SOCIAL VALIDATION OF INTERVENTION PROCEDURES FOR EMOTIONALLY DISTURBED STUDENTS: EFFECTS ON REGULAR EDUCATION STUDENTS

DISSERTATION

Presented to the Graduate Council of the University of North Texas in Partial Fulfillment of the Requirements For the Degree of

DOCTOR OF PHILOSOPHY

by

Marty C. Thomson

Denton, TX

December, 1998
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The purpose of this study was to explore regular education student perceptions of the effects of implementing behavioral interventions for seriously emotionally disturbed students (SED) in the regular classroom. Student perceptions of classroom friction or disruptiveness, apathy, and general enjoyment or satisfaction were evaluated. It was predicted that regular education students would report more classroom friction, increased apathy, and less satisfaction when interventions were implemented in the regular classroom for a target SED student.

A pretest-posttest control group design was used, with pretest scores serving as a covariate. Subjects included an experimental group of 104 fifth through eighth grade public school students, and a control group of 101 students representing the same grade placements. A sixteen-item questionnaire was developed to sample students' perceptions of their classroom environment. After initial scale analyses, scales were constructed for classroom friction, apathy, and general satisfaction. A scale designed to evaluate perceptions of classroom fairness was dropped due to poor stability. Data analyses included multivariate analysis of covariance for experimental group, analysis of variance for each
scale, and follow-up multivariate analysis of variance for interactions between experimental group by grade, and experimental group by gender.

Results suggest that regular students may not experience the negative effects predicted. No significant differences were obtained between experimental and control groups in terms of classroom friction, apathy, or satisfaction. Additionally, there were no differential effects due to interactions by grade or gender. Implications for educators and interventionists were discussed, along with suggestions for further research.
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CHAPTER 1

INTRODUCTION

Since 1975, there has been an increasingly concentrated movement among many educators to create learning environments where students with disabilities can be effectively educated alongside their normally developing classmates (Meadows, Neel, Scott, & Parker, 1994). Psychologists often consult with educators to develop behavioral and environmental interventions intended to facilitate the success of these special needs students in the regular classroom. Subsequently, there has been a great deal of attention paid to the efficacy of behavioral interventions for targeted students in the mainstream classroom (e.g., Gresham, 1982; Schloss, 1992; Witt & Martens, 1983). However, the psychology literature contains limited research evaluating the impact of these interventions on the other children in the regular classroom.

Scope of the Study

The inclusion of seriously emotionally disturbed (SED) children in the regular classroom raises special concerns, and is the focus of this study. Several researches have documented educator observations regarding the disruptiveness of these students' behaviors in the classroom (Algozzine, 1980; Center, 1993; Mullen & Wood, 1986; Safran & Safran, 1987). Similarly, Staub and Peck (1994) note that opponents of inclusion practices commonly cite
fears about regular students acquiring negative behaviors from behaviorally disordered students.

The concerns that educators and consumers of education hold regarding disruption of regular students' education, involve questions of whether SED students should be included in regular classes at all, as well as whether special accommodations should be made for them. Because many states already require full or partial inclusion of student's with disabilities in the regular classroom, the current study was limited to concerns regarding perception of accommodations, rather than opinions regarding the acceptability of having students with disabilities in the regular classroom.

In those studies addressing implications for regular education students, research focuses on teacher expressed concerns regarding pragmatic issues (e.g., Schumm & Vaughn, 1991; Witt & Martens, 1983), as well as concern for the subjective reactions of students which might lead to negative educational impacts (Vaughn, Schumm, & McIntosh, 1991). Pragmatic concerns include difficulties with implementation of interventions, concerns for potentially lower grades, decreases in available teacher time, and increased frequency of classroom disruptions. Examples of concerns regarding subjective reactions by regular education students include potential decreases in motivations, perceptions of teacher partiality, and negative perceptions of the general learning environment (Schumm & Vaughn, 1991; Staub & Peck, 1994; Vaughn et al., 1991; Witt & Martens, 1983). Subjective reactions, rather than pragmatic concerns, are addressed in the current study.
Researchers have expressed concerns for student perceptions of specific interventions or modifications (Vaughn et al., 1991; Witt & Martens, 1983), as well as perceptions of specific aspects of the learning environment (Fraser, Anderson, & Walberg, 1982). This study evaluated regular student perceptions of specific aspects of the learning environment. These included perceptions of classroom fairness, friction, motivation and apathy, and overall classroom satisfaction or enjoyment.

Justification of the Study

Weinstein (1983) reviewed the literature and concluded that children actively interpret classroom reality and draw inferences about the causes and effects of behavior. The literature also suggests that perceptions of specific aspects of the learning environment effect measures of student learning (Fraser et al., 1982). Furthermore, the conclusions children draw are egocentric, and not always congruent with adult perceptions of reality (Langer, 1970; Weinstein, 1983). Therefore, research is needed to ascertain the presence of perceptions that may be impacting regular students' experience and performance in the mainstream classroom. Limited research has also indicated that teacher concern regarding regular student perceptions may effect their willingness to implement accommodations for special needs students. While there is not yet sufficient evidence to support a connection between teacher perceptions and their actions, several researchers have noted that teachers rarely use modifications for students with special needs in
the regular classroom (Meadows et al., 1994; Meadows, Neel, Scott, & Parker, 1991; Ysseldyke, Thurlow, Wotruba, & Nania, 1990).

Rationale for Approach

There are many valid concerns regarding mainstream placement of SED students, as well as the implementation of interventions for these students in the mainstream setting. Because disputes exist in regards to acceptance of mainstreaming practices, individual administrators must make decisions about how to meet state and federal mandates based on personal interpretation of best practices. Due to a lack of research, many of these important decisions are made without adequate empirical support. The research that does exist rarely includes input from the children thought to be most effected. This study explores regular education student perceptions of the effects of implementing behavioral interventions for SED students in the regular classroom.

In order to secure the needed input, naturalistic sampling of actual student perceptions is preferable to obtaining responses to hypothetical vignettes, or responses on standardized measures, thought to correlate with student perception. This inquiry was therefore conducted using strategies known in the applied behavioral analysis literature as social validation. Social validation refers to the practice of asking those who might be most effected by an intervention to evaluate the acceptability of the procedures used, the relevance and desirability of the stated goals, or the real importance of the outcome.
Statement of Purpose

The purpose of this study is to evaluate student perceptions of changes in their learning environment, during implementation of behavioral interventions for students with emotional/behavioral disabilities in their classrooms. Specifically, student perceptions of fair resource allocation and grade assignment, classroom friction or disruptiveness, motivation/apathy, and general enjoyment or satisfaction were evaluated.

Hypotheses

Four hypotheses were tested.

Hypothesis 1

Regular student perceptions of "satisfaction/enjoyment" in their classroom will decrease when behavioral interventions are implemented for a mainstreamed SED student.

Hypothesis 2

Regular student perceptions of "classroom friction" will increase when behavioral interventions are implemented for a mainstreamed SED student in their classroom.

Hypothesis 3

Regular student perceptions of "motivation" will decrease when behavioral interventions are implemented for a mainstreamed SED student in their classroom.

Hypothesis 4

Regular student perceptions of "teacher fairness" will decrease when behavioral interventions are implemented for a mainstreamed SED student in their classroom.
Review of the Literature

The following review of the literature addresses educational practices for SED students in mainstream settings, the importance and relevancy of student perceptions, and the use of social validation techniques for obtaining subjective information regarding the acceptability of interventions. General concerns regarding mainstreaming, and well as factors that may effect educators' willingness to implement interventions for SED students in that setting are reviewed. Literature on student perceptions of learning environments is presented, and elements of the learning environment relevant to this study are identified. Finally, relevant issues and application of social validation are reviewed.

Mainstreaming

With the passage of the Education for All Handicapped Children Act of 1975 (Public Law 94-142), educators were mandated to provide a free and appropriate public education for all individuals between the ages of 3 and 21, regardless of the severity of the disability (U.S. Department of Education, 1989). The vast majority of students served in traditional special education programs are identified as mildly mentally retarded, learning disabled, or behaviorally/emotionally disturbed.

A provision of Public Law 94-142 requires that special services be provided in the least restrictive environment (LRE) appropriate to the learning characteristics of the individual. It specifies:
To the maximum extent appropriate, handicapped children, including children in public or private institutions or other care facilities, are educated with children who are not handicapped, and special classes, separate schooling, or other removal of handicapped children from the regular education environment occurs only when the nature or severity of the handicap is such that education in regular classes with the use of supplemental aides and services cannot be achieved satisfactorily. (U.S. Department of Education, 1989)

This mandate resulted in intense efforts to implement interventions for students with disabilities in the regular classroom, a practice that became known as "mainstreaming."

Some authors equate the concept of least restrictive environment with the concept of mainstreaming (e.g., Gresham, 1982; MacMillan & Semmel, 1977). Schloss (1992), however, offers a useful distinction between the two concepts. He notes that the "least restrictive environment" requirement represents a continuum of educational placements from highly restrictive placements, such as hospitals and homebound instruction, to moderately restrictive placements, such as special schools or classes, and finally to minimally restrictive placements, such as resource instruction, content mastery assistance, or in-class consultation. Mainstreaming, on the other hand, represents only a sub-range of this continuum, at the end which most closely resembles regular classroom placement.
According to Schloss, Smith, and Schloss (1990), judgments of "restrictiveness" are a function of the differences, in terms of proximity and structure, between services provided to students with disabilities and services provided to their age-mates without identified disabilities. Mainstreaming itself can be categorized into levels of restrictiveness as defined by the "proximity and structure" criteria. Schloss (1992) reviews studies which have looked at different instructional arrangements or interventions that can still be considered to be mainstream placements. A gray area is defined by partial regular classroom placements, where students are instructed in one or a few subjects in a special education placement, but are instructed in the regular classroom for the remainder of the day. Another partial placement occurs when students get instruction from regular classroom teachers, then go to a special classroom for more individualized help with assignment completion. Moving to more clearly mainstream placement alternatives, regular education teachers and special education teachers can collaborate in the regular classroom with co-teaching methods (Idol & West, 1987; West & Idol 1987). Even less restrictive are interventions such as cooperative learning (Madden & Slavin, 1983), peer tutoring (Strain, 1981), and consultation with specialists (Bender, 1986).

**Issues in mainstreaming.** The continuing momentum to provide instruction in mainstream environments is based on several notions. Some researchers have found that students with disabilities benefit from regular interaction with non-handicapped peers (e.g., Guralnick & Groom, 1988). Similarly, Staub and Peck (1994) report limited
studies that support the notion that regular education students also benefit from contact with students with disabilities. The importance of this issue is clear to researchers who have found social status in early school years to correlate with juvenile delinquency (e.g., Kupersmidt, 1983), and social rejection at elementary school age to correlate with poor psychological adjustment in young adulthood (Cowen, Pederson, Babigian, Izzo, & Trost, 1973). In addition, rejection from peers was found to correlate with school failure and high dropout rates (Kupersmidt, 1983).

