

SELF STATEMENT UTILIZATION AND SOCIAL SKILLS TRAINING
WITH ELEMENTARY SCHOOL-AGED CHILDREN

by

Michael E. Stefanek

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APPROVED:

T.H. Ollendick, Chairman

S/ Zeskind

R. Eisler

C. Baum

J. Sawyers

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(ABSTRACT)

The present study included two investigations examining social skills in fourth grade elementary school children. The first investigation involved the examination of the use of inhibiting and facilitating self-statements (i.e., self-statements that would make it harder or easier to deliver on effective social response) by groups of withdrawn (n=33), aggressive (n=32), and popular (n=27) children across types of interpersonal situations (conflict, initiation of interactions) and relationships (friend, stranger). Results indicated that popular children showed significantly greater facilitating-inhibiting change scores on a self-report measure devised for the present investigation (Socialization Self-Statement Test), completed following the four behavioral analogue situations (Conflict Friend, Conflict Stranger, Initiate Friend, Initiate Stranger). There was no significant difference between aggressive and withdrawn

children on this measure. In addition, results indicated a greater tendency for children to endorse facilitative vs. inhibiting self-statements in those situations involving friends (vs. strangers) and the initiating of social behavior (vs. conflict situations). Finally, a Relationship x Situation interaction was found, indicating significantly higher facilitating-inhibiting scores in situations involving initiating interactions with friends.

In the second investigation, unpopular aggressive (n=24) and withdrawn (n=24) children were randomly assigned within sociometric categories to a behavior therapy, cognitive therapy, or attention control group and evaluated on a number of measures related to social competence (peer ratings, teacher ratings, direct observations, self-report). Results indicated no significant between-treatment group differences across assessment measures, although several significant within treatment group pre-post differences were found. The lack of between treatment group differences is discussed, along with some findings related to status group differences and correlational findings. Finally, suggestions for future research are introduced.

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CHAPTER I

INTRODUCTION

The relationship between social skills in children and long term adjustment in adulthood has been extensively examined. Briefly, school maladjustment (Groundland & Anderson, 1963), dropping out of school (Ullman, 1957), delinquency (Roff, Sells, & Golden, 1972), and adult mental health problems (Cowen, Pederson, Babigian, Izzo, & Trost, 1973) have all been ascribed to social maladjustment in childhood. These relationships underscore the importance of social competence in relating to one's peers, both on a short-term and long-term basis.

Evidence exists regarding the future adjustment of both aggressive and withdrawn children. For example, Hartup (1970) found that withdrawn children evidenced low levels of academic achievement, while Waldrop and Halverson (1975) reported that social withdrawal in children was related to social withdrawal in later years. Similarly, the aggressive child has been shown to maintain his/her inappropriate

social behavior through adulthood (Patterson, 1971).

Further, aggressive children tend to make unsatisfactory adjustment as adults (Robins, 1966), are less popular with their peers (Winder & Rau, 1962), and manifest higher degrees of psychiatric disturbance (Morris, 1956).

In sum, findings obtained for both socially withdrawn and aggressive children clearly indicate the importance of devising effective interventions for children exhibiting aggressive or socially withdrawn behavior. Both types of children are likely to suffer, to the extent that their current and future adjustment are related to their present level of interpersonal functioning. Clearly, the attainment of age-appropriate social skills is an important milestone in the developing child.

Assessment Issues

A number of definitions of the term "social skills" have been proposed (e.g., Barrett & Yarrow, 1977; Chittenden, 1942; Combs & Slaby, 1977). For instance, Rinn and Markle (1979) define "social skills" as

a repertoire of verbal and nonverbal behaviors by which children affect the responses of other individuals in the interpersonal context. This repertoire acts as a mechanism through which children influence their environment by obtaining, removing, or avoiding desirable and undesirable outcomes in the social sphere. Further, the extent to which they are successful in obtaining desirable outcomes and avoiding or escaping undesirable ones without inflicting pain on others is

the extent to which they are considered "socially skilled." (p. 108)

Moreover, as Van Hasselt, Hersen, Whitehill, and Bellack (1976) aptly note, an issue that needs to be considered in the definition of social skills involves the situational specificity of social skills. More specifically, few, if any, interpersonal behaviors are appropriate across all situations. Social norms vary and are influenced by cultural and situational factors. Thus, the determination of the effectiveness of a given behavior or set of behaviors depends upon the context of the interaction. Given this complexity, there has been difficulty arriving at a universally accepted definition of social skills. However, Michelson and Wood (1980) note that there appears to be general definitional agreement, noting six components that comprise the concept of social skills:

1. Specific, discrete verbal and nonverbal response components determine the adequacy of social behavior.
2. Behavioral repertoires involved in social interactions are learned response capabilities.
3. Socially skilled behavior is situation specific.
4. Social competency obtains maximized reinforcement from the social environment.
5. Social skills involve social interactions that are interdependent and reciprocal in nature.

6. Deficits and excesses in social behavior that are dysfunctional for the individual can be identified, targeted, and remediated by training.

Based on the failure of assessors to agree upon a precise definition of social competence, the need for multiple measures seems critical. In addition, the construct of social skills is necessarily dependent upon a variety of perspectives, including adults, the child's peers, and the child him/herself. Unfortunately, assessing social skills across these sources has not always been accomplished (Hops & Greenwood, 1981; Urbain & Kendall, 1980). Urbain and Kendall (1980), in their review of social-cognitive problem-solving interventions with children, found only 2 of 14 investigations using self, peer, and teacher evaluation dependent measures. Greenwood, Walker, and Hops (1977) further note that, with regard to interventions with withdrawn children, two common assessment measures (peer ratings and teacher ratings) are rarely used in combination within the same investigation. Again, with respect to Urbain and Kendall's (1980) incisive analysis, only 4 investigations of the 14 reviewed used any two of the three potential perspectives of social functioning (i.e., self, peer, teacher).

Assessment Methods

There have been a number of assessment techniques used

by researchers to determine the level of children's social skills. These have included: (a) peer sociometric ratings, (b) rating scales completed by significant others, (c) behavioral analogue situations, (d) naturalistic observations, and (e) self-report measures. Probably the most frequently used measure of peer acceptance involves the use of sociometric instruments (Green & Forehand, 1980). This has typically involved either a peer nomination strategy (e.g., name three children you like to play with the most/least), or a roster and rating method in which children rate (usually on a 1 to 5 scale) each child in their classroom on a "like to play/work with" dimension. Advantages inherent with this approach involve their excellent psychometric properties (Hymel & Asher, 1977) and predictive validity (Cowen et al., 1973). Weaknesses include the inability of such instruments to show specific behavioral deficits, excesses, or competencies.

A second frequently used assessment technique involves the use of teacher ratings. Measures frequently implemented include the Walker Problem Behavior Identification Checklist (Walker, 1970), the AML (Dorr, Stephens, Pozner, & Klodt, 1980), and the Devereux Elementary School Behavior Rating Scale (Spivack & Swift, 1967). Advantages include the practicality and efficiency involved in rating large groups of children and the social validity involved in procuring

ratings from an observer with such an extensive observational data base from which to draw. Disadvantages include the controversy surrounding the external validity and accuracy of teacher ratings (Michelson & Wood, 1980; Rinn & Markle, 1979), as well as problems related to such factors as demand characteristics, personal biases, expectancies, and response set.

Behavioral analogue situations have also been used to assess social skills in children. This strategy involves the presentation of a series of vignettes which may require a diversity of social skills, and asking the child to "play the part" of a child in that situation. Responses are typically rated for the child's proficiency in a number of component behaviors (e.g., eye contact, verbal content, etc.). Primary instruments used include the Behavioral Assertiveness Test for Children (Bornstein, Bellack, & Hersen, 1977) and its variants (e.g., Ollendick & Hersen, 1979; Reardon, Hersen, Bellack, & Foley, 1978). Advantages include the ability to structure the given interpersonal situation, the potential advantage of reliably scoring the components of socially skilled behavior, and the availability of sampling a variety of social skill behaviors in a relatively restricted time frame. One disadvantage includes the questionable external validity of such measures (Bellack, Hersen, & Lamparski, 1979; Bellack, Herson, & Turner,

1979), although recent studies with children (Reardon et al., 1978) have supported its use in this regard. Other disadvantages include posttest performance reflecting training in role playing per se rather than reflecting improved performance, and the fact that situational factors of the brief format may be unrealistic, restrictive, or anxiety-provoking, resulting in inhibition of critical social skills.

Naturalistic observation strategies represent the most commonly used method to measure overt interpersonal behavior of children. The need to assess a child's behavior in the situations in which it naturally occurs can hardly be questioned, and this strategy has been considered the ideal method of accurately assessing social skills (Nay, 1977).

Typically, observers have measured rate or duration of peer interaction (O'Connor, 1969). More recently, investigators have become interested in assessing the type and quality as well as the quantity of peer interactions (Gottman, 1977; Wahler, 1975; Zahavi & Asher, 1978) by coding such categories as aggression, peer positive verbal, and adult negative verbal.

Unfortunately, the observation of behavior is clearly not as straightforward a task as it once was thought to be. Data gathered via naturalistic observation may be influenced by the expectancies of observers (Kent, 1972), reactivity

to the observational process (Roberts & Renzaglia, 1965), and other variables which may affect the reliability of the coding system itself (e.g., coding system complexity, consensual drift). In addition, Asher, Renshaw, Geraci, and Dor (1979) noted that many behaviors contributing to peer popularity may be low frequency events, necessitating lengthy observational periods which may prove to be cumbersome and expensive.

Finally, self-report measures have been used to assess children's social skills. The Children's Assertiveness Behavior Scale (Wood & Michelson, 1978) and the Children's Assertiveness Inventory (Ollendick, 1979) represent two of the very few self-report measures directly measuring social skills. Albeit self-report measures represent a convenient, quantifiable, and economical measure of collecting data on how individuals perceive their social behavior, these instruments are subject to the same limitations inherent in the use of any self-report scale. These include demand characteristics, semi-quantitative terms (e.g., very much, some) which may be defined in a highly variable manner across subjects, and the fact that data requested of the subject may not be available (the child may not know what response would be given in a particular situation). In addition, differences in language ability are an important area to consider when using self-report instruments with

children. Finally, Michelson and Wood (1980) note that neither the Self-Report Assertiveness Test (Reardon et al., 1979) nor the Children's Assertiveness Behavior Scale (Wood & Michelson, 1978) have utilized comparisons with in-vivo observations to determine external validity. Thus, responses on such instruments may reflect knowledge of correct social responses and not actual behaviors.

Despite these caveats, it should be noted that there is some emerging evidence to recommend the use of such measures in predicting the differential efficacy of particular interventions. Bugenthal, Whalen, and Henker (1977) found that hyperactive children with an internal locus of control benefited more from a self-control program than did those with an external locus of control, who were more responsive to externally administered rewards.

There has been much use made of self-report instruments purporting to measure problem-solving abilities related to social skill performance. These have ranged from tests designed to measure alternative solution thinking (Shure & Spivack, 1974) to a host of instruments designed to measure "social cognition" or a child's understanding of his/her social world. Examples of the latter include the Chandler Bystander Cartoons (Chandler, 1973), the Feffer Role-Taking Task (Feffer, 1959), and Selman's Measure of Interpersonal Awareness (Selman & Jaquette, 1977). Weaknesses include the

rather limited range of abilities measured by each instrument, the lack of training studies which have implemented these instruments, and the lack of correlation with specific social behaviors.

Obviously a variety of measures have been used to assess social skills in children, implementing different assessment strategies (i.e., self-report, direct observation, peer/teacher ratings, role-play tests). Greenwood, Walker, and Hops (1977) note that the three most commonly used methods of identifying withdrawn children and measuring interactive behavior are based upon peer rating measures, behavior observation measures, and teacher nominations. The authors further note that few studies have been conducted

in which the validity, efficiency, and/or accuracy of these three measures have been compared directly in their ability to predict outside criterion measures of social competence. . . . neither have there been studies in which these 3 measures have been directly compared against each other within the same research design. (p. 491)

Since this comment by Greenwood et al. (1977), several investigators have looked at the interrelation among these diverse measures (Ollendick, 1981; Reardon, Hersen, Bellack, & Foley, 1979). Ollendick (1981), using 82 third and fourth grade children, found that correlations were higher between peer/teacher ratings and behavioral observations than between self-report measures assessing assertiveness, anxiety, or locus of control and behavioral observations.

Correlations between peer/teacher ratings and observational measures ranged from .36 to .51. Reardon et al. (1979) examined positive and negative assertive skill in 60 elementary school boys, grades three through eight, and found little correlation between teachers' ratings of aggressiveness and separate behavioral ratings of assertive skill. Further, little relationship between these ratings and self-report or teachers' ratings of assertiveness was observed. Finally, Sharp (1981) reported correlations between behavioral observations of aggressive behavior and teacher ratings of aggressiveness ranging from .35 to .47, whereas Hymel and Asher (1977) found that children identified as rejected and neglected on peer nominations were not differentiated on behavioral measures.

The assessment strategies noted above have certain strengths which support their use, as well as select weaknesses which preclude them from being effective unitary assessment instruments. The solution to this social skills assessment dilemma reaffirms the use of multimethod assessment in terms of providing the most useful data for the cumulative analysis of the effects of social skills training interventions. Indeed, this use of multimethod assessment has been strongly recommended by several investigators in the social skills literature (Hobbs et al., 1980; Ollendick, 1980; Urbain & Kendall, 1980; Van Hasselt et al., 1979). As

Ollendick notes, "although these measures are interrelated, they all appear to measure somewhat different aspects of social functioning. An accurate assessment may well necessitate the use of all of these measures" (p. 240).

Treatment of Social Skills Deficits

Behavioral Intervention Strategies

There have been a number of investigations addressing the area of social skills training with children based upon a behavioral model of social competence. This model includes the assumption that socially unskilled behavior is a skill deficit and places heavy emphasis upon the role of reinforcement, response class independence, and the social situational specificity of social behavior. The assumption underlying this position is that the given individual has not learned to combine and sequence the components necessary for the production of a socially skilled response. The investigations based upon this model have included the use of operant techniques, shaping, modeling, coaching, and various combinations of these approaches (Asher, Oden, & Gottman, 1977). A number of early investigations utilized a rather straightforward operant approach with socially unskilled children. For example, Allen, Hart, Buell, Harris, and Wolf (1964) employed teacher reinforcement to increase play behavior of a socially withdrawn preschooler.

A reversal design was utilized to evaluate the efficacy of the procedure. Results indicated an increased percentage of interactions with children, and a concomitant decrease in adult interactions. A number of other investigators have used extinction of aggressive behavior (Brown & Elliott, 1965; Pinkston, Reses, Leblanc, & Baer, 1972), peer reinforcement (Kirby & Toler, 1970; Strain & Timm, 1974), and token reinforcement strategies (Todd, Walker, Greenwood, & Hops, 1976). In virtually all investigations using operant procedures, the effect of social and material reinforcement and extinction of maladaptive social responses has been demonstrated to be an effective short-term intervention. However, follow-up data are sorely lacking (Kirby & Toler, 1970; Strain & Timm, 1974; Walker & Hops, 1973), or of no more than one month (Allen et al., 1964; Pinkston et al., 1973), while dependent measures have typically involved quantity of interaction, rather than addressing qualitative deficits. Finally, all of the above investigations have used preschool populations, thus limiting statements regarding the efficacy of these approaches to this specific age group.

