be met with objection in the classroom. The disturbed child has more difficulty than his or her peers in determining what is accepted and expected in differing environments (Kauffman, 1979).

Kauffman (1979) describes the aggressive child as "one who arouses negative feelings and induces negative behavior in others" (p.10). Such a child is not well liked or popular among peers, classmates or teachers. Though the aggressive child may have control or prestige over others because of intimidation or force, he continually operates on the fringe of any group (Forness & Hewett, 1984). Children with acting-out tendencies, more than any other student, find themselves at odds with school rules and discipline procedures. The behavior is so persistently irritating that they seem to invite punishment or rebuke (Kauffman, 1979). These children suffer from low self-esteem, lack of self-worth and often spend much of their time in self-defeating behavior (Kauffman, 1979). They are handicapped by behaviors that are incongruent with societal expectations.

Sex and Age Differences

Roberts and Baird (1972) found in their widespread study of American school children, that elementary boys are twice as likely as girls to be considered adjustment problems. Nicol (1980) found Canadian boys ages 6-13, more likely to be considered behavior problems; by the age of fourteen an even balance between girls and boys became more apparent. These studies indicate that young boys are twice as likely to be labelled behavior disordered as young girls and the differing types of behavior they exhibit appear to be the reason (Cullinan, et al., 1983). Boys are more likely to have problems that irritate, disrupt or cause conflicts with others in the environment while girls tend to show problems involving withdrawal or personal

conflict which is not particularly destructive. Walker (1982) found teacher descriptions of boys to be "easily angered", "destructive to property", "hyperactive", "uncooperative in group situations", and "boisterous". Girls were described as "hypersensitive", "socially withdrawn", "having feelings of inferiority", and "lack of confidence". Boys exhibit behavior which is more overt in nature and consequently is readily identified and referred by the classroom teacher (Walker, 1982).

Auchenbach and Edelbrock (1981) found that children labelled behavior disordered are much more likely than their peers to be unhappy, sad or depressed. Epstein, Kauffman & Cullinan (1985) found similar results, also adding that behavior problem children consistently perform poorly on school work as compared to peers. They are unhappy youngsters who are behavioral misfits in school, likely to be the cause of consternation of teachers, and almost certain to be rejected by their peers (Epstein, et al., 1985).

Gelfand et al., (1988) states that "a breakdown in the social control of a child's personal standard of behavior by a parent, teacher, or society in general leads to insufficiently controlled behavior excesses referred to as a conduct disorder" (p. 134). This is an externalizing disorder that includes aggression, noncompliance, temper tantrums, stealing, fire setting and destructiveness.

Intensity and frequency of these behaviors set them apart. They show poor moral development and lack of empathetic behavior. many

show little guild or conscience concerning their destructive behavior. They are usually contingency-governed as in "What can I get" (Gelfand et al., 1988).

Behavior problem children often have poor social skills, academic deficiencies and are frequently described as being inappropriately competitive, uncooperative, bossy and defensive about criticism (Gelfand et al., 1988)

Prevalence

The estimation of how many children actually have behavior disorders is difficult to saybecause of the inconsistency of definitions in the literature. The U.S. Office of Education in 1975 stated 2% of the school population was behavior disordered. Coleman (1986) reports a host of consistent data that indicates approximately 10% of children in school have moderate to severe emotional problems. Rubin and Balow (1978) conducted a study where 7.5% of children in one school were identified by three different teachers over three consecutive years as having a behavior problems.

Students who evidence conduct problems (especially aggression) or inadequate-immature behaviors over a long period of time and to a marked degree are likely to become labelled behavior problem children. The majority of these students are male and manifest academic deficiencies (Coleman, 1986). He concludes that although prevalence estimates vary widely, many researchers believe that

approximately 2% of school-aged children are severely disordered, with another 7-10% evidencing behavior or emotional problems severe enough to warrant attention.

Csapo (1985) surveyed the enrollment figures for the 1983/84 school year and compared it to the estimated British Columbia Guidelines for the number of children in the category of severe behavior problems (0.8% at the elementary level). Actual enrollment numbers for the severe behavior problem classes came out to be only 0.5%. These figures suggest that children may receive little help during the elementary level and have to endure repeated social and academic frustration and failure before the system reacts.

Csapo (1985) also states that the inconsistency reported across state criteria for identification (Wood & Larkin, 1979) holds true for school districts in British Columbia. Varying district criteria identify different students for the same category. Both degree of availability of service and the type of student served depends to a large extent of the district in which the student resides. Interdistrict residence changes may affect eligibility. Only 77% of the school districts in British Columbia offer programs for children with behavior problems (Csapo, 1985). Csapo (1985) concludes that the needs of elementary severe behavior problem children are not being met, and suggests a shift of emphasis to early intervention might reduce the need for more secondary intervention programs. Coleman (1986) states four factors that influence an individual's perception of deviance are: (1) differences in personal tolerance ranges, (2) differing theoretical models, (3) terminology, and (4) sociological parameters of behavior. These factors influence definitions of normalcy versus deviance and, subsequently, perceptions of problem behavior.

How severe teachers and parents view problem behavior also influences prevalence rates in each school district. Safran and Safran (1984) found that behaviors least tolerated by teachers are outer-directed or disruptive, originating in the student but having an observable, tangible effect on other pupils. Examples of such behaviors are poking, tormenting, teasing, belittling, breaking of classroom rules, and poor peer cooperation. Behaviors described as self or teacher-directed such as irrelevant thinking, blaming, confusion, need for direction, failure anxiety and worry elicited less negative ratings from elementary teachers polled.

Webster-Stratton (1988) had 120 mothers and 85 fathers of children with conduct problems (ages 3-8) complete two measures of child adjustment, three personal adjustment measures, and a life experience survey. They were also observed interacting with their children at home. In addition, teachers also completed a child behavior questionnaire. Fathers' perceptions of their children's behaviors were significantly correlated with teachers' ratings but mothers' ratings were not. Correlations showed that mothers who

were depressed or stressed due to marital problems perceived more child deviant behaviors and interacted with their children with more commands and criticisms. However, there were no significant correlations between fathers' perceptions of deviant child behaviors and father behaviors. Moreover, there were no significant correlations between fathers' personal adjustment measures and father behaviors with children (Webster-Stratton, 1988). Hall and Farel (1988) sampled 115 mothers of 5 and 6 year old children comparing maternal everyday stressors, stressful life events and maternal depressive symptoms to mothers' reports of children's behavior problems. Maternal everyday stressors were more strongly associate with child behavior problems than life events. Children of mothers indicating a high level of everyday stressors were 13 times more likely to be rated as having behavior problems than children of mothers reporting a low level of everyday stressors (Hall & Farel, 1988). Hall & Farel (1988) discuss their results by making reference to a Fergusson, Horwood, & Shannon's (1984) explanation which suggests that when mothers are faced with many stresses, they may be more likely to view their children's behavior as problematic. Fergusson et al. (1984) suggest that children react to behavior and mood. Stressors may influence maternal interaction with the child by increasing maternal irritability, inattentiveness or punitiveness which may evoke child behaviors such as acting out, making somatic complaints, or seeking attention through aggressive behavior.

The above mentioned studies are examples of how differences in personal tolerance and sociological parameters (home vs. school settings) affect how individual's perceive problem behavior in children. Different theoretical models all have their own way of describing, classifying and treating chidren with behavior disorders.

Explanations of Child Behavior Disorders

Etiology

The disturbed child is one who because of organic and/or environmental influences, chronically displays:

- (a) inability to learn at a rate comparable with his/her intellectual, sensory-motor and physical development
- (b) inability to establish and maintain adequate social relationships
- (c) inability to respond appropriately in day to day life situations
- (d) a variety of excessive behavior ranging from hyperactive, impulsive responses to withdrawal.

(Haring, 1963, p. 291)

Biophysical Model

<u>Perceptual and neurological factors</u>. The genetic factor refers to inherited biological characteristics that may cause a predisposition toward disturbed behavior. Sagor's (1974) review of related literature indicated an inherited and environmental component in the development of schizophrenia and autism. He found it was evident that severely disturbed children had more neurological abnormalities than their normal peers (Sagor, 1974). Developmental delays are often found among these populations (Coleman, 1986). Stellern, Marlowe, Jacobs and Cossairt (1985) found significantly more emotionally disturbed students classified right hemisphere cognitive mode by the Adapted Children's Form of Your Style of Learning and Thinking (SOLAT) than control subjects; and the emotionally disturbed subjects had significantly higher right hemisphere SOLAT scores than controls. Emotionally disturbed subjects scored significantly lower than controls on the Wechsler Intelligence Survey for Chilren Revised, the Woodcock Reading Achievement Test, the Bender-Gestalt Visual-Motor Perception test, and higher on the Walker Problem Behavior Identification Checklist. Their results suggest that children with academic/behavioral deficits and emotionally disturbed children demonstrated a stronger preference for using a right style of information processing. On the other hand, children without academic/behavioral deficits and nonhandicapped children seem to have developed greater skills in using an integrative style of processing information, using both the specialized cerebral functions of the left hemisphere and those of the right hemisphere, either in conjunction with one another by shifting from one to the other as demanded by the nature of the task (Stallern et al., 1985). These findings suggest that the educational programs emphasize classroom behavior and achievement that call for integrative ways of processing information. Left to right temporal sequencing and detail-analysis is necessary for reading and spelling (Stellern et al., 1985). Predominantly right hemisphere cognitive mode students may become frustrated by the left-minded

school environment, with consequent symptoms of emotional disturbance, acting-out and distractibility. Conversely, left and integrated hemisphere subjects may be more likely to fit into and be rewarded by the left-minded school environment, and therefore have less acting-out and distractibility (Stellern et al., 1985).

A possible explanation for the relationship between hemispheric asymmetry and emotionally disturbed subjects involves a suggestion by Levy, Heller, Banich, and Burton (1983) that cognitive and emotional dimensions are related to the arousal levels of the left and right hemispheres, and that the arousal level of the right hemisphere conditions emotional tone. It is possible then that some right hemisphere individuals could have an electorcortical, or neurotransmitter (for example, dopamine) anomaly in the dominant right hemisphere, thus causing right hemisphere arousal irregularities with resulting symptoms of emotional disturbance. This is to say that neuroarousal anomalies of the right hemisphere individuals, could adversely affect the emotional integration and control of especially predominant right hemisphere individuals, causing emotionally disturbed learning and behavior problems (Stellern, et al., 1985).

Metabolic factors are proposed by some researchers who believe that schizophrenic, autistic, and other severely disturbed children and adults suffer from biochemical disturbances caused by severe vitamin deficiencies. Originally, many researchers claimed that large dosages of vitamin B3 and vitamin C help metabolize adrenaline, which, in

pathological cases, can be metabolized by the body into a toxic chemical causing bizarre behaviors (Coleman, 1986). Other researchers reported that behavior of autistic children improved significantly as a function of the amount of vitamin B₆ in their diets (Rinland, Callaway, & Dryfus, 1978). Although these authors are unsure of the specific mechanism through which vitamin therapy works, they remain adamant that it does work.

The efficacy of both mega vitamin therapy and nutrition therapy is dependent on alleviation of the symptoms. Currently, neither approach can claim absolute positive results (Coleman, 1986). Although some studies have shown a relationship between problem behavior and food coloring (Rose, 1978; Swanson & Kinsbourne, 1980) or certain classes of foods (O'Banion, Armstrong, Cummings & Strange, 1978), others have failed to find any causal connection (Bird, Russo & Cataldo, 1977; Harley, Matthews & Eichman, 1978). Research strongly suggests that food chemicals do produce a highly, negative behavioral response in some children (Rose, 1978; Swanson & Kinsbourne, 1980), but as the research on neurological and perceptual factors, it is promising but inconclusive in helping determine the etiology of behavior disorders.

<u>Temperament Factors</u> - Temperament refers to a behavioral style that is an inborn tendency but also highly influenced by the environment. Thomas and Chess (1977) followed a sample of over a hundred

children from infancy to adulthood and found 70% of difficult children who cried frequently, had intense reactions, and were easily frustrated. These children developed behavior disorders ranging from adjustment reaction to conduct disorder in later life. Parents did not initially differ in child-rearing practices but later became more negative towards their children (Thomson & Chess, 1977). As the children grew, parents reported being more frustrated and admitted that a negative cycle of behavior often occurred. Attention-seeking acting out behavior was followed by yelling spanking, and punishment. Rarely did these consequences correct the aversive behavior (Thomas & Chess, 1977).

Psychodynamic Model

Prior to 1950, all work with children was derived from variations of psychodynamic theory (Kauffman, 1979). The most fundamental concept shared by the psychodynamic models of Freud and Erickson, is that the child's personality develops along lines determined by the dynamic interplay of internal mental processes and experiences. Personality proceeds through a sequence of stages and mastery of each stage is essential for mental health. The child suffers emotional conflict when development is stopped or inhibited during a crucial sequence. Disruption of emotional growth leads to maladaption, and behavior is seen as an outward reflection of inner psychic energies (Kauffman, 1979).

Freud concluded in his theory that human motivation is

basically irrational and that people are driven by powerful and relentless unconscious sexual and aggressive desires. These unconscious forces are expressed indirectly and in symbolic form in dreams, speech, and play (Gelfand et al., 1988).

Freud viewed abnormal behavior or disturbed behavior as the result of an inability to resolve a conflict within a specific psychosocial stage. In his view, when an individual becomes fixated at a given stage, personal adjustment in that area becomes very difficult and the majority of the individual's interpersonal interactions become a replay of the difficulties encountered during that stage (Coleman, 1986).

Erickson's psychosocial stages describe how a child develops trust, autonomy, initiative, industry, and identity. Parents can either facilitate emotional growth in these stages or condemn the child to feelings of inferiority.

According to Erikson, if the crises in each stage is not dealt with successfully, the individual will continue to demonstrate behaviors indicative of that stage, which may be several years below the individual's mental and physical development. The successful resolution of a crisis is not a permanent achievement; instead, healthy adults continue to struggle with the issues on a superficial level throughout life.

Blackman (1967) describes the psychodynamic view of the behavior problem child when he says that such a child:
...is so thwarted in satisfaction of his needs for safety, affection, acceptance, and self-esteem that he is unable intellectually to function efficiently, cannot adapt to reasonable requirements of social regulation and convention, or is so plagued with inner conflict, anxiety and guilt that he or she is unable to perceive reality clearly or meet the ordinary demands of the environment in which he or she lives (p. 73)

Humanistic Model

Carl Rogers proclaims that behavior may be understood only in terms of the individual's frame of reference, that is one's personal experiences and perceptions of the world.

According to Rogers (1959) organismic valuing process, infants have a regulatory system that tells them how well their basic needs are being met. Each individual has innate wisdom for preservation and actualization. As the self-concept emerges, so does a need for positive regard, a universal need for acceptance and respect. The need for positive regard then motivates the developing person to judge personal actions in terms of societal values. Conflict arises when the innate criteria clash with societal values so that the person is torn between the organismic valuing process and the need for positive regard (Coleman, 1986).

Maladjustment occurs when there is an incongruence between self and experience. This incongruence is usually dealt with through either distortion or denial of the experience. If these strategies fail, a serious breakdown of the self-concept may occur and the individual experiences disorganization characterized by irrational or psychotic behaviors (Coleman, 1986).

From Roger's perspective, when the child's parents find some aspects of his or her behavior unacceptable, the child may come to share her parent's disapproval. To ensure his or her acceptance the child may deny their own socially dangerous tendencies, such as hostility toward siblings. He or she may demand irreproachable behavior of herself as a condition of worth, just as their parents did. He or she denies her hostility and projects it onto others, treating them as though they were threatening, thus creating interpersonal problems.

To improve, the child should experience unconditional positive regard, or whole-hearted and complete acceptance just as they are. Parents and therapists must create safe environments in which children can express themselves freely without fear of rejection. Such positive and accepting relationships free the child of the need to be shy or defiant, and behavior problems disappear (Gelfand et al., 1988).

Ecological Model

Behavioral disabilities are defined as a variety of excessive, chronic, deviant behaviors ranging from impulsive and aggressive to depressive and withdrawal acts which violate the perceiver's expectations of appropriateness and which the perceiver wishes to see stopped (Grauberd, 1973). Deviance lies in the interaction of an individual with others (the perceivers) in the environment.

Rhodes (1967) states the disturbance is in the behavioral expectations of those with whom the child must interact. Certain environments may be unable to accommodate the unfolding nature of children, thereby generating disturbance in the ecosystems. People, objects, time, space, and psychological variables are all components of an ecosystem (Coleman, 1986).

Student characteristics such as gender, socio-economic status, appearance, achievement and behavioral style influence teacher expectations. The behaviors that teachers find most disturbing are best described as defiant-aggressive. Such behaviors engender negative attitudes which are often translated into negative teacher-student interactions, thus setting in motion the rippling through the ecosystem (Coleman, 1986).

In any ecological context behavior may be viewed as deviant when discordance arises or organism-behavior-environment homeostasis is disrupted. Consequently, the organism, behavior, and/or the environment requires modification to reestablish "balance". For the ecologist, environmental determinism is the underlying construct on which assessment and intervention approaches are based (Hendrickson, Gable, & Shores, 1987).

Setting events constitute the contextual conditions in which organism-environment interactions occur. They can be internal (fatigue, drugs, emotional status, injury, and hunger); or external (classroom noise level, lighting, teacher arrangements, number of classmates and adults present). Setting events such as these may increase or decrease the value of the stimuli that directly affect a given behavior. These represent ecological variables over which the teacher may exert some control and thereby affect the potential power of the educational program (Hendrickson et al., 1987). For example, to arrange the setting to improve the chance of increased engaged time on

task, the teacher can schedule in advance sufficient time for practice as well as select those materials of instructional arrangements that increase the student's opportunity to respond (Lentz & Shapiro, 1986).

The majority of special educators view the possible detrimental effects of labelling as a valid issue, but the administrative necessity of labelling for obtaining funds and providing services is a reality.

Coleman (1986) identifies two major sources leading to socialization failure:

- deficiency in the child or parent that results in the child's failure to acquire the desired values and behaviors.
- 2. conflicting demands from different socialization agents (parents & teachers) which creates stress for the individual (p. 97).