That these students need positive interactions with their age-mates seems irrefutable. Students with disabilities, particularly those with behavioral disabilities, are more than twice as likely as their peers to be socially rejected (Kupersmidt, Patterson, & Griesler, 1988). This rejection can be the result of stigmatization through social labeling (Will, 1986), or poor social skills demonstrated by students with disabilities themselves (Sabornie, 1991). Researchers have further demonstrated that students with disabilities sometimes socially reject their normally developing classmates in mainstream settings (Sabornie, 1987).

It may be that social rejection interacts with a simple lack of social involvement, contributing to a cycle of social deficits and negative behaviors. Lloyd, Kauffman, and Kupersmidt (1990) elucidated a lack of social involvement for behaviorally disordered students who were able to generate only one-third as many scenarios involving interaction with peers as their age-mates in the
regular education classes. Similarly, Sabornie and Thomas (1989) reported poor social participation rates for mildly handicapped upper-elementary students, with self-reports of victimization, feelings of loneliness, and feelings of estrangement from the social life of the school.

Difficulties with social cognitions may also play a role in the social rejection of students with behavioral disabilities. Bryan and Bryan (1986) reported that students with even mild disabilities tended to have more difficulty understanding the intent and desire of others through their non-verbal behaviors. Kazdin (1987) further defined the difficulties as misinterpretation of neutral and nonthreatening interactions. Not surprisingly, the perception that social interactions were threatening was often followed by the generation of aggressive behaviors to defend against the perceived threat.

In addition to difficulties related to social rejection and lack of social involvement, students with serious behavioral disorders are among the least academically successful of all students. Gable, Hendrickson, and Rutherford (1991), for example, reported that these students compare poorly to both children with other disabilities and children without special education labels, in terms of both academic achievement and social competence. Other authors have noted that students with behavioral disorders consistently perform below expectations, receive remedial classes, or demonstrated low levels of academic performance when compared to their age-mates (e.g.,
Epstein, Kinder, & Bursuck, 1989; Foley, Cullinan & Epstein, 1990; Meadows et al., 1991).

Proponents of mainstream placements believe that this setting is the answer for the clear difficulties demonstrated by students with disabilities. They argue that there is limited support for the efficacy of special classes for individuals with disabilities (Geizheiser, 1987; Salvia & Seibel, 1983), and that the instructional practices that have been found to be effective with students with disabilities, are the same as those that are effective for regular education students (Gersten & Woodward, 1990; Reynolds, 1989). In addition, stigmatizing effects of the special education label have been implicated in diminished student self-concept (Kistner, Haskett, White, & Robbins, 1987; Ribner, 1978; Will, 1986). Similarly, Meadows et al., (1994) found behaviorally disturbed students in mainstream placements to achieve better grades than their self-contained counterparts, and self-contained behaviorally disturbed students to be more aggressive, introverted, withdrawn, and behaviorally labile than mainstreamed students.

A concern with self-contained placement is that there may be a progressive lowering of task demands in that setting. If students are not encouraged to steadily increase their level of academic or behavioral functioning, the deficits which initially resulted in their special education placement might persist, or the disparity between their skills and those of their peers may increase. Such situations would not facilitate the fulfillment of the hope that behaviorally or emotionally disturbed children will eventually be able to adequately
handle the normal stresses of social interaction and academic competition with normally developing peers.

In contrast, other researchers caution against indiscriminate mainstreaming. Gresham (1982) completed a thorough review of the literature and concluded that mainstreaming can be misguided. He identified three assumptions made by mainstreaming proponents which he considered erroneous. First, he noted that physical placement of students with disabilities in the regular education classroom would not necessarily increase social interaction between these students and other students in the classroom. Secondly, he held that such placement would not automatically ensure greater peer acceptance of students with disabilities. And lastly, he stated that increased exposure to normally developing age-mates would not necessarily result in positive behavioral acquisition through either modeling, or imitation. He took the position that social rejection was the result of social skill deficits, and not simple deprivation of contact. Therefore, both lack of an effective social repertoire on the part of the student with a disability, and the lack of training for proper responses by the normally developing peer group, could impede the social success of students with disabilities. Gresham concluded that specific social skills for effective social interaction, as well as effective social acceptance, have to be specifically taught to students before mainstreaming is likely to be effective.

Also in contrast to studies that report positive results when students are educated in mainstream classes, there is a substantial
body of literature that indicates positive social consequences for students with disabilities in special class placements (Battle & Blowers, 1982; Chapman & Boersma, 1979; Schurr, Towne, & Joiner, 1972). Specifically, students in self-contained placements have been shown to have higher self-concepts than students in regular class who were experiencing learning problems (Smith, Dokecki, & Davis, 1977; Strange, Smith, & Rogers, 1978), as well as higher self concepts than students in partial placements (Morvitz & Motta, 1992).

Morvitz and Motta (1992) offered social comparison (Festinger, 1954) and group reference (Hyman & Singer, 1976) theories as explanations for why students in self-contained placements might demonstrate higher self-concepts than those in partial mainstream placements. They reasoned that students in self-contained placements had fewer opportunities for negative comparison of their abilities with higher functioning peers, and therefore felt themselves to be relatively more valuable. Students in partial or full mainstream placements not only have to deal with this emotionally difficult comparison, but performance demands are also higher and help is perhaps less available, resulting in further frustration.

**Suggested interventions in mainstream instruction.** There is now some concurrence among researchers that mainstreaming can be effective for many students if appropriate modifications are made. Gresham (1982), suggests mainstreaming can be successful if educators make clear efforts to teach the necessary social
skills/behaviors for positive interaction. Following Bandura's (1969; 1977) social learning theory model, Gresham (1982) recommends incorporating manipulation of antecedent events, manipulation of consequences, and proper modeling techniques to teach these skills. Antecedent events in the social environment of children with disabilities can be manipulated by providing opportunities for positive interaction with peers. Researchers have taught interaction prompting cues to normally developing confederates (Strain, 1977; Strain, Shores, & Timm, 1977), used sociodramatics or role taking/playing activities (Strain, 1975; Strain & Wiegerink, 1976), and utilized cooperative games (Aloia, Berver, & Pettus, 1978; Ballard, Corman, Gottlieb, & Kaufman, 1977) to increase opportunities for peer interaction and facilitate acceptance of students with disabilities.

Socially desirable behaviors can be taught with a six-step teaching sequence (Cullinan, Sabornie, & Crossland, 1992; Goldstein, 1988), or through proper modeling procedures (Gresham, 1984; Guralnnick, 1976; Snyder, Appoliani, & Cooke, 1977). Gresham (1982) cautions that modeling techniques do not consist simply of social proximity, but rather include exposure to carefully sequenced competence levels, and frequently include instructional, or attention focusing components. In order to facilitate acceptance of students with disabilities in the mainstream classroom, the positive behavioral repertoires of both the regular education students and the mainstreamed student must be increased.
In order to increase the frequency of acquired positive behaviors, social learning theory (Bandura, 1969, 1977) utilizes the science and art of consequence manipulation. Many techniques have been employed (Gresham, 1982). Contingent social reinforcement (Allen, Hart, Buell, Harris, & Wolf, 1964; Nash, Thorpe, & Andrews, 1979), token reinforcement (Broden, Hall, Dunlap, & Clark, 1970; Drabman, 1973), group contingencies (Gamble & Strain, 1979; Rosenbaum, O'Leary, & Jacob, 1975), and differential reinforcement of low rates of responding (Dietz & Repp, 1973; Epstein, Repp, & Cullinan, 1978), are all examples of these techniques. Cullinan et al., (1992), suggest the use of naturalistic practice, with additional direct teaching of skill deficits to increase the occurrence of already existing social skills.

In addition to the acquisition of social skills by both regular and special education students in the mainstream classroom, effective instructional strategies must be employed for mainstreaming to be successful. Schloss (1992) notes work by Salend (1990), and Larrivee (1986) which demonstrates that most strategies found to be effective with students with disabilities are the same strategies that have been found to be effective with students in regular education (see Hersh, 1990; and Schloss, 1992, for examples of specific strategies).

Limited implementation. Despite adequate literature identifying interventions and modifications which could facilitate successful efforts to mainstream students with disabilities, teachers seldom use modifications with behaviorally disturbed students in the
regular classroom (Meadows et al., 1991; Meadows et al., 1994; Ysseldyke et al., 1990). The literature offers potential explanations for this failure in terms of practicality, confusion, training deficits, and concerns about the perceptions of the other children.

Pragmatic concerns were addressed by Witt and Martens (1983) who developed the 20-item Intervention Rating Profile (IRP). Using this instrument, educators rate interventions along a primary acceptability dimension, and secondary dimensions of risk to the target child, amount of teacher time required, effects of the intervention on other children (one general item), and amount of teacher skill required. Schloss (1992) stresses the importance of choosing interventions and instructional strategies that minimize demands on teachers' time and resources. The effort to minimize demands on educators is further reflected in the literature by suggestions that minimally intrusive interventions be utilized whenever possible (Heron & Harris, 1987), and that the same instructional materials used by regular education students classroom be adapted for students with special needs (Idol-Maestas, 1983).

Similarly, Schumm, Vaughn, and their colleagues completed a series of studies investigating teacher beliefs, perspectives, and practices, in terms of desirability, feasibility, and willingness to implement specific behavioral interventions or modifications (Schumm & Vaughn, 1991; Schumm, Vaughn, Gordon, & Rothlien, 1994). Their results validated the importance of pragmatic
concerns on teachers' parts when making judgments as to intervention acceptability.

Several researchers have suggested that confusion regarding competing mandates has slowed the implementation of adequate intervention for SED students in mainstream settings. The paradox is to make modifications for students with disabilities on one hand, and to ensure generalization of skills to multiple contexts on the other. For example, Meadows et al., (1994) suggest that there may be a perception among teachers that mainstream placement itself indicates that a student has the requisite skills to perform in that setting, without the need for differential programming. Such a notion would be supported by the fact that mainstreaming is designed to encourage students with disabilities to take on the behavioral and social characteristics of their higher functioning peers (Bricker, 1978; Mercer & Algozzine, 1977; Peterson & Haralick, 1977). Subsequently, special curricula and/or instruction for the mainstreamed student is not offered, and the same behavioral management techniques and class rules are employed for all students.

Another source of confusion may arise from conflicting trends and guidelines regarding when and how to include students with disabilities in the mainstream classroom. For example, Meadows et al., (1994) reported a proposal by the Texas Education Agency to educate all students, regardless of disability, in general education classes by redefining special education services from a parallel to an integrated and supported educational system. Essentially, this
would result in the termination of alternative placements for students with various disabilities. In contrast, Schloss (1992) advocates the use of re-integration guidelines (Sindelar, 1981) which propose that students currently being served in more restrictive environments be mainstreamed only if adequate resources are available, and it can be determined that their social behavior will not consistently disrupt the learning environment of others. Many authors have pointed out that a placement is appropriate only if the student's learning and social characteristics can be adequately addressed in that environment (Conway & Gow, 1988; Salend, Brooks, & Salend, 1987; and Schloss et al., 1990).