The use of modeling strategies in ameliorating social skills deficits in children began with the work of O'Connor (1969). In this study, preschool children observed a film depicting a variety of interpersonal interactions in which

positive consequences followed, with a control group watching a film involving no such interactions. Results indicated that children in the modeling condition increased their frequency of interaction to a level equivalent to that of nonisolate children. Subsequent investigations (Evers & Schwartz, 1973; Evers-Pasquale & Sherman, 1975; Keller & Carlson, 1974; O'Connor, 1972) have confirmed the efficacy of modeling approaches in the treatment of social skill deficits with preschool populations. However, these studies have been criticized for the use of low frequency of interaction as selection criterion (Gottman, 1977; Oden & Asher, 1976), and lack of control over methodological shortcomings such as observer drift (Gottman, 1977). Indeed, Gottman (1977) has found that children selected according to O'Connor's criteria do not differ from nonwithdrawn children on sociometric measures of peer acceptance, questioning whether subjects selected according to such criteria do in fact represent a withdrawn population. In addition, Gottman (1977) found modeling to be no more effective than a control procedure in producing behavior change. Thus, while modeling procedures appear to be as effective and more enduring than operant procedures, more research is required prior to accurately determining the efficacy of modeling in altering deficits in social skills.

There has been a series of interventions involving the

implementation of a combination of behavioral approaches. Across the investigations, interventions have involved training in specific social skills components using a variety of operant and modeling strategies. Gottman, Gonso, and Schuler (1976) contrasted a modeling, role playing, and communication skills training approach against an attention control condition in the treatment of 4 third-grade socially isolated females. Improvement on sociometric measures were noted by the treatment group at posttreatment and at follow-up. Unfortunately, generalization is limited due to the small number of children undergoing training ($n = 2/\text{group}$). Other similar interventions with isolated children include those of Bornstein et al. (1977), Cooke and Appolini (1976), Michelson and Wood (1978), and Oden and Asher (1977). In addition, interventions combining a number of behavioral strategies have been completed with aggressive populations, although the use of multimethod assessment, including naturalistic observation, has been lacking (Bornstein et al., 1977; Calpin & Kornblith, 1978; Michelson & Wood, 1978), and several share the generalization restriction of Gottman et al.'s (1976) investigation due to sample size (Bornstein et al., 1980; Calpin & Kornblith, 1978; Cooke & Appolini, 1976). Finally, those investigations incorporating a variety of measures to assess social skills have reported inconsistent results, particularly with sociometric ratings (LaGreca

& Santogrossi, 1980; Oden & Asher, 1977). For a summary of those investigations utilizing a behavioral approach with third through fifth graders, see Table 1.

Cognitive Intervention Strategies

A number of investigations have formulated social skill intervention strategies based upon a cognitive model (Winett, Stefanek, & Riley, 1983). This model supports the position that performance differences in socially skilled versus unskilled children are primarily the result of cognitive differences. The model does not deny the value of behavioral components, but rather includes cognitive variables as necessitating consideration in increasing socially skilled behavior. Thus, these models (behavioral, cognitive) differ in the relative emphases they award to cognitive and behavioral components. Within the cognitive model, such variables purported to influence the performance of social behavior include choosing an appropriate strategy for reaching goals, the ability to generate different solutions to interpersonal situations (Shure & Spivak, 1980), and role-taking skills (Elardo, 1977).

There have been a number of intervention strategies targeted at altering cognitive variables as a means of increasing socially skilled behavior in children in grades three through five (Allen, Chinsky, Larcen, Lochman, &

Table 1
Behavior Therapy Interventions

Investigators	Subjects (n); Type of Group	Inclusion Criterion	Dependent Measures	Results	Treatment Length
Bornstein, Bellack, & Hersen (1977)	4 third-sixth graders	Teacher Referral	1. Behavioral Assertiveness Test for Children 2. Individualized target behaviors	Posttreatment: Significant improve- ment of targeted behaviors and over- all assertiveness ratings on BAT-C Follow-up assess- ment: 2 and 4 weeks; results same as above	9 15-30 minute sessions
Calpin & Kornblith	4 males, 9-11 years old (inpatient psychiatric setting)	Excessive Acting Out Behavior	1. Behavioral Assertiveness Test for Children 2. Individualized target behaviors	Posttreatment: Significant improve- ment of targeted behaviors	
Edelson & Rose (1982)	39 fourth- sixth graders 1. Rehearsal- Discussion 2. Social Skills	Teacher or School Social Worker Referral	1. Sociometric Ratings 2. School Behavior Check List (Miller, 1972)	Posttreatment: 2 > 1, Low Need Achievement Scale of SBCL Follow-up Assessment: 5 months, results same as above	6 1-hour sessions
Edelson & Rose (1982)	42 fourth- fifth graders 1. Rehearsal- Discussion 2. Social Skills 3. Waiting List Controls	Teacher and Peer Ratings	1. Sociometric Ratings 2. School Behavior Check List 3. Role Play	Posttreatment: Trend favoring 2 > 1, 3 on socio- metric ratings No follow-up assessment	8 1-hour sessions

Behavior Therapy Interventions (continued)

Investigators	Subjects (n); Type of Group	Inclusion Criterion	Dependent Measures	Results	Treatment Length
Gresham & Nagle [1980]	40 third-fourth graders 1. Coaching 2. Modeling 3. Coaching plus Modeling 4. Attention Control	Peer Ratings (play with, work with)	1. Peer Ratings 2. Peer Nominations 3. Behavioral Observations (initiating and receiving posi- tive and nega- tive interac- tions)	Posttreatment: 1,2,3 > 4 on play with ratings 1,3 > 2,4 on initiating negative interactions 1,2 > 3,4 on receiving positive interactions Follow-up assessment: 3 weeks, 1,3 > 2,4 on initiating nega- tive interactions; 2 > 1,3,4 on receiving positive interactions	6 30-minute sessions
Hymel & Asher [1977]	24 third-fifth graders 1. Standard Coaching 2. Individual- ized Coaching 3. Peer Pairing	Socially Isolated	1. Peer Ratings 2. Peer Nominations 3. Behavioral Observations	Posttreatment: No significant effects of train- ing on dependent measures Follow-up assess- ment: Same as above	6-10 20 to 30 minute sessions
LaGreca & Santogrossi	30 third-fifth graders 1. Skills Training 2. Attention Placebo 3. Waiting List	Peer Ratings (play with, work with)	1. Peer Ratings 2. Behavioral Observations (initiating interactions, positive social behavior) 3. Skills Knowledge Measure 4. Role Play	Posttreatment: 1 > 2,3 on behav- ioral observations (initiate interac- tions), role play, skills knowledge measure No follow-up assessment	4 90-minute sessions

Behavior Therapy Interventions (continued)

Investigators	Subjects (n); Type of Group	Inclusion Criterion	Dependent Measures	Results	Treatment Length
Oden & Asher [1977]	33 third-fourth 1. Coaching 2. Peer Pairing 3. Attention Control	Peer Ratings & Peer Nominations	1. Peer Ratings 2. Peer Nominations 3. Behavioral Observations (task participa- tion, social orientation)	Posttreatment: 1 > 2,3 on play with ratings Follow-up assessment: 1 > 2,3 on play with ratings	6 sessions, 30 mins/session over 4 weeks
Whitehill, Hersen, & Bellack [1980]	4 socially isolated third graders	Peer Ratings, Peer Nominations Role Play Assess- ment, Teacher Questionnaires, Behavioral Observations	1. Peer Ratings 2. Teacher Ratings 3. Behavioral Observations (time alone) 4. Conversational Target Behaviors	Posttreatment: Significant Improvement on conversational target behaviors, % time spent alone Follow-up assessment: 4 weeks, maintained improvement on conversational target behaviors, % time spent alone	3 30-minute sessions

Selinger, 1976; Forman, 1980; McClure, Chinsky, & Larcen, 1978; Spivack & Shure, 1974; Stone, Hinds, & Schmidt, 1975; Weissberg, Gesten, Rapkin Cowen, Davidson, DeApodaco, & McKim, 1981). One of the most extensively implemented cognitive treatment strategies is that of Spivack and Shure (1974). These investigators have delineated a number of interpersonal cognitive problem-solving skills, including alternative solution thinking and consequential thinking skills. The former refers to the ability to cognitively generate alternative solutions to given interpersonal problems, while consequential thinking refers to the ability to consider consequences of social acts and to generate alternative consequences to given interpersonal situations. A series of investigations training children across age groups in these skills (Shure & Spivack, 1978, 1979, 1980) have indicated that children trained in interpersonal cognitive problem-solving skills (ICPS) have improved relative to no treatment controls on measures of alternative solution thinking and consequential thinking, in addition to measures of perceived overt behavior adjustment, as measured by teacher ratings. The major weakness involved in these investigations has been the failure to relate gains in ICPS skills to overt behavioral adjustment as assessed by naturalistic observations, and the lack of control groups other than no treatment controls.

A number of other investigators have also incorporated cognitive components in the treatment of social skills deficits. Allen et al. (1976) included exercises tailored for training in divergent thinking (i.e., brainstorming), problem identification, alternative thinking, consequential thinking, and elaboration of solutions. Although gains for the treatment group over a no treatment group were evident on several measures, no effect of training was evident on ratings of overt behavioral adjustment or on a sociometric measure. Houtz and Feldhusen (1976), McClure, Chinsky, and Larcen (1978), Stone et al., (1975), and Weissberg et al. (1981) have also utilized social problem-solving approaches in the treatment of social skill deficits. Albeit reporting superiority of treatment groups over control groups on cognitive measures, a major weakness includes the relative lack of behavioral adjustment measures, particularly behavioral observations, making the practical utility of such intervention programs somewhat suspect. In addition, the lack of attention control groups is a glaring weakness among problem-solving interventions. Thus, improvement due to such factors as motivation, exposure to the assessment procedures, and therapist attention cannot be definitely ruled out.

One investigation that did use direct observation of behavior as a measure of treatment efficacy and included

an attention control group was that of Forman (1980). This investigation compared a cognitive training group which involved discussions of the role of thoughts in subsequent aggressive behavior, consideration of consequences, and verbal self-reinforcement, with a response cost procedure and placebo control group in modifying aggressive behavior with third to fifth grade children. Teacher ratings, teacher records of aggressive behavior and direct observation were used as dependent measures. Both active treatment groups were significantly superior to the placebo group. More specifically, the cognitive treatment group differed significantly from the placebo group on the behavioral observation measure, while the response cost procedure differed on teacher records and teacher ratings. Finally, a comparison of the cognitive treatment group and response cost procedure found differences only on the teacher records measure, favoring the latter group. The investigator notes that the response cost procedure involved greater teacher participation than the other treatment procedures, thus perhaps producing a bias on the teacher records measure. For a review of interventions utilizing cognitive strategies with third to fifth grade children, see Table 2.

Table 2
Cognitive Therapy Interventions

Investigators	Subjects (n); Type of Group	Inclusion Criterion	Dependent Measures	Results	Treatment Length
Allen, Chinsky, Larcan, Lochman, and Selinger (1976)	150 3-4th graders: 1. Problem Solving 2. No treatment	Classroom- wide Appli- cation	1. Structured Real- life problem situation 2. Problem Solving Measure (PSM) 3. In-Class Assess- ment measure (ICM)	Posttreatment: 1>2 on PSM Trend favoring 1>2 on Structured Real- life problem situa- No follow-up assess- ment	24 bi-weekly 30 minute lessons over 18 weeks
Elardo and Caldwell (1974)	68 3-4th graders: 1. Problem Solving 2. No Treatment	Classroom- wide Appli- cation	1. Role Taking Test 2. Story Alterna- tives Test 3. Devereux Elemen- tary School Behav- ior Rating Scale	Posttreatment: Trend favoring 1>2 on Story Alterna- tives Test Group 1>2 on Story Rating Scale (disre- spect-defiance subscale)	48-56 sessions, twice weekly, 25 mins/session
Houtz and Feldhusen (1976)	185 3-4th graders: 1. Problem-Solving plus reward 2. Problem-Solving only 3. No treatment control	Classroom- wide Appli- cation	Problem-Solving Test (generation of alter- natives)	Posttreatment: Group 2>1 and 3 No followup assess- ment	45 sessions, 15- 30 mins/session
McClure, Chinsky, and Larcan (1978)	184 3-4th graders: 1. Video modeling 2. Video modeling plus discussion 3. Video modeling plus role play 4. No treatment	Classroom- wide Appli- cation	1. Problem-Solving Measure (means- end thinking) 2. Structured adult- child interac- tions 3. Structured group interaction 4. Locus of Control	Posttreatment: Groups 1,2,3>4 on Problem-Solving Measure, Structured group measure, and Locus of Control No followup assess- ment (Structured group interaction assessed 2 months post-treatment)	10 sessions, 30 mins/session

Cognitive Therapy Interventions (continued)

Investigators	Subjects (n); Type of Group	Inclusion Criterion	Dependent Measures	Results	Treatment Length
Stone, Hinds and Schmidt (1965)	48 3rd graders 48 4th graders 48 5th graders 1. Problem Solving 2. No treatment control	Classroom-wide Application	Generation of facts, choices, number of alternative solu- tions	Posttreatment: 3rd grade: 1>2, Generation 4th grade: 1>2, all dependent measures 5th grade 1>2, Choices solu- tions No follow-up assessment	7 sessions, 1 hr./session
Weissberg, Gesten Carnike, Toro, Rapkin, Davidson, Cowen (1981)	563 2nd-4th graders: 1. Social Prob- lem Solving 2. No treatment Control	Classroom-wide Application	1. Open Middle Test (means-ends thinking 2. Simulated Behav- ior Problem Solv- ing Test 3. Problem Solving Interview 4. Problem Solving Abilities Scale 5. Child Behavior Rating Scale 6. Class Sociometric Ratings	Posttreatment: 1>2, Open Middle Test, Problem Solv- ing Abilities Scale Simulated Behavior Problem Solving Test No follow-up assess- ment (measures #5 and #6 taken 2 months post-treatment)	42 sessions 1 hr./sessions

Cognitive Therapy Interventions (continued)

Investigators	Subjects (n); Type of Group	Inclusion Criterion	Dependent Measures	Results	Treatment Length
Weissberg, Gesten, Rapkin, Cowen, Davidson, de- Apodaca, McKim [1981]	243 third graders; 1. Social Prob- lem Solving 2. No treatment Control	Classroom-wide Application	1. Open Middle Test 2. Rochester Means- Ends Test 3. Social Role- Taking Measure 4. Problem Identifi- cation/Consequen- ces Test 5. "Face Valid" measure 6. Behavioral Prob- lem Solving Test 7. Problem Solving Interview 8. Health Resources Inventory 9. Devereux Elemen- tary School Behav- ior Rating Scale 10. Class Sociometric 11. STAI for Children: A-Trait Scale 12. McDaniels-Piers Young Children's Self-Concept Scale	Posttreatment: 1 > 2, Open Middle Test, Problem Iden- tification Conse- quences Test, Roch- ester Means Ends Test, "Face Valid" Measure, Behavioral Problem Solving Test, Prob- lem Solving Interview, Devereux Scale (for suburban-based subjects) No follow-up assess- ment (measures #8 and #9 taken 6 weeks post-	52 sessions 20-30 mins/

Theoretical Framework

Meichenbaum, Butler, and Gruson (1981) have recently conceptualized a model of social competence, components of which include (a) overt behavior, (b) cognitive processes, and (c) cognitive structures.

Overt Behavior

Overt behavior refers to directly observable verbal and nonverbal behavior. Much of the research in the area of social competence has focused on this aspect of the model. Gottman (1977), Hymel and Asher (1977), and Trower, Bryant, and Argyle (1978), among others, have focused on what a socially competent person does while interacting with others. Examples of behaviors typically targeted include conversational skills (greetings, eye contact, closing remarks), giving compliments, making requests, etc. In essence, the overt behavior component emphasizes the importance of changing overt behavior (what is said, how it is said) as a means of increasing social competence. The model as presented by Meichenbaum et al. (1981) views the focus on overt behavior as a necessary but not sufficient defining characteristic of social competence.

Cognitive Process

Cognitive processes include thoughts and images preceding, accompanying, and following overt behaviors, in addition to problem-solving skills that the individual employs in social situations. Included are the internal dialogue reflecting the individual's thoughts and feelings about the situation and/or him/herself, expectancies held by the individual, and the nature and amount of social information that the individual possesses about the given social situation.