The child's reaction to stress and the power distribution will determine whether the child is labelled deviant. The child is a victim of conflict that arises out of the socialization process (Coleman, 1986).

Schools have a dual role--as transmitters of culture in the socialization process and as agents of social control.

Not all school rules are posted formally and enforced consistently. The student must be an astute observer of others' expectations and must learn the intricacies of rules and rule-related behavior. Inability to read the environment accurately often gets them into trouble with rule enforcers and are consequently labelled deviant (Coleman, 1986).

Behavioral Model

Behaviorists see emotional disturbance as maladaptive behavior. As a learned behavior, it is developed and maintained like all other behaviors (Russ, 1974). The only difference between most disturbed behaviors and normal behaviors are the frequency, magnitude, and social adaptiveness of the behaviors. Therefore, behaviors are not viewed as intrinsically deviant but rather as abnormal to the extent that they deviate from societal expectations (Coleman, 1986).

Behaviorists also believe that maladaptive behavior can be unlearned and new behaviors learned in its place. They place the utmost importance on the setting in which the behavior occurs and on events immediately preceding and following the behavior. It is a method that stresses observable behavior; it is not concerned with explaining intrapsychic forces or recognizing internal process in the individual.

In modeling, individuals may acquire new responses by observing and subsequently imitating the behavior of other individuals. Bandura, Ross and Ross, (1961) found that children who observed on an aggressive adult model were more apt to behave aggressively than children who had observed a nonaggressive model.

Bandura's social learning theory lists six possible causes of deviant behavior.

- 1. Exposure to socially deviant models can teach the child inappropriate forms of behavior.
- 2. Insufficient reinforcement could lead to extinction of appropriate behaviors, as in the case of hostile or neglectful parents failing to reinforce a child's appropriate behavior.
- 3. Inappropriate reinforcement or reinforcement of undesirable behavior can promote problem behavior.
- 4. Faulty respondent conditioning of negative emotional states can derive from experiencing fear and anxiety, either directly or vicariously from observing another person.
- 5. Fictional reinforcement contingencies (such as household objects dangerously contaminated dirt) can lead to maladaptive behavior.
- 6. Faulty self-reinforcement can occur when people hold themselves to overly strict or too-generous standards.

(Gelfand, et al., 1988, p.50)

Bandura believes that by attending to a model's demonstration, mentally encoding the behavior and having the necessary requisites to perform the new behavior, an individual can imitate a model if they can anticipate the positive consequences that will result (Gelfand, et al., 1988).

Self-reinforcement is derived when an individual thinks about his own attitudes and behaviors in positive ways (Bandura, 1968). Selfreinforcement can also be systematically taught to students as a behavioral self-control technique (Workman, 1982). Students can learn to reinforce themselves by merely imagining their involvement in a pleasant and rewarding scene or activity.

However, children with behavior problems usually require a much more structured approach when one is trying to alter their coercive behavior. Coercive control follows a typical sequence of behaviors where a demand or request is made to a noncompliant child by either an adult or another child. The behavior problem child usually responds with tantrums, teasing or aggression, while the person making the request usually withdraws.

Instead of trying to interpret underlying conflict or stored aggressive impulses, behavioral methods utilize environmental consequences, parent training, contingency contracting, and conflict resolution training to change disruptive behavior (Wells & Forehand, 1981). Techniques such as point systems, reinforcement, precision request making, time out, and relaxation training are commonly used to deal with aggressive and noncompliant behavior.

Patterson for over two decades at the Oregon Research Institute has seen over 200 families with children who are primarily aggressive and noncompliant. The primary treatment approach used with these children has been to train parents to effectively reduce their children's adverse behaviors (Fleishman, 1981; Patterson, 1974, 1976; Patterson & Fleishman, 1979).

Treatment in the home consisted of training parents to define and track both deviant and appropriate behaviors; to withdraw reinforcement, or to ignore inappropriate responding, and to use time out for inappropriate behaviors; to construct contracts with specified contingencies for behaviors and to catch the child being good and reinforce him for appropriate behaviors (Gelfand et al, 1988).

After treatment and a twelve month follow-up, the observed rate of the obnoxious behaviors for the aggressive boys was within normal limits (Patterson, 1982).

Behavior management principles have been widely used in both Canada and the United States to help parents and teachers cope with the social/emotional difficulties experienced by children and youth. Behavioral techniques have successfully been used with a variety of interventions that change behavior of pupils in regular classes, special day classes and residential units (Webster, 1989). Such children usually have adjustment difficulties such as: hyperactivity, impulsivity, lack of attention (Hewitt, 1968); immaturity, withdrawal and inadequacy (strain, 1981); and aggressive and hostile behavior (Patterson, 1982).

Family Factors

Research shows that parental psychopathology, parental control techniques, marital relationships, maternal or paternal dominance, parental personality, or role assignment within the family are not, when considered alone, predictive of mental health or behavioral pathology (Bell, 1971; Martin, 1975; Sameroff, Seifer & Zax, 1982). Such family variables appear to be predictive of the child's behavior development only in complex interactions with each other and with other factors, such as socioeconomic status, ethnic origin, and the child's age, sex, and temperamental characteristics. Nevertheless, broken homes, father absence, parental separation, divorce, chaotic or

hostile family relationships, and low socioeconomic level appear to increase children's vulnerability to behavior problem's (Hetherington & Martin, 1979; Martin, 1975; Sameroff et al., 1982).

Patterson (1982) found that in families with aggressive children, not only did the children behave in ways that were highly irritating and aversive to their parents, but the parents relied primarily on aversive methods (biting, shouting, threatening) to control their children. Patterson (1982) also found that the problem children tended to increase their disruptive behavior in response to parental punishment.

Other research indicates that hostile, inconsistent discipline and family conflict are associated with problem behavior (Moore & Arthur, 1983; Willis, Swanson & Walker, 1983), but these do not demonstrate that punitive parents caused their children to become aggressive any more than aggressive children caused their parents to become punitive.

Parents undoubtedly contribute toward or detract from their child's success at school in several ways. Their expressed attitudes toward school, academic learning, and teachers; their own competence or lack of success in school; and their disinterest in or reinforcement of appropriate school-related behaviors, such as attending regularly, completing homework, reading, and studying, all affect a child's scholastic success (Kauffman, 1985).

Once the specific problem behaviors of parents and their children are identified and the relationships among parent and child behaviors are analyzed, intervention consisting of rearranging the consequences provided by one individual (usually the parent) for the other (usually the child) can be implemented (Kauffman, 1985).

School Factors

Bower (1981) reported several large-scale studies that compared disturbed children's achievement in arithmetic and reading to the achievement of their normal peers in grades four, five, and six. Behavior problem children scored significantly below the other children at each grade level. The achievement deficiencies of the problem children were greater in arithmetic than in reading, and their deficiencies became more marked with each succeeding grade level.

Kauffman (1985) lists six ways to contribute to the development of problem behavior:

- 1. insensitivity to children's individuality
- 2. inappropriate expectations
- 3. inconsistent management
- 4. instruction in nonfunctional and irrelevant skills
- 5. convoluted contingencies of reinforcement
- 6. undesirable models (p. 153)

Rutter, Maughan, Mortimore, Ouston & Smith (1979) point out that "pupils are likely to be influenced--either for good or ill--by the models of behavior provided by teachers both in the classroom and elsewhere" (p. 189). Teachers whose attitude toward academic work is

cavalier, who treat others with cruelty or disrespect, or who are disorganized, may foster similar undesirable attitudes and conduct in the students (Kauffman, 1985).

Educating Children With Behavior Problems

There has been extensive research done on behavior modification techniques as the most widely used intervention in schools to manage behavior problem children. These students can be part of a regular classroom, a resource room program or a special selfcontained classroom for behavior problem students. In the case of students whose behavior is seriously and persistently aggressive and disruptive, even with a regular classroom teacher whose behavior management skills are adequate, Kauffman, McCullough, and Sabornie (1984) believe segregation of the student in a special class is desirable until he or she has acquired the skills necessary to meet expectations for appropriate behavior in a regular class. Once the student has learned to behave nonaggressively and nondisruptively in a segregated environment, reintegration should be the goal.

Almost all children referred to self-contained classrooms for behavior problems are referred because of misbehaviors or skill deficiencies so severe that the children cannot be effectively taught in a regular classroom or other part-time setting. The disruptive behaviors are frequently externalizing and include noncompliance, tantrums, vandalism, fighting, arguing, inattentiveness and theft. They are excesses in the sense that they occur too often and too intensely (Jenson, Reavis, & Rhodes, 1987; Kazdin, 1985; Patterson, 1986).

Some children are also referred for internalizing problems. Shyness, anxiety, fears, worrying bodily complaints, and social withdrawal are internalizing behavior problems. Because most of those students can be educated in less restrictive settings, self-contained behavior problem classrooms usually contain children who demonstrate more externalizing behavior disorders (Morgan & Jenson, 1988).

Systematically applying behavior management strategies may be the initial key to teaching behavior problem children. However, children in self-contained classrooms can come to depend too heavily on the structured and behaviorally engineered environment. Therefore, an effective behavior management program for a selfcontained classroom:

- 1. Decreases inappropriate behaviors (behavioral excesses)
- 2. Increases survival skills such as social and academic skills (behavioral deficits)
- 3. Transfers behavioral control from external sources to the student
- 4. Facilitates generalization to regular education settings as soon as possible (Morgan & Jenson, 1988, p. 370).

Morgan and Jenson (1988) describe a level system as the backbone of the behavior management program in a self-contained classroom. The beginning level contains behavioral requirements which are designed to control behavior excesses. At this level, the

behavior management techniques feature external control devices such as a point system to help children remain in their seats, keep their hands and feet to themselves, engage in non-aggressive behavior, and refrain from cheating, stealing and lying.

The middle levels are used for learning and practicing replacement behaviors in academic and social skills. Such skills involve following directions, paying attention, raising hands, contributing to class activities, using polite language, cooperating with others and initiating play.

The upper levels are designed for generalization and self-control skills. Students begin to monitor their own behavior and mark them on a point card. If the teacher's and student's ratings are the same, the child is reinforced. If they are significantly different the child loses reinforcement. Children are taught to monitor themselves and match their teacher's perception because this self-control technique will be used when they return to the regular classroom. Students also start to increasingly spend more time working independently. The academic materials should be the same or similar to materials used in the regular classroom. Working independently with regular classroom academic materials is a critical step in generalization, because most regular classroom teachers require students to work from a blackboard. It is a major classroom survival skill, and, frequently, one in which behavior disordered students are deficient. In the highest level, all classroom privileges are available as long as they maintain their classroom behavior and academic progress. In addition, they spend more time in the regular classroom and carry a report rate from the regular teacher. The child continues to monitor his or her academic and social behaviors in the regular classroom and the regular teacher and student compare reports. If they match the child is rewarded in the self-contained classroom and by parents (Morgan & Jenson, 1988).

Center (1986) claims that the most effective direct approach to dealing with inappropriate social behavior, emotional responses and excessive and deficit behavior is based on behavioral principles. He cites several authors as evidence for behavior management techniques as the most successful method of educating the children with behavior problems.

However, Hilton (1987) points out that although such an approach is often effective in the short term in the setting in which it is used, the causes of the behavior are not addressed, often resulting in additional maladaptive behavior in other environments the child encounters. Lovejoy and Routh (1988) found that social skills training improved the occurrence of positive behavior from four behavior problem boys, but these behaviors were not sustained after the training was terminated nor were the behaviors reciprocated by their peers. Martinez (1985) claims that when reinforcers are used solely and mechanically as a means of behavior modification and control, the

child can learn that these externals have the control over his or her behavior, success and failure. The child can even start perceiving him/herself as helpless (Martinez, 1985).

McConnell (1987) suggests that the only way the effects of social skills training will last with behavior problem students is to use what he calls "entrapment". This involves teaching those behaviors that will naturally be reinforced by peers. For example, when a child offers a toy to a peer, this share offer is very likely to set the occasion for a positive peer response and to be reciprocated by peers offering toys to the child in the future. Sharing is a skill that is likely to entrap, that is, the likelihood of future share offers by the child is thus increased by exposure to naturally occurring social behaviors of others (McConnell, 1987).

Sandler, Arnold, Gable and Strain (1987) found that when the teacher asked students to identify, explain and offer suggestions to correct a fellow student's problem behavior, the occurrence of problem behaviors displayed by that student decreased significantly. They suggest that peer confrontation is an effective procedure for decreasing inappropriate classroom conduct of children with behavior problems (Sandler et al., 1987).

Rosenberg (1986) found that a brief daily review of classroom rules and rehearsal on student behavior increased behavior problem students' overall time-on-task by 12%, and a 50% reduction in instances of disruptive talkouts was achieved in comparison to a class

that did not have the rule review in addition to a token economy program.

Both the Sandler et al., (1986) and Rosenberg (1986) studies are examples of how cognitive explanations can maximize the effectiveness of structured classroom management programs.

CHAPTER III: THE SELF-CONCEPT OF THE CHILD WITH BEHAVIOR PROBLEMS

The relationship of a student's self-concept to inappropriate behavior has been described as an important contribution to social psychology (Oldfield, 1986). Cenname (1977) reported that elementary school children with low self-concepts demonstrate more incidents of disruptive, aggressive behaviors and hostile attitudes than do their peers with high self-concepts. Burdett and Jensen (1983) have also found significantly larger mean aggressiveness scores among children with low self-concepts when compared to children with medium and high self-concepts. If this is so, how does self-concept influence behavior?

Development of Self-Concept

Felker (1974) defined self-concept as a unique set of perceptions, ideas, and attitudes an individual has about himself or herself. Piers (1984) similarly states self-concept is a "relatively stable set of selfattitudes reflecting both a description and an evaluation of one's own behavior and attributes" (p. 7).

Self-perception involves smells, sounds, tastes and tactual feelings all coming from the environment, allowing individuals to constantly receive and absorb sensory data. Everyone receives sensory data in a unique way so that it is not "raw" data but data filtered and

interpreted by the receiver. The experiences individuals have through the perceptions they receive provide the basis for the self-concept (Felker, 1974).

The self also contains a unique set of ideas which define who and what they are. As the individual absorbs sensory data and attaches meanings to it, the self-concept develops. The meanings attached to sensory data are the conclusions that people come to about themselves from perceptions of their environment. As meanings become definite ideas, they operate to define and in turn give meaning to new data which is received and the whole process becomes circular. In the process of giving meaning and getting meaning out of the data received, we draw conclusions about ourselves and begin to see ourselves in abstract terms. The tendency of individuals who have characteristics rated as undesirable by others, begin to see themselves as undesirable, particularly those who are physically unattractive, physically handicapped, or who come from minority groups that experience prejudice. These persons may have a particularly difficult time developing a positive self-concept because of the continual bombardment of negative ideas from the environment (Felker, 1974).

Ideas and internal thoughts develop into attitudes which are aimed at the self. Because self-attitudes are directed inward, the emotions aroused by these attitudes are particularly powerful. Everyone directs attitudes toward others and, at the same time, perceives the attitudes of others towards them. External attitudes can

be avoided if they are negative or painful. But negative self-attitudes cannot be avoided; how can one walk away from oneself?

However, children often must face negative attitudes from external sources which they cannot avoid. How does a child remove himself or herself from parents or teachers who have negative attitudes toward them? They might get away for a short time, but so much of their life is under the control of others that they do not really have the option of removing themselves from a home or a classroom where they feel negative attitudes are directed toward them (Felker, 1974).

Another way in which individuals defend themselves against negative attitudes of others is by rationalization. One of the most common rationalizations is to maintain that the negative attitude is unjustified and that it is an indication of fault with the person that holds it, rather than with the object of the attitude. But if the attitude becomes self-directed, one is really blaming oneself, although they may be trying to externalize the blame.

Self-directed attitudes are more powerful because they are not easily controlled by the usual defenses individuals use to handle negative attitudes directed toward oneself. Anyone who attempts to tell an individual that reality is different than what he sees, feels, and thinks is likely to have a difficult time convincing that person. In fact, Rogers (1959) defines anxiety as a discrepancy or incongruence between the way one views oneself (self-image) and reality. Only through

congruent experiences of self-image and reality can one develop a positive self-concept.

The experiences which an individual has every day indicates to him or her that he or she is competent or incompetent, good or bad, worthy or unworthy. The people who are important to him or her influence what he or she thinks about themselves. When others offer an opinion about ourselves or describe us in abstract terms, even though we may not believe the opinion, we often wonder if it is true, since others see us that way. We may choose to accept or ignore the opinion, but the experience does help to mold and shape our selfconcept (Felker, 1974).

The self-concept also has a dynamic role in shaping experiences, for it determines an individual's actions in various situations, and is a powerful determiner of behavior (Felker, 1974).

The role of the self-concept is threefold: it operates as a mechanism for maintaining inner consistency; it determines how experiences are interpreted; and it provides a set of expectancies.

When individuals have ideas, feelings, or perceptions which are out of harmony or in opposition to one another, a psychologically uncomfortable situation of dissonance is produced (Felker, 1974). A person is then likely to take any sort of action that will remove this uncomfortable feeling and reduce the tension. The individual may refuse to see things in the environment; refuse to accept as valid things

which other people tell him or her about them; or he or she may strive to change things about himself or herself or others (Felker, 1974).

The child or adult will often act in ways which are consistent with the way they think of themselves. If a child hears that he or she is a troublemaker and difficult, they will likely act in ways that will lead to trouble and difficulty. This strong motivating force which initiates actions and happenings into harmony with their self-view makes the self-concept powerful and important. In order to maintain this harmony, an individual will often interpret experiences in ways which are consistent with individual views. This factor makes it extremely difficult to change a self-concept that is formed and operating, because one has learned to expect experiences in congruence with the selfconcept. People who view themselves as worthless expect others to treat them in a manner consistent with this expectation.

Self-Concept and Counselling Effectiveness Research

Parkey and Novak (1984) stated that the disruptive student has learned to see himself or herself as a troublemaker and behaves accordingly and people with a negative self-concept tend to be more disruptive, more anxious, more stressful and more likely to manifest psychosomatic symptoms than people with average and high selfregard. Although feeling worthless is not the same as being worthless, its impact on student behavior is often the same.