A third potential factor in the failure to effectively modify for SED students in the mainstream setting, may be a deficit in teacher training for implementation of complicated interventions designed by consulting professionals (Schumm & Vaughn, 1991). Because teachers are required to fulfill so many roles, and perform so many diverse tasks, training programs are often broad and general. Therefore, few teachers emerge from training programs with specialized preparation for therapeutic intervention, as well as behavior management. Subsequently, school districts seem to be progressively enlisting the assistance of consultants from the mental health field to address the needs of students with emotional/behavioral disabilities.

**Student perceptions.** Researchers have traditionally been concerned about student perceptions of aspects of the classroom environment and related effects on performance (e.g. Walberg,
Fears related to negative changes in regular student perception of aspects of the learning environment are also evident in commonly raised objections to mainstreaming practices (Staub & Peck, 1994). Researchers concerned about student perceptions focus on many areas (Fraser et al., 1982; Vaughn et al., 1991). Those areas most directly related to the current investigation are perceptions of classroom fairness, friction, motivation and apathy, as well as overall classroom satisfaction or enjoyment.

An in-road to the investigation of subjective reactions by regular education students to intervention practices in the mainstream classroom was made by Vaughn and her colleagues (1991). Despite a dearth of information regarding the accuracy of teacher concerns regarding regular education students' subjective reactions to intervention practices, the authors note that teacher behavior is likely effected by their perceptions of student notions. Their preliminary findings indicated that regular education students have specific opinions as to the acceptability of various adaptations and interventions used with mainstreamed students.

A major concern regarding mainstreaming practices is that students will consider a disproportionate allocation of time and attention weighted in favor of special needs students to be unfair (Staub & Peck, 1994; Vaughn et al., 1991). The implication is that negative perceptions of fairness might lead to behaviors on the part of the regular education students that would negatively impact their education. Research suggests a developmental progression in children's notions of fair distribution of resources. This progression
encompasses three basic notions about what constitutes a fair
distribution of available resources; equality, equity, and need.

Young children seem to base judgments of fair allocation of
educational resources on an equality, or share and share alike,
criteria (Thorkildsen, Nolen, & Fournier, 1994). There is little
ability at 5 or 6 years-of-age to incorporate a notion that others
may need resources more, and therefore are more entitled to them
(Huntsman, 1984). For older children, around the ages of 9 or 10,
equity, or resource allocation in proportion to performance, becomes
a more compelling resource distribution criteria (Damon, 1977;
Hook, 1983; Thorkildsen et al., 1994). It is not until early
adolescence that children begin to incorporate "need" into equity
considerations (Damon, 1977; Enright, Bjerstedt, Enright, Levy,

Sigelman and Waitzman (1991) disagree with a strict
sequential development model. They suggest that contextual
factors, which pull for one or another of these types of fairness,
influence which criteria is used. They conclude that maturation
results not in one type of reasoning or another, but in a greater
ability to apply the appropriate reasoning to specific contexts.
Younger children may, therefore, have great difficulty understanding
greater amounts of attention and time given to specific students.
And slightly older children may have difficulty accepting such
allocations of resources if they feel they deserve more, due to their
greater effort and achievements. Vaughn et al., (1991) found that
students were receptive to their teacher’s giving peers with special
needs extra assistance or special instruction, but they objected to modifications that might provide an unfair advantage. Examples included modifications in assignments, textbooks, and tests.

The notion of classroom friction addresses two common concerns regarding the practice of mainstreaming. Classroom friction has been negatively correlated with measures of learning (Walberg & Ahlgren, 1970), and is assumed to be related to excessive negative behaviors. Staub and Peck (1994) note that opponents of mainstreaming commonly cite fears about decreases in non-disabled students' academic progress as a major concern. A related concern is that regular education students will learn disruptive behaviors from mainstreamed students (Peck, Carlson, & Helmstetter, 1992). Similarly, Fraser et al., (1982) note that the deflection of energy expended in conflict, as well as emotional upset resulting from conflict can be expected to impair learning.

The third area of potential teacher concern for regular education students' subjective reactions to mainstreaming practices is motivation versus apathy. Although little has been done in this area, student perceptions of their motivation levels correlate with overall enjoyment and academic achievement (Fraser et al., 1982). Furthermore, the area of academic achievement represents one of the three most commonly mentioned concerns for regular education students where mainstreaming is practiced (Staub & Peck, 1994).

Finally, overall student satisfaction, or enjoyment, has been positively correlated with measures of academic performance (Walberg, 1969a). In addition, Fraser et al., (1982) notes that
student satisfaction, in and of itself, is a goal of educators. Those authors also theorize that it is likely that students who are satisfied with their learning environment, teachers, and classmates would be less frustrated and perform better.

Summary of mainstreaming literature. Mainstreaming practices have been debated in the literature for some time. Despite one’s position on the propriety of the idea, federal law, dictating education of students with disabilities in the least restrictive appropriate setting, has come to drive efforts to develop strategies to facilitate the effectiveness of the practice. Behavioral scientists have contributed to the development of many strategies that have garnered general support and shown promise in outcome studies. However, the literature suggests that these strategies are seldom practiced by teachers in regular education classes. Considerations of pragmatics, confusion regarding directives, teacher training, and concerns for regular student perceptions of the learning environments offer possible explanations for why these interventions are not used. Motivation/apathy, classroom friction, fairness, and satisfaction with the classroom environment, represent areas of student perceptions that are related to both learning outcomes and concerns expressed by opponents of mainstreaming practices.

Social Validation

Social validation consist of asking appropriate groups of people to judge the effectiveness and appropriateness of behavioral interventions (Wolf, 1978). The use of social validation was
formalized after applied behavioral researchers began to acknowledge the need for greater sensitivity to the perceptions of the general public, particularly those whose lives an intervention might touch, directly or indirectly. These people are commonly referred to in the social validation literature as "consumers" (Schwartz & Baer, 1991). Direct targets of interventions make up the direct consumers, while those effected by the intervention through proximity, relation, or interest comprise the group of indirect consumers. The current study focuses on perceptions of regular education students, who could also be referred to as indirect consumers.

The issue of educational mainstreaming of individuals with disabilities is particularly suited as an application for social validation. While objective measures can determine in specific contexts whether intervention practices in the mainstream environment disrupt the behavior and performance of regular education students, opponents of mainstreaming practices frequently cite the reactions of the regular education students as a significant concern (Staub & Peck, 1994). It is the perception of inequity or disruption held by non-targeted students that might affect their motivation and or performance. Similarly, if teachers believe that intervention procedures will result in negative perceptions and behavior on the part of the regular education students in the classroom, they may be reluctant to use them.

*History of social validation.* Most researchers credit Wolf (1978) and Kazdin (1977) with being the driving forces behind the
inclusion of subjective judgments in evaluation of applied behavioral techniques. However, the acknowledged importance of considering public perceptions of psychological interventions predates the emergence of social validation. Patient satisfaction, client expectation and satisfaction, and consumer satisfaction, are usually identified as precursors to social validation in the literature (Kennedy, 1992). Reviewers also point to growing exposure of the general public to persons with disabilities as a social trend that precipitated a need for this type of work (Storey & Horner, 1991; Woods, 1984).

Deinstitutionalization resulted in persons with severe disabilities entering many social contexts that previously excluded them. Of particular relevance to the current study, Public Law 94-142 led to a growing awareness of the moral and legal necessity that school aged children with disabilities: a) be served in the least restrictive environment, and b) be provided with an appropriate individualized education. This led to a call for inclusion of children with disabilities in the regular public education classroom. With this added exposure, the number of persons concerned with the behavior of children with disabilities grew significantly. Thus, social validation of interventions designed to influence the behavior of these children, became important to satisfy the growing number of indirect consumers (Storey & Horner, 1991).

**Issues in social validation.** Wolf (1978) articulated three basic areas of social validation:
society would need to validate our work on at least three levels: (1) The social significance of the goals. Are the specific behavioral goals really what society wants?; (2) The social appropriateness of the procedures. Do the ends justify the means? That is, do the participants, caregivers, and consumers consider the treatment procedures acceptable?; and (3) The social importance of effects. Are the consumers satisfied with the results? All the results, including the unpredicted ones. (p. 207)

Since 1978, researchers have generally accepted social validation of goals, effects, and procedures to represent the primary areas of social validation.

Kazdin (1977) argued, along with Risley (1970), that both experimental and therapeutic criteria must be met by behavioral changes. To this end, Kazdin (1977) adopted Wolf's three domains of social validation, but drew a distinction between normative and subjective evaluations. Normative comparison requires identification of an appropriate peer group. When an identified individual's behavior levels reach that of the comparison group, the behavioral changes are said to have reached clinical importance. Kazdin (1977) noted that normative comparison has it's difficulties. He pointed out that behavior levels demonstrated by available peers may represent less than satisfactory levels of performance. Or, conversely, it may be that simple behavioral improvement is a worthy goal, even without reaching the level of performance exhibited by others.
Kazdin defined subjective evaluation as the perceptions of individuals who are likely to have contact with the subject and some interest in changes achieved in the client's behavior. Possibly because it represents a more distinct methodology than normative comparison from traditional control group research, subjective evaluations are used much more frequently in social validation studies. Kennedy (1992) analyzed the literature and found subjective evaluation was used in 91% of the articles reporting social validation data. Both Schwartz (1991) and Storey and Horner (1991) reported similar high incidence of subjective evaluations. While use of subjective evaluation avoids the pitfalls of normative comparison, it opens up the door to difficulties that arise from errors and differences in information, upon which people make subjective judgments. For instance, naive judges can detect changes that are not necessarily important ones, and the needs of the evaluators could easily take precedence over the needs of the clients. Kazdin suggests using both methodologies in tandem to ensure a balance between narrowly focused professional assessments and erroneously informed lay assessments of intervention effects. The current study utilizes subjective evaluation to measure how changes in the learning environment, which occur while interventions are implemented for mainstreamed students, are perceived by a class of indirect consumers; the regular education students.

Persons selected to judge a given evaluation may include anyone who has the opportunity to interact with the client/s or who
might have a special position to judge the behavior (e.g., through familial proximity or through expertise). Thoughtful analysis of the purpose of the intervention and consideration of who might be affected by the clients' behavioral changes is required for making appropriate selections of social validation raters (Schwartz & Baer, 1991). College students, parents, and children have been employed as judges for social validation of interventions with children with autism (Runco & Schreibman, 1983; Runco & Schreibman, 1988; Schreibman, Koegel, Mills, & Burke, 1981; Schreibman, Runco, Mills, & Koegel, 1982). Each of these populations of judges is appropriate if the individuals have a special vantage point in making their judgment, or their opinions are paramount to the success of the program or intervention.