Meichenbaum et al. (1981) note several aspects of cognitive processing critical for the competent handling of social situations. One factor critically examined in the present investigation that was included by Meichenbaum et al. (1981) (among others) which may interfere with social competence involves negative internal dialogue. A number of investigations have linked self-referent negative ideation to poor performance in such areas as taking an examination (Deffenbacher, 1978), undergoing catheterization procedures (Kendall, Williams, Pechacek, Graham, Shisslak, & Herzoff, 1979), tolerating pain (Genest, Turk, & Meichenbaum, 1977) and athletic performance (Mahoney & Avenier, 1977). There have also been a series of investigations in the area of assertiveness which have directly addressed the function of facilitating or inhibiting self-statements (Heimberg, Chiauuzzi, Becker, & Madrazo-Peterson, 1980; Pitcher &

Meikle, 1980; Schwartz & Gottman, 1976). Schwartz and Gottman's (1976) pioneering study into the role of self-statements found that, based on the Assertive Self Statement Test, a questionnaire requiring subjects to rate the frequency with which various facilitating or inhibiting self-statements occurred, high and low assertive subjects differed in the pattern of endorsed self statements. The results indicated that moderate and high assertive subjects had experienced significantly more facilitating than inhibiting self-statements in role-playing situations, whereas low assertive subjects did not differ in the number of facilitating and inhibiting statements. These results were subsequently replicated by Pitcher and Meikle (1980) with noncollege adults. Finally, Heimberg et al. (1980), using samples of psychiatric patients, demographically similar adults, and college students, produced results dissimilar to Schwartz and Gottman's (1976) and Pitcher and Meikle's (1980). While the latter investigations found that nonassertive subjects endorsed more inhibiting self-statements than facilitating self-statements, the adult and student sample of Heimberg et al.'s (1980) investigation endorsed facilitative statements more frequently, regardless of assertiveness level. However, high and low assertive subjects did differ in the magnitude of their difference scores. Thus, although the pattern of findings is somewhat discrepant from that of

Schwartz and Gottman (1976), it is consistent with their formulation that an internal dialogue of conflict may exist with unassertive individuals in which facilitating and inhibiting self-statements compete, with a subsequent interference with interpersonal behaviors. In contrast to the above findings, no significant results were found with the patient population. That is, high and low assertive subjects did not differ in the frequencies of facilitating or inhibiting statements endorsed. One explanation offered by Heimberg et al. (1980) infers that psychiatric patients may have more difficulty in the retrieval, recognition, or reporting of self-statements.

The aspect of cognitive processes known as internal dialogue discussed above has not been extensively investigated to date with children. Although the empirical literature is building in the area of cognitive behavior therapy with children, including the investigation of such cognitive processing variables as self-instructional procedures for impulsivity (Meichenbaum & Goodman, 1971) and interpersonal problem solving skills for socially unskilled children (Shure & Spivack, 1980), investigations have generally not addressed assessment and or treatment of facilitating and inhibiting self-statements with child populations. The one exception to date involves the work of Forman (1980). In this investigation, 30 aggressive and 30 nonaggressive third

through fifth graders were presented with and questioned about their thoughts during 10 aggression-provoking vignettes. The findings indicated that differences did not exist between groups in their objective description of the situations or in consideration of consequences with regard to reactions to the situations. However, aggressive children responded with significantly more irrational thoughts, more statements of aggressive behavior as a solution to the aggression-provoking situation, and more negative evaluations of the children in the vignettes. Moreover, among aggressive children, irrational thoughts (e.g., "things should be different") were significantly related to aggressive behavior. The authors note that these findings support the investigation of self-statements as an area of possible treatment intervention, and the need for comparisons of cognitive and behavioral intervention programs.

Cognitive Structure

Cognitive structures refer to the individual's meaning system, which Meichenbaum et al. (1981) postulate provides motivation and direction for thought and behavior. This concept implies that any given social situation may hold a somewhat different meaning for each individual, and the study of cognitive structures is to understand why such individual differences occur. This meaning that an indi-

vidual ascribes to a social situation influences his or her expectancies and appraisals, and sets in motion cognitive processes, such as internal dialogues.

As noted previously, the term "cognitive structure" refers to the individual's meaning system, providing motivation and direction for thought and behavior. Meichenbaum et al. (1981) utilize this term in an attempt to account for the motivation, direction, and organization of social behavior. Perhaps more succinctly put, the aim is to understand why individuals differ in their response to the same environmental stimuli, and why a particular individual may respond similarly to apparently dissimilar events. While the components of overt behavior and cognitive processes suggest how individuals differ in aspects of their social competence, cognitive structures hope to explain why these differences occur.

In order to bring this concept to life, consider test-anxious individuals who appear to have a constant concern of being evaluated (Wine, 1983). This concern may arise for different reasons, being prompted by concerns over loss of control (i.e., being overwhelmed by anxiety), esteem from authority figures or peers, or the need to gain professional success. Thus, it is the particular test-anxious individual's meaning (or cognitive structure) surrounding evaluation which will influence the content of the individual's

cognitions and accompanying affect and behavior in testing situations.

This aspect of Meichenbaum's (1981) social competence model has not been empirically evaluated, and methods of assessing cognitive structures have not been clearly delineated.

In research investigating a concept similar to Meichenbaum et al.'s "cognitive structure" component, Klinger, Barta, and Maxeiner (1980) assessed recent thought content and its relationship to current intra- and interpersonal problems. Findings indicated that thought is more often focused on goal pursuits involving unexpected difficulties encountered in day to day functioning and troubled personal relationships. That is, thought content is influenced by the individual's current concerns in his/her environment. Thus, one method of assessing cognitive structures is the determination of what aspects of the individual's environment are of "current concern" to the individual. One might hypothesize, with regard to children's social competence, that competent individuals ascribe more importance to peer-related activities than activities done either alone or with adults, and ascribe more importance to peer interactions than other alternative behavioral options. This hypothesis has not been empirically investigated, but certainly would, if supported, influence cognitive processes and overt

behavior with regard to the initiation and maintenance of social behavior.

Status of Present Conceptual Model

Reviewing the treatment approaches to date in the children's skills literature with regard to the theoretical framework noted above, it becomes apparent that all three components of the model presented above have not been addressed equitably. The early behavioral interventions implementing a strict operant approach (Allen et al., 1964; Todd et al., 1976) have limited their assessment to the overt behavior component of Meichenbaum et al.'s (1981) social competence model, while more recent behavioral approaches incorporating modeling, coaching, and behavioral rehearsal (e.g., LaGreca & Santogrossi, 1980) have included behavioral measures, but have severely limited their use of measures of cognitive processes (e.g., social skills knowledge) while not addressing the assessment of cognitive structure at all.

Treatments based upon the cognitive model have generally addressed aspects of the overt behavioral component, although often neglecting naturalistic observation strategies (Allen et al., 1976; Spivack & Shure, 1979, 1980; Weissberg et al., 1981). Assessment of the cognitive processes component generally have included measures of alternative

solution thinking, consequential thinking, problem identification (Allen et al., 1976; McClure et al., 1978; Shure & Spivack, 1979, 1980; Weissberg et al., 1981), and locus of control measures (Allen et al., 1976; McClure et al., 1978). Unfortunately, neither behavioral nor cognitive approaches to the treatment of social skills deficits adequately assesses the cognitive processes component with regard to expectancies (either outcome or self-efficacy), or internal dialogues, while the cognitive structure component has simply not been addressed. The only exception to this latter statement is the work of Gresham and Nagle (1980), who used the Peer Preference Test (Evers-Pasquale & Sherman, 1975), which classifies children as peer oriented or non-peer oriented. Finally, sampling within the overt behavior domain, including the use of direct behavioral observation, sociometric measures, and/or role play assessments to assess specific behavior excesses and deficits, has been somewhat less than adequate (Urbain & Kendall, 1980).

Research Recommendations

In addition to the assessment issues discussed above which have not been adequately addressed, several excellent reviews of the social skills literature with children (Urbain & Kendall, 1980; Van Hasselt et al., 1979) make cogent recommendations for future treatment outcome investi-

gations contrasting cognitive-problem solving approaches with more specific behavioral approaches. Although at least one investigation has implemented a dismantling treatment package strategy (Gresham & Nagle, 1980), and Kendall and Braswell (1982) contrasted a behavioral versus a cognitive treatment approach in the area of self-control with children, no direct behavioral versus cognitive comparative treatment studies in the area of social skills training with children have been reported.

Investigations with adults contrasting behavioral versus cognitive strategies in the area of assertive training have been reported (Hammen, Jacobs, Mayol, & Cochran, 1980; Linehan, Goldfried, & Goldfried, 1979, among others), with equivocal results. Although generally not supporting the inclusion of cognitive treatment components, methodological differences, inconsistent inclusion criteria, and problems in assessment strategies across investigations provide less than strong support for such a conclusion (Stefanek & Eisler, 1983).

In addition to the need for comparative treatment studies, Spivack and Shure (1980) and Urbain and Kendall (1980) have addressed the need for attention control groups in research dealing with the treatment of children's social skills, controls often lacking in prior research. Although more recent investigations (Durlak, 1980; LaGreca & Santo-

grossi, 1980) have utilized attention control groups and found treatment groups superior across a number of dependent measures, these investigations have not been designed to explore reasons for such differences.

The present study includes a treatment outcome investigation directly contrasting a behavioral treatment package versus a cognitive treatment package and an attention control group. In addition to the utilization of multiple dependent measures across the overt behavior, cognitive process, and cognitive structure components of the social competence model (Meichenbaum et al., 1981), measures of outcome expectancy and therapeutic relationship/motivation variables are included to provide increased explanatory power to the proposed research.

In addition, an initial investigation examines the utilization of inhibiting and facilitating self-statements by groups of withdrawn, aggressive, and socially skilled children, across types of interpersonal situations (conflict, initiation of interactions) and relationships (friend, stranger).

Rationale for Experimental Hypotheses

Treatment programs focusing primarily on changes in cognitions have consistently found changes in cognitive measures such as alternative solution thinking, consequen-

tial thinking, and other problem-solving measures. On the other hand, only one cognitively oriented treatment approach (Zahavi & Asher, 1978) has produced increases in cooperative behavior and decreases in aggressive behavior as measured by behavioral observation.

A measure of interest in the present investigation is a measure of peer orientation, included to assess whether this variable mediates responsiveness to social skills training. This instrument purports to measure the cognitive structure component of the social competence model proposed by Meichenbaum et al. (1981). A second measure devised to assess this component evaluates the reinforcement value of peer activities as compared to other nonpeer-related activities. No data are available to allow predictions of differential effectiveness across treatment groups with regard to either of these measures.

In addition, although the role of self-efficacy has often been employed to explain behavioral changes produced by different treatment methods (Bandura, 1977; Rahaim et al., 1980), the assessment of self-efficacy, included in this investigation, has not been attempted within the realm of social skills training with children.

As noted previously, the role of facilitating and inhibiting self-statements with children has not been addressed, although investigations with adult populations have found

differential patterns of facilitating and inhibiting self-statements between assertive and nonassertive subjects (Heimberg et al., 1981; Pitcher & Meikle, 1980; Schwartz & Gottman, 1976). Investigations contrasting assertive, aggressive, and unassertive (passive) populations have not been reported in the literature to date.

Behavioral treatment strategies have demonstrated greater changes on sociometric measures and interactive behavior as measured by naturalistic observation strategies than cognitive treatment strategies. In addition, although teacher ratings have been used sparsely in behavioral treatment studies of children's social skills, evidence exists regarding positive changes on such measures (Durlak, 1977). Finally, while literature is also sparse with regard to cognitive changes via behavioral treatment strategies with children, findings are mixed with adult populations (Derry & Stone, 1978; Rahain, Lefebvre, & Jenkins, 1980).

Attention control groups have not been utilized within treatment programs utilizing cognitive approaches and have often been neglected within behavioral treatment programs (see Tables 1 and 2). However, those investigations utilizing attention control groups have generally found superiority of the active treatment groups across dependent measures (Gresham & Nagle, 1980; LaGreca & Santogrossi, 1980; Oden & Asher, 1977).

Finally, another dependent measure in the present investigation includes a therapeutic relationship/motivation measure, included to assess the child's enjoyment of the group, and his/her therapeutic relationship with the therapist. The only investigation to date assessing the therapeutic relationship factor in an investigation incorporating a behavioral or cognitive approach (Kendall & Braswell, 1982) found no differences between a cognitive-behavioral, behavioral, or attention control group on this measure.

Experimental Hypotheses

Based on previous cognitive and behavioral interventions in the area of social skills with children, a number of hypotheses regarding the impact of the proposed intervention can be delineated: (a) significant changes on teacher ratings and sociometric ratings will be found for both treatment groups in comparison to the attention control group, with behavioral and cognitive groups being equivalent on these measures; (b) behavioral observations of social interactions may favor the behavioral treatment group due to training in specific behaviors related to peer acceptance; and (c) changes on measures of cognitive processes (alternative solution thinking, inhibiting and facilitating self-statements) may favor the cognitive training program over the behavioral treatment group, since these variables will

be directly targeted in the cognitive treatment groups.

As noted previously, the role of facilitating and inhibiting self-statements with children has not been adequately addressed. However, the adult literature would suggest that: (a) differences may indeed occur between socially skilled and socially unskilled children, with the former evidencing significantly more facilitating and fewer inhibiting self-statements than the latter, and (b) no differences between aggressive and withdrawn children on the pattern of self-statements noted for adult populations (i.e., fewer endorsements of facilitating self-statements and more frequent endorsement of inhibiting self-statements compared to skilled children).

Although the social competence model would predict differences in the cognitive structure component measures (Peer Preference Test, Reinforcement Value Measure) between socially competent and incompetent populations, empirical data for such a prediction are lacking, and hypothesizing differential change across these measures due to type of treatment received (i.e., behavioral, cognitive) is premature. In addition, due to the paucity of data related to relationship and motivational factors, treatment outcome expectancy, and self-efficacy measures in prior investigations, no differences across treatment conditions is predicted.

CHAPTER II

METHODS

Subjects

All fourth graders at Christiansburg and Prices Fork elementary schools completed a sociometric roster and rating measure, which asked each child to rate every other child in the classroom on a 1 (not at all) to 5 (very much) point scale indicating "how much would you like to play with this child." In addition, the fourth-grade teachers ($n = 10$) nominated three aggressive and three withdrawn children from their classrooms and completed the AML (Dorr et al., 1980), a brief rating form utilized to screen children having adjustment difficulties in the school setting (see Appendix A).

Initial selection criteria for the aggressive and withdrawn children across both investigations included: (a) below the class mean on the sociometric rating measure, and (b) inclusion on the teacher nomination form in the aggressive or withdrawn category, or (c) above the class mean on

the M (moody) factor of the AML and at or below the mean on the A (aggression) factor (withdrawn category), or above the mean on the A factor and at or below the mean on the M factor (aggressive category).

Ninety-two children participated in the self-statement utilization investigation across popular ($\underline{n}$ = 27; male = 12, female = 14), aggressive ($\underline{n}$ = 32; male = 22, female = 10), and withdrawn ($\underline{n}$ = 33; male = 10, female = 23) sociometric categories, selected from the fourth grade at Christiansburg Elementary ($\underline{n}$ = 68) and Prices Fork ($\underline{n}$ = 24) Elementary schools. Of the 34 children meeting inclusion criteria for the aggressive category, 32 received parental permission to participate in the self-statement utilization investigation, and 33 of 35 children meeting the criteria for the withdrawn category received parental permission. Popular children for the self-statement utilization investigation were selected from those children ranking highest on the rating and roster measure. Of the 30 children recruited for the investigation, 27 received parental permission and participated in the study.