Pidduck (1988) describes characteristics of children with low selfesteem below:

- 1. Low self-esteem children are often isolated: they may feel despondent or depressed, and their poor sense of self also makes them feel uncomfortable with their peers.
- 2. They are often fearful: fearful of criticism for being a failure which they often expect people to tell them.
- 3. Such children are very self-conscious: they are too aware of their own low status, their own feelings of inferiority, and this often is how they see themselves.
- 4. They underachieve in school: many research workers and educationalists have shown positive relationships between self-esteem and academic performance.
- 5. Children with poor self-confidence are anxious for approval: they are so unsure of themselves, they tend to rely too much on getting their teacher or their peers to approve of them.
- 6. They set low goals for themselves or unrealistic high ones.
- 7. Some of them are intent upon causing disruption: this may be to do with their marked feelings of frustration and anger at their sense of failure in life, and this gets expressed in outward disruption.
- 8. They are reluctant to join in: in case they get ridiculed by their peers or their teachers for being failures or being stupid.
- 9. They are over-sensitive to criticism--they have a demanding and unrealistic conscience.
- Low self-esteem children are never satisfied with their efforts: they feel they are "no good" so what they do try feels "not good enough." (Pidduck, 1988, p. 158)

Pidduck believes that to children who display characteristics of low self-esteem have not had enough experience of being loved and valued as they are. Lawrence (1983) reviewed several studies and found consistent relationships between self-esteem and achievement.

Self-concept develops as a function of the information teachers, other students, and parents provide regarding the individual's level of achievement (Bloom, 1977). Children with behavior problems may be susceptible to lower self-concepts because of difficulties they encounter in school.

As various stages in learning a school task, marks and grades are assigned and made public to children and parents. As performancerelated perceptions accumulate, a consistent pattern of achievement and self-perception develop. If performance has been satisfactory, future tasks are approached with confidence but if performance has been inadequate (i.e. problem behavior), then students develop a belief in their inadequacy in respect to certain types of learning (Bloom, 1977).

Marsh and O'Neill (1984) have also found that high achievers generally indicate more positive self-concepts than low achievers.

There is a variety of conflicting results in the literature regarding self-concept and its relationship to problem behavior. Sorsdahl and Sanche (1984) found that after 40 classroom counselling meetings, grade four students improved significantly in classroom behavior whereas measures in self-concept did not differ between experimental and control groups. Conversely, Cant and Spackman (1985) found after 24 class group counselling sessions experimental ten-year-olds gained significantly in self-esteem measures compared to controls. This same experimental group made significant reading age scores gains as well.

Lund (1987) found that 44 primary aged children and 66 secondary aged children attending special day schools for the emotionally disturbed and behavior disordered in Northamptonshire had significantly lower self-esteem scores as compared to children in regular public schools. Testing for that study was done in January 1986. Two years later in January 1988, Lund retested 17 primary and 20 secondary school-aged children who were part of the original study. Lund found gain scores in self-esteem as measured by the Laurence Self-Esteem Questionnaire, particularly in children at the primary phase, indicating that positive intervention at an early age is effective with children who have emotional and behavioral difficulties (Lund, 1989).

Martinez (1979) counselled grades 1-4 students for a four week period consisting of eight individual sessions for each subject and found there was no significant change in global self-concept. One subsystem on the Piers-Harris Children's Self-Concept Scale (Happiness and Satisfaction), did indicate change for the counselled group compared to control subjects. Martinez (1979), however, did find a significant reduction in the frequency of disturbed and disturbing behavior by students who received counselling compared to the

control group. Behavior was measured by the Children's Behavior Scale, and Martinez (1979) found no significant relationship between change in behavior and change in self-concept.

Warger and Kleman (1986) had institutionalized, noninstitutionalized, handicapped, nonhandicapped, and behavior disordered children participate in nine 45 minute creative drama sessions. Results indicated that the intervention group significantly improved on both self-concept and creative expression measures. The most improvement was noted in subjects who were institutionalized for their behavior problems.

Counselling intervention studies on self-esteem in children have been few since many lack adequate experimental control procedures. Bruce (1958) carried out an investigation with 11 or 12 year old children into the effects of a program designed to develop greater insight into self-behavior and that of others. The experimental group pupils showed greater self-acceptance than the controls at the conclusion of the program. Pigge (1970) also used a group counselling program with 9 to 10 year olds, involving 18 sessions of 50 minutes each. Utilizing a discussion approach, pupils were encouraged to talk freely about themselves. At the end of the program, it was found that group self-esteem had improved in comparison with the control group, but not to a significant degree.

Laurence (1973), concentrating on individual counselling with poor readers in English schools, found that using helpers with a

expectation that adults are untrustworthy, unreliable or nonunderstanding. A child's experiences may have created a picture of others strong enough to withstand his or her destructive acts and able to help him or her control them. If important figures in his or her early life were easily overwhelmed or struck down by illness or death, it will have confirmed his or her fears of being destructive.

If the teacher or counsellor can provide a different experience from the one that is feared or unrealistically desired, the pupil has another chance to adjust his or her picture of the world and grow on the basis of this new experience. In so far as powerful feelings are alive and active in the present, the child is capable of change in the context of a new relationship. Thus Mack (1988) argues that the school at which the child spends such a large part of his or her waking life, and the teachers and counsellors who become such influential adults for the child have a great responsibility for providing experiences which will encourage trust as opposed to idealization and dread, and thus help the individual to grow.

To understand the motivation behind a child's misbehavior, it is essential first to understand the child's private logic and "hidden reason." Dreikurs (1973) defines the hidden reason as the unconscious justification and motivational force behind movement toward the "long range goals of the life style and the immediate goals within a given situation" (p. 23).

The nature of humans is positive. From birth, children want to contribute, please and comfort. When their efforts are not appreciated they feel dismissed as if they do not belong to the family or classroom group. The child needs the involvement of significant others to develop a healthy self-concept and personal identity. Through parental involvement, specifically, children begin to believe they are important and that their existence means something (Nystul, 1986).

According to Nystul (1986), a child has four possibilities in life. She or he can become a "good somebody," a "good nobody," a "bad somebody," or he or she can develop "severe mental health problems"(p. 46). Children tend to define themselves as good somebodies when they have opportunities to make a contribution and when parents and significant others communicate that their contributions are special and appreciated.

Unfortunately, parents may be too tired or too busy to provide opportunities for positive involvement. Too often the parent forgets or becomes distracted with something else and does not get involved with the child. Children may continue to be "good" for weeks or months. These children are behaving as good children but receive little parental involvement; therefore, they have little chance for development of positive self-concept or identity. Because they rarely have a chance to feel that they are important, or somebodies, they may begin to feel like "good nobodies."

Many children quickly tire of being good nobodies. Children learn that they can get their parents involved if they misbehave in order to satisfy the short term goals of attention, power, and revenge. They may display their inadequacy in various ways in order to let people know this is how they view themselves.

There are some good nobodies who may not want to become bad somebodies. The hidden reason that motivates these children may be discouragement. They may be very tired of waiting for an opportunity for positive involvement. These children may begin to use the defense mechanism of reaction formation (e.g. instead of saying "I want involvement," they may say, "I don't want involvement from others"), and start to isolate themselves from others.

Nystul (1986) pointed out that counsellors should attempt to understand the child's private logic. After the counsellor has formulated some tentative hypotheses about the child's misbehavior, it is important that these hypotheses about the child's misbehavior be explored with the child.

Finally, it is important to note that self-concept is a difficult subject to quantitatively study. Few well standardized tests with good reliability and validity, have been developed for children (Wylie, 1989). This makes experimental design difficult for this population. In addition, so many factors affect self-concept that it is difficult to pinpoint what contributes to its improvement.

CHAPTER IV: PLAY THERAPY AS TREATMENT FOR CHILDREN WITH BEHAVIOR PROBLEMS

One of the main forms of treatment for behavior problem children under the age of ten, is likely to involve some type of play therapy, in which the child expresses his or her needs, feelings, and conflicts in unstructured play sessions.

Some approaches to play therapy attempt to help the child achieve insight into his or her feelings as they express them in play, while others stress the importance of sheer emotional release. Behavior therapies, in contrast, focus on direct modification of the child's maladaptive behavior.

Three major approaches to play therapy involve either the psychoanalytic, structured or relationship (nondirective) schools of thought. Each theoretical approach can explain the therapeutic changes that occur during play in terms of different psychological processes and levels of psychic functioning.

Psychoanalytic Approach

In general, the psychoanalytic approach to play therapy emphasizes the use of the therapist's interpretation of a child's words and actions, as well as the analysis of the transference relationship, to help children achieve insight into their unconscious conflicts (Shaefer, 1985). Klein (1937) was the first analyst to use interpretation frequently in the psychoanalysis of children. She would deeply explore their unconscious by analyzing how the child transfers to the therapist earlier experiences and feelings toward his or her parents, thus attempting to understand the child's psyche and reveal this insight to the child. If the father doll is put out of house, Klein might interpret this as meaning that the child wants the father out of the way so he can have his mother all to himself at times.

Anna Freud (1940) used interpretations much more sparingly. She employed play to a considerable extent during the early stages of treatment to get to know the child. She would supplement play observations with information from the parents in order to gain a broad perspective on the child's problem. Only after she had gained extensive knowledge about a child would she offer direct interpretations to the child concerning the real meaning of the play behavior. Anna Freud also believed that play may not necessarily be symbolic of anything. A child could enjoy making a tower just because he or she recently saw one.

The presence of severe infantile neurosis and verbal abilities are regarded as two prerequisites for analytic treatment (Schaefer, 1985). Since children are typically seen in analysis three or four times a week for an extended period, parents must have high motivation for treatment and ample financial resources.

Among the criticisms of the psychoanalytic play technique are that interpretations are difficult to make accurately and that they often

impede the development of the therapeutic relationship. It has also been said that children's capacity for insight into hidden meanings is limited and that insight alone rarely leads to constructive behavior change (Schaefer, 1985). But analysts find that interpretations often help a child get in touch with feelings and motives which frequently leads to the development and anticipation of new adaptive modes of behavior. In comparison with other methods, the psychoanalytic use of play is both active in the sense of offering interpretations and nondirective in the sense of not attempting to reeducate or pressure the child towards alternate courses of action (Schaefer, 1985).

Structured Approach

Rather than allowing children to play freely with a wide variety of toys and materials, Levy (1939) controlled the play by selecting a few definite toys which he felt the child needed to work out a particular problem. The probable cause of a child's difficulty is determined from the case history. For example, if a specific event such as watching a monster movie precipitates nightmares, the therapist would have the child release his fears and anxieties by playing with toy monsters in the therapy sessions. The child is asked to say what the dolls are thinking and feeling during the play. This controlled situation may be repeated several times to allow release of pent-up feelings. The therapist notes or reflects the feelings that the child expresses both verbally and nonverbally in play. Moreover, the therapist plays with and

sometimes for the child in order to bring out and release the assumed emotions (Schaefer, 1985).

Three forms of release therapy have been developed:

- 1. simple release of instinctual drives by encouraging the child to throw objects around the playroom, burst balloons, or such a nursing bottle;
- 2. release of feelings in a standardized situation such as stimulating feelings of sibling rivalry by presenting a baby doll at a mother's breast;
- 3. release of feelings by recreating in play a particular stressful experience in a child's life.

(Schaefer, 1985, p. 99)

The process of repetition is an important element in release therapy because by repeatedly playing out a difficulty or loss the natural slow healing process of nature can take place. By play repetition a child can relieve and gradually assimilate a stressful event and integrate it rather than denying or being overwhelmed by it. In play a child has control of the situation so that events seem less overpowering and can be mastered. It also allows a child to vicariously try out new roles or possible solutions, anticipate the future, and generally become an active problem-solver.

In general it takes frequent repetition of the stimulus for this "working through" process to occur. The encouragement of a supportive therapist or parent is needed to get the child to keep facing strong hurtful emotions and gradually overcome them (Schaefer, 1985).

Structured or release therapy should only be used when a positive therapeutic relationship is firmly established and the child is judged to possess sufficient ego strength to tolerate an emotional upheaval. It should be recognized that the feelings of troubled children are quite deep and powerful. It has been found, for instance, that emotionally disturbed children differ from normal children not in the content of their play but in the intensity of feelings (Schaefer, 1985).

A major advantage of structured play therapy is that it increases the specificity of treatment. As a result, the most recent trend in play therapy is toward the use of structured techniques to encourage a child to express emotions without undue delay. Among the more recent techniques for structuring play therapy are mutual-story telling, drama or role-play, art therapy, sand play, and the use of hand puppets. Most play therapists now incorporate a mixture of free and structured play in their work with children (Schefer, 1985).

Relationship Approach

Carl Rogers' nondirective therapy emphasizes the importance of the relationship between therapist and client. The therapist endeavors to create a playroom atmosphere in which the child feels fully accepted, respected, and understood. In this way it is felt that the child is free to experience and realize his or her own inner world and activate his or

her self-curative powers and innate potential for growth. Selfawareness and self-direction by the child are the goals of this approach. The therapist actively observes and reflects the child's thoughts and feelings and tries to empathically understand the world from the child's perspective (Axline, 1969).

A basic premise of nondirective therapy is that when a child's feelings are expressed, identified, and accepted, the child can accept them more and is better able to integrate and deal with them. By reflecting or being a mirror to the feelings of the child and accepting these negative feelings, the child can also accept them without thinking he or she is abnormal or "bad" for having such thoughts (Schaefer, 1985).

The therapeutic process in play seems to pass through four distinct phases (Schaefer, 1985). At first the child exhibits diffuse, undifferentiated emotions that are very negative in nature. Thus, disturbed children either want to destroy everything or to be alone in silence. As the therapeutic relationship grows the children are able to express anger more specifically such as towards a parent, teacher or sibling. When these negative feelings are accepted the child begins to accept him or herself more and feel worthwhile. This leads to the third stage wherein the child is able to express positive feelings. He or she show considerable ambivalence in the stage so that his or her kindly feelings are interspersed with hostile ones. The child may hug a doll one moment and yell at it or attempt to hurt it the next. The

ambivalent feelings tend to be intense and irrational in the beginning but as the positive emotions become stronger the child enters the final stage in which he or she is able to separate and express more realistically his or her positive and negative emotions (Schaefer, 1985).

The goals of insight-oriented therapy is to resolve internal conflict and to help the child master developmental crises (such as school entry, birth of a sibling, parental divorce). Client-centered counselling assumes that inner emotional turmoil lies at the heart of the child's problem (Gelfand et al., 1988). The child's disturbed behavior presumably results from underlying emotional conflict stemming from parental and societal demands that the child should behave perfectly.

Enlightenment about one's feelings is expected to remove the need to repress or deny them, so the psychopathology should occur less often (Gelfand, et al., 1988). The therapist does this by attempting to create a warm and accepting atmosphere in which the sad, angry, or unloved child feels accepted and completely free to express him or herself. Simply expressing the freedom to communicate anger or anxiety is presumed to have some beneficial effect. The insightoriented therapist may interpret the meaning of the child's communications to help the child explore his or her own true wishes and emotions and come to terms with them. To do this the therapist comments on or reflects the child's fear, anxiety or rage, and interprets
the meanings of the child's dreams, play themes or fantasies (Gelfand et al., 1988).

Children are helped to deal with their world as it presently exists and with their families, teachers and peers as they are. Client-centered therapy aims to combat the effects of threatening experiences by helping the client develop more realistic expectations and move toward self-acceptance.

It gives the initiative to the client to control the direction and rate of the therapeutic process. The client chooses the conversation's theme while the therapist maintains a nonjudgemental, accepting atmosphere to help the client comprehend and accept his or her own feelings.

The therapist refrains from interpretation, but encourages disclosure, occasionally making clarifying statements to reflect and focus on the client's views. This helps the client move beyond selfblame to acceptance of him or herself and others (Gelfand et al., 1988).

The child is free to do as he or she pleases, play with whatever toys he or she wants, and talk or not talk as he or she chooses. (Usually, harm to themself or others, and property destruction is not permitted).

It is presumed that the child's behavior problems are caused by a profound lack of self-acceptance which may have been acquired through the disapproval of parents or others. The client-centered therapist attempts to increase the child's positive self-regard by

indicating that the child's actions and attitudes are completely acceptable (Gelfand et al,, 1988).

Play can be used to help a child act out unconscious material and to relieve the accompanying tension (Landreth, 1982). The therapist provides material, opportunities and encouragement in order that each child may use the interview situation as a place to test themselves out as a person and to mobilize his or her strength for their current and future life.

The child may have considerable difficulty in trying to tell what he or she feels or how they have been affected by experience, but if permitted, in the presence of caring, sensitive, and an empathic adult, he or she will show what they feel through the toys and materials they choose by what they do with and to the materials, and by the story the individual acts out (Landreth, 1982).

Since the child's total being is thrust into his or her play, expressions and feelings are experienced by the child as being specific, concrete, and current; thus allowing the counsellor to respond to the child's present activities, statements, feelings, and emotions rather than past circumstances.

Virginia Axline defines play therapy as:

A play experience that is therapeutic because it provides a secure relationship between the child and the adult, so that the child has the freedom and room to state himself (herself) in his (or her) own terms, exactly as he (or she) is at that moment in his

(or her) own time. I am using the term 'play' as freedom or 'room to act' rather than the usual recreational sense.

(Axline, 1969, p. 47)

According to Axline (1969), in play-therapy experience, the child is given a safety zone in which to try out him or herself, to state the self through the medium of play, and by so doing, learns to know that self a little better, and, by that increased self-knowledge, utilize his or her capacities in more adequate ways.

The therapist is an accepting and appreciative of the client and guards well the essential elements in the relationship to make this strictly the child's statement of self. This is done by keeping out as much as possible any intrusion of the other person's self--the therapist's attitudes, feelings, judgements or suggestions. The child's statement of self is for his or her benefit only. He or she is not concerned with pleasing the other person or earning approval. It is there (Axline, 1969).

Axline claims that there is no severer discipline than to maintain the completely accepting attitude necessary, and to refrain at all times from injecting and directing suggestions or insinuations into the play of the child. To remain alert to catch and reflect back accurately the feelings the child is expressing in his or her play or conversation calls for complete participation during the entire session (Axline, 1969).