As noted above, social validation of effects (outcomes), goals, and procedures are the three areas commonly utilized in the psychology literature. Relative use of the three areas was examined by Kennedy (1992), who content analyzed articles in The Journal of Applied Behavioral Analysis (1968-1990) and Behavior Modification (1977-1990). His sample showed that social validation of outcomes (effects) appeared most frequently (54%), social validation of goals represented 24% of the sample, and social validation of procedures represented 22% of the sample. Although the current study is concerned only with social validation of procedures, applications in all three areas are reviewed here, in order to elucidate common issues, subject populations, and trends.
Validation of effects. Social validation of treatment effects represents the most widely explored domain of social validation research (Kennedy, 1992). Intervention effects have been socially validated with a wide variety of specific behavior targets, treatment populations, and relationships between treatment subjects and those who serve as judges (Kennedy, 1992; Storey & Horner, 1991; Woods, 1984). Common target behaviors include public speaking skills (Fawcett & Miller, 1975), assertiveness skills (Romano & Bellack, 1980), specific social skills (Csapo, 1983), adolescent problem solving skills (Tisdelle & Lawrence, 1988), habit reversal for tics (Finney, Rapoff, Hall, & Christophersen, 1983), and play behavior (Celiberti & Harris, 1993).

For example, effects of an intervention with a 14-year-old profoundly retarded boy who displayed severe self-injurious behavior (SIB) was socially validated by Tierney (1986). The effectiveness of reinforcement of calm sitting behavior was socially validated across contexts by administering 11-item questionnaires to the treatment subject's parents, teacher, teacher's aide, and bus driver, in a pre-post format.

Employee marketability represents a substantial area of research with individuals whom are developmentally disabled (Storey & Horner, 1991). For example, Furman, Geller, Simon, and Kelly (1979) conducted a behavior rehearsal intervention for teaching job-interviewing behaviors to adult psychiatric patients. Individuals were taught to give positive information about past experience and education, gesture, ask questions, express interest
and enthusiasm, and to know job facts. A personnel manager, who was kept "naive" to experimental conditions, was asked to rate videotaped interviews on candidate enthusiasm, educational qualifications, ambition, qualifications in terms of experience, favorable information conveyed, likelihood of actually being hired, and initiative. Effects of interventions designed to improve actual job behavior were socially validated in other studies. Rusch (1983) asked employers to validate an intervention to improve cleaning and wiping of tables in a cafeteria by retarded adult workers. Social validation ratings were then compared with objective measurements of task completion speed.

Social validation of effects has been extensively used to examine the issue of social inclusion for persons with disabilities (Storey & Horner, 1991; Woods, 1984). An area closely related to educational mainstreaming is social skills training. Horstman and Bornstein (1985) presented videotaped role plays of various types of assertive and non-assertive behaviors to child-raters, who used a "likeability" scale to articulate what they considered desirable. Similarly, Wojnilower and Gross (1985) asked fourth and fifth grade boys to rate the likeability of children role playing various types of assertiveness on videotapes. Interactive behaviors were investigated by Csapo (1983), who used social learning training, outlined by Ladd (1981), and group reinforcement to decrease social withdrawal and isolation in six third-grade children. Four skills were taught: asking questions, giving directions, praising and encouraging, and controlling socially negative behaviors. Social
validation ratings of satisfaction were provided by the subjects themselves.

In addition to specific interventions, social validation has been used to judge the effects of relatively long term behavior therapy (e.g., Runco & Schreibman, 1983; Runco & Schreibman, 1988; Schreibman et al., 1981). Schreibman et al., (1981) provided four and one-half hours of therapy per week, for six months, to children with autism. At six months, undergraduate students were asked to rate the behavior of subjects from low change and high change groups, after viewing videotaped segments of the children with autism in a free play setting with their mothers. The authors ensured that the social validation ratings of outcome were directly related to socially important goals. They asked another group of undergraduates to view videotapes of children with autism, and to note any behaviors they thought were important. These observations were then utilized to construct the questionnaires upon which ratings of the behavior therapy were based.

Runco and Schreibman (1983) used more closely related judges to validate long-term behavior therapy. Parents of children with autism and parents of normal children were asked to rate therapy effectiveness at six months and one year. Subjective ratings of parents supported objective measurements of overall change, but there were few correlation's between subjective ratings of specific behaviors and objective scores. These findings suggest that trained observers notice behaviors differently than
parents, despite the fact that both parties can discern significant changes in behavior.

The use of peers to validate intervention effectiveness was demonstrated by Runco and Schreibman (1988). Subjects' observations of videotape segments depicting children with autism were used to generate questionnaire items. The authors were able to document that peers are not only appropriate consumers, but also reliable raters of socially important behaviors. Peers' willingness to interact with children with autism, as demonstrated by a "social distance scale", was correlated with improvements in behavior after therapy.

Social validation techniques have also been used to test various perceptions of construct validity in the development of standardized instruments. For example, Ollendick, Hart, and Francis (1985) utilized child raters to examine the social validity of the Behavioral Assertiveness Test for Children-Revised (Bornstein, Bellack & Hersen, 1980). Adult expert ratings of component behaviors were shown to correlate well with adult expert ratings of overall assertiveness. However, children's ratings of likeability differed significantly from the adult expert ratings of assertiveness.

**Validation of goals.** The social validation of goals ensures that behavioral changes will be meaningful to the appropriate consumers. An impetus for Wolf's adoption of subjective methodology in behavioral research was that goals defined by professional
researchers did not always reflect the same priorities as those defined by the consumers of interventions (Wolf, 1978).

Early social validation studies attempted to integrate goals defined by appropriate consumers with goals defined by the interventionists (Wolf, 1978). For example, Willner, Braukman, Kirigin, Fixen, Phillips, and Wolf (1977) interviewed youth from a group home to isolate the construct of "an ability to relate to youth" into components such as voice tone, joking, fairness, explanations, enthusiasm, accusing, shouting, and use of profanity. These behaviors were then considered in subsequent training with staff. Similarly, Romano and Bellack (1980) asked adults, rating the social skills of women role playing responses to assertion situations, to list the behavioral cues they used in making their ratings. Regression analysis was used to consider the usefulness of these behavioral cues for predicting the overall social skill judgments. Standard sets of component assertiveness behaviors were found to account for 60% of the variance. When judge-cited components were added to the analyses, 70% of the variance was accounted for.

Social validation of goals has been used to study a variety of different behaviors. Finney et al., (1983), for example, worked with adolescents who displayed multiple tics. Social validation techniques were used in their study to determine what kinds of tics, displayed at what levels, were of concern to raters. A different approach was used by Tisdelle and Lawrence (1988), who utilized a normative comparison strategy to establish behavioral goals for a clinical population. Baseline behaviors of conduct disordered
adolescents in an inpatient setting were compared to baseline behaviors of public school adolescents. The non-clinical population was used as the criteria for successful assimilation of the trained skills by the treatment group.

The issue of what criteria should be used to determine intervention effectiveness has been raised by several authors (e.g., Ernst, Bornstein, & Walsh, 1984; Kazdin, 1977). Ernst et al., (1984) studied the effects of component versus overall assessments, the respective importance placed on specific components by professional and subjective evaluators, the effect of information about the clinical treatment program on ratings of overall effectiveness, and the effect of client severity information on subjective evaluations. They concluded, despite limited results, that professionals differed from subjective evaluators on which components they rated as most important in making overall assessments. Similarly, Kazdin (1977) noted that component scales, generated by experts, but utilized by subjective evaluators, may not measure the dimension under investigation. This apparent stalemate can be eliminated if the purpose of social validation is kept clearly in mind. It is specifically the perception of a group of people, who are affected by our practices, or who have potential influence on these practices that is of importance. Storey and Horner (1991) point out that we are interested in whether, as a result of their perceptions, people will support an intervention through acceptance or inclusion of the client more fully in their context. In the current study, the perceptions of regular education students are believed to
have a direct influence on both general acceptance of mainstreaming practices, and teacher behavior in the classroom.

Validation of Procedures

Social validation of the appropriateness of procedures is most closely related to the techniques utilized in the current study. The acceptability of the interventions being implemented for mainstreamed students, in terms of their effect on the learning environment of the regular students defines the current work. During their early development of the methodology, Wolf and his colleagues were interested in the assessment of procedures in terms of ethics, cost, and practicality (Wolf, 1978). An early development in the use of subjective perceptions for assessing behavioral interventions was provided by Braukman, Kirigin, and Wolf (1976), who hypothesized that subjective ratings by residents of the fairness and care provided by a group home staff, would correlate positively with the number of offenses committed by the residents during treatment. Their results confirmed that subjective perceptions could validate the importance of objective measures of progress in the eyes of relevant consumers.

The most common application for social validation of procedures is consumer acceptance of aversive or intrusive behavioral procedures. Using special educators as judges, Irvin and Lundervold (1988) used social validation procedures to devise lists of decelerative techniques that were most likely to be accepted, and therefore most likely to be used. Decelerative interventions rated as most acceptable to the special educator judges were differential
reinforcement, simple correction, and extinction. Poorest acceptability rankings were assigned to contingent electric shock, mechanical restraint, and contingent noxious stimulation. In general, procedures that were seen as more intrusive, were judged to be less acceptable. Irvin and Lundervold (1988) were also able to support Wolf’s (1978) prediction that ratings of efficacy would be positively related to judgments of acceptability.

Researchers have concluded that a great variety of judges, ranging from psychologists, to parents, teachers, hospital staff, and children, can provide useful information about interventions in regards to their acceptability (Cross-Calvert & Johnston, 1990). Strupp and Hadley (1977) categorized these potential judges according to the roles they play in determining the acceptability of a given intervention. Individuals representing society at large might be concerned with protecting the best interest of those who cannot make their own informed decisions. Mental health professionals would be concerned with treatment acceptability and proper informed consent. Clients themselves can both make decisions regarding preferences in treatment options, and provide feedback on procedures, in order to help future clients make informed decisions about their own treatment.

More formalized methods for gathering subjective data have also been developed. In order to assess clinician and adult consumer perceptions of procedural acceptability, Kazdin developed the Treatment Evaluation Inventory, a 15-item instrument which assesses the dimensions of acceptability for the specific problem described; willingness to carry out the procedure; likeability of the
procedure; humanity of the procedure; and fairness of the procedure (Kazdin, 1980a, 1980b, 1981, 1986; Kazdin, French, & Sherick, 1981). For children, a parallel version was developed with simplified items being read to the child (Kazdin, 1981, 1984, 1986; Kazdin et al., 1981). Studies using this instrument indicated that, whether compared to extremely intrusive procedures, such as electric shock, or mildly intrusive procedures such as time outs, reinforcement was generally the preferred choice. In general, more intrusive procedures were rated as more acceptable if the behaviors described were more severe. Other studies indicated that reinforcement was more acceptable than isolation, with contracting and withdrawal of attention falling somewhere between (Kazdin, 1980b).