Sixty of the children from the self-statement utilization investigation (29 males, 31 females) from Christiansburg Elementary ($\underline{n}$ = 42) and Prices Fork Elementary ($\underline{n}$ = 18) participated in the treatment outcome investigation. Those children in the aggressive and withdrawn categories included

as subjects in the self-statement utilization investigation but not participating in the treatment outcome investigation were excluded due to their participation in a similar social skills investigation conducted concurrently with the present investigation or did not receive parental permission to participate in the latter study. The popular children in the treatment outcome investigation ($n = 12$) were those children in the popular category who ranked highest on the sociometric category, selected randomly from the 27 popular children identified in the self-statement investigation.

Lack of parental permission resulted in the inclusion of all of the popular children ($n = 12$), 22 of the 24 children targeted in the aggressive category, and 16 of the 24 children targeted in the withdrawn category. Replacement of the subjects was completed by listing additional children scoring below the mean on each classroom sociometric rating and requesting that classroom teachers (a) categorize these children as aggressive or withdrawn and (b) rank these children within these categories. Replacement involved selecting those children ranking highest in these categories. All children selected in this manner were ranked first or second by the teachers within the aggressive or withdrawn categories.

Therapists

Therapists for each group in the treatment outcome component of the investigation were two male doctoral candidates in clinical psychology, both with experience in working with children in a clinical setting. In addition, each group included a cotherapist (female), either an advanced undergraduate student or masters degree candidate in clinical psychology, who were trained extensively in treatment protocols. Each cotherapist received treatment manuals for each training condition, was involved in several pretreatment meetings to review the proposed protocols, and participated in supervisory meetings weekly to review familiarity with proposed session material and to review prior sessions.

The assessment component of the investigation was completed by the above graduate students, in addition to trained undergraduate research assistants. These assistants received approximately 4 hours of training in the assessment procedure, including role playing the procedures prior to implementation of the study. All assessors received manuals delineating the procedural steps required for the assessment, and were blind to the sociometric categorization of each child. In addition, the undergraduate research assistants conducted naturalistic observations of the targeted children during free play activities at the school. Training included 3 half-hour practice sessions in behavioral

observations at a preschool affiliated with the University, in addition to a trial observation period at the elementary school involved in the investigation. Finally, written descriptions of each observation category were provided to all research assistants.

Dependent Measures

Behavioral Observations

Children in all sociometric categories were observed at pre- and posttreatment. A sequential time sampling procedure was used with each child observed for 3-minute segments, with alternating 5-second periods of observation and recording. Each child was observed for a total of 6 minutes at pre- and posttreatment intervals. These observations occurred during recess in the school setting. Reliability checks were completed on 25% of the children. Interobserver agreement on peer positive and peer negative behavior was computed using a percentage agreement measure for each observational session (i.e., number of agreements divided by the number of agreements and disagreements x 100). The obtained percentage of agreement totalled 90.2. Categories coded included both positive peer and negative peer interaction. These behaviors have been related to peer sociometric status (Hartup et al., 1967) and have been used in other investigations (LaGreca & Santogrossi, 1980; Ollendick,

1981). See Appendix B for the observation forms and description of the observational categories.

Devereux Elementary School Behavior Rating Scale

The Devereux Elementary School Behavior Rating Scale is a 47-item teacher rating scale, designed to provide a profile of overt behaviors related to school adjustment and achievement in the elementary grades (Spivack & Shure, 1967). Eleven dimensions of behavior have been identified through factor analytic procedures including Classroom Disturbance, Inattentive-Withdrawn, Impatience, and Disrespect-Defiance. The test-retest reliability over a 1 week interval has been found to be adequate ($r = .88$; Spivack & Swift, 1967), with sufficient validation evidence to support its use in assessing classroom behaviors interfering with adjustment (Swift & Spivack, 1973). This instrument has been used in a number of investigations in the area of social skills training (Elardo, 1977; Shure & Spivack, 1970).

Sociometric Measures

The sociometric measure consisted of the peer ratings received from each classmate on a "play with" measure of acceptance. These ratings were made on a 1 (not at all) to 5 (a lot) point scale, and assessed overall peer acceptance

of the child within the classroom setting. Support for this choice of sociometric measures derives from the work of Gresham (1980) and Hymel and Asher (1977), who found peer nominations and ratings suggestive of a distinction between likability and friendship. While the former measures a child's choice of friends, the latter measures overall acceptability in the peer group. Gresham (1981) concluded that children who have one or two friends but are poorly accepted by peers may be more in need of intervention than children with high peer ratings but no nominations. See Appendix C for a copy of this instrument.

Alternative Solutions Test

Alternative solution thinking has been defined by Spivack, Shure, and Platt (1974) as the "ability to generate different options (solutions) that could potentially be put into action to solve a problem." Shure and Spivack (1970) and Elardo (1977) found this ability to mediate behavioral adjustment in 9-11 year old children, while a number of investigations have also supported this relationship with nursery and kindergarten aged children (Shure & Spivack, 1979, 1980). See Appendix D for a copy of this instrument.

Socialization Self-Statement Test (SSST)

This instrument was devised by the author for the pres-

ent investigation. It is based upon the work of Schwartz and Gottman (1976), who devised the Assertive Self-Statement Test used to assess the patterns of facilitating and inhibiting self statements among assertive and nonassertive adults. The SSST is a self-report measure similar in format to that of the ASST. Items were drawn from pilot work prior to assessment of the target children, in which self-statements were elicited from aggressive, withdrawn, and popular children. This was done via a storytelling procedure in which subjects were given descriptions of situations involving initiating interactions and conflict situations, and asked to supply self-statements which might lead to failure and success experiences in these situations (see Appendix E).

Subjects in the present investigation completed the SSST on four occasions, that is, after each role-play situation (conflict-friend, conflict-stranger, initiate friend, initiate stranger), with the presentation of the stimulus situations counterbalanced across children (see Appendix F).

Treatment Outcome Expectancy Measure

The expectancy measure, based on the work of Borkovec and Nau (1972), was adapted for children in this investigation. This measure is a 5-item, 10-point rating scale which

purports to measure the credibility/expectancy for improvement of treatment intervention. The adapted questionnaire was altered to focus upon social skills improvement. This measure was given following the first session after the children were given an explanation of treatment, following the second session when the children were exposed to actual treatment strategies, and at the end of the 8-week training program. See Appendix G for a copy of this instrument.

Self-Efficacy Test

This instrument is one recently developed by Ollendick (1982), based upon the work of Bandura (1977). The theory of self-efficacy espoused by Bandura (1977) postulates that changes in behavior are results of interventions that create and strengthen expectations of personal effectiveness. This perceived self-efficacy influences choices of activities, expenditure of effort, and persistence in the face of obstacles. Empirical tests of this theory (Bandura & Adams, 1977; Bandura, Adams, & Beyer, 1977) have supported the basic tenets of the theory. See Appendix H for a copy of this instrument.

Therapy Motivation Measure

Urbain and Kendall (1980) have emphasized the need to assess motivational variables in social cognitive problem-

solving interventions. A self-report instrument to assess the role of motivation and the therapeutic relationship aspects within this investigation was devised (see Appendix I). This self-report measure consists of five items on a 5-point scale completed by the children at the end of each session. This was deemed preferable to the posttreatment only strategy used by Kendall and Braswell (1982), as these variables may well fluctuate from session to session.

Peer Preference Test

This instrument, utilized in this project as an assessment of the cognitive structure component of social competence, is a 12-item self-report instrument which directs the children to choose whether they would prefer to do particular activities (e.g., play, go roller skating) with adults, with someone their age, or alone. The goal of this instrument is to assess the reward value of peers for each child. Test-retest reliability has been sufficient, and concurrent validity of the test has been satisfactory (Evers-Pasquale, 1978; Evers-Pasquale & Sherman, 1975). Further, this scale has been used by Gresham and Nagle (1980) in their investigation of children's social skills. See Appendix J for a copy of this instrument

Reinforcement Value Measure

In addition to assessing the reinforcement value of peers by the Peer Preference Test, the reinforcement value of situations and interactions of a more general nature may be helpful in providing explanatory power to the treatment outcome component of the investigation. A 30-item forced choice instrument was administered in which items are paired across categories including adult attention, competition, peer interaction, edibles, and independence. This instrument pairs four items from each of the above categories with each of the four items from all other categories. Due to the time required to complete assessment instruments during individual assessment sessions, this instrument was administered in a group format prior to the first scheduled training session and at the end of the eighth and final treatment session. See Appendix K for a copy of this instrument.

Degree of Difficulty Scale

In order to assess transfer of training related to the use of facilitating and inhibiting self-statements in situations involving interactions and conflict situations, a scale was devised with 10 brief descriptions of each of these types of interpersonal situations. This scale consisted of items drawn from pilot data in which fourth grade children in the Montgomery County School District (excluding

Christiansburg and Prices Fork Elementary Schools) were asked to describe situations involving initiating interactions and conflict which were problematic for them. Each child in the investigation completed the scale prior to treatment, rating each situation on a 1-5 scale depending upon its perceived difficulty. Those items most closely matching the situations on the SSST premeasure were used as situations on the posttreatment administration of the SSST (see Appendix L). The ratings for the Conflict Situations ranged from 3.01 to 3.78 ($X = 3.39$). The mean rating for the situation utilized at pretreatment ("a boy/girl borrowed a game, and hasn't brought it back after saying s/he would") was 3.67, while the mean rating for the situation utilized at post-treatment ("You can't hear the teacher in class, and you want to tell a classmate to quiet down") was 3.60.

For the initiating interaction scenarios, the ratings ranged from 2.92 to 4.27 ($X = 3.60$). The scene selected for pretreatment had a mean rating of 3.47, while the scene selected for posttreatment administration had a mean rating of 3.49. Thus, items chosen for pre- and posttesting scenarios were of intermediate difficulty. See Appendix K for a copy of this instrument.

Finally, for a summary of the dependent measures utilized in this investigation, see Table 3.

Table 3

Summary Table of Dependent Measures

Response		Social Competence Model Components		
<u>Behavioral</u>	<u>Behavioral</u>	<u>Cognitive Process</u>	<u>Cognitive Structure</u>	
1. Direct Observation	X			
a. Peer Positive				
b. Peer Negative				
<u>Other-Report</u>				
1. Devereux Rating Scale	X			
2. Sociometric Measure				
<u>Self-Report</u>				
1. Alternative Solutions Test		X		
2. Socialization Self-Statement Test		X		
3. Self-Efficacy Test		X		
4. Peer Preference Test				X
5. Reinforcement Value Test				X
6. Treatment Outcome Expectancy Measure				
7. Therapy Motivation Measure				

Procedure

Self-Statement Utilization Investigation

Following the selection of children, each child in the self-statement utilization investigation ($n = 33$ in the withdrawn category; $n = 32$ in the aggressive category; $n = 27$ in the popular category) was presented with each of the four role-play situations representing four types of peer interactions: (a) conflict situation with a friend; (b) conflict situation with a stranger; (c) initiating interactions with a friend; and (d) initiating interactions with a stranger. The specific content of situations was determined from pilot data previously described, obtained from fourth grade children in other elementary school settings.

Following each role play, children filled out the Socialization Self-Statement Test (SSST; see Dependent Measure section), composed of eight facilitative and eight inhibiting self-statements. Thus, targeted children completed four versions of the SSST, one for each relationship-situation pair.

Treatment Outcome Component

Following subject selection, children were randomly assigned within sociometric categories to Behavioral, Cognitive, or Attention Control groups. This was done within classrooms, as possible. That is, each treatment

group consisted of children drawn from one and no more than two classrooms. Such a procedure helped to ensure a minimum of disruption to the individual classroom.

Each treatment condition (behavioral, cognitive, attention control) consisted of two groups, including children from withdrawn, aggressive, and popular categories, for a total of 20 children in the behavior therapy condition, 19 in the attention control condition, and 21 in the cognitive therapy condition (see Appendix M).

All groups were conducted once weekly for 50 minutes, for a total of 8 weeks. Measures taken at posttreatment included all pretreatment measures, with the exception of the Degree of Difficulty Scale. Across all groups, the treatment outcome expectancy measure was administered prior to Session 1, post-Session 1, and following the final treatment session, while the motivational/therapeutic relationship measure was administered at the end of each of the eight treatment sessions.

In order to manage in-group behavior, the "Good Behavior" game was utilized. This procedure was begun post-session 1 and continued throughout the remaining sessions. The intervention involved dividing each treatment group into two "teams," with each team assigned a point for a number of disruptive behaviors; speaking without raising hands, out of seat, failure to complete homework, and name calling. If

a team exceeded a predetermined number of points (5 for sessions 2-4; 4 for sessions 5-8), the members did not receive 10 minutes of "free time" at the end of the session. Monitoring of these behaviors was completed by either therapist or cotherapist during the treatment session.

Behavior Therapy Group

As discussed previously, the behavioral model assumes that effective social skills are learned, and amelioration of social skills deficits can occur with training of response components of social skills. Based upon prior research relating specific social behaviors to peer acceptance (Gottman et al., 1975; Gottman et al., 1976; Hartup, 1970; Oden & Asher, 1977), the following skill areas were targeted for change: greeting others, joining ongoing activities, extending invitations, conversational skills, sharing and cooperation, and verbal compliments. These skills were taught by the specific utilization of strategies such as instructions, behavioral rehearsal, modeling, feedback, and social reinforcement. Subjects were assigned weekly homework tasks which specifically dealt with the particular treatment session completed and involved monitoring the practice of skills learned during that session. These assignments were discussed at the beginning of each session, and collected for monitoring purposes. Children were

verbally reinforced for completion of these assignments. See Appendix N for the treatment manual and weekly homework assignments.

Cognitive Therapy Group

Subjects in this group were trained in those social problem-solving skills described in a number of previous investigations (McClure et al., 1978; Shure & Spivack, 1980; Weissberg et al., 1981), including alternative solution thinking, consequential thinking, and solution and consequence pairing. In addition, a sequential strategy for dealing with interpersonal problems was taught. This six step sequence involved the following steps: (a) Say exactly what the problem is; (b) Decide on your goal; (c) Stop to think before you act; (d) Think of as many solutions as you can; (e) Think ahead to what might happen next; (f) When you have a good solution, try it.

Finally, the increasing of facilitating and decreasing of inhibitory self-statements were targeted within this treatment group. Instruction, coaching, modeling, feedback, and social reinforcement were used to teach these cognitive skills. Thus, although the training techniques were similar across the Behavior Therapy and Cognitive Therapy groups, the focus of training (response components versus cognitions) was markedly different.

As in the Behavior Therapy groups, homework assignments were given, with the focus of these assignments related to the content of each session. For example, participants were asked to self-monitor their problem-solving processes in given situations. These assignments were discussed at the beginning of each session and collected for monitoring purposes. Feedback and social reinforcement were given to children for completion of these assignments. See Appendix O for the treatment manual and weekly homework assignments.

Attention Control Group

Subjects in this condition served as controls for attention received by subjects in the Behavior Therapy and Cognitive Therapy groups. A number of sessions within this condition were based upon the Towards Affective Development (TAD) kit (American Guidance Association, 1976), and focused upon discussion of feelings and affect recognition, discussions of a variety of interpersonal problem situations, and involvement in group activities, the goal of which was to encourage cooperation and group cohesion. The specific cognitive skills as delineated for the Cognitive Therapy groups, and the specific skills described for the Behavior Therapy groups were not taught. Moreover, the specific strategies of behavioral rehearsal, modeling, instruction, and feedback were not utilized. As in both the Behavior Therapy and

Cognitive Therapy groups, homework assignments were administered. See Appendix P for the treatment manual and weekly homework assignments.

CHAPTER III

RESULTS

Overview of Analysis

There were two primary objectives of the present investigation. The first was to examine differences in the endorsement of facilitating and inhibiting self statements across popular, aggressive, and withdrawn children. The second objective was to examine the comparative efficacy of a behavioral, cognitive, and attention control treatment group on measures derived from the social competence model of Meicherbaum et al. (1981). The analyses for the self statement utilization and treatment outcome studies are discussed separately below.