In order to achieve such discipline, Axline (1969) outlines eight

basic principles to guide the non-directive play therapist:

- 1. The therapist must develop a warm friendly relationship with the child, in which good rapport is established as soon as possible.
- 2. The therapist must accept the child exactly as he or she is.
- 3. The therapist must be permissive and allow the child freedom to express feelings completely.
- 4. The therapist reflects back the child's feelings to help the child gain insight into their own behavior.
- 5. The therapist shows a deep respect for the child's ability to solve their own problems when given the opportunity. Responsibility for decision making and change is left with the child.
- 6. The therapist does not attempt to direct a child's behavior or conversation in any way. The child takes the initiative and the therapist follows. The child is in charge in the playroom.
- 7. The therapist does not attempt to hurry the therapy which is seen as a gradual process.
- 8. The therapist only sets those limits necessary to anchor therapy to the world of reality and to make the child aware of his or her responsibility in the relationship.

(Axline, 1969, p. 76)

Clark Moustakas (1966) has also stressed the importance of genuineness or authenticity in the therapist-child relationship. In this way the child is helped to differentiate his or her own feelings, find meaning in their life, and to discover their own unique selfhood. Loss of self, according to Moustakas, is the central problem of the disturbed child. Moustakas currently calls his form of relationship therapy "experiential or existential child therapy." Rather than playing a role, the therapist communicates his or her real self to the child (Schaefer, 1985).

Moustakas believes that the disturbed child is impaired at some level of the process of emotional development and adjustment. He or she is motivated by undifferentiated, unfocussed feelings of hostility toward almost everyone and everything. The main outer expression may be an attitude of generalized anxiety (Moustakas, 1984).

The disturbed child operates on anxiety-hostility cycle. As he or she outwardly expresses hostility, feelings of guilt increase and inner anxiety is intensified. As he or she expresses the anxiety, he or she begins to feel more and more hostile. When one becomes more angry inside, he or she expresses more fear outside, and the expression of more fear leads to more anger inside. The individual is operating as a superficial self in order to protect the real self within (Moustakas, 1984).

Through exploration of the various levels of the client's feelings and attitudes in an extended interpersonal relationship such as that offered by play therapy, the disturbed child gains a sense of emotional insight and inner comfort, relaxation, and a sense of personal adequacy and worthiness, thereby decreasing the damaging effects of intense attitudes of hostility and anxiety.

There is an apparent parallel between normal and emotional development in the early years of life in a family relationship, and

emotional growth in a play therapy relationship. Analysis of cases of disturbed children in play therapy shows the following levels of the therapeutic process:

- a) diffuse negative feelings, expressed everywhere in the child's play
- b) ambivalent feelings, generally anxious or hostile
- c) direct negative feelings expressed toward parents siblings and others, or in specific forms of regression
- d) ambivalent feelings, positive and negative toward parents, siblings, and others.
- e) clear, distinct separate, usually realistic positive and negative attitudes predominating in the child's play

(Landreth, 1982, p. 222)

The disturbed child's problems and symptoms are reflections of his or her attitudes. As these attitudes are modified the child's problems and symptoms begin to disappear.

In play therapy this exploration and growth move from pervasive, generalized totally negative attitudes that immobilize the disturbed child to clear attitudes positive and negative, which enable the child to feel adequate and express himself in terms of his or her real potential and abilities.

The change in his or her emotional play appears in individual varying sequences and not automatically in a play situation. It becomes possible only in a therapeutic relationship where the therapist responds in constant sensitivity to the child's feelings, accepts the child's attitudes, and maintains a sincere belief in the child and his or her abilities, and a deep respect for him or her as they are (Moustakas, 1955).

Moustakas also believes that it is the environment that disturbs the child. He or she is provoked by the environment, and lacks the ability to cope with an environment that makes them angry and fearful. He or she surely expressed his or her needs in more subtle ways previously, but adults usually don't pay attention until they exaggerate their behaviors. These behaviors are often a desperate attempt to reestablish a social connection. The child is unable to communicate his or her true feelings in any other way but by what they are doing now (Moustakas, 1955).

What seems to be necessary is to allow the child to be conscious of the anger, to know the anger. Next the child needs to learn to assess the situation, and to make a choice about whether to express the anger directly to the person or to express it privately in some other way.

Violet Oaklander (1978) believes that self-integration of feelings, situations, and anxieties occurs through open expression, symbolic play, and also through the child's experiencing the play in a safe, accepting atmosphere. Many parents and teachers report that the child leaves a session showing a sense of peacefulness and serenity.

In the sand tray, figures can be moved around or buried. The sand feels wonderful to the fingers and hands, creating an ideal tactile

and kinesthetic experience (Gumaer, 1984). The child can create his or her own miniature world in the sand. The child can say a great deal through this medium without needing to talk. Allan & Berry (1987) describes the crux of sand-play therapy not being interpretation, but that it must be witnessed respectfully. The counsellor's attitude for this process is one of 'active being' rather than of direction or guidance. The process of the play and dramatization seems to release blocked psychic energy and to activate the self-healing potential that Jung (1964) believed is embedded in the human psyche (Allan & Berry, 1987).

Oaklander (1978) also describes games as a much used tool for social learning. Behavior disordered children have trouble taking turns, playing without cheating, watching someone else be ahead of them on the board, and most of all, losing the game. Often these children end up screaming, yelling, crying or hitting when they lose.

To these children, being accused of cheating is just another example of the constant accusations they face. Their defense in the game is extremely important to them (Oaklander, 1978).

The way a child plays a game is a good barometer of how he or she is coping with life. The games help the child learn about relating to others in life, and grow stronger in game-playing attitudes.

In spite of the strong negative reactions of disturbed children during the course of their games, they want to play and love to play because they rarely get a chance to because of their intense reactions.

Games help the therapist know the child, can help get past the initial resistance, and promote mutual trust and confidence. Games are particularly good with children who have trouble communicating, and with those who need some focusing activity. They are valuable for improving contact skills right in the therapy setting (Oaklander, 1978).

Oaklander (1978) describes her role of a therapist as one where she attempts to guide the child from his or her symbolic expressions and fantasy material to reality of his or her own life experiences. She perceives the child who engages in hostile, intrusive, destructive behaviors as one who has deep angry feelings, feelings of rejection, insecurity, anxiety, hurt feelings and often a diffused sense of selfhood. He or she has, too, a very low opinion of the self they know.

Landreth (1987) describes play therapy as a highly treasured and rewarding experience for children with poor self-concepts. The therapeutic play time allows them to express themselves fully at their own pace with the assurance that they will be understood and accepted. Landreth (1987) goes on to describe seven objectives of play therapy that are appropriate regardless of the theoretical orientation of the counsellor:

- 1. To establish an atmosphere of safety for the child
- 2. To understand and accept the child's world as it is.
- 3. To encourage the expression of the child's emotional world.
- 4. To establish a feeling of permissiveness.

5. To facilitate decision making by the child.

6. To provide the child with an opportunity to assume responsibility and to develop a feeling of control.

7. To put into words what is experienced and observed in the child's behavior, words, feelings, and activity. Through the process of accurately labelling the child's emotions, the play therapist teaches the child an emotional language, thus providing the child with an additional means of communication.

(Landreth, 1987, p. 258)

In play therapy, the media provided in the playroom should be materials that might be used in many ways, such as clay, paints, and pipe cleaners. They should encourage communication and expression of aggression such as a toy gun or bobo doll. Toys that are unstructured and lead to creative imaginative play are useful. Examples of such toys are: paper, crayons, paints, blocks, dolls, puppets, board games, legos, doll family and house, nursing bottle, telephone, cars and trucks, sand tray, miniature figures and animals, a workbench, and safe tools (Gumaer, 1984).

In summary, play therapy is a useful strategy of intervention for the elementary school counsellor to adopt because it is based on developmental principles and thus provides a developmentally appropriate means of expression and communication for children.

Play therapy offers problem children an opportunity to work through their problems, to learn to know themselves, to accept themselves as they are, and to grow more mature through the therapy experience.

Thus far, a picture of the behavior problem child with all his or her characteristics including self-concept and their view of the world has been presented. In addition, play therapy theory has been outlined and its contribution to the treatment of the behavior problem children has been discussed. This naturally leads to one of the initial questions of inquiry for this study: Does play therapy and counselling help to improve children's behavior?

Gerler (1985) reviewed the literature on student behavior change from 1974 to 1984. Several of these studies focused on counsellors' consulting practices with teachers. Bobb and Richards (1983), for instance, studied teachers consultation in combination with classroom guidance and group counselling and found a significant reduction in behavior problems among fourth and fifth graders. Lewin, Nelson, and Tollefson (1983) studied consultation with groups of student teachers and found significant positive changes in children's behavior as reported by the student teachers.

Bleck and Bleck (1982) used play group counselling with disruptive third graders to raise self-esteem scores and behavior rating scores significantly. Other researchers of elementary school counselling have found that promising behavior change results from reinforcement programs (Hosford & Bowles, 1974) from behavior contracts (Thompson, Prater & Poppen, 1974) and from various group

counselling and group guidance approaches (West, Sonstegard, & Hagerman, 1980; Omizo, Hershberger, & Omizo, 1988; Cant & Sparkment, 1985). Downing (1977) found that group counselling designed to modify the behavior of sixth-grade children had the additional benefit of significantly improving achievement. Friesen and Der (1984) discovered after 5 months of counselling, student reading scores improved significantly in comparison to the control group. Thus play therapy techniques have been used successfully in modifying children's classroom behavior.

CHAPTER V: METHODOLOGY

Design

This study employed an interrupted times-series analysis with a nonequivalent no-treatment control group design which focused on behavior before and after a counselling intervention.

The most basic time-series experimental design involves some number of repeated observations, \underline{O} , on an outcome variable across time with an intervention, \underline{X} , introduced at some time period in the series. Interrupted time-series analysis requires knowing the specific point in time of when a treatment occurred in the series. The purpose of the analysis is to infer whether the treatment had a significant impact and, if so, the nature of the impact. If the intervention had a significant impact the observations after the treatment would reflect this and indicate the type of impact the intervention had. That is the series should show signs of an "interruption" at an expected point in time (Cook & Campbell, 1979). An abrupt or gradual change in some property of the observations which coincides with \underline{X} may be the effect of \underline{X} on the dependent variable.

When a no-treatment control group time-series was added for comparison to an interrupted time-series the resulting design was diagrammed as follows:

> O₁ O₂ O₃ O₄ O₅ X O₆ O₇ O₈ O₉ O₁₀ O₁ O₂ O₃ O₄ O₅ O₆ O₇ O₈ O₉ O₁₀

The ability to test for the threat of history is the major strength of the control group times-series design.

In this experimental design the main task was to model the serial dependency (noise) and the intervention of the series, to see what type of change was happening (if any) to the series as a result of intervention. The null hypotheses were tested by comparing the preand post-intervention segments of the times-series for each group (treatment and control) by modelling each segment of the series and testing for the goodness-of-fit of the models.

Subjects

Six male subjects (3 experimental A, B, C, and 3 control X, Y, Z) who were all between the ages of 7 and 8 and in grade 2 were selected for the study. All subjects were from middle class families and were in the same primary social learning class in a suburban school district in British Columbia, Canada. They were segregated from the regular class due to behavior that was hindering their own learning and the learning of those around them. The investigator chose three boys with low monthly desirable behavior scores as experimental subjects, and boys with high scores as control subjects. The investigator used this criterion as a way of deciding who was in need of treatment during the limited counselling time available. The 3 children who served as control subjects received no counselling during the entire period of the study.

Procedure

Once subjects were identified, letters of consent requesting each child's participation in the study were sent home for parental signatures (See Appendix C).

Three males, A, B, C, all 8 years of age and from the same social learning classroom, received bi-weekly, individual, 45-minute counselling sessions. Twenty consecutive sessions occurred over a period of 13 weeks. Counselling sessions took place in the school counsellor's office and were audio-taped.

Three control male subjects (X, Y, Z, ages 8, 8 and 7) received no counselling for a period of 13 weeks. Daily behavior scores were awarded by the special education teacher and teacher-aide who were blind to the purpose of the investigation and the content of the treatment. They also did not know who the experimental subjects were.

Because the author was counselling other children from the same class since October as part of a counselling practicum, the teacher and teacher-aide did not know which children were being removed from class as subjects. Behavior points were earned when the subjects adhered to the classroom rules listed in Appendix A. The five main rules were: using manners; staying on task; being a friend; following instructions; and minding ones own business. A total daily behavior score for each subject was obtained and graphed. Pre and post tests on the Piers Harris Children's Self-Concept Scale (1969) and the Joseph Pre-School and Primary Self-Concept Screening Test (JPPSST) (1979) were administered by the resident school counsellor before and after the treatment period.

The data files were set up for each subject in the following manner:

	T ₁	T2	Т3
Baseline	1st Phase	2nd Phase	3rd Phase
	of Treatment	of Treatment	of Treatment
(March)	(April)	(May)	(June)
days	days	days	days
1, 2,20	21, 22,40	41, 42,60	61, 62,80

Each numerical data point for each subject represents a daily total behavior point score. Thus, the observed time-series was a record of daily changes in behavior scores over a period of 80 days.

Four time series analyses were obtained for each subject. The first time-series was the baseline period of 1-20 days. The second series covered the first intervention period from day 21- day 40 (T_1).. The third time-series covered the second intervention period from day 41- day 60 (T_2). The fourth and final time-series included the interventions from days 61-day 80 (T_3).

Intervention

The theoretical orientation of counselling employed in this study was based on Egan's (1975) client-centered model. There were three major stages in the counselling process: exploration, understanding and action (Friesen & Der, 1984).

The exploration stage was directed toward building a relationship with the clients. It included verbal and non-verbal expressions, such as painting, drawing and play, with the goal being to facilitate client exploration.

The understanding stage involved assisting the clients to better understand their perceptions of themselves, significant others and their perceptions of their problems through reflection of their responses.

The action phase involved assisting the clients in devising a plan of action to resolve their problems. Both the client and the counsellor considered various plans the client could act upon (Friesen & Der, 1984). The client was then encouraged to make his or her own decision and this decision was supported by the counsellor.

Instruments

Behavior Point Scale

This scale was designed by the special education teacher who taught the subjects in this study. It was not a standardized test.

Students would earn 1 point for displaying any of the positive school behaviors listed in Appendix A, and would also lose 1 point for displaying negative or opposite behaviors to those listed. Daily points earned for performing positive behaviors were tallied and graphed monthly for each subject. A criterion score of 15 points per day was considered the minimal score in order to conclude a child's behavior was acceptable for that day. This criterion was designated by the teacher who felt there was ample opportunity to score at least 15 points in a given day.

Piers-Harris Children's Self-Concept Scale

The Piers-Harris (1969) is an 80 item self-report questionnaire designed to assess how children and adolescents feel about themselves. Children listened to 80 statements (read aloud) that described how some people feel about themselves (See Appendix B). Subjects were asked to indicate whether each statement applied to them or not by using dichotomous "yes" or "no" responses (Piers, 1984). Items were grouped into six subscales: behavior, intellectual and school status, physical appearance and attributes, anxiety, popularity, and happiness and satisfaction. Norms were based on pupil's responses in Pennsylvania school districts in the 1960's, so comparison to the population in this study was not assumed.

Mitchell (1985) reports test-retest reliabilities ranging from .42 to .96, with a mean of .73 for periods of two and four months for 244 fifth grade pupils. Studies investigating internal consistency yielded coefficients ranging from .88 to .93 on the total scale which is quite high. The Piers-Harris has face validity, and reports moderate relationships with other measures of self-concept. "Intercorrelations between cluster scales ranging from .21 to .59 were obtained, indicating a moderate degree of relatedness" (Mitchell, 1985, p. 1169). Mitchell (1985) also describes the Piers-Harris to be the "best children's self-concept measure currently available" (p. 961).

Joseph Pre-School and Primary Self-Concept Screening Test (JPPSST)

The JPPSST is an instrument comprising of 13 bipolar items presented on same sex picture cards and is intended to obtain global self-concept estimates for pre-schoolers. It is based on a theoretical premise that self-concept is the way an individual perceives him/herself, his or her behaviors, how others see them, and the feelings of personal worth and satisfaction that are attached to these perceptions (Joseph, 1979).

The JPPSST measures this personal judgement based on five general dimensions:

Significance - perceived value to significant others; Competence - the perception of being able to successfully perform; Power - the perceived ability to influence, manipulate, and control others; General Evaluation Content - feelings of satisfaction with one's present life circumstances; and Virtue - perceived adherence to moral standards.

(Joseph, 1979, p. 8)

The JPPSST has face validity, a test-retest reliability coefficient of .87 and internal consistency Kuder-Richardson (20) coefficients ranging from .59 to .81.

Construct validity was established by comparing Global Self-Concept Scores to the scores obtained on two self-concept rating scales completed by teachers. In his discussion of concurrent validity, Joseph (1979) reports significantly different scores for preschoolers placed in self-contained special education classes vs. preschoolers in regular education classes.

This test is norm referenced and was standardized on 1,245 children (aged 4-10) residing in Illinois (Mitchell, 1985).

In summary, the JPPSST is one of the best self-concept measures available for young children because it is well written, clear, and the pictures insure that the child understands the questions (Mitchell, 1985).

Data Analysis

Four interrupted time series analyses for each subject were conducted by utilizing the BMDP:2T Box-Jenkins Time-Series Analysis computer program, on the behavior point data that was recorded daily. This program was able to analyze for intervention effects on behavior over time in order to see whether or not counselling affected each subject's behavior.

The time series analysis program is explained in detail in Appendix D.

In addition pre and post measures on the Piers-Harris Children's Self-Concept Scale (1969) and the Joseph Pre-School and Primary Self-Concept Screening Test (1979) were administered and scored by the resident school counsellor on March 30 and June 26, 1990.

CHAPTER VI: RESULTS

Time-Series Analyses on Behavior Scores

In testing the hypotheses that there would be no significant changes in the experimental subjects' behavior as mesured by the teacher-made behavior point scale, the BMD-P: 2T Box Jenkins Time-Series Analysis was carried out on each subject's monthly behavior point scores.