Witt and his colleagues devised the Intervention Rating Profile (IRP), a 20-item Likert-type scale (Witt & Martens, 1983). This scale is of some interest to the current study, as it specifically applies to teacher ratings of interventions in the regular classroom. Procedures for administration of the IRP involve presenting case vignettes and an intervention description to teachers, who rate the intervention. The measure results in one General Acceptability index. The original version of the IRP also measured four secondary factors: 1) risk to the child, 2) teacher time required, 3) negative effects on other children, and 4) teacher skill required for implementation. A revised IRP version, the IRP-15, results in only one factor of General Acceptability, as does a parallel version for
children (Witt & Elliott, 1985). The 7-item children's version (CIRP) also results in a single acceptability factor (Witt & Elliot, 1985).

The Learning Environment Inventory (LEI), and My Class Inventory (MCI) (Fraser et al, 1982) were developed to measure student perceptions of classroom climate. The LEI is a 105-item instrument with 15 scales for use with high school students. The MCI is a simplified version with only 5 scales, for use with students from the ages of 8 to 12. These instruments have been used to examine a wide variety of teaching strategies and classroom interventions (see Fraser & Walberg, 1981 for a review). Although not identified by the authors specifically as social validation instruments, the LEI and MCI use direct student perceptions, and specific items relate directly to the concerns of this study.
CHAPTER 2

METHOD

Subjects

Archival data originally collected by special education personnel was utilized in this study. The data set came from a sample of 205 public school students, all classified as regular education students, in the fifth, sixth, seventh, and eighth grades. Fifth through eighth grade students were selected for the study because they represent two of the three developmentally related categories of children's thinking regarding fair resource allocation (Sigelman & Waitzman, 1991), and are also likely to have made the cognitive gains necessary to perform the perspective taking tasks required by the questionnaire items (Krebs, 1978). The data set consists of 104 experimental subjects and 101 control subjects. Experimental subjects were taken from each of seven mainstream classrooms where behavioral interventions were being initiated for a targeted special education student classified as emotionally disturbed. Controls were taken from similar classes in the same school where no such formal interventions had been implemented. The rural school district involved in this study is located in the south central United States, and serves approximately 950 predominately Caucasian children. District records indicate that minorities compromise 4.13 percent of the enrollment at the school.
Approximately 30% of the students in this district were classified as economically disadvantaged. Children with profound physical and developmental disabilities in the county where these schools are located are served educationally at cluster sites in neighboring towns, and were excluded from the study.

The community containing the target school is a small town (2,500 population) with surrounding farm and ranch populations. There are two moderately populated towns (approximately 30,000 each) within 30 miles of the participating school, and a large (over 3 million) metroplex within 75 miles. Parental occupations vary across a broad range, with heavy representation of agriculture and manufacturing occupations.

In the participating school, children with disabilities are typically mainstreamed for general instruction and social activities. Resource classrooms are available for instruction in specific subject areas. Alternatively, "content mastery" assistance is frequently recommended to serve those that can benefit from instruction in the regular classroom, but who require help or extensive modification in completing their assignments. Students with emotional disturbance typically receive comprehensive assessments with specific educational recommendations, which are usually implemented in mainstream or partial mainstream placements. These recommendations can include the instructional arrangements described above, as well as a wide variety of behavioral and relational strategies.
Measures

A 16-item questionnaire (Appendix A) was developed to measure student perceptions of classroom satisfaction/enjoyment, friction, motivation/apathy, and fairness. These specific areas represent the convergence of concerns expressed by opponents of mainstreaming and traditional learning environment categories with established correlations to measures of learning (Fraser et al., 1982; Staub & Peck, 1994). "Satisfaction/enjoyment" represents a general measure of individual comfort in the classroom environment. The "Friction" category refers to both interpersonal conflict and classroom disruptiveness. "Motivation/apathy" addresses both positive and negative aspects of student perceptions of their own and others' motivation. And "Fairness" includes notions of resource allocation and justice in the classroom.

Two items in each of the first three categories were suggested by items from My Class Inventory (MCI), a 38-item measure of classroom environment, developed by Fraser et al. (1982). Additional items were generated for the Satisfaction scale to represent perceptions of other students' experience as well as the subject's own, and to assess the subjects' degree of positive identification with the classroom group.

The Friction scale was intended to measure perceptions of general classroom disruptiveness, conflict among students, and conflict between students and the teacher. Items adapted from the MCI, represented disruptiveness and conflict among students. The generated items were intended to represent conflict between
students and teachers, and a measure of interaction worded in the positive tone. Additional items for the Motivation/Apathy scale were constructed to balance measures of positive and negative aspects of investment in both academic and social tasks of the learning environment.

Three items selected for the Fairness scale were generated to address concerns expressed by opponents of mainstreaming practices regarding resource allocation (Staub & Peck, 1994). Items were constructed to address allocations of teacher time, devoted to both general assistance, as well as attention to disruptions. Following the suggestion that students may find extra assistance for special needs peers more acceptable that modifications in evaluation criteria (Vaughn et al., 1991), the remaining item was designed to assess perceptions of preferential treatment in grade assignment. The questionnaire utilized a five-point-Likert-type scale with responses ranging from never or usually not true, to always or usually true.

Procedures

Permission was obtained to use the data for research purposes (Appendix B). Once data was recorded for their purposes, special education personnel ensured that no identifying information remained on the protocols. Protocols were then made available for research purposes. The data was analyzed, and the results were made available to the school for their use in future intervention planning.
Procedures for the initial collection of the data were as follows. Data was collected as part of a program evaluation initiated by special education personnel. Upon an initial or re-evaluation for emotional disturbance, students were identified as needing behavioral interventions in their mainstream classrooms. Before initiating these interventions, parental consent forms and personal assent forms for research participation (Appendices C and D) were circulated in the classroom where interventions took place with targeted mainstreamed special education students.

Data was collected in regular classroom groups of between 10 and 24 students, during a period where the mainstreamed special education student was experiencing difficulties. Classrooms were arranged for various seating strategies, including lecture type rows, four desk groupings, and combinations thereof.

The primary investigator was a doctoral candidate in Counseling Psychology, with several years of experience working in schools with emotionally disturbed students. He was assisted by professional staff from the school. Tasks performed by the investigators included reading the standardized instructions to each classroom group (Appendix E), inquiring for understanding, distributing questionnaires, monitoring procedural safeguards and independent responses, and answering subject questions.

The regular education students were told that the investigators were interested in their reactions and opinions regarding their experience in the classroom, and that the information would be used to plan classes to help them learn and
enjoy school. The standardized instructions were given, as well as an opportunity for questions. The questionnaire was then administered. Because the questionnaire was brief, the investigators were able to read each individual question to the students, ensuring that reading levels did not interfere with accurate responding.

The questionnaires were previously offered for scrutiny by several fifth grade teachers (the least advanced placement group involved in the study) for feedback regarding the appropriateness of the vocabulary used. The school principal was asked if there were students in targeted classrooms with English as a Second Language (ESL) distinctions, to determine the need for translated questionnaires. Answers from those students whom had permission to participate were included in the data set.

The above procedure was repeated for a post-intervention sample. The second measurement occurred during the fourth week of intervention implementation. These same procedures were followed for control classrooms, with similar periods of time between pre- and post intervention

Interventions

The interventions socially validated in this study included procedures implemented in one-to-one settings with the targeted students, as well as those implemented in the regular classroom. Those procedures that were implemented in the regular classroom are likely more relevant to the perceptions of the regular education students. Procedures included environmental arrangements, such as
changes in proximity to the teacher and changes in student groupings, as well as modification of interactions between the target student and the teacher. These latter interventions consisted of more frequent re-focusing cues, verbal feedback, charting, naturalistic practice sessions for specific response sequences, and social and material rewards for successful performance.

Most of the interventions were based on the notion that SED students often demonstrate academic and behavioral difficulties due to skill and performance deficits (Cullinan et al., 1992; Gresham, 1986, 1988). By encouraging the performance of behaviors that would lead to success in the classroom, it was believed that the need to manage negative behaviors would be decreased.

There were seven students targeted for classroom interventions, one in each experimental class group. All were qualified for special education services under the category of serious emotional disturbance (SED). This classification dictated that the student have marked difficulties over a prolonged period time in one of several areas. These categories generally include difficulties with behaviors, relationships, or affect. Three of the students had dual labels of SED and learning disabilities (LD). Each experimental classroom contained one SED student for whom interventions were currently being implemented. Students typically spent one subject hour per day in this classroom. Descriptions of each individual SED student, the behaviors targeted for intervention, and specific interventions, are presented in Appendix F.
Design

Clinical considerations prohibited randomization of assignment to experimental and control groups in this study. Therefore, a quasi-experimental design was used. The design was pre-post with control, using intact groups. While this design does not offer the level of external validity of randomized assignment, it is to be preferred in applied settings, where measurement of effects of interventions are being made in the natural context (Campbell & Stanley, 1966).

Scale Refinement

After data collection, preliminary reliability correlations were run to assess scale stability. Similar correlations were obtained on both pre-intervention and post intervention items. Correlations reported here are from pre-intervention because these scores are not confounded by intervention effects. Results are presented in Table 1 (see Appendix G). An overall alpha correlation of .78 resulted for all sixteen questionnaire items taken together.

Analysis of the Satisfaction scale resulted in a scale correlation of .68. All items, as originally developed, were found to contribute positively to the scale. Analysis of the Friction scale resulted in a similar correlation of .66, with all items again contributing to the overall relationship.

Correlations run on the original items of the Motivation/Apathy scale revealed a relationship of only .34. Items 2 (Kids in this class want a good class.) and 6 (It is possible to do well in this class.) were not found to be related to items 7 (Some of
the kids in this class don't care if they get bad grades.) and 15 (Some of the kids in this class don't want to learn.). Nor were items 2 and 6 significantly related to each other. The correlation of items 7 and 15 alone was .67.

Scrutiny of these remaining items revealed that they represented the "apathy" side of the Motivation/Apathy scale. By dropping items 2 and 6 from the scale, and adding item 3, a scale correlation of .69 was obtained. These three items were then grouped as an Apathy scale and used for further analysis.

Reliability correlations run on Fairness scale items resulted in a correlation of only .25. No two items on this scale were significantly related, and various alternative groupings did not result in a meaningful scale. Therefore further analyses on a Fairness scale were not pursued. Final item groupings for scale construction are presented in Table 2 (Appendix G).

Analyses

Scores on individual questionnaire items within the three classroom environment categories were averaged, resulting in means for satisfaction, friction, and apathy for each experimental and control subject. These means were then used in subsequent analyses.

In order to assess the effect of the interventions on students' perceptions of their classroom environment, a multivariate analysis of covariance (MANCOVA) for differences in experimental and control groups was run, with post-intervention Satisfaction, Friction, and Apathy scale means used as dependent variables. Pre-
intervention Satisfaction, Friction, and Apathy scale means were entered as covariates to help account for differences that existed between experimental and control groups prior to the intervention. Keppel and Zedeck (1989) recommend these procedures over utilization of difference scores in pre-post investigations, due to the likelihood of error term confounding with the latter procedure.