Self-Statement Utilization

One primary focus of the present investigation involved the examination of the utilization of inhibiting and facilitating self-statements by groups of withdrawn ($n = 33$), aggressive ($n = 32$), and popular ($n = 27$) children across

types of interpersonal situations (conflict, initiation of interactions) and relationships (friend, stranger). The analysis of self-statements consisted of a 3 (status) x 2 (situations) x 2 (relationship) ANOVA performed on the difference scores (facilitating - inhibiting). Status served as a between groups factor, with situation and relationship as within (repeated) factors. For this analysis, an alpha level of .05 was used to determine statistical significance. This analysis yielded a main effect for Status, $F(2,89) = 3.66$, $p < .05$; Situation, $F(2,89) = 31.13$, $p < .001$; Relationship, $F(1,89) = 18.62$, $p < .001$; and a Relationship x Situation interaction, $F(1,89) = 11.88$, $p < .001$. (See Table 4).

With regard to the status main effect, a Duncans Multiple Range Test indicated a significant difference favoring the popular group over both the aggressive and withdrawn groups, with no significant difference between the latter two groups. That is, the popular group across type of relationship and situation, endorsed significantly more facilitating vs. inhibiting self-statements than either the aggressive or withdrawn children, who did not differ from one another.

As noted, main effects were also found for relationship and situation. More facilitative vs. inhibiting self-statements were endorsed in those situations involving

Table 4

Analyses of Variance: Socialization Self-Statement Test

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Between Subjects	11,324.27	91			
Status ^a (S)	860.34	2	430.17	3.66	.05
Subjects (S)	10,463.93	89	117.57		
Within Subjects	9,781.00	276			
	2,679.35	92			
Relationship ^b (R)	460.62	1	460.62	18.62	.001
R * S	17.05	2	8.52	0.34	.71
R * Subjects (S)	2,201.68	89	24.73		
	4,812.06	92			
Situation ^c (Sit)	1,244.02	1	1,244.02	31.13	.001
Sit * S	11.33	2	5.66	0.14	.87
Sit * Subjects (S)	3,356.71	89	39.96		
	2,289.59	92			
R * Sit ^d	266.92	1	266.92	11.88	.001
R * Sit * S	22.63	2	11.31	0.50	.61
R * Sit * Subjects	2,000.07	89	22.47		

^aPopular, aggressive, withdrawn

^bFriends, strangers

^cInitiate, conflict

^dAnalysis of simple effects indicated significance of Situation at friendship level $F(1,89) = 8.20$; Relationship at initiate level, $F(1,89) = 9.23$ (see Figure 1, B)

friends and the initiation of social behavior, respectively. Figure 1 illustrates these findings graphically.

The Relationship x Situation interaction reflects the significance of the initiate/friend levels of the two independent variables. Figure 1 illustrates this ordinal interaction. Mean facilitating-inhibiting scores for each scene across status categories are displayed in Table 5. It is also interesting to note that the facilitating-inhibiting scores on all four role-play scenarios were positively and significantly correlated with each other, as shown in Table 6.

In general, while results of these analyses indicate that important subject, relationship, and situational factors affect the expression of facilitating vs. inhibiting self-statements, they also show even more specific influences. That is, while the relationship factor (friend, stranger) does not significantly affect endorsement of facilitating vs. inhibiting self statements in conflict situations, it plays a much more critical role in initiating interaction situations.

Treatment Outcome Analyses

In the following sections, analyses related to selection criteria and sociometric ratings are presented first and then results related to Meichenbaum et al.'s (1981)

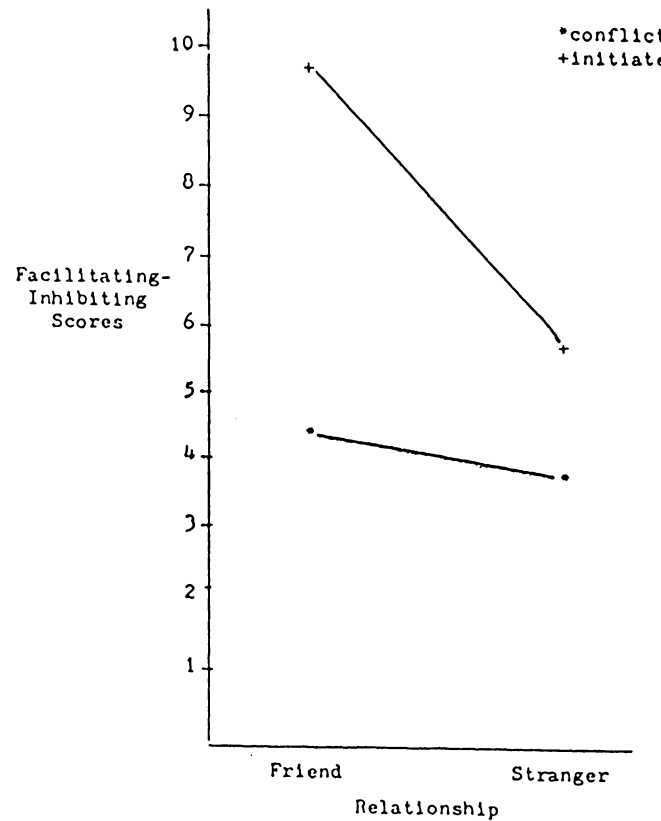
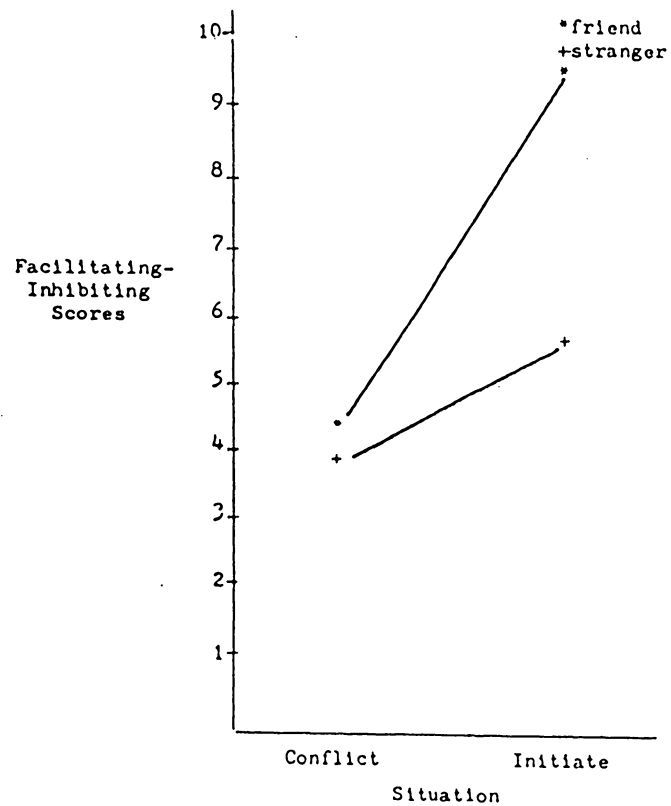


Figure 1
Socialization Self Statement Test.
Interaction Effects

Table 5

Socialization Self=Statement Test: Facilitating-Inhibiting
Mean Scores

Situation/ Relationship	Status Category			Overall Mean
	Popular (<u>n</u> = 27)	Aggressive (<u>n</u> = 32)	Withdrawn (<u>n</u> = 33)	
Conflict Friend	5.88	3.47	3.39	4.24
Initiate Friend	12.25	9.00	7.69	9.64
Conflict Stranger	5.85	3.59	1.69	3.71
Initiate Stranger	7.74	5.43	3.91	5.69
Overall Mean	7.94	5.38	4.17	

Table 6

Correlation Matrix: Socialization Self-Statement Test

	Conflict Friend	Conflict Stranger	Initiate Friend	Initiate Stranger
Conflict Friend	1.00	+.55 ^a	+.34 ^b	+.35 ^b
Conflict Stranger		1.00	.39 ^b	+.41 ^b
Initiate Friend			1.00	+.49 ^a
Initiate Stranger				1.00

Note: n = 92

^a_p < .01^b_p < .05

model of social competence are detailed. That is, analyses completed on each of the proposed social competence components (i.e., overt behavior, cognitive process, and cognitive structure) are presented together rather than by type of analysis (i.e., pretreatment, treatment outcome analysis).

Pretest differences were analyzed by examining main effects for treatment group (behavior therapy, cognitive therapy, attention control) and status (aggressive, withdrawn). Group x Status interaction effects were not analyzed due to the small number of subjects and lack of hypotheses related to Group x Status interactions.

Experimenter differences were analyzed by a 3 (Group) x 2 (Experimenter) x 2 (Status) ANOVA, completed on difference scores across behavioral, cognitive process, and cognitive structure variables. A main effect for experimenter was found for the self-efficacy and alternative solutions test-ratio measures. However, since no interaction effects were found, experimenter effects are not individually reported according to the presentation format described above.

Finally, treatment outcome analyses included a 3 (treatment) x 2 (status category) x 2 (pre-post) ANOVA for each dependent variable. Main effects for Group and Status, and Group x Status interaction effects do not provide specific information regarding whether the significance of effects

lies at pre- or posttreatment. Moreover, a significant main effect for time does not specify the degree to which particular groups or status categories contribute to this effect. Due to this lack of specificity and familywise error considerations, analyses include Group x Time, Status x Time, and Group x Status x Time effects. Due to the number of analyses conducted, an alpha level of .01 was established for statistical significance, although levels less than .05 are noted.

Selection Variables

Inclusion criteria for the present investigation utilized the AML (Dorr et al., 1980) and classroom sociometric ratings (see Methods section). To assess equivalence across treatment groups on the AML, one-way ANOVA's were conducted on pretreatment scores of the AML subscales (A = aggressive; W = withdrawn; L = learning). Equivalence across treatment groups was evident (see Appendix). To assess sociometric rating differences at pretreatment across treatment groups, a one-way ANOVA was completed. Again, equivalence across treatment groups was evident (see Appendix Q).

Pretreatment Status Differences

Analyses were also conducted to assess the existence of peer and teacher rated differences among aggressive, with-

drawn, and popular children on the sociometric ratings and the subscales of the AML.

To assess sociometric rating differences at pretreatment across status groups, a one-way ANOVA across status was completed on sociometric ratings. As expected, this analysis yielded a significant between groups difference $F(2,57) = 64.91, p < .001$, with the Duncans Multiple Range Test indicating higher sociometric ratings for the popular group than either the aggressive or withdrawn groups, who did not differ from each other (see Appendix S).

In addition, a one-way ANOVA across status categories was completed on the Aggressive (A), Moody (M), and Learning (L) subscales of the AML. Findings indicated a significant between-status group difference on the A (aggressive) subscale of the AML, with significantly higher scores on this instrument for the aggressive ($x = 12.8$) than both the withdrawn ($x = 9.0$) and popular children ($x = 8.9$), who did not differ from each other. There were no significant differences for status on the M (Moody) or L (Learning) subscales of the AML (see Appendix S).

Behavioral Measures

The dependent variables subsumed under this heading include the behavioral observation measures of peer positive and peer negative behavior and the teacher ratings of Class-

room Disturbance/Disrespect-Defiance and External Reliance/Creative-Initiative combined subscales on the Devereux Elementary School Behavior Rating Scale. These scales were combined due to the high correlation between them in the current sample ($r = .76, p < .001$; $r = .68, p < .01$, respectively). Collectively, these combined subscales measured the extent of socially inappropriate behavior in the classroom and the child's ability to make independent decisions and to actually initiate appropriate behavior in the school setting.

In addition, although sociometric rating is not a social competence component according to Meichenbaum's (1981) model, it is presented under the rubric of behavioral measures for simplification and due to the fact that prior research has shown at least a modest relationship between sociometric ratings and observable behaviors (Hartup et al., 1967; Hymel and Asher, 1977). This variable was converted to a z -score to indicate relative standing within a classroom, due to the fact that the actual rating would not be sensitive to shifting classroom means.

For these various behavioral measures, pretreatment differences between treatment groups were not evident (see Appendix R). However, in addition to the previously mentioned status differences on the sociometric measures, significant pretreatment differences were found for status

on both of the teacher rating measures. As might be expected, aggressive children scored significantly higher on the Classroom Disturbance/Disrespect-Defiance scale and External Reliance/Creative Initiative combined subscales, the former indicating more socially inappropriate behavior in the school setting. The lower score on the External Reliance/Creative Initiative subscale by the withdrawn children is an indicant of less initiation in the classroom setting. Thus, a decrease in scores on the Classroom Disturbance/Disrespect-Defiance subscale within the aggressive status category and an increase in External Reliance/Creative Initiative scores within the withdrawn status category was targeted. Treatment outcome analyses on the Classroom Disturbance/Disrespect-Defiance scale examined differences specific to the aggressive children, while analyses completed on the External Reliance/Creative Initiative scale examined treatment group differences specific to the withdrawn children.

None of the treatment outcome analyses across the behavioral measures were found to be significant (see Appendix T). However, the examination of sociometric ratings with respect to actual pre-post differences by treatment groups and status was of some interest. The figures in Appendix U graphically illustrate these changes, indicating some positive change, albeit insufficient for statistical signifi-

cance, across group and status from pre- to posttreatment.

Due to pre-post differences within groups and status categories on the sociometric rating (see Appendix U) and peer positive observation measures, t -tests were used to assess these changes by group and status categories. Analyses for the peer positive behavior measure were nonsignificant. However, t -tests for pre-post differences within treatment groups on sociometric ratings indicated significant changes within the cognitive therapy ($t(1,16) = 2.23, p < .05$) and attention control groups ($t(1,14) = 2.59, p < .05$), while findings were not significant within the behavior therapy condition ($t(1,15) = 1.77, p < .09$). In addition, differences failed to reach significance within the Aggressive ($t(1,23) = 1.74, p < .09$) and Withdrawn ($t(1,23) = 2.01, p < .06$) categories.

Cognitive Process Measures

Dependent measures related to this social competence component include the Alternative Solutions Test, the Socialization Self-Statement Test and the Self-Efficacy Test. Both the total number of alternatives and a nonforce ratio measure (number of nonforce solutions/number of nonforce solutions plus the number of solutions requiring force) were derived from the Alternative Solutions Test. The Socialization Self-Statement Test consisted of a differ-

ence score between facilitative and inhibiting self-statements, while the Self-Efficacy Test resulted in a single total score.

No pretreatment differences were significant for any of the measures (see Appendix V).

Treatment outcome analyses resulted in no significant findings for the self-efficacy measure, the Socialization Self-Statement Test, or the Alternative Solutions Test. However, a Status x Pre-post interaction was found at the .05 level for the Alternative Solutions Test-total number of solutions. Simple main effects analyses indicated that children in the withdrawn category provided a greater number of solutions to the interpersonal problems presented on this instrument at posttreatment than did aggressive children, regardless of group assignment (see Appendix W).

Due to the pre-post differences within treatment groups on the Alternative Solutions Test-number of solutions measure, t -tests were used to assess the significance of these differences. While no significant pre-post changes were found within the Behavior Therapy or Attention Control groups, the Cognitive Therapy group demonstrated significant pre-post change ($t(1,16) = 6.22, p < .001$).

Cognitive Structure Measures

Both the Peer Preference Test (peer score) and Reinforcement Value Measure (peer score) were included as cognitive structure components of the social competence model. Only the relevant dimension of each of these measures, i.e., the peer dimension, was chosen for analysis. With regard to the Peer Preference Test, this is defined by the number of activities the child chooses to engage in with a peer versus alone or with an adult. The Reinforcement Value Measure peer dimension includes the number of activities involving peers which are endorsed over other activities which do not involve positive peer interactions.

No significant pretreatment differences were found for the Peer Preference Test or the Reinforcement Value Measure. In addition, none of the treatment outcome analyses of either of these measures yielded significant findings (see Appendix X).