Experimental Subject A. An ARIMA (0, 0, 0) model fitted the preintervention (baseline) of the time-series well (See Appendix D), indicating that behavior occurring during this time period was realization of random processes. The model of the second and third phase of treatment (T₂,and T₃), indicated that intervention was resulting in a significant gradual improvement in Subject A's behavior.

His preintervention (baseline) behavior point mean was 11.56.

In April (T₁), no significant intervention effect was found, but in May (T₂), June (T₃), significant gradual improvement in behavior became evident. Graphs 1, 2, and 3 illustrate the behavior point changes for time series T₁, T₂, and T₃ for Experimental Subject A.

<u>Experimental Subject B</u>. An ARIMA (0, 0, 0) fitted the preintervention time-series well, indicating that Experimental Subject B's behavior during this time period was the realization of random processes. His preintervention (baseline) behavior point mean was 11.7°.

In April (T₁), the independent counselling variable was not significant but May (T₂), and June (T₃) both yielded significant independent variable estimates at the p<0.05 level. These results are illustrated in graphs 5 and 6, which indicate that the intervention counselling impacted Subject B's behavior in May and June.

Experimental Subject C. An ARIMA (0, 0, 0) model fitted the preintervention time-series well, indicating that Experimental Subject C's behavior during this time period was the realization of random processes. His pereintervention (baseline) behavior point mean was 15.70. No significant independent (counselling) variable estimates were found in April (T₁) or June (T₃), but May (T₂) did yield a significant independent variable estimate of +0.98 units/day at the p<0.05 level. The results for Experimental Subject C are illustrated in graphs 7, 8, and 9.

<u>Control Subject X</u>. An ARIMA (0, 0, 0) model fitted the Baseline and T₁, T₂, and T₃, time-series well, indicating that Experimental Subject X's behavior during these time periods were essentially the realization of chance processes. His preintervetnion (baseline) behavior point mean was 24.85. Control Subject X's behavior means for April, May, and June were 24.75, 27.85 and 23.70 behavior points, respectively, which were not significant changes.

No significant change estimates were found in April (T_1), May (T_2), June (T_3) indicating that no significant intervetnion events took place in any of the time series. This result is important in that the behavior of the control subject remained essentially unchanged in comparison to the experimental subjects. The results of these series are illustrated in graphs 10, 11, and 12.

<u>Control Subject Y</u>. An ARIMA (0, 0, 0) model fited the Baseline, of the time-series well, indicating that Control Subject Y's behavior during this time period was only due to chance. His preintervetnion (baseline) behavior point mean was 20.60. Control Subject Y's behavior means for April, and May, were 20.85, 21.95, behavior points, respectively.

No significant change parameter estimates were found in April (T₁) and May (T₂). The rate-of-change parameter estimate (0.79) was found to be significant at the p<0.05 level in series (T₃), indicating Control Subject Y's behavior did change significantly in June. This result was unexpected. The results of these series are illustrated in graphs 13, 14, and 15.

Control Subject Z. An ARIMA (0, 0, 0) model fitted the Baseline of the time-series well, indicating that Experimental Subject Y's behavior during the baseline period was only due to chance. His preintervetnion (baseline) behavior point mean was 16.10. Control Subject Z's behavior means for April, and June were changed by 16.95, and 17.75 behavior points, respectively.

No significant change parameter estimates were found in April (T₁), and June (T₃). But, the rate-of-change parameter estimate (0.82) in May (T₂), was found to be significant at the p<0.05 level, indicating Control Subject Z's behavior changed significantly during the month of May. This was an unexpected result. The results of Control Subject Z's time series are illustrated in graphs 16, 17, and 18.

ノエ

As indicated by the self-concept scores, all three experimental subjects scored lower on both the Piers-Harris and JPPST in June when scores are compared to April's results.

On the contrary Control Subject X and Y made gains on both measures. Control Subject Z also had lower self-concept scores in June as compared to April.

Self-Concept Results

Tables 1 and 2 list the results obtained for each subject on the Piers Harris and Joseph Pre-School and Primary Self Concept Tests.

Rav	w Scores	Subje	ect A	Subje	ect B	Subje	ect C	Cont	rol X	Cont	rol Y	Cont	rol Z
	on:	Mar 30	June 26										
Ger Cor	neral Self ncept	71	65	48	36	62	56	65	73	63	72	65	60
I.	Behavior	14	13	8	8	14	12	15	14	12	16	12	12
II.	Intellectual and School Status	15	15	12	9	12	13	17	15	15	14	16	14
111.	Physical Appearance & Attributes	12	11	9	3	9	8	11	11	12	10	9	9
IV.	Anxiety	12	14	8	4	14	12	11	14	10	13	8	10
V.	Popularity	12	8	8	4	7	9	9	8	10	8	9	10
VI.	Happiness & Satisfaction	10	8	8	4	7	9	9	8	10	8	9	10

Table I.Raw Scores for General Self-Concept and Subscales on the Piers Harris Children's
Self-Concept Scale March 30 and June 26, 1990.
The mean total raw score on 1,183 grades 4-12 students was 51.84 with a standard
deviation of 13.87.

	March 30	June 26
Subject A	24	23
Classification	Poor	Poor
Subject B	27	22
Classification	Moderate Positive	High Risk Negative
Subject C	25	21
Classification	Watch List	High Risk Negative
Control X	23	22
Classification	Poor	High Risk Negative
Control Y	29	30
Classification	Moderate Positive	High Positive
Control Z	27	23
Classification	Moderate Positive	Poor

Table IIRaw Scores and Self-Concept Classification on the JosephPre-School and Primary Self-Concept Screening Test.

On the normative age group 6-0 to 9-11 presented in the manual:

18% fell into the High Positive self-concept reange
53% fell into the Moderate Positive self-concept range
8% fell into the Watch List self-concept range
9% fell into the Poor self-concept range
12% fell into the High Risk Negative self-concept range

The median Global Self Concept Score attained for the normative group aged 6-0 to 9-11 was 27.

CHAPTER VII: DISCUSSION AND CONCLUSIONS

In order to comment on the null hypothesis stating that no significant changes in behavior or self-concept occurred in students with behavior problems as a result of counselling, references were made to the results presented in Chapter VI. Each subject will be discussed separately and then comparisons between experimental and control subjects will be made.

Experimental Subject A

It was established earlier Experimental Subject A's behavior was due to chance during the baseline period. It was also found that his behavior was affected by the counselling intervention. No significant intervention effect was found in April, which may have been due to A just starting to develop a relationship with the counsellor at that time. Significant intervention effects were found in May and June. The significant intervention estimates and behavior point gain scores indicated that counselling helped A to improve his behavior over time. Graphs 2 and 3 showed how the increase in A's behavior points was a gradual process.

Because Subject A received one-to-one attention and empathy during the counselling sessions, he may have felt more understood and less in need of acting out in order to get attention. Positive reinforcement, praise and privledges were also awarded to Subject A

for appropriate considerate behaviors in the classroom and on the playground. It is interesting to note that Subject A's self-concept scores went down from March to June on the Piers'-Harris Self-Concept test. When I first started counselling Subject A he would frequently present himself as a good boy who was just mistreated and provoked by others. By the end of June, Subject A was telling me he was unhappy at home and school. During the month of May, Subject A was returned to his natural mother for a two week trial period because Grandma (the legal guardian) was fed up with A's behavior. Subject A reported feeling loved by his biological Mom, and was sad that Grandma started saying how much she missed him. Subject A chose to return to Grandma in June because he didn't want to upset her. At the same time Subject A very much wanted to build a closer relationship with his biological Mom, but Grandma disapproved. By the end of June, A had mixed feelings for both Mom and Grandma and this sadness may have resulted in the lower Self-Concept score.

It is also worth noting that as one starts to discover more about oneself through counselling, it is very possible that learning to accept negative attributes about oneself could lower self-concept. Cotton (1983) reports that self-concept scores lower as a person moves from one developmental stage to another. During periods of new learning there is a return to external sources of self-concept as one tries to shift from external to internal sources of self-worth (Cotton, 1983).

Experimental Subject B

It was also established that an ARIMA (0, 0, 0) model fitted all of Subject B's time series well. This indicates that B's behavior was partly due to chance factors throughout the whole experiment.

No significant intervention effect was found in April which may have been due to B just starting to form a relationship with the counsellor at that time. Significant intervention effects were found in May and June resulting in behavior point increases during those months. The significant intervention estimates and behavior point gain scores indicated that counselling helped B improve his behavior over time. Graphs 5 and 6 showed how the increase in B's behavior was a gradual process.

Subject B made great gains in his behavior points over three months. During the experimental time period, he was being integrated into a regular grade 3 class at a different school. This was working well for B, but he was unhappy at home. During the initial month of play therapy, B was agressive with the toys, and spent many of the sessions having the character figures order each other around. As the counsellor-client relationship developed, B would increasingly express his anger toward his parents whom he reported to be domineering, demanding, and confusing to him. On the last session, it was reported by the examiner that a question on the Piers-Harris Self-Concept scale triggered a response of "Everyone always thinks things are my fault, and I don't know why, they just tell me I'm wrong." It is quite understandable that Subject B's self-concept scores went down from March to June. It may have been that the more B heard reflective statements about himself in the sessions, the more frustrated and negative he became as a result of this new information.

On the other hand, school was a positive place for B, the integration was going well and his progress resulted in more positive behavior at school.

Experimental Subject C

It has been established that the ARIMA (0, 0, 0) model fitted the Baseline, T₁, T₂ and T₃ time-series well, indicating that Experimental Subject C's behavior was partly due to chance factors during the whole experiment. No significant intervention effects were found in April which may have been due to C just starting to form a relationship with the counsellor at that time. However, a significant intervention effect was found in May at p<0.05 level. The decrease in behavior points in June may have been due to C finding out that he would not be able to live in the same city as his biological father, because of his mother's recent remarriage. This news distressed C as he was close to his father and visited him every other weekend. C's attitude and effort in school work and behavior went down significantly in June.

As for Subject C's behavior point increases in May, it may well be that C was just starting to feel comfortable in the sessions when this remarriage took place, triggering a period of readjustment for him.

Although feelings of being angry and left out were explored, C had a hard time talking about them and preferred to play them out by having one hero figure annihilate several figures and objects. This struggle for power and a wish for triumph over intruders was a recurrent theme in his play, and C rarely was able to win all his battles as the hero. As feelings of anger and frustration were reflected to C, he preferred to respond with more play and a few verbalizations such as "Yah, yah."

It is interesting to note that Experimental Subject C's self-concept scores also went down, again, possibly suggesting that as more negative feelings were explored in the play, the more they became part of C's self-concept.

An unpublished study done by Michael Stockdale at the Children's Foundation in Vancouver, British Columbia in 1982, also found that as children with behavior problems progressed through counselling, their self-concept scores went down as well. Once negative aspects of self were accepted and integrated into the child's self-concept, acceptance of negative attributes was considered healthy in itself. The foundation found that it generally took over 6 months of individual sessions to explore all the hurt feelings a child had experienced. They found that once the child accepted negative feelings and attributes as part of life, the client could move on to discovering positives about him/herself. By the end of their treatment year, clients showed an increase in self-concept scores (Stockdale, 1982).

Control Subject X

It has been established that the ARIMA (0, 0, 0) fitted the Baseline, T₁, T₂, and T₃ time-series well, indicating that Experimental Subject X's behavior was partly due to chance factors during the whole experiment.

No significant intervention effects were found in April, May, June or for the whole series (T4). X's behavior point means during the experiment did not differ significantly from his baseline mean of 24 behavior points. This result indicated that X's behavior did not significantly change throughout the experiment (See graphs 10, 11, and 12). This result was an important finding because it demonstrated that Control Subject X did not make any significant behavior point gains in comparison to the Experimental Subjects who did make gradual behavior point gains. This finding suggests that the Experimantal Subjects may have benefitted from the counselling intervention.

Control Subject Y

It has been established that the ARIMA (0, 0, 0) model fitted the Baseline, T₁, T₂, and T₃ time-series well, indicating that Experimental Subject Y's behavior was partly due to chance factors during the whole experiment.

No significant intervention effects were found in April or May. A significant intervention effect was found in June (see graph 15 on pg. ??) but this effect could not have been due to counselling, since Y did not receive counselling. Y's significant improvement in behavior may have been due to the fact that Y was informed in June that he would be almost fully integrated into a regular class next year. This was a goal of Y's and could explain his sudden increase in good behavior.

Control Subject Z

It has been established that the ARIMA (0, 0, 0) model fitted the Baseline, T₁, T₂ and T₃ time-series well, indicating that Experimental Subject Z's behavior was partly due to chance factors during the whole experiment.

No significant intervention effects were found in April or June. However a significant intervention effect was found in May. This increase in good behavior may have been partly due to Z's receiving parental attention in May. Z's sixteen year old sister was running a household of four children for two weeks in April, while Z's parents were away on a holiday. The return of Z's parents may have added more stability to Z's life at that time, resulting in improved behavior.

It should be noted that this new improved behavior did not occur in June. In fact, Z regressed into some old patterns of manipulating classmates and had consequently lost much of his lunch hour playtime during the month of June.

Summary and Conclusions

The time-series analyses for Subjects A and B revealed that counselling did produce a definite intervention effect resulting in more positive school behaviors. Subject C had one series which was significant in May, but counselling did not prove to be as beneficial for the month of June. This may have been due to the rapid changes taking place in C's life, specifically his mother's remarriage. However, there is enough sufficient evidence from Subjects A and B to reject the null hypotheses and conclude that primary grade students in this study who had behavior problems and received 20 individual counselling sessions, showed significant gradual improvement in their daily school behaviors. This result adds support to Marchant's (1972) and Whitely and Sulzer (1970) claim that significant behavioral changes took place with sutdents who received counselling. Abrupt changes did not occur in school behavior nor in self-concept scores and this finding is consistent with Coopersmith (1981) who states that self-concept develops gradually over time. Control Subject X, did not show any significant improvement in behavior. Although this child was managing fairly well in the social learning classroom environment, there was a lack of significant change in his behavior. Including him as a control subject was useful in strengthening the design of the experiment, and demonstrting differences in results between subjects.

Both Control Subjects X and Z had one month of better behavior, but the effects of this success was not long lasting. This
supports Griest and Well's (1983) finding of short-lived behavior modification effects.

It should also be noted that all three of the Experimental Subjects went down on raw score measures of self-concept, while two Control Subjects made gains in raw score measures of self-concept although this result was not statistically significant. This author is in agreement with the explanation offered by the Stockdale (1982) and Cotton (1983) mentioned earlier.

It is also important to remember that Sordahl and Sanche (1984) found no difference in self-concept scores between experimental and control groups after 40 classroom counselling meetings involving grade four students. However, their classroom behavior did improve significantly (Sordahl & Sanche, 1984).

Additionally, after Martinez (1979) counselled grade 104 students for eight individual sessions each, there was no change in self-concept scores for the counselled group in comparison to the control group. However, Martinez (1979) found a reduction in the frequency of disturbed behavior by students who received counselling compared to the control group. He also found no significant relationship between change in behavior and change in self-concept (Martinez, 1979).

The literature also shows that 9 and 10 year olds who received 18 classroom discussion counselling sessions, improved their self-esteem scores in comparison to the control group, but not to a significant degree (Pigge, 1970).

103

All these studies support the findings of this research which indicated that after 20 sessions of individual counselling, seven and eight year old experimental subjects improved their classroom behavior, but went down on raw score measures of self-concept whereas two control subjects scored higher self-concept scores. These results, however, were not statistically significant. The similar finding among all these studies is that the behavior of experimental subjects improved; that the changes in self-concept scores were not statistically significant, and that no significant relationship was found between changes in behavior and changes in self-concept. This may be due to the time limits of all these studies. Possibly, a study involving a whole year of counselling sessions would yield different results.

In order for children with behavior problems to make any progress in counselling, they must first be ble to explore their negative feelings and accept them. Once this difficult task is complete, learning and performing positive behavior becomes the option more desirable and possible, once the child knows he or she is accepted, validated and loved even with all of their negative qualities. Once children know that, risk taking in the form of positive behavior may seem less scarry.

Although the literature (Gerler, 1985; Bobb & Richards, 1983; Hosford & Bowles, 1974; Omizo, Hershberger & Omizo, 1988: Friesen & Der, 1984) indicates that elementary school counselling is useful in effectively modifying regular children's classroom behavior, this is the first study that the author is aware of that indicates individual

104

counselling has similar positive results with children who have behavior problems in social learning classrooms.

Counselling effectiveness is difficult to measure since so many factors contribute to a client's success or failure in therapy. However, time-series analysis allows us to analyze behavior over time, and this has proven to be a useful tool in looking for intervention effects in the behavioral sciences (Cook & Campbell, 1979).

Studies on play therapy (Axline, 1969; Moustakas, 1984) mostly rely on case study and qualitative methods of reporting which are subject to investigator bias and interpretation. This relatively new of time-series analysis (Box-Jenkins, 1983) adds a quantitative component to the single case study approach. The inclusion of a control group as well gives the interrupted time series design even more power (Cook & Campbell, 1979). By including a control group in this design we were able to see that counselling was an effective treatment

Limitations of the Study

It is evident that this study falls short of being ideal. The fact that all subjects were from the same classroom limits its generalizability. Generalizability is also limited to only 6 males (ages 7-8) with behavior problems.

Each child had varying levels of problem behavior, so results cannot generalize to all students with behavior problems. Family factors also influenced a child's behavior to a great degree, therefore changes in behavior cannot be attributed solely to method of instruction and/or counselling alone. Counselling was also coupled with an already existing cognitive-behavioral program, so conclusions about counselling can only be made "in addition with" such a program.

However, because the literature is sparse on this segregated population and such children do not necessarily receive counselling, this study has been worthwhile in order to extend the research available, and provide evidence of counselling being an effective intervention for children who have behavior problems.

Recommendations For Further Research

Because some positive counselling intervention effects were found, further research using time series analysis with behavior disordered students is imperative for replication. In addition, the use of a standardized behavior observation form may allow for more replication from other experimenters, since not all segregated classrooms have the same behavior modification point system.

Counselling intervention would also most likely be more beneficial over a longer period of time (e.g. six months-one year). Subjects with the same severity of problem behavior would also make a study more generalizable.