Follow-up analyses of covariance (ANCOVA) were run to ensure that there were no differences between groups within each of the scales that was not accounted for in the overall MANOVA. In addition to these tests for main effects, post-hoc MANCOVA analyses were run on the experimental group by gender, and the experimental group by grade interactions. Due to sample size limitations, these analyses were done independently, rather than together. For each MANCOVA, tests for homogeneity of variance were completed.
CHAPTER 3

RESULTS

The purpose of this study was to measure student perceptions when common behavioral interventions for emotionally disturbed students are implemented in the regular classroom. The original concerns were that regular education students would perceive less satisfaction/enjoyment with their classroom experience, increased friction or disruptiveness, negative changes regarding motivation and apathy levels, and a decrease in fair resource allocation and justice. The importance of these concerns lies in common objections to mainstreaming practices in general, and the suggestion that teachers may not adequately implement common behavioral interventions for children with emotional/behavioral disabilities in mainstream settings, due to fears regarding adverse effects on the regular education students in the classroom. A questionnaire was developed to obtain data in these four areas and administered to the subjects. After reliability studies, scales were finalized for analyses in the areas of satisfaction, friction, and apathy.

Results from pre and post measures of these scales, administered to fifth through eighth grade regular education students in experimental and control groups are described in this chapter. Results for hypotheses one through four are presented
together in accordance with the MANOVA analyses. The discussion of follow-up analyses addresses main effects on individual scales, as well selected interactions.

Description of the Sample

The participants in this study were regular education students in the fifth through eighth grades. The experimental group consisted of students in classes where behavioral interventions for a student with a severe emotional/behavioral disability were being implemented. Control subjects were students in similar classes at the same school, where no interventions had been implemented.

The data set on which the analyses were run included 104 experimental subjects and 101 control subjects. Descriptions of these groups by gender, grade, and age are presented in Table 3 (Appendix G). There may have been selection biases based on parental consent and attendance on the days where both pre and post-intervention questionnaires were administered. However, there was no data available to analyze differences in scores between students who completed questionnaires only at pre or post-intervention, and those who completed questionnaires at both times. Only those subjects completing both pre and post-intervention questionnaires were included in the data set.

Data Analysis

Hypotheses one, two, and three, regarding expected negative effects in terms of satisfaction, friction, and apathy were not supported. Specifically, the MANCOVA assessing the effect of experimental group was not significant, $F(3,198) = .467, p = .706$,
Wilks = .993, indicating that implementation of the interventions did not result in the predicted negative effects on the regular education students in the classroom. Means and standard deviation for scales and items are presented in Table 4 (Appendix G). A multivariate test for homogeneity of variance showed that this assumption was met, Boxs M, $F(6, 297873) = .852, p = .529$.

Univariate follow-up analyses for each scale with pooled covariance, also indicated no significant differences between experimental and control groups. Similarly, independent analyses of covariance (ANCOVA), run for each scale with its unique covariance, also indicated no differences by experimental group. These results are summarized in Table 5 (see Appendix G).

Post-hoc tests were utilized in order to assess whether the reported classroom interventions had a differential effect on regular education students according to gender or grade. The post-hoc MANCOVA, run on the interaction between experimental group and grade was non-significant, $F(9,467.43) = 1.46, p = .162, \text{Wilks} = .935$. Similar results were obtained on the post-hoc MANCOVA run on the experimental group by gender interaction, which was also non-significant, $F(3,196) = 1.284, p = .281, \text{Wilks} = .981$. Due to the separate analyses, no information was obtained on any interactions between gender and grade with respect to experimental group differences. As noted in the methods section, hypothesis four, regarding subject perceptions of "teacher fairness" was not tested due to poor reliability of the scale.
CHAPTER 4

DISCUSSION

In this study, concerns regarding negative changes in student perceptions of classroom satisfaction, friction, and apathy, were not validated. Both multivariate and univariate tests found no differences on these scales between classrooms where behavioral interventions were being implemented and where there were no such interruptions in the standard classroom routine. This suggests that these particular indirect consumers, as the social validation literature refers to them, found the interventions for the targeted students to be acceptable, in terms of the impact of these interventions on their own classroom experience in these areas.

Because educator concerns for students' well-being goes beyond the burden of demonstrating a general lack of negative effects associated with an intervention, it was important to look at possible differential effects according to gender or grade. The post-hoc MANCOVA results indicated that boy's and girl's perceptions of classroom satisfaction, friction, and apathy, were not effected differently by the implementation of interventions in their classroom. Nor were there grade-related differences in the perceptions of classroom satisfaction, friction, and apathy. The results suggest that concerns for negative effects of implementation of common behavioral interventions on regular
education students, should not prohibit such implementation without demonstrating that the feared effects do indeed occur.

The scales in this study were intended for use as social validation measures, and not designed for use as standardized measurements of a given construct. The small number of items compromising each scale, as well as the inter-relatedness of the scales, suggests this limitation. However, the scales do provide information about student perceptions in this sample, according to the specific areas of concern noted in the literature. A close look at the items comprising each scale should assist interpretation of results, particularly for those interested in relevancy to their own program concerns.

The satisfaction scale provided a moderately stable measure of general satisfaction, or comfort in the classroom environment. In terms of concerns about regular student satisfaction or enjoyment in the classroom, the scale seems to offer a reasonable measure of the perceptions of this subject population. Results of the MANCOVA analyses suggest that subjects' perceptions of their classroom satisfaction was not harmed by implementation of the intervention for the behaviorally/emotionally disturbed student in their classroom.

The friction scale was designed to measure interpersonal conflict and classroom disruptiveness. The items reflect perceptions of other students' compliance with teacher requests, the presence of visible conflicts between students, desire to avoid teacher censure, and general liking of classmates. The item
measuring perceptions of students' desire to stay out of trouble was related to both the Friction scale and the Apathy scale. Results suggest that the scale was moderately stable and a reasonable measure of the concern for perceptions of conflict and disruptiveness in the classroom.

As noted previously, reliability analyses suggested the original Motivation/Apathy scale be reconstructed into a scale that measured only perceptions of apathy. It may be that subjects' did not associate opposing ends of a continuum of investment in the learning environment. The final scale provided a reasonably stable measure of subjects' perceptions of other students' desire to learn, avoid teacher censure, and perform well academically. The measure did not ask for perceptions of personal apathy, focusing rather on effects influencing class members in general.

The Fairness scale was intended to measure differences between control and experimental groups in perceptions of resource allocation and justice related to grade assignment. As reported above, there was little or no consistency in responding to these supposedly related items, and the scale was not analyzed for group differences. A difficulty with the construction of this scale might have been in selecting subjects who's criteria for judgments of fair resource allocation varied according to developmental level. However, reliability tests, run after the data was split into groups by grade, resulted in no more than .40 correlations among scale items.
Limitations and Suggestions for Further Research

The statistical control provided by the MANCOVA procedure for group differences at the pre-intervention administration of the measurement instrument provided a leveling procedure for the two groups. However, such control cannot be equated with randomized assignment to groups. There may be differential reactions by experimental group to the intervention procedures after implementation, which are not measurable at the pre-intervention measurement. These differences would be better accounted for in a true experimental design. This severely limits the generalizability of results obtained with this type of analysis. Use of these results should be limited to the generation of hypotheses for use with similar subject populations, where similar interventions are utilized.

It can be argued, that the types of interventions utilized in this study are minimally intrusive, and therefore not representative of the kinds of classroom events that mainstreaming opponents object to. However, the types interventions commonly utilized in applied settings are likely to vary by specific location. The interventions used here are the actual interventions used at the target school for SED students in the regular classroom. They are designed to be minimally intrusive for everyone involved. There may be common interventions, or applications with certain groups that represent more significant levels of intrusiveness. One common variation among interventions, in terms of intrusiveness, might be with younger or lower functioning SED students, whom may require a
frequent ratio or interval schedule of consequences for target behaviors. Similarly, interventions requiring physical interaction might illicit different reactions from regular education students. Another common intervention strategy, where the potential difficulties in terms of perceptions of fairness, friction, and satisfaction are relatively compelling, is group contingencies. In this approach, positive and negative contingencies for an SED student would be linked to those of one or more classmates. Such interventions may not be as acceptable to students, due to higher levels of intrusiveness.

The failure to obtain significant differences between experimental and control groups may also have been due to both experimental and control students' previous experience with interventions and accommodations made for special needs children in their classrooms. For example, accommodations are frequently made for students with learning disability (LD) labels. This study did not control for the presence of LD students in the classroom. Nor did it control for the frequency of possible previous interventions for LD students, or the SED students themselves, which may have resembled many of the strategies implemented in this study for emotionally disturbed students. This raises two possible sources of contamination. First, students may have had previous experience with similar procedures in their classrooms. Secondly, there could have been accommodations for LD students occurring during the experimental period, of which the investigator was unaware. Both
conditions would tend to predispose a response set towards acceptance of the procedures as nothing unusual.

Consideration should also be given to the notion that distinctions among different classifications of students can be arbitrary, and sometimes driven by political concerns and resource availability. In addition, a student with an LD label may demonstrate characteristics of emotional disturbance, but not officially obtain that label for several years. Therefore, there is a strong possibility that intervention strategies implemented in the classroom were not a unique or novel occurrence. In this light, the results of the current study represent effects of the addition of the specific interventions described, rather than the presence or absence of related interventions in the classroom setting.

The use of standardized interventions would provide better experimental control, but would prove extremely difficult in applied settings. However, a measure of target student pathology levels, or disruptiveness potential/history, might contribute to accurate assessment of the generalizability of these results. Similarly, pilot studies, identifying various levels of intrusiveness among a range of naturally occurring intervention applications might provide useful information for those concerned with assessing the acceptability of proposed interventions in their specific setting.

A comprehensive study of the acceptability of intervention procedures would integrate measures of student perceptions, with other variables associated with acceptance of those interventions. For example, besides negative effects on other children, Witt and
Martens (1983) identified teacher time required, and teacher skill required for implementation as factors teachers consider in judging intervention acceptability.

Further research should involve an evaluation of specific concerns teachers may hold regarding the perceptions of their regular students. At this point there is inadequate research addressing the scope and foci of teachers' concern regarding perceptions of students. Similarly, the relationship between teacher concerns regarding those perceptions and their actual behavior should be assessed. Although limited research suggest that the areas of student perceptions specified in this study are logical considerations for teachers deciding how to address the needs of emotionally/behaviorally disturbed students in their regular classroom, there is not yet clear evidence that these specific concerns effect their behavioral choices.