Motivational and Expectancy Measures

The therapist-child relationship measure, included as a measure of the child's motivation to attend the groups, and the treatment outcome expectancy were of additional theoretical interest. The analysis for the Relationship Motivation Measure was performed on the ratings totalled across all eight treatment sessions, providing one score for each sub-

ject on this variable of interest. This measure was analyzed with a 3 (treatment group) x 2 (status) between groups ANOVA. This analysis yielded no effects for group, status, or their interaction (see Appendix X). Based on the mean scores for each group (attention control = 7.43, cognitive therapy = 8.30, behavior therapy = 10.62), it was determined that all three groups indicated positive feelings about the therapist and group participation.

Since changes in treatment outcome expectancy could occur with increased knowledge of treatment content, outcome expectancy was analyzed prior to Session 1, following Session 1, and at posttreatment, rather than only on one occasion or summing this factor across time periods. Using this more sophisticated analysis, a main effect for treatment group was found. Unexpectedly, however, the attention control group reported greater outcome expectancy than the behavior therapy group $F(2,42) = 6.16, p .01$, with the cognitive therapy group not significantly differing from either of these two groups. This difference was maintained post-Session 1, $F(2,39) = 3.70, p < .05$, but was not present at posttreatment (see Tables 7, 8, and 9).

For a comparison of the dependent measures discussed above by group, status, and group by status, see Table 10.

Table 7

Analysis of Variance: Treatment Outcome Expectancy,
Pre-Session 1

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Total	1,692.52	47			
Group (G)	324.04	2	162.02	5.30	< .01*
Status (S)	5.50	1	5.50	0.18	.67
G * S	78.86	2	39.43	1.29	.28
Subjects (G * S)	1,284.12	42	30.57		

*Attention Control > Behavior Therapy.

Table 8

Analysis of Variance: Treatment Outcome Expectancy,
Post-Session 1

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Total	2,646.33	44			
Group (G)	383.17	2	191.59	3.70	.05*
Status (S)	5.69	1	5.69	0.11	.74
G * S	238.19	2	119.09	2.30	.11
Subjects (G * S)	2,019.28	39	51.78		

*Attention Control > Behavior Therapy.

Table 9

Analysis of Variance: Treatment Outcome Expectancy,
Posttreatment

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Total	2,234.54	47			
Group (G)	166.49	2	83.24	1.77	.18
Status (S)	24.93	1	24.93	0.53	.47
G * S	67.72	2	33.86	0.72	.49
Subjects (G * S)	1,975.40	42	47.03		

Table 10

		Mean Post-treatment Scores*								
Treatment Group	Status Category	SR	PP (%)	PN (%)	CDDD	ERCI	PPT	RVM	RM	SE
Behavior Therapy (S.D.)	Aggressive (<u>n</u> =10)	-.40 (1.32)	69.4 (21.4)	7.20 (7.31)	24.81 (5.56)	28.00 (6.33)	8.00 (2.42)	8.11 (4.15)	10.61 (4.15)	20.60 (4.40)
Behavior Therapy (S.D.)	Withdrawn (<u>n</u> =6)	-.63 (0.77)	68.5 (26.2)	0.00 (0.00)	13.71 (4.53)	22.28 (2.33)	8.71 (2.99)	8.43 (2.98)	10.62 (5.20)	23.50 (2.23)
Cognitive Therapy (S.D.)	Aggressive (<u>n</u> =5)	-.40 (0.87)	58.8 (19.0)	2.80 (3.67)	26.80 (8.80)	32.40 (6.13)	6.40 (3.02)	5.20 (4.54)	8.36 (2.97)	22.18 (2.98)
Cognitive Therapy (S.D.)	Withdrawn (<u>n</u> =12)	-.03 (1.18)	76.4 (21.9)	2.33 (6.29)	17.25 (4.65)	26.75 (5.08)	7.09 (3.56)	5.75 (3.49)	8.30 (3.04)	23.11 (3.21)
Attention Control (S.D.)	Aggressive (<u>n</u> =9)	-.46 (0.85)	71.4 (33.4)	2.71 (5.73)	20.22 (4.89)	25.66 (5.31)	6.44 (2.99)	4.77 (3.46)	8.59 (4.01)	21.33 (3.25)
Attention Control (S.D.)	Withdrawn (<u>n</u> =6)	-.62 (0.93)	77.3 (30.7)	2.00 (3.70)	12.50 (4.11)	26.50 (1.20)	7.33 (2.25)	11.75 (2.46)	5.85 (5.31)	22.50 (2.67)
Mean Scores across Treatment Groups										
Behavior Therapy (S.D.)	(<u>n</u> =16)	-.49 (1.21)	68.9 (23.4)	3.27 (5.31)	19.26 (7.88)	25.54 (6.25)	8.29 (2.38)	8.76 (3.37)	10.62 (4.96)	20.56 (3.96)
Cognitive Therapy (S.D.)	(<u>n</u> =17)	-.14 (1.09)	63.61 (23.0)	2.47 (5.16)	22.02 (7.99)	29.00 (5.80)	6.87 (3.45)	5.78 (3.46)	8.31 (3.02)	21.23 (4.21)
Attention Control (S.D.)	(<u>n</u> =15)	-.51 (1.04)	74.30 (30.0)	2.45 (4.50)	16.36 (5.89)	25.69 (4.64)	6.76 (2.65)	6.93 (4.19)	7.44 (4.97)	20.00 (3.08)
Mean Scores across Status Categories										
Aggressive (S.D.)	(<u>n</u> =24)	-.42 (1.07)	67.17 (26.3)	4.05 (5.95)	23.56 (6.54)	28.04 (6.31)	7.08 (2.82)	6.17 (4.20)	9.58 (3.97)	20.94 (3.86)
Withdrawn (S.D.)	(<u>n</u> =24)	-.31 (1.05)	74.00 (24.5)	1.63 (4.84)	15.34 (4.87)	25.34 (4.37)	7.66 (3.08)	7.60 (3.73)	8.01 (4.11)	23.10 (2.40)
Popular (S.D.)	(<u>n</u> =24)	+.85 (0.79)	82.81 (21.8)	1.18 (2.08)	18.25 (9.31)	25.66 (7.22)	7.83 (3.03)	8.50 (2.43)	8.44 (3.66)	- -

SR = sociometric rating; PP = peer positive behavioral observations; PN = peer negative behavioral observations; CDDD = Classroom Disturbance/Disrespect-Defiance derived subscale of the Devereux; ERCI = External Reliance/Creative Initiative subscale of the Devereux; PPT = Peer Preference Test; RVM = Reinforcement Value Measure; RM = Relationship Motivation Measure; SE = Self-Efficacy Measure.

Mean Post-treatment Scores*
(Continued)

Treatment Group	Status Category	ASTN	ASTA	CF	IF	CS	IS	TXA	TXB	TXC
Behavior Therapy (S.D.)	Aggressive (<u>n</u> = 10)	17.00 (5.67)	.95 (.06)	5.20 (7.36)	8.10 (6.72)	3.70 (6.65)	1.90 (2.90)	17.81 (5.22)	19.54 (5.44)	20.30 (6.16)
Behavior Therapy (S.D.)	Withdrawn (<u>n</u> = 6)	24.71 (7.18)	.87 (.07)	8.29 (5.51)	13.57 (8.19)	8.00 (8.50)	4.85 (7.95)	17.00 (4.54)	16.00 (6.46)	17.29 (6.34)
Cognitive Therapy (S.D.)	Aggressive (<u>n</u> = 5)	24.80 (12.13)	.76 (.15)	3.25 (3.81)	3.75 (3.96)	2.00 (3.78)	2.00 (2.27)	21.60 (3.57)	22.00 (2.75)	22.40 (3.37)
Cognitive Therapy (S.D.)	Withdrawn (<u>n</u> = 12)	29.33 (13.49)	.83 (.12)	3.08 (4.10)	5.75 (5.46)	2.16 (6.13)	4.08 (4.24)	18.75 (2.71)	19.91 (2.72)	20.66 (2.41)
Attention Control (S.D.)	Aggressive (<u>n</u> = 9)	20.11 (6.16)	.93 (.08)	6.25 (7.42)	6.25 (9.39)	3.75 (8.00)	6.50 (7.06)	21.55 (2.87)	20.66 (6.02)	21.22 (4.43)
Attention Control (S.D.)	Withdrawn (<u>n</u> = 6)	19.50 (5.04)	.88 (.11)	4.00 (5.07)	11.25 (8.19)	5.00 (5.55)	6.50 (11.45)	23.75 (1.75)	25.00 (2.64)	22.75 (4.80)

Mean Scores across Treatment Groups

Behavior Therapy (<u>n</u> =16) (S.D.)	20.17 (7.33)	.92 (.08)	6.47 (6.75)	10.35 (7.74)	5.47 (7.65)	3.11 (5.66)	17.75 (4.58)	17.91 (5.76)	18.95 (5.73)
Cognitive Therapy (<u>n</u> =17) (S.D.)	28.00 (13.09)	.81 (.13)	3.29 (3.90)	5.64 (5.23)	2.10 (5.45)	3.59 (3.80)	19.28 (2.96)	20.71 (2.85)	21.29 (3.54)
Attention Control (<u>n</u> =15) (S.D.)	19.92 (5.75)	.92 (.10)	5.50 (6.70)	7.92 (9.15)	4.17 (7.17)	6.50 (8.51)	21.38 (4.78)	21.44 (5.31)	22.13 (4.34)

Mean Scores across Status Categories

Aggressive (<u>n</u> =24) (S.D.)	19.79 (7.98)	.90 (.12)	5.22 (6.83)	6.63 (7.47)	3.40 (6.67)	3.59 (5.19)	19.92 (4.51)	20.44 (5.24)	21.08 (5.02)
Withdrawn (<u>n</u> =24) (S.D.)	23.10 (2.40)	.85 (.11)	4.82 (5.17)	9.08 (7.62)	4.43 (7.18)	4.73 (6.97)	19.08 (3.93)	19.60 (5.01)	20.00 (4.69)
Popular (<u>n</u> =24) (S.D.)	- -	- -	6.00 (4.12)	12.00 (6.81)	5.50 (6.30)	6.50 (5.26)	18.16 (4.73)	19.00 (4.73)	20.90 (4.72)

*ASTN = Alternative Solutions Test (total # of solutions); ASTA = Alternative Solutions Test (nonforce ratio); CF = SSST Conflict Friend Scene; IF = SSST Initiate Friend Scene; CS = SSST Conflict Stranger Scene; IS = SSST Initiate Stranger Scene; TXA = Treatment Outcome Expectancy (pre-Session 1); TXB = Treatment Outcome Expectancy (post-Session 1); TXC = Treatment Outcome Expectancy (posttreatment).

Additional Analyses

Homework was assigned across groups between sessions (see appendixes). To determine if completion of these assignments differed across treatment groups, a one-way ANOVA was completed across the treatment groups. The ANOVA yielded no significant differences between groups (see Appendix Z). Mean homework assignment completion across groups indicated a completion percentage of 58% for the Attention Control group, 50% for the Behavior Therapy group, and 47% for the Cognitive Therapy group.

Finally, to determine if attendance across treatment sessions differed across treatment groups during the treatment program, a one-way ANOVA was completed across the three treatment groups. The ANOVA yielded no significant between group differences. (See Appendix Z.) The mean number of sessions attended was 7.5, 7.7, and 7.8 (of a possible 8), for the behavior therapy, cognitive therapy, and attention control group, respectively.

Correlational Analyses

Correlational analyses were completed both within and across the social competence model components (behavioral, cognitive process, cognitive structure), including all status levels. Due to the number of correlations examined, an alpha value of .01 was established to denote statistical

significance, although correlations of interest significant at the .05 level are noted.

Findings of note at pretreatment involving the behavioral and cognitive structure components included the correlation between peer negative behavioral observations and the Reinforcement Value Measure-peer score ($\underline{r} = -.30$, $p < .05$), indicating an inverse relationship between the self-reported reward value of peer interaction and negative peer directed behaviors.

At posttreatment, several correlations of interest were found within the behavioral component. Peer positive behavioral observations were significantly and positively related to sociometric rating ($\underline{r} = .38$, $p < .01$) and negatively related to both the Classroom Disturbance/ Disrespect-Defiance derived subscale of the Devereux ($\underline{r} = -.24$, $p < .05$) and the External Reliance/Creative Initiative subscale ($\underline{r} = -.23$, $p < .05$), although these latter correlations are modest ones.

A significant correlation between behavioral and cognitive process variables included the relationship between self-efficacy and peer positive behavioral observations ($\underline{r} = .49$, $p < .01$) at posttreatment. More modest correlations were also found between peer positive behavioral observations and the nonforce solution ratio of the Alternative Solutions Test ($\underline{r} = .29$, $p < .05$), and the Classroom

Disturbance/Disrespect-Defiance derived subscale of the Devereux and the number of solutions on the Alternative Solutions Test ($r = -.28$, $p < .05$).

Finally, the relationship among the treatment outcome measures and the relationship between the treatment outcome and motivation measures and behavioral measures of social competence were of interest. Treatment outcome expectancy at pretreatment was significantly related to treatment outcome expectancy following the initial session ($r = .59$, $p < .01$) and at posttreatment ($r = .53$, $p < .01$). Further, treatment outcome expectancy following Session 1 was positively and significantly related to expectancy at posttreatment ($r = .77$, $p < .001$). Treatment outcome expectancy, however, was not significantly related to any of the behavioral measures of social competence. In addition, the Relationship Motivation measure was negatively and significantly related to pretreatment outcome expectancy ($r = -.58$, $p < .01$), post-Session 1 ($r = -.73$, $p < .001$), and post-treatment ($r = -.64$, $p < .01$) expectancy, indicating a positive relationship between enjoyment of the group and higher treatment outcome expectancy. The Relationship Motivation measure was not significantly correlated with any of the behavioral measures of social competence. Thus, self-reported positive feelings about the group experience were not related to any behavioral index of social competence

(sociometric rating, behavioral observation, teacher rating)
used in this investigation.

CHAPTER IV

DISCUSSION

The present study investigated the comparative efficacy of behavioral, cognitive, and attention control interventions with aggressive and withdrawn elementary aged children to ameliorate social skill deficits and improve sociometric status. In addition, the utilization of facilitating and inhibiting self-statements across sociometric status (popular, aggressive, and withdrawn) was investigated. It was hypothesized that popular children would endorse significantly more facilitating than inhibiting self-statements compared to children in both aggressive and withdrawn status categories.

The findings of the treatment outcome investigation and self-statement utilization investigation will be discussed in terms of the major hypotheses offered (see Introduction) and the social competence model proposed by Meichenbaum et al. (1981). In brief, hypotheses for the treatment outcome investigation included predictions that:

1. Cognitive and behavior therapy treatment groups would both be superior to an attention control group on teacher and sociometric rating.

2. Behavioral observation measures would demonstrate a significant increase in peer-directed positive and a significant decrease in peer-directed negative behavior such that the behavior therapy group would be superior to both the cognitive and attention control groups.

3. Changes in measures of cognitive process (Socialization Self Statement Test, Alternative Solutions Test) derived from the social competence model of Meichenbaum et al. (1981) would favor the cognitive therapy group over the behavior therapy and attention control groups.

4. Measures of treatment outcome expectancy, self-efficacy, and relationship/motivation would not differ significantly among the three treatment groups.

Treatment Outcome

Statistical analyses of between treatment group differences did not support Hypotheses 1-3 above. However, significant pre-post differences were found within the Cognitive Therapy group on the Alternative Solutions Test-number of solutions measure, consistent with Hypothesis 3. Other significant within treatment group pre-post differences (Cog-

nitive Therapy group and Attention Control group on socio-metric ratings) were not consistent with the hypotheses.