A similar study on normal 7 and 8 year olds would also be of great help in order to compare what is normally happening with school behaviors at this particular developmental age. Very few studies in Counselling Psychology employ the Box-Jenkins Time-Series Analysis Computer program even though it has proven to be a very sensitive and statistically sound methodology (Cook and Campbell, 1979). This method could prove to be of great value in this discipline in order to test for counselling effectiveness over time.

References

- Achenbach, T. M., (1978). Psychopathology of childhood: Research problems and issues. <u>Journal of Consulting and Clinical</u> <u>Psychology</u>, <u>46</u>, 759-776.
- Achenbach, T. M. & Edelbrock, C. S. (1981). Behavioral problems and competencies reported by parents of normal and disturbed children aged 4 through 16. <u>Monographs of the Society for Research in Child</u> <u>Development</u>, <u>46</u>, (1, Serial No. 188).
- Allan, J. A. & Berry, P. (1987). Sandplay. <u>Elementary School Guidance</u> <u>& Counseling</u>, <u>21</u>, 301-357.
- Algozzine, R., Schmid, R. and Mercer, C.D. (1981). <u>Childhood behavior</u> <u>disorders</u>. Rockville, Maryland: Aspen System Corporation.

Axline, V. (1969). Play therapy. New York: Ballantine Books.

- Ballow, B. (1979). Definitional and prevalence problems in behavior disorders of children. <u>School Psychology Digest</u>, <u>8</u>, 348-354.
- Bandura, A., Ross, D., & Ross, S. (1961). Transmission of aggression through immitation of aggressive models. <u>Journal of Abnormal</u> <u>and Social Psychology</u>, <u>63</u>, 575-582.
- Bandura, A. (1968). A social learning interpretation of psychological dysfunctions. In P. London & D. Rosenhan (Eds.), <u>Foundations of</u> <u>abnormal psychology</u>. New York: Holt, Rinehart & Winston.
- Battle, J. (1981). <u>Enhancing self-esteem and achievement</u>: <u>A handbook</u> <u>for professionals</u>. Seattle, WA: Special Child Publications.

- Beane, J. A. & Lipka, R. P. (1980). Self-concept and self-esteem: A construct differentiation. <u>Child Study Journal</u>, <u>10</u>, 1-6.
- Beane, J. A. (1986). The self-enhancing middle-grade school. <u>The</u> <u>School Counselor</u>, <u>20</u>, 189-195.
- Bell, J. E. (1971). Impact of emphasis on family units. In H. E. Rie (Ed.) <u>Perspectives in child psychopathology</u>. Chicago: Aldine.
- Bird, B. L., Russo, D. C., & Cataldo, M. F. (1977). Considerations in the analysis and treatment of dietary effects on behavior: A case study. <u>Journal of Autism & Childhood Schizophrenia</u>, 7, 373-382.
- Blackham, G. J. (1967). <u>The deviant child in the classroom</u>. Belmont, CA: Wadsworth.
- Bleck, R. T. & Bleck, B. L. (1982). The disruptive child's play group. Elementary School Guidance & Counseling, 10, 4-12.
- Bloom, B. S. (1977). Affective outcomes of school learning. <u>Phi Delta</u> <u>Kappan</u>, <u>59</u>, 193-199.
- Bower, E. M. (1969). <u>The early identification of emotionally</u> <u>handicapped children in school</u> (2nd ed.). Springfield, Illinois: Thomas.
- Bower, E. M. (1981). <u>Early identification of emotionally handicapped</u> <u>children in school</u> (3rd ed.) Springfield, Illinois: Charles C. Thomas.
- Bower, E. M. (1982). Defining emotional disturbance: Public policy and research. <u>Psychology in the Schools</u>, <u>19</u>, 55-60.

- Bruce, P. (1958). Relationships of self-acceptance to other variables with sixth-grade children oriented in self-understanding. <u>Journal of</u> <u>School Psychology</u>, <u>49</u>, 229-237.
- Burdett, K. & Jensen, L. C. (1983). The self-concept and aggressive behavior among elementary school children from two socioeconomic areas and two grade levels. <u>Psychology in the</u> <u>Schools</u>, <u>20</u>, 370-375.
- Cant, R. & Spackman, P. (1985). Self-esteem, counselling and educational achievement. <u>Educational Research</u>, <u>27</u>, 68-71.
- Cenname, A. F. (1977). <u>The school behavior of children with good and</u> <u>poor self-concepts: A case study</u>. Unpublished doctoral dissertation, University of Pennsylvania, Philadelphia.
- Center, D. B. (1989). <u>Curriculum and teaching strategies for students</u> <u>with behavioral disorders</u>. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.
- Charlton, J. M. (1987). <u>Self-concept and locus of control: A study of intermediate and secondary students with learning disabilities</u>.
 Vancouver, B.C.: University of British Columbia.
- Cobb, H. C. & Richards H. C. (1983). Efficacy of counselling services in decreasing behavior problems of elementary school children.
 <u>Elementary School Guidance & Counseling</u>, <u>17</u>, 180-187.
- Coleman, M. C. (1986). <u>Behavior disorders: Theory and practice</u>. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

110

- Cook, T.D. & Campbell, D.T. (1979). <u>Quasi-experimentation</u>: <u>Design</u> <u>and analysis issues for field settings</u>. Chicago: Rand McNally.
- Csapo, M. (1985). The extent of under identification of children with behavior disorders in British Columbia: Problems of definition and identification. <u>B. C. Journal of Special Education</u>, <u>9</u>, 1, 29-45.
- Cullinan, D., Epstein, M. H., & Lloyd, J. W. (1983). <u>Behavior disorders</u> of children and adolescents. Englewood Cliffs, NJ: Prentice-Hall.
- Dinkmeyer, D. & Carlson, J. (1975). <u>Consulting: Facilitating</u> <u>humaneness and change processes</u>. Columbus, Ohio: Charles E. Merrill Co.
- Downing, C. J. (1977). Teaching children behavior change techniques. <u>Elementary School Guidance & Counseling</u>, 11, 277-283.
- Dreikurs, R. (1973). The private logic. In H. Mosak (Ed.), <u>Alfred Adler:</u> <u>His influence on psychology today</u> (pp. 19-32). Park Ridge, NJ: Noyes Press.
- Dreikurs, R., Grunwald, B. B., & Pepper, F. (1971). <u>Maintaining sanity</u> <u>in the classroom</u>. New York: Harper & Row.
- Eagen, G. (1975). <u>The skilled helper</u>. Monterey, CA: Brooks-Cole.
- Epstein, M. H., Cullinan, D., & Sabatino, D. A. (1977). State definitions of behavior disorders. <u>Journal of Special Education</u>, <u>11</u>, 417-425.
- Epstein, M. H., Kauffman, J. M., & Cullinan, D. (1985). Patterns of maladjustment among the behaviorally disordered: II Boys aged 6-11, boys aged 12-18, girls aged 6-11, and girls aged 12-18. <u>Behavioral</u> <u>Disorders</u>, <u>10</u>, 125-135.

- Felker, D. W. (1974). <u>Building positive self-concepts</u>. Minneapolis,Minnesota: Burgess Publishing Co.
- Fergusson, D. M., Horwood, L. J., & Shannon, F. T. (1984). Relationship of family life events, maternal depression, and child-rearing problems. <u>Pediatrics</u>, <u>73</u>, 773-776.
- Fleishman, M. J. (1981). A replication of Patterson's "Intervention for boys with conduct problems." <u>Journal of Consulting and Clinical</u> <u>Psychology</u>, <u>49</u>, 342-351.
- Fleishman, M. J., & Horne, A. M. (1979). Working with families: A social learning approach. <u>Contemporary Education</u>, <u>50</u>, 66-71.
- Fisher, W., Burd, L., Kuna, D. & Berg, D. (1985). Attention deficit disorders and the hyperactives in multiply disabeled children. <u>Rehabilitation Literature</u>, <u>46</u>, 250-254.
- Forness, S. R. & Kavale, K. A. (1989). Identification and diagnostic issues in special education: A status report for child psychiatrists. <u>Child Psychiatry and Human Development</u>, 19, 279-297.
- Forness, S. R., Sinclair, E., & Russell, A. (1984). Serving children with emotional or behavior disorders: Implications for educational policy. <u>American Journal of Orthopsychiatry</u>, <u>54</u>, 22-32.
- Friesen, J. D. & Der. D. (1984). The outcomes of three models of counselling and consulting. <u>International Journal for the</u> <u>Advancement of Counselling</u>, <u>7</u>, 67-75.

Gelfand, D. M., Jenson, W. R., & Drew, C. J. (1988). <u>Understanding</u> <u>child behavior disorders: An introducation to child</u>

psychopathology (2nd ed.). New York: Holt, Rinehart & Winston.

- Gerler, E. R. Jr. (1985). Elementary school counseling research and the classroom learning environment. <u>Elementary School Guidance &</u> <u>Counseling</u>, <u>20</u>, 39-48.
- Graubard, P. S. (1973). Children with behavioral disabilities. In L. Dunn (Ed.), <u>Exceptional children in the schools</u>. New York: Holt, Rinehart, & Winston.
- Griest, D. L., & Wells, D. C. (1983). Behavioral family therapy with conduct disorders in children. <u>Behavior Therapy</u>, <u>14</u>, 337-353.
- Grosenick, J. K., George, N. L. & George, M. P. (1988). The availability of program descriptions among programs for seriously emotionally disturbed students. <u>Behavioral Disorders</u>, <u>13</u>, 108-115.
- Gumaer, J. (1984). <u>Counseling and therapy for children</u>. New York: The free Press.
- Gurney, P. W. (1981). Using behavior modification to enhance selfesteem in maladjusted boys. In K. Wheldall (Ed.) <u>The behaviorist</u> <u>in the classroom: Aspects of applied behaviour analysis in British</u> <u>education contexts</u>. pp. 39-51. Birmingham: Educational Review Offset Publications No. 1.
- Hall, C. W. & Wahrman, E. (1986). Theoretical orientations and perceived acceptability of intervention strategies applied to actingout behavior. <u>Journal of School Psychology</u>, <u>26</u>, 195-198.

- Hall, L. A. and Farel, A. M. (1988). Maternal Stresses and depressive symptoms: Correlates of behavior problems in young children. <u>Nursing Research</u>, <u>37</u>, 156-161.
- Haring, N. (1963). The emotionally disturbed. In S. Kirk & B. Weiner (Eds.), <u>Behavioral research on exceptional children</u>. Washington, D.C.: The Council for Exceptional Children.
- Harley, J. P., Matthews, C. G., & Eichman, P. (1978). Synthetic food colors and hyperactivity in children: A double-blind challenge experiment. <u>Pediatrics</u>, <u>62</u>, 975-983.
- Hendrickson, J. M., Gable, R. A., & Shores, R. E. (1987). The ecological perspective: Setting events and behavior. <u>The Pointer</u>, <u>31</u>(3), 40-44.
- Hetherington, E. M. & Martin, B. (1979). Family interaction. In H. C.Quay & J. S. Werry (Eds.), <u>Psychopathological disorders of childhood</u>(2nd ed.). New York: Wiley.
- Hewitt, F. (1968). <u>The emotionally disturbed child in the classroom</u>. Boston: Allyn and Bacon.
- Hilton, a. (1987). Using ecological strategies when working with young children. <u>The Pointer</u>, <u>31</u>(3), 52-55.
- Hobbs, N. (1975). <u>The futures of children: Categories, labels, and their</u> consequences. San Francisco: Jossey-Bass.
- Hosford, R. E. & Bowles, S. A. (1974). Determining culturally appropriate reinforcers for Anglo and Chicano students. <u>Elementary School Guidance & Counseling</u>, <u>8</u>, 290-300.

Jenson, W. R., Reanis, K. & Rhodes, G. (1987). A conceptual analysis of childhood behavior disorders: A practical educational approach. In
b. Scott & J. Gillam (Eds.), <u>Topics in behavior disorders</u>, Austin TX: Behavioral Learning Center.

Jung, C. (1964). Man and his symbols. New York: Doubleday.

- Kauffman, J. M. (1979). <u>A historical perspective on disordered behavior</u> and an alternative conceptualization of exceptionality. Paper presented at an Advanced Institute for Trainers of Teachers of Seriously Emotionally Disturbed Children and Youth, Charlottesville, VA.
- Kauffman, J. M. (1985). <u>Characteristics of children's behavior disorders</u>. Columbus, Ohio: Charles E. Merrill Publishing Co.
- Kauffman, J. M., McCullough, L. L., & Sabornie, E. J., (1984). Integrating exceptional students: Special problems involving the emotionally disturbed/behaviorally disordered. <u>B.C. Journal of Special</u>
 <u>Education</u>, 8, 201-209.
- Kaufmann, J. M., Swan, W. W., & Wood, M. M. (1979). Dimensions of problem behaviors of emotionally disturbed children as seen by their parents and teachers. <u>Psychology in the Schools</u>, 16, 207-217.
- Kavale, K. A., Forness, S. R. and Alper, A. E. (1986). Research in behavioral disorders/emotional disturbance: Survey of subject identification criteria. <u>Behavioral Disorders</u>, <u>11</u>, 159-167.

- Landreth, G. L. (1982). Play therapy: <u>Dynamics of the process of</u> <u>counseling with children</u>. Springfield, Illinois: Charles C. Thomas Publisher.
- Kazdin, A. E. (1985). <u>Treatment of antisocial behavior in children and</u> <u>adolescents</u>. Homewood, IL: Dorsey Press.
- Landreth, G. L. (1987). Play therapy: Facilitative use of child's play in elementary school counseling. <u>Elementary School Guidance &</u> <u>Counseling</u>, <u>21</u>, 253-261.
- Lawrence, D. (1973). <u>Improved reading through counselling</u>. London: Ward Lock.
- Lentz, F., & Shapiro, E. (1986). Functional assessment of the academic environment. <u>School Psychology Review</u>, <u>15</u>, 346-357.
- Levy, J., Heller, W., Banich, M., & Burton, L. (1983). Are variations among righthanded individuals in perceptual asymmetries caused by characteristics arousal differences between hemispheres? <u>Journal</u> <u>of Experimental Psychology: Human Perception and Performance</u>, <u>9</u>, 329-359.
- Lewin, P., Nelson, R. E. & Tollefson, N. (1983). Teacher attitude toward disruptive children. <u>Elementary School Guidance & Counseling</u>, <u>17</u>, 188-193.
- Lipka, R. P., Beane, J. A. & Ludewig, J. W. (1980). Self-concept/esteem and the curriculum. In J. A. Beane & R. P. Lipka's <u>Self-concept and</u> <u>the curriculum</u>. New York: Teachers College Press.

- Lovejoy, M. C. & Routh, D. K. (1988). Behavior disordered children's social skills: Increased by training, but not sustained or reciprocated.
 <u>Child & Family Behavior Therapy</u>, <u>10</u>(2-3), 15-37.
- Lund, Roy (1989). Slef-esteem and long term placement in day schools for children with emotional and behavioral difficulties. Maladjustment and Therapeutic Education, 1, 55-58.
- Marchant, W. C. (1972). Counselling and/or consultation: A test of the education model in the elementary school. <u>Elementary School</u> <u>Guidance and Counseling</u>, 7, 4-8.
- Margalit, M. (1989). Academic competence and social adjustment of boys with learning disabilities and boys with behavior disorders. <u>Journal of Learning Disabilities</u>, <u>32</u>, 41-45.
- March, H. W., & O'Neill, R. (1984). Self-Description Questionairre III:
 The construct validity of multidimensional self-concept ratings by
 late adolescents. <u>Journal of Educational Measurement</u>, <u>21</u>, 153-174.

Martin, B. (1975). Parent-child relations. In F.D. Horowitz (Ed.),
 <u>Autism: Diagnosis, instruction management, and research</u>.
 Springfield, IL: Charles E. Thomas.

- Martinez, M. (1979). Self-concept and behavioral changes through counseling/consulting interventions. <u>Dissertation Abstracts</u> <u>International</u>, <u>40</u>(2-A), 679.
- Martinez, F.D. (1985). Reinforcing to failure. <u>Academic therapy</u>, <u>20</u>, 353-357.

Martoz Ray, B. (1985). Measuring the social position of the mainstreamed handicapped child. <u>Exceptional children</u>, <u>52</u>, 57-62.

- Maslow, A. H. (1967). A theory of metamotivation: The biological rooting of the value life. Journal of Humanistic Psychology, 7, 93-127.
- Mayer, G., Kranzler, G. D. & Matthes, W. (1967). Elementary school counselling and peer relations. <u>Personnel & Guidance Journal</u>, <u>46</u>, 360-365.
- Maynard, P., Warner, R. & Lazzaro, J. (1969). Group counselling with emotionally disturbed students in a school setting. Journal of <u>Secondary Education</u>, <u>44</u>, 365-375.
- McConnell, S. R. (1987). Entrapment effects and the generalization and maintenance of social skills training for elementary school students with behavioral disorders. Behavioral Disorders, 12, 252-263.
- McGinnis, E. (1985). Teaching social skills to behaviorally disordered elementary students. <u>The pointer</u>, <u>28</u>(4) 5-12.
- Moore, D. R. & Arthur, J. L. (1983). Juvenille deliquency. In T. H. Ollendick & M. Hersen (Eds.), <u>Handbook of child psychopathology</u> (pp. 357-388). New York: Plenum.
- Morgan, D. P. and Jenson, W. R. (1988). <u>Teaching behaviorally</u> <u>disordered students: Preferred practices</u>. Toronto, Ontario: Merrill Publishing Co.