In many social validation studies, the constructs for measurement of procedure acceptability are generated by the indirect consumers themselves. This ensures that the areas of measurement are relevant to their subjective perceptions. This study, however, addressed concerns that others have regarding regular student perceptions of the intervention procedures. It therefore provided information regarding the validity of those concerns. Future researchers may also need to address other aspects of the learning environment such as cohesiveness, competitiveness, or difficulty (Fraser et al., 1982), to assess the acceptability of intervention procedures used in their settings.
Finally, student perceptions of fairness remains a compelling area in need of research. Of the constructs of student perceptions addressed in this study, perceptions of fairness are likely referred to most often by teachers as well as opponents of mainstreaming practices. The complexity of the construct may prove difficult to capture in applied research. Specifically, using scales with limited numbers of items.
Questionnaire items

1. I enjoy my work in this class.
2. Kids in this class want a good class.
3. Kids in this class don't really care if they get into trouble. *
4. Students in this class are always fighting with each other. *
5. Grades are fair in this class.
6. It is possible to do well in this class.
7. Some of the kids in this class don't care if they get bad grades. *
8. Some students get too much help. *
9. This is a good class to be in.
10. Too much class time is wasted on kids being bad. *
11. The kids in this class like each other.
12. Kids in this class do what our teacher asks
13. Most kids in this class enjoy school.
14. My teacher gives students as much time as they need.
15. Some kids in this class don't want to learn. *
16. I am an important part of this class.

* Denotes items with reversed valance.
APPENDIX B
RESEARCH PROPOSAL
Research Proposal

Social Validation of Intervention Procedures for Emotionally Disturbed Students: Effects on Non-Targeted Students

Dear Administrator:

As you know, I am currently completing my Ph.D. and have a dissertation to complete. We share a common interest in the effects of standard behavior interventions on the perceptions of non-targeted students in mainstream classes. Through our conversations, I understand that you have collected pre and post intervention data for quality control measures. I am requesting access to that data for research purposes. If you agree, I will ask for protocols completed by fifth, sixth, seventh, and eighth grade students, and would need about 200 protocols for my study. I would ask that all identifying information be removed from the protocols prior to making them available for research. All protocols will be kept in secure files and returned as soon as data analyses is complete. In addition, results from my study will be made available for your use in future intervention planning. I understand that the data was collected with the disclosure to parents that it may be made available for research purposes, with appropriate safeguards to anonymity and confidentiality.

All expenses associated with the project will be my own responsibility. Please contact Marty Thomson with any questions.

Principal Investigator: Marty C. Thomson, M.S.
Faculty Sponsor: Vincent Ramos, Ph.D.

Please indicate your decision below:

- Permission Granted
- Permission Denied
- Information Requested

-------------------------------------
Signature          Date
APPENDIX C

CONSENT FORM
Dear Middle School Parent,

Our school occasionally solicits perspectives from our students for quality control purposes. In the next several weeks, we will be studying some of our educational procedures, and will be asking students to complete a ten minute questionnaire about their experiences in their classrooms. Their responses will help us evaluate the effectiveness and appropriateness of our methods. We are interested in what the children think as a whole, and not what specific individuals may say. Therefore, students will not be identifying themselves as the respondent in any way. A code number will appear on each answer sheet to identify grade level, age, and gender only. We sometimes make this type of anonymous data available to other educators for research purposes, and wanted to make sure that our parents had no reservations about their child's responses being used in this way.

If you have any questions or reservations, please call our principal. She will be happy to address any questions you might have, or provide an opportunity to review the questionnaire. Participation is completely voluntary, and your child will not be penalized in any way for not being included. Alternative activities will be provided for those who wish to be excluded.

My child has permission to participate in this project ____

Please exclude my child from participation in this project. I understand that s/he will in no way be penalized for not participating. ____

Child's name: ____________________________

Parent's signature: ________________________
APPENDIX D
ASSENT FORM
Dear Student:

We need your help with a project that will help us be better at our jobs. You are free to participate or not, and no-one will be upset either way. What we need for you to do, is complete a short answer sheet that will be read to you. It concerns your opinions about your classroom. It is not a test, and there are no right or wrong answers. If you don't wish to help with the project, you will be reading your own books, or catching up with other work for a few minutes instead. Please indicate on this form whether you are willing to help or not, and return it to your teacher now.

Check one:

Yes, I will help. 
I would rather not help with this project.

Name: ___________________________
Instructions

Hello. Thank-you for giving me a few minutes of your class time. I work with many of the schools around here. My job is to try to help kids learn, and hopefully to enjoy school. Once in a while I get to ask students for their own feelings about their classrooms. The answers I get help us to plan your classes so that you will learn what you need to know, and be as happy as possible in class. Today, I want to get your ideas about your class. This will only take about five minutes.

In a few minutes, I will be handing out a very short answer sheet. I will read sixteen statements to you. All you have to do is circle a number on the answer sheet, to tell me how much you agree or disagree with the statement. This is not a test, and there are no right or wrong answers. All I want from you, is an honest response about whether you agree or disagree with the statement I read. The numbers are 1 through 5. One means......

Let's do a short practice. I will read a statement, and you will raise your hand if you gave the number I call out to the statement. Ready? Where I live, it is hotter in the summer than in the winter. How many would give a number 1, meaning that it is usually not true? (etc. 1,2,3,4,5)

Let's try another. Our town is larger than Dallas. How many would give a number 1, meaning that it is usually not true? (etc. 1,2,3,4,5)

One more. I like to swim in a nice pool, better than I like to play Nintendo? How many would give a number 1, meaning that it is usually not true? (etc. 1,2,3,4,5)

This is more like the type of statement I will read. Are there any questions?

I need real honest and fair responses to each statement, so I do not want you to put your name on the answer sheet. No one at this school will see your individual answers, and there will be no way to tell who said what. That way we can tell what you think as a group, and I can make sure that you feel O.K. being honest and fair. I do need to know your age, grade, and whether or not you are a boy or a girl. But please do not write anything else on the top part of the answer sheet.

Administer questionnaire.
APPENDIX F

DESCRIPTIONS OF SED STUDENTS AND INTERVENTIONS
Descriptions of SED Students and Interventions

Student #1
Student #1 was an anxious boy in the 6th grade, with low self-esteem and high dependency needs. He responded to even mild correction with extreme flight tendencies. This reaction may have become something of a strategy for avoiding his own responsibility for work completion and acceptable social behaviors. He also seemed to have difficulty knowing when someone was mad, or just giving feedback.

Educator concerns regarding this student's behaviors included: eye tics, crying, fidgeting with hands, running out of class, crawling on floor in response to correction, stealing items. The behaviors targeted for intervention were inappropriate responses to feedback, described above.

A portion of the intervention, completed in a one-on-one setting, consisted of teaching an appropriate response sequence outside of the classroom, guided practice, and weekly practice and feedback.

In the classroom, the teacher exploited or created two opportunities per class period to provide feedback directly to the student. If there was hesitation, the teacher immediately instructed the repose sequence. Before the end of each class period, the teacher would provide feedback on the target behaviors, with a rating on a performance chart. Each week, the sensitivity of the feedback was lessened, until the student was able to respond to rather harsh and unexpected criticism with the appropriate response sequence. The teacher was instructed not to hide the intervention from other students.

Student #2
Student #2 was a vulnerable 5th grade boy with poor self-esteem and a need to control his environment. He had many fears related to past events which fueled a tendency to fight, in order to feel strong, and safe. He remained hungry for adult attention and liked to be noted for success. His relationships with peers, however, seemed to be more of an arena to work out his emotions than a source of reciprocal support. His emotions tended to fluctuate widely, ranging from euphoric to sullen and depressed. He also tended to blame his deficits on others, and take little responsibility for his actions.

Teachers were concerned about the following behaviors: classroom aggression, argumentativeness, and extreme reactivity to the behavior of his peers, or changes in routine. The desired target behaviors were an increase in approach to his peers, and a decrease in behaviors designed to push others away.

At pre-intervention, behaviors were discussed with the student, and a collaboration proposed. Once each week, during the specified class period, the targeted student was pulled from the class for individual intervention with special education personnel. These sessions were designed to reinforce strategies for feeling safe, and earning classroom privileges.

Classroom interventions included two-student grouping of desks, and both immediate and formal feedback. A record was kept and feedback given daily, rating increases in compliments offered to other students by the target student, and low rates of responding for distancing behaviors. Formal feedback was given at the end of each class period to the target student, and informal feedback for the same behaviors was give to all students as the behaviors occurred.
Student #3

Student #3 was an 8th grade female who struggled with feelings of incompetence, poor body-image, and rejection by others. She also had great difficulty with concentration and organization. When she experienced difficulty with academic tasks, she reacted with helplessness and confusion. She also seemed overwhelmed with life demands and was ruminative about her difficulties.

Teachers were most concerned about the student’s showy temper, when inadequacies were revealed, and her tendency to shut down in class. At the point of implementation, she demonstrated almost no investment in academic tasks and was frequently absent from class. The target behavior for intervention was an increase in class participation. Prior to the classroom intervention, and weekly, during the intervention, this student met with special education personnel to provide specific instruction and practice on the desired behaviors, and provide encouragement for her efforts.

The classroom intervention consisted of a reminder at the beginning of each class period to focus on target behaviors, and a formal rating at the end of each class. Informal praise and feedback were also offered during each class.

Student #4

Student #4 was a 7th grade boy who was described as impulsive, disruptive, and self-destructive, with disorganized behaviors, and poor deference to the needs of others. Teachers were most concerned about disruptive verbalization, lack of response to re-direction, and argumentiveness.

The target behaviors were an increase in on-task behavior, and compliance before asking for explanations. A rationale was developed for the intervention in collaboration with the student, prior to classroom implementation. Weekly meetings were also held with special education personnel, during the targeted class period, to reinforce efforts.

Classroom interventions consisted of interval charting and feedback of on-task behavior (15 min., intervals), and formal ratings and feedback on each target behavior at the end of each class session.

Student #5

Student #5 was an emotional, 7th grade boy with large mood swings, and poor behavioral modulation. He frequently reacted aggressively without warning to small slights, and was often pre-occupied. Teachers were most concerned about the safety of other students and the level of disruption in the classroom when this student acted out. They also noted that he seldom monitored the reactions of others, or the difficulties his behaviors caused them.

Targeted behaviors included decreased emotional displays, and increased positive interactions with the other students. Prior to implementation, the student met with special education personnel to focus on the desired behaviors. They then met weekly to re-enforce efforts.

Classroom interventions included a feeling check with the target student before each class period, seating the child in a four student group near the teacher’s instructional area, charting target behaviors with feedback, and a classroom teaching unit on recognizing the effects of personal behaviors on others. Charting took place twice per classroom period. Feedback was offered throughout the class period, as well as at the end of the class.
**Student #6**

Student #6 was a 6th grade boy with difficulty interacting with others and organizing his behaviors. He seldom directed his efforts towards socially sanctioned goals, and tended to be self-centered. When task demands threatened his sense of competence or his ability to control the situation, he withdrew into his internal environment. His practice of self-protective behaviors had come to prohibit reciprocal relationships and resulted in habitual failure to respond to re-direction from adults.