Contrary to the experimental hypotheses, no between treatment group differences were found across the various measures of social competence. There are a number of reasons why such differences were not found. First, the number of training sessions may have been insufficient. Edelson and Rose (1982), in a discussion related to their failure to find between treatment group differences in a social skill training program involving fourth through sixth grade children, note the brevity of training (six 1-hour sessions) as a potentially critical factor. The present investigation utilized eight 1-hour sessions, covering a wide breadth of training material in both the behavior and cognitive training groups (see Appendixes N and O). Second, and relevant to this issue, is the relatively poor compliance with homework assignments. These assignments were utilized specifically to ensure practice of skills and to enhance generalization of skills taught to the natural environment. The poor compliance rate, approximately 50% across treatment groups, combined with the fact that each session involved a difficult skill postulated to be related to social competence, raises the possibility that the skills taught were not learned and/or rehearsed to the extent necessary to affect popularity.

Third, due to subject recruitment difficulties, there may not have been enough children in the various treatment groups to provide an adequate test of these hypotheses. Thus, differences due to Treatment X Status Interactions, may have been attenuated due to the small number of children in each of the cells (see Appendix M). Although not initially hypothesized, some Status X Treatment group differences would certainly be feasible, such as withdrawn children who received cognitive therapy training demonstrating superiority on the Alternative Solutions Test, but could not adequately be tested with the number of subjects involved.

It is interesting to note that no consistent between treatment group trends were evident on posttreatment scores across dependent measures. Thus, it remains a possibility that the attention control group, by providing a goal (i.e., increasing the ability to get along with others), allowing structured verbal and behavioral interaction, setting limits on inappropriate peer-directed behavior (the "good behavior" game), and adult support of peer interaction proved to be as effective a mechanism in increasing social competence. This latter possibility, however, has not been supported by previous studies (LaGreca & Santogrossi, 1980; O'Connor, 1972). However, LaGreca and Santogrossi's investigation included only 6 hours of treatment, and included an attention control group in which no discussion of socialization occurred, home-

work was expressly non-peer-oriented, and tapes consisting of excerpts of television shows unrelated to peer interaction were utilized as components of treatment. Thus, although use was made of games (e.g., charades) in the investigation noted above, the attention control group used in the present investigation was somewhat more structured and peer-oriented.

Yet another possible reason for failure to demonstrate between group differences may be the behavioral and cognitive variables targeted for change in the behavior and cognitive groups. The areas selected for training were based on a comprehensive review of social behaviors previously related to peer acceptance (LaGreca & Santogrossi, 1980). However, it is certainly feasible that individuals within groups varied with regard to behaviors/cognitions which were ineffectual in establishing social competence. That is, the needs of each individual very likely differed in terms of deficits and strengths related to smooth interpersonal functioning. Thus, one individual's lack of popularity may have been due to inhibiting self-statements, while another child may have needed to learn to sequence the behaviors needed to enter an ongoing play group efficiently. Group assessment on many of the variables may not have demonstrated significant differences due to lack of deficits across status groups on particular

variables deemed to be critical in the performance of socially skilled behavior.

It seems feasible, then, that the use of group training procedures may have attenuated training effects. LaGreca and Santogrossi (1980) were the first investigators to utilize this approach with regard to teaching social skills to young children. Although finding positive changes related to role-play situations, increased verbal knowledge of how to interact with peers, and more initiation of peer interactions, no differences in peer ratings of acceptance were evident in their study. In addition, Edelson and Rose (1981) also failed to find between group differences utilizing a group training format. Moreover, each of these investigations included four to five children in a group, with LaGreca and Santogrossi using same-sex groups. The present investigation utilized 8 to 10 children in a group, were led by one male and one female therapist, and included both boys and girls in each group. Process variables such as size, group versus individual training, and sex composition have not been adequately addressed in the social skills literature and may be a factor in optimizing treatment effects.

The fourth hypothesis, that is, that there would be no treatment group differences on the relationship motivation measure, was indeed corroborated. Of note was the fact that, across treatment groups and status categories, chil-

dren reported positive feelings about the group, therapists, and desire to attend the following week's group, with the completion of these measures done anonymously. Interestingly, children in the attention control group reported a significantly higher level of treatment outcome expectancy pretreatment and following Session 1. It may well be that the unstructured nature of the group, and the fact that an emphasis was placed on playing together amicably, contributed to this finding. In addition, although differences were not statistically significant, the attention control group was viewed more positively based on the relationship motivation measure than either the cognitive or behavior therapy groups. The fact that no significant between group difference was evident posttreatment may be due to the lack of perceived benefit by the children at that time as a result of training, or the fact that the behavior therapy group, despite being presented as organized and task-oriented, may have indeed (and, based on the relationship measure, did) become enjoyable. Obviously, the correlational nature of the data does not allow for more than hypothesis generating on this issue.

It should be noted that several of the measures utilized in the treatment outcome investigation were devised for the study. Specifically, cognitive structure components of the social competence model (Meichenbaum, 1981) have not

moved beyond the theoretical stage, nor has the social skill literature extensively examined the area of self-statements. Thus, the instruments utilized as measures of these components in the present investigation, although encouraging, most decidedly require replication and psychometric refinement. Lack of findings may be due to the lack of sensitivity of the instruments in tapping the areas of social competence they purport to measure.

Finally, followup was prohibited due to the inherent problems of working in a natural setting such as a school system and the scope of the current investigation with regard to individual assessments and behavioral observations. Based on findings by Putallaz and Gottman (1981) and observations by Edelson and Rose (1982), the expectation of significant changes in social function immediately following treatment may be somewhat grandiose. It may well take time posttreatment for children to integrate skills learned into their daily lives. Increased popularity also depends on the reciprocity of peer groups. Children in this age group, including popular children, have been found to have many rejection experiences while attempting to join ongoing activities, and increases in popularity may be made much more difficult by the presence of "cliques" (Putallaz & Gottman, 1981), which, even with increased socially skilled performance, make an increase in sociometric ratings over

the course of several months an unlikely event.

Status Differences

These disappointing treatment outcome findings notwithstanding, some interesting findings regarding status differences (aggressive, withdrawn, popular children) across dependent measures were evident. Pretreatment status differences were clearly reflected in sociometric ratings among popular, withdrawn, and aggressive samples, as well as differences on the A (aggressive) subscale of the AML between aggressive vs. withdrawn and popular children. In addition, aggressive children scored significantly higher on the teacher rating scale of Classroom Disturbance/Disrespect-Defiance, while withdrawn children scored significantly lower on the External Reliance/Creative Initiative scale. Thus, there were clear distinctions across status in terms of peer and teacher perceptions of social functioning.

Main effects for status were lacking for most measures at posttreatment. Withdrawn children did provide a greater number of solutions to the four interpersonal situations included in the Alternative Solutions Test than aggressive children ($p < .05$). This is an interesting result, considering Spivack and Shure's (1974) findings that withdrawn children typically perform more poorly on this measure of interpersonal problem solving than aggressive or popular

children. Perhaps the group involvement, encouraging verbalizations across children, and the children's self-reported enjoyment of the group produced this finding. If so, such results support the position that this purported deficit is due to performance inhibition rather than a cognitive process deficit per se. However, the fact that children in the cognitive therapy group performed better on this instrument, albeit not at a statistically significant level, leaves this issue unresolved. It may be a lessening of performance inhibition in addition to specific training in generating alternative solutions which contributed to this finding.

Thus, the present investigation provided equivocal support for the utilization of the Alternative Solutions Test as a mediator of peer acceptance among third to fourth grade children. Previous investigations with this population (Elardo & Caldwell, 1979; McClure, Chinsky, & Larcen, 1978; Weissberg, Gesten, Rapkin, et al., 1981) have differed in their findings relating increased alternative solution problem-solving skills to improvement in behavioral adjustment based upon peer ratings, behavioral observation, or teacher ratings (see also Winett et al., 1983). In this investigation, the total number of alternative responses was moderately and nonsignificantly related to teacher ratings of behavioral disturbance on the Classroom Disturbance/Disrespect-Defiance subscales of the Devereux ($r = -.28$,

$p = .05$), and, as noted, a trend favoring the withdrawn children at posttreatment was evident. In addition, pre-post differences on this measure were significant within the cognitive therapy group. Despite these somewhat promising findings, these results support recent findings by Kettlewell and Kausch (1983) and Rickel, Eshelman, and Lorgman (1983) in failing to provide evidence that alternative solution thinking moderates behavioral adjustment in the school setting.

The number of nonforce solutions on the Alternative Solutions Test was also utilized as a dependent measure, as recommended by Camp, Bloom, Hebert, and Van Doornick (1977); however, no relationship was found between this measure and any behavioral adjustment index. Since the data remain equivocal, it may be fruitful to also examine other parameters of alternative solution thinking (number of nonforce solutions prior to utilization of aggressive strategies, percentage of effective solutions utilized) in addition to pursuing work already begun indicating that means-ends thinking may be related to behavioral adjustment within this age group (Spivack & Shure, 1974; Weissberg, Gesten, Rapkin, et al., 1981).

It is interesting to note that sociometric ratings did improve pretreatment to posttreatment for aggressive and withdrawn children across treatment groups (see Appendix

U). Although not statistically significant and perhaps attributable to regression to the mean, it nevertheless remains a distinct possibility that it reflects some real improvement in peer ratings due to training effects. This is an encouraging finding, considering the well-documented evidence on the stability of sociometric scores over time periods ranging from several months to several years (Campbell & Yarrow, 1961; Hartup, 1970; LaGreca & Santogrossi, 1980).

Other behavioral measures (peer negative, peer positive, Devereux subscales) at posttreatment were consistent with status categorization (see Table 10). More specifically, aggressive children scored higher on peer negative behavior observations and Classroom Disturbance/Disrespect-Defiance than either withdrawn or popular children. In addition, withdrawn children tended to score closer to the popular children across dependent measures at posttreatment, which is consistent with recent findings by Ledingham and Schwartzman (1984) and Militch and Landau (1984) of greater pathology among aggressive versus withdrawn children, and Carlson, Lahey, and Neepers's (1984) findings of less social acceptability among rejected versus neglected children.

Correlational Findings

Several correlational findings are worthy of discus-

sion. As noted, the behavioral observation measure assessing positive behavior toward peers was significantly correlated with peer ratings at posttreatment. This finding is consistent with previous findings which have also shown relationships between positive social interactions and sociometric status with preschool populations (Gottman, 1977; Hartup et al., 1967) and older children (Gresham, 1982; Gresham & Nagle, 1980; Ollendick, 1981). In addition, these findings have been consistent across peer ratings (Gresham & Nagle, 1980; LaGreca & Santogrossi, 1980) and peer nominations (Hartup et al., 1967; Ollendick, 1981). Thus, this finding continues to be a consistent one within the children's social skills literature, indicating that children who display positive social interaction skills are liked by their peers. The present finding indicates a rather robust relationship, considering the rather nonspecific coding categorization of positive social behavior used in the present investigation (see Appendix B), and argues for the inclusion of direct observational measures despite problems inherent in utilizing this measure in the natural setting (Van Hasselt et al., 1979).

On the other hand, negative peer behavior was not significantly related to sociometric ratings, findings consistent with those of Hartup et al. (1967) and Marshall and McCandless (1957), but contrary to the findings of

Gresham (1982) and Gresham and Nagle (1980) with third and fourth graders and Gottman (1977) with preschoolers. However, these correlations, when significant, have been modest, typically in the $-.30$ range (Gottman, 1977; Gresham & Nagle, 1980).

An interesting finding involved the lack of correlation between teacher rating measures (Devereux) and behavioral observations. This may well be due to the item contents emphasis on classroom behavior, while the behavioral observations occurred during recess, two relatively dissimilar situations. In addition, items on the rating scale also tap somewhat the teacher/student relationship as well as peer relationship, thus decreasing the specificity of the measure. It is also interesting to note that of those studies incorporating teacher rating scales, and finding between group differences (Edelson & Rose, 1982; Elardo & Caldwell, 1974; Weissberg, Gesten, Carnike, et al., 1981; Weissberg, Gesten, Rapkin, et al., 1981), only Edelson and Rose (1982) utilized an active treatment control group rather than a no treatment control, with this singular finding indicating rather minimal change on the rating scale utilized (see Table 1). Thus, although several investigators have found significant correlations between teacher ratings and other indexes of adjustment (Greenwood et al., 1979; Ollendick, 1981), teacher ratings have not been commonly used in group

outcome investigations utilizing attention control groups.

Several interesting correlations involved the significant positive relationship between peer positive observations and self-efficacy scores at posttreatment, and the significant negative relation between the measure designed for the present investigation, the Reinforcement Value Measure (peer) and peer negative behavioral observations. With regard to the latter, this indicates that children scoring lower on the Reinforcement Value Measure, indicating that shared peer activities are not as reinforcing as several other activities, exhibit more negative peer-directed behaviors in a free play setting. This supports the possibility that cognitive structures, in this case the relative importance attached to peer-related activities, may indeed play a role in socially inappropriate peer behavior. Obviously, as previously noted, considering the novelty of this finding and of the instrument itself, replication is much needed.

The present investigation was not intended to directly test the social competence model of Meichenbaum et al. (1981). Indeed, the behavior and cognitive therapy treatments specifically focused on different components of the model. However, it can be stated that the present investigation provided no additional support for the social competence model with regard to the critical features of the

model: behavioral, cognitive process, and cognitive structure components. Correlational analyses investigating the relationship of variables within each of these components were generally modest and insignificant. It would be of some interest to directly test the model in a more comprehensive manner, the latter both in terms of content and duration. In addition, as previously noted, more concentration is needed in driving psychometrically reliable and valid measures of the cognitive structure component of the model. Indeed, the cognitive structure component, albeit of intriguing theoretical interest, needs further development both psychometrically and conceptually.

Self-Statement Utilization Investigation

This investigation examined differences across sociometric status (aggressive, withdrawn, popular) in the endorsement of facilitating versus inhibiting self-statements in situations involving initiation of interactions and conflict situations utilizing both friend and stranger relationship variables.

A number of interesting results were provided by this investigation. Consistent with the adult literature (Heimberg et al., 1980; Pitcher & Meikel, 1980; Schwartz & Gottman, 1976), a significant difference was found utilizing facilitating-inhibiting scores between popular and unpopular

(aggressive, withdrawn) children, with greater difference scores favoring the popular status category. Although not specifically dealing with popularity, previous results have indicated the presence of differing patterns of self-statements between high- and low-assertive adult subjects, with high-assertive subjects endorsing more facilitating than inhibiting self-statements during structured role-play performances. Further, it is consistent with Forman's (1980) findings with children in his age group, indicating that cognitions differ between aggressive and nonaggressive children. Further, the significant main effects for relationship (friends) and situation (initiation) make intuitive sense. That is, one might hypothesize less "internal dialogue" with respect to inhibiting versus facilitating self-statements when dealing with friends than with strangers, and less in situations involving initiation of interactions rather than those involving conflict. The Relationship X Situation interaction also makes intuitive sense, with many more facilitating than inhibiting self-statements endorsed in initiate situations with friends, since social interaction is seemingly at less risk for social rejection, physical/verbal attack, and one which very likely has been positively reinforced historically, versus initiating interactions with strangers, or conflict situations with either friends or strangers.

The endorsement trend across status groups is a consistent one. Although only the difference between popular versus aggressive and withdrawn children is a statistically significant one, the withdrawn group, across each of the four role-play scenarios, scored lower than the aggressive (see Table 5). This is an interesting finding, consistent with Spivack and Shure's (1974) findings related to alternative solution thinking, the latter also a cognitive process variable.

Strengths/Weaknesses of Self-Statement Investigation

There were several strengths of this aspect of the investigation, including (a) pilot work completed to determine specific facilitating and inhibiting self-statements utilized in the same age group as the one under investigation; (b) utilization of a practice scene prior to role-playing scenes, as recommended by Bellack (1983); (c) situation/relationship specific items on the Socialization Self-Statement Test (i.e., SSST-initiate and SSST-Conflict); (d) same-sex interactions were role played and same-sex self-report instruments utilized to control for self-statement differences which may be due to sex of the confederate; (e) the role plays involved the utilization of three or four prompts per scenario, avoiding the rather limited

and stilted responses often yielded by single-prompt role plays (Bellack, 1983), and the difficulties with validity raised by the latter format (Kirchner & Dragus, 1979); (f) confederates responding within a narrow range, avoiding the difficulties of inappropriate prompts often associated with standard inflexible responses; (g) children were instructed to perform as they usually do, in an effort to avoid instructional demand and socially skilled role-play performance due to knowledge of appropriate response; and (h) use of same-sex confederates.