- Moustakas, C. E. (1955). Emotional adjustment and play therapy process. In G.L. Landreth (Ed.), <u>Play therapy: Dynamics of the process of counseling with children</u>. Springfield, Illinois: Charles E. Thomas.
- Nicol, R. R. (1979). Psychotherapy and the school. <u>Journal of Child</u> <u>Psychology & Psychiatry & Allied Disciplines</u>, <u>20</u>, 81-86.
- Nystrul, M. S. (1986). The hidden reason behind children's misbehavior. <u>Elementary School Guidance & Counselling</u>, <u>22</u>, 188-193.
- Oaklander, V. (1978). <u>Windows to our children</u>. Moab, Utah: Real People Press.
- O'Banion, D., Armstrong, B., Cummings, R. A. & Strange, J. (1978). Disruptive behavior: A dietary approach. Journal of Autism and <u>Childhood Schizophrenia</u>, <u>6</u>, 235-252.
- Oldfield, D. (1986). The effects of the relaxation response in self-concept and acting out behaviors. <u>Elementary School Guidance &</u> <u>Counseling</u>, <u>20</u>, 255-260.
- Omizo, M. M., Hershberger, J. M., & Omizo, S. A. (1988). Teaching children to cope with anger. <u>Elementary School Guidance &</u> <u>Counseling</u>, 22, 241-246.
- Patterson, G. R. (1974). Interventions for boys with conduct problems: Multiple settings treatments and criteria. <u>Journal of Consulting &</u> <u>Clinical Psychology</u>, <u>42</u>, 471-481.

- Patterson, G. R. (1982). <u>Coersive family processes</u>. Eugene, Oregon: Castalia.
- Patterson, G. R. (1986). Performance models for antisocial boys. <u>American Psychologist</u>, <u>41</u>, 432-444.
- Patterson, G. R. & Fleishman, M. J. (1979). Maintenance of treatment effects. Some considerations concerning family systems and followup data. <u>Behavior Therapy</u>, <u>10</u>, 168-185.
- Pidduck, R. (1988). Self-esteem, love and dignity. <u>Maladjustment and</u> <u>Therapeutic Education</u>, <u>6</u>, 153-161.
- Piers, E. V. (1984). <u>Piers-Harris children's self-concept scale: Revised</u> <u>manual 1984</u>. Los Angeles, CA: Western Psychological Services.
- Pigge, F. L. (1970). Children and their self-concepts. <u>Childhood</u> <u>Education</u>, <u>47</u>, 107-108.
- Purkey, W. W. & Novak, J. M. (1984). <u>Inviting school success: A selfconcept approach to teaching and learning (2nd ed.)</u>. California: Wandsworth Publishing Co.
- Rhodes, W. C. (1967). The disturbing child: A problem of ecological management. <u>Exceptional children</u>, <u>33</u>, 449-455.
- Rimland, B., Callaway, E., & Dreyfus, P. (1978). The effect of high doses of vitamin B₆ on Autistic children: A double-blind crossover study. <u>American Journal of Psychiatry</u>, <u>135</u>, 472-475.
- Roberts, J., & Baird, J. T. (1972). <u>Behavior patterns of children in school</u>.
 DHEW Publication No, (HSM) 72-1042). Washington, D.C.: U.S.
 Government Printing Office.

- Safran, S. P. and Safran, J. S. (1984). Elementary teachers' tolerance of problem behaviors. <u>The Elementary School Journal</u>, <u>85</u>, 237-243.
- Sagor, M. (1974). Biological bases of childhood behavior disorders. In
 W. C. Rhodes & M. L. Tracey (Eds.) <u>A study of child variance</u> (Vol.
 1). Ann Arbor, MI: University of Michigan Press.
- Sameroff, A. J., Seifer, R., & Zox, M. (1982). Early development of children at risk for emotional disorder. <u>Monographs of the Society</u> <u>for Research in Childhood Development</u>, <u>47</u>, (7, Serial No. 199)
- Samuels, S. C. (1977). <u>Enhancing self-concept in early childhood:</u> Theory and practice. New York: Human Sciences Press.
- Sandler, A. G., Arnold, L. B., Gable, R. A. & Strain, P. S. (1987). Effects of peer pressure on disruptive behavior of behaviorally disordered classmates. <u>Behavioral Disorders</u>, <u>12</u>, 104-110.
- Schaefer, C.E. (1985). Play therapy. <u>Early Child Development and Care</u>, <u>19</u>, 95-108.
- Shavelson, R. L., Hubner, J. L. & Stanton, G. C. (1976). Self-concept: Validation of construct interpretations. <u>Review of Educational</u> <u>Research</u>, <u>46</u>, 407-441.
- Sindelar, P. T., King, M. C., Cartland, D., Wilson, R. J. and Meisel, C. J. (1985). Deviant behavior in learning disabled and behaviorally disordered students as a function of level and placement. <u>Behavioral Disorders</u>, <u>10</u>, 105-112.

- Sorsdahl, S. N. & Sanche, R. P. (1985). The effects of classroom meetings on self-concept and behavior. <u>Elementary School</u> <u>Guidance & Counselling</u>, <u>20</u>, 49-57.
- Stellern, J., Marlowe, M., Jacobs, J. and Cossairt, A. (1985).
 Neuropsychological significance of right hemisphere cognitive mode in behavior disorders. <u>Behavioral Disorders</u>, <u>10</u>, 113-123.
- Stockdale, W.M. (1982) <u>Introducing program evaluation into a small</u> <u>agency: A case study</u>. Unpublished thesis. Vancouver, British
 Columbia: University of British Columbia.
- Strain, P. (1981). Peer mediated treatment of children's social withdrawal. Exceptional Education Quarterly, 1, 93-106.
- Swan, W. W., Brown, C. L., and Jacob, R. T. (1987). Types of service delivery models used in the reintegration of severly emotionally disturbed and behaviorally disordered students. <u>Behavioral</u> <u>Disorders</u>, <u>12</u>, 99-103.
- Swanson, J. M. & Kinsbourne, M. (1980). Food dyes impair performance of hyperactive children on a laboratory learning test. <u>Science</u>, 207, 1485-1487.
- Thomas, A. & Chess, S. (1977). <u>Temperament and development</u>. New York: Brunner/Mazed.

- Vaan Hesselt, V. B., Griest, D. L., Kazdin, A. E., Esveldt-Dawson, K., & Unis A. S. (1984). Poor peer interaction and social isolation: A case report of successful in vivo social skills training on a child psychiatric inpatient unit. <u>Journal of Behavior Therapy and Experimental Psychiatry</u>, <u>15</u>, 271-276.
- Walker, H. M. (1982). Assessment of behavior disorders in the school setting: Issues, problems, and strategies. In M. M. Noel & N. G. Haring (Eds.), <u>Progress or change: Issues in educating the emotionally disturbed</u> Vol 1. Identification and program planning (pp. 11-42). Seattle, Washington: PDAS, University of Washington.
- Wallace, G. and Kauffman, J. M. (1986). <u>Teaching students with</u> <u>learning and behavior proglems (3rd ed.)</u>. Toronto, Ontario: Merrill Publishing Co.
- Wagner, C. L. & Kleman, D. (1986). Developing positive self-concepts in institutionalized children with severe behavior disorders. <u>Child</u> <u>Welfare</u>, <u>65</u>(2), 165-174.
- Webster, J. B. (1989). Applying behaviour management principles with limited resources: Going it alone. <u>Maladjustment and Therapeutic</u> <u>Education</u>, 7, 30-38.
- Webster-Stratton, C. (1988). Mother's and father's perceptions of child deviance: Roles of parent and child behaviors and parent adjustment. <u>Journal of Consulting and Clinical Psychology</u>, <u>56</u>, 909-915.

- Whitley, A. D. & Salzer, B. (1970). Reducing disruptive behavior through consultation. <u>Personal and Guidance Journal</u>, <u>48</u>, 836-841.
- Willis, D. J., Swanson, B.M. & Walker, C. E. (1983). Etiological factors.
 In T. H. Ollendick & M. Hersen (Eds.), <u>Handbook of child</u>
 <u>psychopathology</u> (pp. 41-64). New York: Plenum.
- Wood, F. & Larkin, K. (Eds.) (1979). <u>Disturbing, Disordered and</u>
 <u>Disturbed</u>. University of Minnesota: The Advanced Institute for
 Training of Teachers for Seriously Emotionally Disturbed Children and Youth, Department of Psychoeducational Studies.
- Workman, E. A. (1982). <u>Teaching behavioral self-control to students</u>. Austin, TX: Pro-Ed.

APPENDIX A: SOCIAL LEARNING PROGRAM RULES

Daily Observed Behaviors Needed To Earn (Or Lose)

Points In The Classroom.

Using Manners (temper tantrums)

Staying on Task (off task)

Being a Friend (bothering)

Following Instructions (arguing)

Minding Own Business (not minding own business)

Recess and Lunch Rules

- 1. Duty teacher will report good news.
- 2. Play with a friend.
- 3. Play in the right area.
- 4. Wait to be invited in.
- 5. When the bell rings move quickly to line up.
- 6. Sticks, sand, leaves, rocks and stones stay on the ground.
- 7. Keep away from the front door.
- 8. Return your own equipment.
- 9. Keep your voice and hands to yourself in lineup.
- 10. Keep out of pubbles.
- 11. Keep our feet on the ground.

Lunch Manners Challenge Chart

- 1. I sat in my desk (with my manners).
- 2. I ate with my mouth closed.
- 3. I ate my growing foods first.
- 4. Lunch finished by 12:15

What It Means To Be A Friend

- 1. learn to forgive and forget
- 2. saying compliments to someone
- 3. always helping out by being a good example
- 4. to talk out fights
- 5. to know what makes another person feel good about themselves
- 6. sharing with each other
- 7. help if they ask for it
- 8. listen to your friends
- 9. show caring for each other

A copy of this consent form will be given to you should you agree to have your child participate in this study. Thank you for your cooperation.

Please circle one choice below and fill your child's name in the space provided.

I consent / do not consent to

__'s participation in this study.

Parent Signature

A copy of this consent form will be given to you should you agree to have your child participate in this study. Thank you for your cooperation.

Please circle one choice below and fill your child's name in the space provided.

I consent / do not consent to

's participation in this study.

Parent Signature

APPENDIX C: TIME-SERIES ANALYSIS METHODOLOGY

In time series analysis we are trying to test and model a significant intervention effect. We are looking for a model that will best explain a change in human behavior.

In order to do that, we first must determine whether stochastic processes are going on in the series. Stochastic process refers to whether the series is driven by a probablistic process or chance. If the data points are just drifting about the mean by chance -- we call this a drifting series. Our first step is to model the stochastic process of the series to determine whether it it drifting or whether it is trending, that is, is the series stationary or nonstationary.

If the series is a realization of a trend we call this a deterministic process. In such a case we would want to model the process to see how the change is taking place in the series.

Four common models of change are pictures below.



A time series can also be a realization of stochastic processes as well as deterministic processes. To identify stochastic processes, it is important to have a lot of data points in order to see if they are drifting around the mean or whether a deterministic trend is happening in the series.

Our next step is to model the processes going on in the series. A time series consist of:

We start first by modelling the stochastic processes. They can be either systematic or unsystematic. An unsystematic process consists of white noise and purely random shocks. This means nothing from the past is systematically affecting what is happening at a given point in time (Y_t) .

A stochastic process can also be systematic. There are two types of systematic stochastic processes. One is called the auto-regressive process. This means what you did yesterday helps to determine what you will do today. Recent previous experiences are systematically affecting your decisions and behavior today.

The other systematic stochastic process is called the moving average process. This is best described as cyclical drifting. When many things happen they add to each other and accumulate and you respond to them. Random events (or shocks) that have happened to you in the past accumulate until you respond. You are not responding to what happened yesterday, but to an accumulation of random events that happened in your past. In order to find out what stochastic process is occurring in the time series, you have to remove any trend or deterministic process that may be happening. You then check to see if the series is stationary. That is, are all the data points in equilibrium with a common mean (μ) and a common variance (σ^2)? If the series is nonstationary i.e. not in equilibrium with a common mean, you can <u>difference</u> the series to make it stationary. This is done by taking the difference between successive observation points. For example:

t=time	Y _t =observation score	Δ =1 Difference operator
1	8	
1	9	1
3	12	3
4	11	-1
5	15	4
6	17	2
7	20	3
8	25	5

This is computed by differencing:

$$\begin{array}{rrrr} 9-8 &= 1 \\ 12-9 &= 3 \\ 11-12 &= 1 \ \text{etc.} \end{array}$$

If the data points are still not in equilibrium about a common mean, you can difference the series again until it becomes <u>stationary</u>.

Once a series is stationary, you can then start modelling the noise or stochastic process by fitting an ARIMA (Autoregressive

Integrated Moving Average) model to the series. ARIMA models are expressed with 3 numbers in parentheses representing 3 letters (p, d, q)

p = autoregressive order

If p = 1 the previous past behavior is operating

p = 2 two previous past behaviors are operating

- d = number of times you differenced a series to make it stationary.
- q = order of moving average process how many integrated random shocks (events) that are affecting behavior q = 1 time period

q = 2 time periods

Four common ARIMA (p, d, q) models found in time series are:

ARIMA (0, 0, 0)	- purely white noise process
ARIMA (1, 0, 0)	 no trend autoregressive process = 1 = immediate previous experience affecting behavior today = 1st order autoregressive no differencing necessary no moving average process
ARIMA (1, 1, 0)	 1st order autoregressive process series differenced once no moving average process

ARIMA (0, 1, 1) - no autoregressive process
- series differenced once
- moving average process of 1 time period of accumulation of random shocks is affecting the series.

These models can be called up on the BMDP:2T Box-JenkinsTime Series Analysis computer program in order to see if any one of the models model the series in question.

In order to examine whether an ARIMA model fits or not, one has to examine the parameter estimates of the series. This is done by lagging the series. When we lag a series we are correlating the original set of observations with its successive observations. This results in an intercorrelation of all the data points. This is called the autocorrelation function or the ACF parameter. This estimate correlates the time series with its own lags. Another parameter estimate to examine is the partial autocorrelation (PACF). This estimate partials out all the intermediary correlations and gives us a very pure correlation of the original time series with the last lag.

These parameter estimates can be called for on the BMDP:2T Box=Jenkins Time Series Analysis computer program. The correlograms of the ACF's and PACF's are plotted on the computer printout. A correlogram tells us whether the data points fall within >>..95% confidence intervals. If they do then the white noise model is accepted as tentatively appropriate, for the baseline data points. The patterns of correlograms help to identify which ARIMA model is in process. ARIMA model correlograms can be found in (Cook and Campbell, 1979).

After the model for the preintervention series has been established, we can then attempt to model the postintervention series, which tells us what happened to the series after an intervention was introduced to the subject.

First, we can look at the change between pre and postintervention mean levels to see if there was change happening as a result of intervention. The mean for each series is provided by the computer program. We can compute either an abrupt permanent change in the series, or test for gradual permanent change in mean the series.

In the gradual change model, we simply add the change in level parameter $\omega 0$, to the preintervention series mean in order to find the postintervetnion mean:

 $\angle \frac{w}{1-\delta}$

This formula computes how much each point went up by in the postintervention series. We add these change levels to the preintervention mean and the data points from the postintervention series can now be plotted.

Total change in the series can be computed by the following formula:

$$\omega_0 \text{ change} = \omega_0 + \delta_1^{1}\omega_0 + \delta_1^{2}\omega_0 + \delta_1^{3}\omega_0 + \delta_1^{4}\omega_0 + \delta_1^{5}\omega_0 + \delta_1^{6}\omega_0 + \delta_1^{7}\omega_0 + \delta_1^{8}\omega_0 + \delta_1^{9}\omega_0 + \delta_1^{10}\omega_0$$

We then check to see if the ACF and PACF correlograms are within the 95% confidence intervals. We can double check a model's appropriateness by computing the Q statistic and comparing it to the critical value of the model. the Q statistic is used to test statistically whether the residuals are statistically significant. This can be done with the following formulas at the = .05 level. It is essentially a goodness of fit test for the ACF. This can be done with the following formulas:

$$Q = N \sum_{j=1}^{k} r_j^2 \qquad \text{Critical value is: } I - \int \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^2 r_j^2 \qquad \text{Critical value is: } I - \int_{K-(p+q+1)}^{2} r_j^$$

If Q is less than the critical value then we can accept the null hypothesis. However, if Q exceeds the critical value we reject the null hypothesis and try to model the series using a different ARIMA model.

In order for the autoregressive or moving average ARIMA model to fit the postintervention series the autoregressive or moving average order estimate must be statistically significant (T-ratio greater than -1.96 or 1.96) and lie within the bounds of <u>stationarity</u> for an autoregressive order, or <u>invertability</u> for a moving average order. In both cases theta (φ) must be: $-1 < \phi, < 1$

If φ lies too close to +1 or -1, it is a possible bad model.

The residual mean square (RMS) statistic is then calculated to assess how "good" the model is for its intended use. This is done by computing the following formula:

 $RMS = \bigvee_{N} \sqrt{Residual Sum of Squares}$

The residual sum of squares is estimated by both the Least Conditional Squares Method and the Backcasting Method on the computer program. The lower residual mean square (RMS) is accepted as the better fitting model.

A final test for the most appropriate ARIMA model involves looking a the residual ACF's and PACF's correlograms. They should be essentially zero in order to accept the model.

In summary to this point, one can say a deterministic process (either autoregressive or moving average) along with a preintervention stochastic process of white noise, indicates that the series is more than just drifting after intervention. If it drifts around a common mean before intervention, the trend after the intervention is more apparent. We can then call for independent variable commands on the BMDP:2T Box-Jenkins Time Series Analysis computer program and do a full impact series analysis. We can call for either a pulse function called the UPORDER where there is an abrupt change in mean level, or the SPORDER which is the step function that indicates a gradual change. These commands help tell us how the series is approaching its limit and how fast the rate of change is happening. The SPORDER specifically indicates the rate of change. If this estimate is within the bounds of stationarity or invertibility (-1 < φ , < 1) and statistically significant (T-ratio is greater than -1.96 or 1.96); then we can say there is a definite intervention effect taking place in the postintervention series.

The correlograms for the residual ACF's and PACF's should also be within the 95% confidence intervals to ensure the model's goodness of fit.

The modelling of intervention effects provide a powerful test of hypothesized forms of change. Thus the model of stochastic processes combined with intervention components can be use to study the dynamics of human behavior over time and the impact of intervention on behavior. When properly implemented and carefully interpreted, the time-series experiment is a sensitive tool for the investigation of causal claims in the behavioral and social sciences (Cook & Campbell, 1979).