Teachers were primarily concerned about a lack of verbal communication, failure to recognize cause and effect in regards to his own behaviors, and lack of work completion. The concern for this child was that he was progressively building internal involvement that removed him from contact with others, and possibly from reality. Target behaviors involved both relationship building and participation skills.

In one-to-one sessions with special education personnel, a rationale for the interventions was offered, and specific behaviors practiced. The classroom teacher was prompted to maximize predictability and routine, clarity of classroom contingencies, and expressions of acceptance for the student. Classroom interventions included: frequent re-focusing of attention, frequent statements of contingencies, shaping of participation responses, and formal feedback with instruction and charting.

**Student #7**

Student #7 was an immature 5th grade student, who used passive-resistant behaviors. He frequently sought nurturance from teachers, but was not practiced at structuring his behaviors in order to obtain such interactions. His perceptions of the relevant contingencies was not congruent with the aims of existing classroom management strategies. In addition, negative social comparisons encouraged him to heavily rely on ineffective strategies, due to their familiarity and his prior lack of success in obtaining reinforcement through sanctioned channels.

Teachers were concerned about work refusal, fits of anger when directed to work, distracting behaviors, and a lack of age-mate relationships. Initial target behaviors were academic effort and work completion.

Individual sessions with special education personnel revealed that much of this students work avoidance involved efforts to hide reading difficulties. A collaboration was developed with the student regarding his desire to improve reading, and a reading program was proposed. The teacher then modified her requests for classroom involvement to either avoid the requirement he read aloud, or to engineer success by calibrating the difficulty of the request to his ability level.

Classroom interventions included the modified participation requirements described above, immediate positive feedback for effort, frequent reminders for focusing attention, and formal feedback with instruction and charting. For successful demonstration of target behaviors, certificates of effort were sent home, and the student was given the opportunity to serve as class tutor in areas of personal achievement.
APPENDIX G

TABLES
Table 1

Reliability Correlations for Original Scale Items

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>S.D.</th>
<th>Alpha Reliability by Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Satisfaction scale</strong></td>
<td></td>
<td></td>
<td>.68</td>
</tr>
<tr>
<td>1. I enjoy my work in this class.</td>
<td>2.80</td>
<td>1.11</td>
<td></td>
</tr>
<tr>
<td>9. This is a good class to be in.</td>
<td>3.75</td>
<td>1.28</td>
<td></td>
</tr>
<tr>
<td>13. Most kids in this class enjoy school.</td>
<td>2.16</td>
<td>1.05</td>
<td></td>
</tr>
<tr>
<td>16. I am an important part of this class.</td>
<td>3.31</td>
<td>1.50</td>
<td></td>
</tr>
<tr>
<td><strong>Friction scale</strong></td>
<td></td>
<td></td>
<td>.66</td>
</tr>
<tr>
<td>3. Kids in this class don’t really care if they get into trouble. *</td>
<td>3.29</td>
<td>1.20</td>
<td></td>
</tr>
<tr>
<td>4. Students in this class are always fighting with each other. *</td>
<td>3.64</td>
<td>1.34</td>
<td></td>
</tr>
<tr>
<td>11. The kids in this class like each other.</td>
<td>3.13</td>
<td>1.03</td>
<td></td>
</tr>
<tr>
<td>12. Kids in this class do what our teacher asks</td>
<td>3.06</td>
<td>1.19</td>
<td></td>
</tr>
<tr>
<td><strong>Motivation/Apathy scale</strong></td>
<td></td>
<td></td>
<td>.34</td>
</tr>
<tr>
<td>2. Kids in this class want a good class.</td>
<td>3.27</td>
<td>1.13</td>
<td></td>
</tr>
<tr>
<td>6. It is possible to do well in this class.</td>
<td>4.31</td>
<td>.96</td>
<td></td>
</tr>
<tr>
<td>7. Some of the kids in this class don’t care if they get bad grades. *</td>
<td>3.13</td>
<td>1.22</td>
<td></td>
</tr>
<tr>
<td>15. Some kids in this class don’t want to learn. *</td>
<td>3.46</td>
<td>1.10</td>
<td></td>
</tr>
<tr>
<td><strong>Fairness scale</strong></td>
<td></td>
<td></td>
<td>.25</td>
</tr>
<tr>
<td>5. Grades are fair in this class.</td>
<td>3.68</td>
<td>1.20</td>
<td></td>
</tr>
<tr>
<td>8. Some students get too much help. *</td>
<td>3.67</td>
<td>1.38</td>
<td></td>
</tr>
<tr>
<td>10. Too much class time is wasted on kids being bad. *</td>
<td>3.24</td>
<td>1.32</td>
<td></td>
</tr>
<tr>
<td>14. My teacher gives students as much time as they need.</td>
<td>3.23</td>
<td>1.30</td>
<td></td>
</tr>
</tbody>
</table>

Note. Reliability correlations are based on pre-intervention responses.
Alpha reliability for all 16 items = .78
* Denotes items with reversed valance.
<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>S. D.</th>
<th>Alpha Reliability by Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Satisfaction scale</strong></td>
<td></td>
<td></td>
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<td>1.50</td>
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</tr>
<tr>
<td><strong>Friction scale</strong></td>
<td></td>
<td></td>
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<tr>
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<td></td>
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<tr>
<td>12. Kids in this class do what our teacher asks</td>
<td>3.06</td>
<td>1.19</td>
<td></td>
</tr>
<tr>
<td><strong>Apathy scale</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Kids in this class don't really care if they get into trouble. *</td>
<td>3.29</td>
<td>1.20</td>
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<td>1.10</td>
<td></td>
</tr>
</tbody>
</table>

**Note.** Reliability correlations are based on pre-intervention responses.

* Denotes items with reversed valance.
Table 3
Subject Gender, Grade, and Age

<table>
<thead>
<tr>
<th></th>
<th>Exp. group</th>
<th>Control group</th>
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<tbody>
<tr>
<td>Gender</td>
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<tr>
<td>Male</td>
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<tr>
<td>Female</td>
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<tr>
<td>Grade Classroom 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>(10)</td>
<td>(15)</td>
</tr>
<tr>
<td>b.</td>
<td>(12)</td>
<td>(15)</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>30</td>
</tr>
<tr>
<td>Grade 6</td>
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</tr>
<tr>
<td>a.</td>
<td>(22)</td>
<td>(24)</td>
</tr>
<tr>
<td>b.</td>
<td>(19)</td>
<td>(12)</td>
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<td>41</td>
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<td>Grade 7</td>
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<tr>
<td>a.</td>
<td>(12)</td>
<td>(11)</td>
</tr>
<tr>
<td>b.</td>
<td>(16)</td>
<td>(14)</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>25</td>
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<td>Grade 8</td>
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<tr>
<td>Age</td>
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<td>15</td>
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<td>1</td>
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<td>Totals</td>
<td>104</td>
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Table 4

Pre and Post Means and Standard Deviations

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<thead>
<tr>
<th>Items</th>
<th>Pre</th>
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<tbody>
<tr>
<td><strong>N = 205</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Satisfaction scale</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. I enjoy my work in this class.</td>
<td>3.00</td>
<td>3.09</td>
</tr>
<tr>
<td>9. This is a good class to be in.</td>
<td>3.75</td>
<td>3.70</td>
</tr>
<tr>
<td>13. Most kids in this class enjoy school.</td>
<td>2.16</td>
<td>2.30</td>
</tr>
<tr>
<td>16. I am an important part of this class.</td>
<td>3.31</td>
<td>3.32</td>
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<tr>
<td>3. Kids in this class don't really care if they get into trouble. *</td>
<td>3.29</td>
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<tr>
<td>4. Students in this class are always fighting with each other. *</td>
<td>3.64</td>
<td>3.70</td>
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<tr>
<td>11. The kids in this class like each other.</td>
<td>3.13</td>
<td>3.11</td>
</tr>
<tr>
<td>12. Kids in this class do what our teacher asks.</td>
<td>3.06</td>
<td>3.21</td>
</tr>
<tr>
<td><strong>Apathy scale</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Kids in this class don't really care if they get into trouble. *</td>
<td>3.29</td>
<td>3.26</td>
</tr>
<tr>
<td>7. Some of the kids in this class don't care if they get bad grades. *</td>
<td>3.13</td>
<td>3.11</td>
</tr>
<tr>
<td>15. Some kids in this class don't want to learn. *</td>
<td>3.46</td>
<td>3.38</td>
</tr>
<tr>
<td><strong>Original Fairness scale</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Grades are fair in this class.</td>
<td>3.37</td>
<td>3.31</td>
</tr>
<tr>
<td>8. Some students get too much help. *</td>
<td>3.67</td>
<td>3.82</td>
</tr>
<tr>
<td>10. Too much class time is wasted on kids being bad. *</td>
<td>3.24</td>
<td>3.17</td>
</tr>
<tr>
<td>14. My teacher gives students as much time as they need.</td>
<td>3.23</td>
<td>3.20</td>
</tr>
<tr>
<td><strong>Items not included from original motivation scale</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Kids in this class want a good class.</td>
<td>3.27</td>
<td>3.12</td>
</tr>
<tr>
<td>6. It is possible to do well in this class.</td>
<td>4.31</td>
<td>4.28</td>
</tr>
</tbody>
</table>

* Denotes items with reversed valance.
Table 5
Post Intervention Follow-up Univariate Analyses

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig of F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Satisfaction by Experimental Group (with pre-satisfaction as covariate)</td>
<td>Covariates</td>
<td>53.155</td>
<td>1</td>
<td>53.155</td>
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<tr>
<td></td>
<td>Pre-Satisfaction</td>
<td>Main Effects</td>
<td>.069</td>
<td>1</td>
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<tr>
<td></td>
<td>Error</td>
<td>Total</td>
<td>114.719</td>
<td>202</td>
<td>.568</td>
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<tr>
<td></td>
<td>Friction by Experimental Group (with pre-friction as covariate)</td>
<td>Covariates</td>
<td>34.485</td>
<td>1</td>
<td>34.485</td>
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<tr>
<td></td>
<td>Pre-Friction</td>
<td>Main Effects</td>
<td>.326</td>
<td>1</td>
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<tr>
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<td>Error</td>
<td>Total</td>
<td>103.398</td>
<td>202</td>
<td>.512</td>
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<tr>
<td></td>
<td>Apathy by Experimental Group (with pre-aphathy as covariate)</td>
<td>Covariates</td>
<td>43.111</td>
<td>1</td>
<td>43.111</td>
</tr>
<tr>
<td></td>
<td>Pre-Apathy</td>
<td>Main Effects</td>
<td>1.499</td>
<td>1</td>
<td>1.499</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>Total</td>
<td>139.677</td>
<td>202</td>
<td>.691</td>
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</tbody>
</table>
REFERENCES


Bender, W. N. (1986). Effective educational practices in the mainstream setting: Recommended model for evaluation of


Irvin, L. K., & Lundervold, D. A. (1988). Social validation of decelerative (punishment) procedures by special educators of