139

APPENDIX D: TIME SERIES ANALYSIS APPLIED TO EXPERIMENTAL SUBJECT A's (T₃) TIME-SERIES

In order to apply the time series methodology in Cook and Campbell (1979), a computer printout generated by the BMDP:2T Box-Jenkins Time Series Analysis program was examined to see whether the series fitted the criteria necessary for proof of significant intervention effect.

Experimental Subject A's time-series analysis (T_3) was an example of how the computer printouts were examined.

Time-series analysis (T₃) for Experimental Subject A compares the baseline period to 20 days of intervention in June. During baseline, the series was drifting about a mean of 11.56. The autocorrelation function (ACF) and partial autocorrelation function (PACF) correlograms fell within the 95% confidence intervals, indicating that the series was stationary, and not in need of differencing. When we compared the ACF and PACF correlograms to the most common correlogram patterns in Cook & Campbell, (1979), we noted that the preintervetnion series in resembled a random or white noise pattern. No significant autoregressive or moving average estimates were obtained for the preintervention series.

When the postintervention series was examined in conjunction with the baseline series a gradual improvement in behavior was noted. The entire series was plotted by including the significant rate of change
estimate (=0.72) after the point of intervention. This can be seen visually in Graph 3, on page 77.

The ACF and PACF residual correlograms for the gradual change model show residuals that lie within the 95% confidence intervals. In fact, they are essentially zero, which indicated that the change model fitted to the whole series very well. The Q-statistic for the gradual change model was:

$$Q = N \sum_{j=1}^{k} rj^2 \quad Q = 40 \ [(0.0)^2 + (0.0)^2 + (0.0)^2 \dots (0.0)^2]$$
$$= 40 \ (0.0)]$$
$$= 0.00$$

The critical value for the series was: $1-\int \chi^2_{K-(p+q+l)}$

$$1 - k - (p + q + d)$$

.95 20 - (0 + 0 + 0)

.95 20

Since Q was less than the critical value we accepted the null hypothesis that the residuals were equal to zero as tenable for the gradual change model of intervention, and we assumed that the residuals were all within the values expected by chance.

The intervention parameter, , was estimated 0.73. It was within the bounds of stability (-1 < , < 1) and was statistically significant (Tratio = 3.38). The root mean square for the gradual permanent change model is:

RMS =
$$\sqrt[n]{residual sum of squares}$$

= $\sqrt{2526}$
= 1.25

This was lower than the RMS generated by other change models, so we accepted the gradual change model as the best model tested for the series.

Because the rate-of-change parameter was significant, we concluded that the an intervention was affecting the time-series after baseline for Experimental Subject A.

Table 1 below gives a complete summary of the analysis carried out for Experimental Subject A.

TableIII Criteria for modelling a time series and intervention effectson Experimental Subject A

Preintervention Series (Baseline)

Preintervention Mean Level	11.56
Preintervention ACF and PACF Correlograms	within 95% confidence intervals resembles white noise pattern
Preintervention estimate	0.32 - within bounds of stationarity, T-ratio = 0.19 not significant.

Postintervention Series

	T1=April	T2=May	T3=June	T4=whole series
Postintervetnion mean level	17.05	19.45	24.20	
Postintervention estimate	Not significant.	Not significant.	Not significant.	Significant, T=2.15.

Postintervention residual ACF and PACF correlograms	within 95% confidence intervals essentially 0	within 95% confidence intervals essentially 0	within 95% confidence intervals essentially 0	within 95% confidence intervals essentially 0
ARIMA (p, d, q) model for full impact series	(0, 0, 0,)	(0, 0, 0,)	(0, 0, 0,)	(1, 0, 0,)
Q-statistic	1.2	1.2	1.2	0
Critical Value	31.41	31.41	31.41	30.14
Independent variable estimate	-0.23 within bounds of stationarity, but not significant T=-0.21	0.86 within bounds of stationarity & significant T=5.12	0.72 within bounds of stationarity & significant T=3.44	0.88 within bounds of stationarity & significant
Residual Mean	1.09	1.14	1.25	0.95

Square (RMS)

144

٠,

/ APPENDIX E: STANDARDIZED TESTS UTILIZED , The JOSEPH PRE-SCHOOL and PRIMARY SELF CONCEPT SCREENING TEST

by JACK JOSEPH

INDIVIDUA	L RECORD FORM	Year	Month	Day
Name	. Date Test	ed		
Address	- Date of Bi	rth		
School/Grade/	Åge		•	
Examiner	Sex	M.F	(circle d	one)
SUMMARY IN	FORMATION	<u></u>	-	
	· · ·	Normati	ve Age Gr	oups
· · · ·	1	3-6	4-7	6-0
Global Self Concept Scare	SELF CONCEPT	to	to	to
Web Decision	CLASSIFICATION	29.20	20.20	1 9-11
Migh Positive	Moderate Positive	20-30	25-30	26-29
Watch List	Watch List	21	24	25
Poor	Poor	17-20	22-23	23-24
High Risk Negative	High Risk Negative	0-16	0-21	0-22
Qualitative Observations	•		·	
	Patas for further of			
lotai Number at Confusions	helet for further ev	diudiion:	162	
<u>Diagnostic Dime</u> (To be completed for children wh the Poor or High R	<u>nsional Evaluation</u> ose global self concept scores fa isk Negative categories).	ll into		
Similianan Caratana	Dimon	Item		
Competence	Dimen		601	
	1. GEC 6. SIG 2. SIG 7. CO	, РОЖ II. М. 12.	. COM . SIG. CO	M. POW
GEC	3. SIG 8. CO	M 13	VIR	
l Virtue Power	4. SIG 9. GE 5. SIG 10. CO	C 14 M 15	. GEC . GEC	

Optional: In order to gain further insight into the relationship between a child's self-image and externally perceived ratings of that image, the following question may be detached and rated by an unbiased informed observer (e.g., a teacher). Prior to completing this question, the rater should <u>not</u> have access to the subject's JPPSST score performance.

Child's Name

_____ Rater ____

To what degree does this child display a sense of self-respect and hold a positive regard for his own worthiness? (Rate by circling one number)

Always	Üsu	aily		Son	eti	mes		Sel	dom	Never
10	9	8	7	6	5	4	3	2	1	0

Test Item Administration

	Score 2 Positive	Score I Both /DK	Scare 0 <u>Negative</u>	<u>Confusiz</u>
1. ONE OF THESE BOYS (GIRLS) IS VERY CLEAN AND THE OTHER BOY (GIRL) IS VERY DIRTY. Distinguish. NOW WHICH ONE IS MOST LIKE YOU? Confirm (e.g., SO YOU'RE A CLEAN BOY)		·		
Scoring clean $= 2$, both or DK $= 1$, dirty $= 0$				
2. ONE OF THESE BOYS (GIRLS) HAS NO ONE TO PLAY WITH AND ONE OF THESE BOYS (GIRLS) IS PLAYING WITH LOTS OF FRIENDS. Distinquish. NOW WHICH ONE HAPPENS TO YOU THE MOST? Confirm. (if child seems unable to understand the situation ask: DO YOU PLAY ALONE OR WITH FRIENDS? Then score verbal response). Scoring friends = 2, both or DK = 1, dlone = 0				
3. ONE OF THESE BOYS (GIRLS) HAS A TEACHER WHO DOESN'T LIKE HIM (HER) VERY MUCH AND THE OTHER BOY (GIRL) HAS A TEACHER WHO LIKES HIM (HER) A LOT. Distinguish. NOW WHICH ONE HAPPENS TO YOU THE MOST? Confirm. (II child seems unable to understand the situation ask: DOES YOUR TEACHER LIKE YOU OR NOT? Then scare verbal response). Scoring likes = 2, both or DK = 1, doesn't like = 0				
4. DO YOU HAVE A BROTHER OR SISTER? WHAT'S HIS (HER) NAME? (If more than 1 sibling say: GIVE ME JUST ONE OF THEIR NAMES). Select appropri- ate stimulus card and say: NOW LET'S PRETEND THAT THIS IS YOUR BROTHER (SISTER)				

4. DO YOU HAVE A BROTHER OR SISTER? WHAT'S HIS (HER) NAME? (If more than 1 sibling say: GIVE ME JUST ONE OF THEIR NAMES). Select appropriate stimulus card and say: NOW LET'S PRETEND THAT THIS IS YOUR BROTHER (SISTER) OK? NOW WHO DO YOUR MOMMY AND DADDY LIKE BETTER, YOU OR _____? Confirm. (If child's response is "both of us" ask: BUT IF THEY HAD TO PICK JUST ONE. WHO DO YOU THINK THEY WOULD PICK?)

	Scoring	
me or both of	DK or	pick sibling on
us on second	sometimes	first or second
inquiry = 2	each of us $\equiv 1$	inquiry = 0

146

Nar Appliante *Note: If child has no siblings then question becomes: DO YOUR MOMMY AND DADDY LIKE YOU? No picture would be used in this case.

Scoring

yes $\equiv 2$, sometimes or $DK \equiv 1$, no $\equiv 0$

5. ONE OF THESE BOYS (GIRLS) IS GETTING SPANK-ED BY HIS (HER) MOTHER AND THE OTHER BOY (GIRL) IS GETTING CANDY FROM HIS (HER) MOTHER. Distinguish. NOW WHICH ONE HAPPENS TO YOU THE MOST? Confirm.

Scoring

candy ± 2 , both or DK ± 1 , spanked ± 0

 ONE OF THESE BOYS (GIRLS) HAS A BUNCH OF TOYS TO PLAY WITH, AND THE OTHER BOY (GIRL) HAS NO TOYS TO PLAY WITH. Distinguish. NOW WHICH ONE HAPPENS TO YOU THE MOST? Confirm.

Scoringtoys
$$\equiv 2$$
,DK $\equiv 1$, no toys $\equiv 0$

7. ONE OF THESE BOYS (GIRLS) KNOWS HOW TO SAY LOTS OF WORDS AND THE OTHER BOY (GIRL) CAN ONLY SAY A FEW WORDS. Distinguish. NOW WHICH ONE IS MOST LIKE YOU? Confirm.

 $\begin{array}{l} & \textbf{Sc oring} \\ \text{lots = 2, both or } \text{DK = 1, few = 0} \end{array}$

 ONE OF THESE BOYS (GIRLS) IS A SLOW RUNNER AND THE OTHER BOY (GIRL) CAN RUN VERY FAST. Distinguish. NOW WHICH ONE IS MOST LIKE YOU? Confirm.

$$\begin{aligned} & \mathbf{Scoring} \\ & \text{fast} \equiv 2, \quad \text{both or } \mathsf{DK} \equiv 1, \quad \text{slow} \equiv \mathbf{0} \end{aligned}$$

9. (No pictures are required) WHAT'S YOUR FIRST NAME? DO YOU LIKE THAT NAME OR WOULD YOU RATHER HAVE ANOTHER NAME? Confirm.

10. ONE OF THESE BOYS (GIRLS) CAN JUMP VERY HIGH AND THE OTHER BOY (GIRL) CAN'T JUMP VERY MUCH AT ALL. Distinguish. NOW WHICH ONE IS MOST LIKE YOU? Confirm.

 $\begin{aligned} & \textbf{Scoring} \\ & \textbf{jump high} \equiv 2, \quad \textbf{both or DK} \equiv 1, \quad \textbf{can't jump} \equiv 0 \end{aligned}$



11		(Three	pictures	are	required)
----	--	--------	----------	-----	-----------

HERE ARE SOME BOYS AND GIRLS PLAYING BASEBALL. ONE BOY (GIRL) WINS THE GAME AND THE OTHER BOY (GIRL) LOSES THE GAME. Distinguish as follows: NOW OUT OF THESE TWO BOYS (GIRLS) (examiner points to Cards 11L & 11R) WHICH ONE WINS? NOW WHICH ONE IS THE LOSER? NOW WHICH ONE HAPPENS TO YOU THE MOST? Confirm.

*Note: If child says "I've never done that," then ask: BUT IF YOU DID PLAY BASEBALL, DO YOU THINK THAT YOU WOULD WIN OR LOSE?

Scoring

win $\equiv 2$. both or DK $\equiv 1$, lose ≡ 0

12. HERE ARE TWO BOYS (GIRLS) THAT ARE TRICK-OR-TREATING AT HALLOWEEN. ONE BOY (GIRL) GETS LOTS OF CANDY AND THE OTHER BOY (GIRL) ONLY GETS A LITTLE CANDY. Distinguish. NOW WHICH ONE HAPPENS TO YOU THE MOST? Confirm.

"Note: If child says "I've never done that," then ask: BUT IF YOU DID GO TRICK-OR-TREATING. DO YOU THINK THAT YOU WOULD GET LOTS OF CANDY OR ONLY A LITTLE CANDY?

lots
$$= 2$$
, both or DK $= 1$, little $= 0$

* Note: See Administration Section of manual for rewording of this item for children with limited or no exposure to the custom of Halloween.

13. ONE OF THESE BOYS (GIRLS) IS A BAD BOY (GIRL) AND THE OTHER BOY (GIRL) IS A GOOD BOY (GIRL). Distinguish. NOW WHICH ONE ARE YOU? Confirm.

Scoring good = 2, both or DK = 1, bad = 0

14. ONE OF THESE BOYS (GIRLS) IS SMILING AND THE OTHER BOY (GIRL) IS CRYING. Distinguish. NOW WHICH ONE DO YOU DO THE MCST? Confirm.

Scoring

smile = 2, both or $DK \pm 1$, cry = 0

15. (No pictures are required) WHERE DO YOU LIVE, IN A HOUSE OR A BIG APARTMENT BUILDING? DO YOU LIKE LIVING IN THAT HOUSE (APARTMENT) OR WOULD YOU RATHER LIVE SOMEWHERE ELSE? Confirm.

	Scoring	
likes where	sometimes	rather live
he lives $\equiv 2$.	or DK = 1.	somewhere else = (

Totais

Global Score

C Jack Joseph STOEL TING CO. Car. No. 32073R

Score 2

Positive

148 Confusion

Not Applicable



"THE WAY I FEEL ABOUT MYSELF" 150

	The	Ellen V. Piers, Ph.D.	dren's S . and Dale B. I	elf-Conc Harris, Ph.D.	ept Scale	
•		P	ublished by			
		Wps	WESTERN PSYCH Publishers and Dr 12031 Wilshire Bi Los Angeles, Califi	DLOGICAL SERVICES Unbutors Unievand armai 90025	•	
					m 4. 1. m.	
Vame:					_ Today's Date:	
Age:		Sex (circle one):	Girl Boy	Grade:	<u> </u>	·
School:	<u> </u>	Tea	icher's Name (d	optional):		<u> </u>

Directions: Here are a set of statements that tell how some people feel about themselves. Read each statement and decide whether or not it describes the way you feel about yourself. If it is *true or mostly true* for you, circle the word "yes" next to the statement. If it is *false or mostly false* for you, circle the word "no." Answer every question, even if some are hard to decide. Do not circle both "yes" and "no" for the same statement.

Remember that there are no right or wrong answers. Only you can tell us how you feel about yourself, so we hope you will mark the way you really feel inside.

 TOTAL SCORE: Raw Score_____
 Percentile_____
 Stanine_____

 CLUSTERS: I_____
 II_____
 IV______
 V______

i0A

1. My classmates make fun of meyes	no
2. I am a happy personyes	no
3. It is hard for me to make friendsyes	no
4. I am often sadyes	no
5. I am smartyes	no
6. I am shyyes	no
7. I get nervous when the teacher calls on meyes	no
8. My looks bother meyes	no
9. When I grow up, I will be an important personyes	no
10. I get worried when we have tests in schoolyes	no
11. I am unpopularyes	no
12. I am well behaved in schoolyes	no
13. It is usually my fault when something goes wrong \ldots .yes	no
14. I cause trouble to my familyyes	no
15. I am strongyes	no
16. I have good ideasyes	no
17. I am an important member of my familyyes	no
18. I usually want my own wayyes	nô
19. I am good at making things with my handsyes	no
20. I give up easilyyes	no

21. I am good in my school workyes	no
22. I do many bad things	no
23. I can draw wellyes	no
24. I am good in music	no
25. I behave badly at home	no
26. I am slow in finishing my school work	no
27. I am an important member of my class	۸o
28. I am nervous	no
29. I have pretty eyes	no
30. I can give a good report in front of the class	no
31. In school I am a dreameryes	no
32. I pick on my brother(s) and sister(s)	no
33. My friends like my ideas	no
34. I often get into troubleyes	no
35. I am obedient at home	no
36. I am luckyyes	no
37. I worry a lot	no
38. My parents expect too much of me	no
39. I like being the way I amyes	no
40. I feel left out of thingsyes	no

¥

41. I have nice hairyes	no
42. I often volunteer in school	nô
43. 1 wish 1 were differentyes	no
44. I sleep well at nightyes	no
45. I hate schoolyes	no
46. I am among the last to be chosen for games	no
47. I am sick a lotyes	no
48. I am often mean to other peopleyes	no
49. My classmates in school think I have good ideasyes	no
50. I am unhappyyes	ΠÔ
51. I have many triendsyes	no
52. I am cheerful	n0
53. 1 am dumb about most thingsyes	ΠŌ
54. I am good-lookingyes	ΠÔ
55. I have lots of pepyes	n0
56. I get into a lot of fightsyes	nO
57. I am popular with boysyes	no
58. People pick on meyes	no
59. My family is disappointed in meyes	nû
60. I have a pleasant faceyes	ΠŌ
•	

61.	When I try to make something, everything seems to go wrong	no
62.	I am picked on at homeyes	no
63.	t am a leader in games and sportsyes	по
64.	l am clumsyyes	no
65.	In games and sports, I watch instead of play	no
66 .	I forget what I learnyes	no
67.	I am easy to get along withyes	no
68.	I lose my temper easilyyes	no
69.	I am popular with girlsyes	no
70.	I am a good readeryes	no
71.	I would rather work alone than with a group	no
72.	I like my brother (sister)yes	no
73.	I have a good figureyes	no
74.	I am often afraidyes	no
75.	t am always dropping or breaking thingsyes	no
76	I can be trusted	no
Π	. I am different from other peopleyes	no
78	. I think bad thoughtsyes	no
79	I cry easilyyes	nc
80	. I am a good personyes	nc

...



-153







Graph 4. Time-series T₁ for Experimental Subject B: No significant





.



al Rith Till











.













[~]170