On the other hand, several weaknesses limit the findings. The SSST was devised specifically for this investigation. Although the format is based upon previous investigations (Schwartz & Gottman, 1976), and was empirically constructed, its psychometric properties remain to be investigated. Although very promising in the present study, item analysis, following reliability and validity investigations, is needed. Indeed, considering the difficulties inherent in assessing cognitions, other formats for assessing self-statements, such as thought-listing (i.e., asking subjects to list everything that went through their minds) or videotape reconstructing (subject watches tape, then reconstructs own feelings and thoughts), may be alternative assessment strategies, and feasible with children of this age group (Meichenbaum & Butler, 1979).

In addition, Bellack (1983) raises the issue of affective quality (i.e., nonverbal and paralinguistic features) of confederate behavior during role playing. Although this seemed to be consistent across confederates with the SSST, that is, done in a dramatically-appropriate fashion, this was not assessed empirically, nor addressed prior to the investigation. It is conceivable that differences across confederates with regard to this behavior differentially affected status categories.

Present Status/Future Directions

At present, the mediating role of cognitions, specifically self-statements, is not entirely clear. The question of whether differences occur across status groups exists, and whether these differences mediate social status, both warrant continued investigation. Mahoney (1977) noted that two of the basic assumptions of a cognitive approach are that deficient cognitive processes are at least partly responsible for aberrant behaviors, and that alteration of cognitive processes is a facilitator for, or prerequisite of, therapeutic improvement. Neither of these assertions has been demonstrated conclusively with regard to the role of cognitive variables in children's social behavior.

A need to integrate research findings related to cognitive process variables is needed. For example, Goetz and

Dweck (1980) conceptualize helplessness in social situations as the perceived inability to surmount rejection, as revealed by causal attributions for rejection. Their investigation indicated that the most severe disruption of attempts to gain social approval was associated with the tendency to emphasize personal incompetence as the cause of rejection, and that those children making this attribution were significantly less popular than children utilizing other attributions. The authors address the need to consider cognitive mediators in understanding the determinants of social behavior, and it seems likely that this will be accomplished by determining the relationship (shared variance) among such variables as self-statements and attributions, and whether this relationship involves simply different names for the same process, inclusion of one variable within the other, or whether each contributes unique variance to the concept of social competence.

It also seems critical to begin to attend to the "cognitive flow" as opposed to sole emphasis on the content of cognitions. Chiauuzzi and Heimberg (1980) noted the importance of attending to this "cognitive flow" from the perception of the behavioral event, to self-statements involving the individual's judgment of personal efficacy, to self-evaluation after the behavioral performance. The need to investigate the interrelatedness of the cognitive

concepts is addressed within this framework in that self-statements are viewed within the flow of cognitions, rather than isolating self-statements from other cognitive processes. More specifically, Chiauzzi and Heimberg focused on determining if assertive and nonassertive individuals could be discriminated on the basis of decisions at various decision points in their problem-solving model (e.g., is request legitimate?, what is my best response?, etc.).

The above is not meant to discount the role of cognitive content in social behavior. The process noted above has not been thoroughly investigated and may prove of little added benefit in assessing social behavior in unpopular children. However, it is certainly of potential value in studying the interrelatedness of cognitive variables and does serve to question the adequacy of continuing to isolate particular variables (e.g., self-statement) in relation to social behavior. The use of a "cognitive flow" model potentially allows for more questions to be asked at various decision points, and, perhaps, for the creation of more decision points in the individual's decision to act in a socially appropriate manner.

Finally, it would be of interest to replicate the results of the present investigations, and, in future investigations, to utilize different sociometric categories. For example, Carlson, Lahey, and Neeper (1984) reported

significant differences between neglected, rejected, and accepted children in terms of peer perceptions of social behavior, while Ledingham and Schwartzman (1984) and Milich and Landau (1984) found useful distinctions from the categories of aggressive, withdrawn, and aggressive/withdrawn (high scores on teacher ratings of aggression and withdrawal), in terms of observed behavior towards peers and school placement. Much useful information with regard to the efficacy of interventions might be garnered if assessment measures allowed such categorizations of status, and followup analyses were completed across these differing social categories. This would also serve to determine the most concurrently and predictively valid social status categories.

Conclusion

A treatment outcome investigation comparing a behavioral treatment with a cognitive therapy treatment and attention control treatment generally resulted in no between treatment group differences on a number of behavioral, cognitive process, and cognitive structure dependent measures derived from the social competence model of Meichenbaum et al. (1979), although several sociometric status trends were found. Also, correlational analyses supported further investigation of such variables as self-efficacy and measures of

cognitive structure.

In addition, a self-statement utilization investigation was completed assessing the role of facilitating and inhibiting self-statements in a number of interpersonal situations across sociometric status categories (aggressive, withdrawn, popular) in fourth grade children. Results differentiated popular from withdrawn and aggressive children on facilitating-inhibiting scores on a self-report instrument designed for the present investigation. In addition, results indicated a greater difference on these scores when situations involved friends (versus strangers) and initiating interactions (versus conflict situations). In addition to replication, it may prove fruitful to examine other modes of assessment, integrate cognitive process variables, and look at the flow of cognitions in a given situation.

In sum, the two investigations reflect the multifaceted, complex nature of social skill development in children. In addition to the care needed in tailoring treatment programs to developmental level, a host of variables contributing to low sociometric ratings must be addressed, including both cognitive and behavioral variables. The delineation of cognitive and behavioral deficits to be targeted is further complicated by individual differences across children experiencing difficulties exhibiting socially skilled behavior, with regard to specific deficits (e.g., self-

statements, problem-solving thinking, the ability to enact appropriate behavioral sequences, etc.).

Thus, the continued search for variables contributing to the lack of social competence in children is warranted. Systematic delineation of those variables distinguishing social status groups and establishing treatment programs to decrease deficiencies in those areas will provide further opportunity to devise and implement individually tailored treatment programs with greater probability of increasing ratings of popularity among unpopular children.

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APPENDIX A
AML BEHAVIOR RATING SCALE

Teacher_____ Date_____ Student_____

A M L BEHAVIOR RATING SCALE

Observed Behavior		Never	Seldom	Moderately often	Often	Most or all of the time
1	Gets into fights or quarrels with other students	()	()	()	()	()
2	Has to be coaxed or forced to work or play with other students	()	()	()	()	()
3	Is restless	()	()	()	()	()
4	Is unhappy or depressed	()	()	()	()	()
5	Disrupts class discipline	()	()	()	()	()
6	Becomes sick when faced with a difficult school problem or situation	()	()	()	()	()
7	Is obstinate	()	()	()	()	()
8	Feels hurt when criticized	()	()	()	()	()
9	Is impulsive	()	()	()	()	()
10	Is moody	()	()	()	()	()
11	Has difficulty learning	()	()	()	()	()

- | | | |
|---|-------------------------|---|
| 1 | Never | You have literally never observed this behavior in this child. |
| 2 | Seldom | You have observed this behavior once or twice in the last 3 months. |
| 3 | Moderately often | You have observed this behavior more often than once a month but less than once a week. |
| 4 | Often | You have seen this behavior more often than once a week but less often than daily. |
| 5 | Most or all of the time | You have seen this behavior with great frequency, averaging once a day or more often. |

APPENDIX B
BEHAVIORAL OBSERVATION CATEGORIES
BEHAVIORAL OBSERVATION FORM

Behavior Observation Codes

- P-: indicates a negative interaction with a peer. This category supercedes all other categories. Examples include pushing, kicking, cursing, name calling, etc. Only one event of this type needs to occur for the category to be coded P-.
- P+: indicates a positive interaction with a peer. This category is scored only if it occurs during the entire 5-second scoring interval. Examples include talking with another peer, establishing eye contact with another peer, appropriate play, etc. Participation in a structured game (e.g., kickball) is also scored P+. With regard to the latter example, the child must be attending to the activity, i.e., facing the participants, and responding to the activity when warranted (e.g., chasing the ball when it is kicked in child's direction).

	RAW	%	I	R	C
+A	___	___	___	___	___
+P	___	___	___	___	___
-A	___	___	___	___	___
-P	___	___	___	___	___
0	___	___	___	___	___

Total Intervals

___	___	___	___	___
-----	-----	-----	-----	-----

Observer _____

Date _____

Activity _____

Subject _____

Code

Observation

1.	A/P/O	+/-	I/R/C	V/N	_____
2.	A/P/O	+/-	I/R/C	V/N	_____
3.	A/P/O	+/-	I/R/C	V/N	_____
4.	A/P/O	+/-	I/R/C	V/N	_____
5.	A/P/O	+/-	I/R/C	V/N	_____
6.	A/P/O	+/-	I/R/C	V/N	_____
7.	A/P/O	+/-	I/R/C	V/N	_____
8.	A/P/O	+/-	I/R/C	V/N	_____
9.	A/P/O	+/-	I/R/C	V/N	_____
10.	A/P/O	+/-	I/R/C	V/N	_____
11.	A/P/O	+/-	I/R/C	V/N	_____
12.	A/P/O	+/-	I/R/C	V/N	_____
13.	A/P/O	+/-	I/R/C	V/N	_____
14.	A/P/O	+/-	I/R/C	V/N	_____
15.	A/P/O	+/-	I/R/C	V/N	_____
16.	A/P/O	+/-	I/R/C	V/N	_____
17.	A/P/O	+/-	I/R/C	V/N	_____
18.	A/P/O	+/-	I/R/C	V/N	_____

Any additional comments _____

APPENDIX C
PEER RATING FORM

Class: _____

Friendship Rating Scale

Directions: For each of the students listed below, circle the number which best describes "How much you like to play with this person." Circle "1" if you don't like to play with this student at all, "2" if you like to a little, "3" if you like to some, "4" if quite a bit, and "5" a lot.

[illegible]

APPENDIX D

ALTERNATIVE SOLUTIONS TEST - INSTRUCTIONS

ALTERNATIVE SOLUTIONS TEST - TEST FORMAT

INSTRUCTIONS FOR ALTERNATIVE SOLUTIONS TEST

We want to know how children think about things. I've got some stories about children to tell you. I'm going to tell you the first part of the story and I want you to make up the rest of the story. I want you to tell me what you think the child could do in the story. Pretend all the children are your age. OK?

After one response: "OK, that's one idea--that is one thing he might do. Tell me all the ways you can think of. Everything that comes into your head.

Persistently ask child "What else can he do?" until no new ideas are offered (3 prompts).

Alternative Solution Thinking

Problem 1

Johnny (Mary) wants his/her friend to go to the playground with him/her after school, but his/her friend doesn't want to go. What can Johnny/Mary do to get his/her friend to go to the playground after school?

Problem 2

Jimmy (Ann) has been playing with the hamster the whole play period. Now Bill (Joyce) wants a chance to play with the hamster, but Jimmy (Ann) keeps playing with it. What can Bill (Joyce) do so he/she can have a chance to play with the hamster?

Problem 3

Mark (Karen) brought 25 cents to school and left it on top of his/her desk. He/she sees Mary playing near his/her desk. When he/she returns to his/her desk, the 25 cents is missing and he/she believes Mary took it. What can he/she do to get his/her 25 cents back?

Problem 4

Joey (Debbie) is sitting in the cafeteria eating lunch when his/her friend Bob (Jane) asks him/her to sit next to him/her. When Joey (Debbie) goes to sit next to Bob (Jane), he/she finds another boy/girl sitting in the chair. What can Joey (Debbie) do so that he/she can sit in the chair?

APPENDIX E

SELF-STATEMENT PILOT INSTRUMENT

Initiate - Descriptive Situations

Now I'm going to describe different situations to you and I'd like you to tell me what you think the person in the story might be saying to himself (herself). There are lots of times that we talk to ourselves. Let me give you an example. If you were having a spelling test tomorrow and studied all night and really knew the words, when the teacher told you to put your books away for the test, you might say to yourself, "Boy, I'm going to do good on this test. I really know these spelling words." Now, if something happened and you did poorly on the test, and the teacher asked you to show it to your parents, you might say something to yourself like, "Oh, no!! Wait until my parents see this - they're not going to like this grade!" Do you understand what I mean when I ask you to tell me what the person in the story might be saying to him/herself? OK, here's the first story . . .

Situation 1 Initiate (Unfamiliar) Failure

Let's pretend that Bill is on the playground and sees a boy he doesn't know playing with a kickball. He'd like to play, but the story ends with Bill not asking him. What do you think Bill said to himself that stopped him from asking about playing kickball?

Situation 2 Initiate (Familiar) Failure

Let's pretend that Bill is on the playground and sees a friend playing with a kickball. He'd like to play, but the story ends with Bill not asking him. What do you think Bill said to himself that stopped him from asking his friend?

Situation 3 Initiate (Unfamiliar) Success

Let's pretend that Bill is on the playground and sees a boy he doesn't know playing with a kickball. He'd like to play, and the story ends with Bill asking him. What do you think Bill said to himself that helped him ask about playing kickball?

Situation 4 Initiate (Familiar) Success

Let's pretend that Bill is on the playground and sees a friend playing with a kickball. He'd like to play, and the story ends with Bill asking him. What do you think Bill said to himself that helped him ask his friend about playing kickball?

*Emphasize that there are no right or wrong answers.

*If a child gives "I don't know" responses or no responses, probe three times before moving on to the next situation.

*Emphasize word "friend" during familiar scenes, and feel free to emphasize this difference across situations as needed.

Conflict - Descriptive Situations

Now I'm going to describe different situations to you, and I'd like you to tell me what you think the person in the story might be saying to himself (herself). There are lots of times that we talk to ourselves. Let me give you an example. If you were having a spelling test tomorrow and studied all night and really knew the words, when the teacher told you to put your books away for the test, you might say to yourself, "Boy, I'm going to do good on this test. I really know these spelling words." Now, if something happened and you did poorly on the test, and the teacher asked you to show it to your parents, you might say something to yourself like, "Oh, no!! Wait until my parents see this - they're not going to like this grade!" Do you understand what I mean when I ask you to tell me what the person in the story might be saying to him/herself? OK, here's the first story . . .

Situation 5 Conflict (Unfamiliar) Failure

Let's pretend that Andy is in the movies and a boy he doesn't know is making a lot of noise behind him. The boy says, "This is a crummy movie." Andy would like to say something to him, but doesn't. What do you think Andy is saying to himself that stops him from saying something?

Situation 6 Conflict (Familiar) Failure

Let's pretend that Andy is in the movies and a boy who is a friend of Andy's is making a lot of noise behind him. The friend says, "This is a crummy movie." Andy would like to say something to the friend, but doesn't. What do you think Andy is saying to himself that stops him from saying something?

Situation 7 Conflict (Unfamiliar) Success

Let's pretend that Andy is in the movies and a boy he doesn't know is making a lot of noise behind him. The boy says, "This is a crummy movie." Andy would like to say something to him, and does. What do you think Andy is said to himself that helped him say something to the boy?

Situation 8 Conflict (Familiar) Success

Let's pretend that Andy is in the movies and a friend is making a lot of noise behind him. The friend says, "This is a crummy movie." Andy would like to say something to his friend, and does. What do you think Andy is said to himself that helped him say something to his friend?

*Emphasize that there are no right or wrong answers.

*If a child gives "I don't know" responses or no responses, probe three times before moving on to the next situation.

*Emphasize word "friend" during familiar scenes, and feel free to emphasize this difference across situations as needed.

We've talked about a situation in which you have a problem or disagreement with another child your age, and another situation about wanting to play with another child your age. Tell me about times that have actually happened to you--when you have really been in that kind of situation.

APPENDIX F

SOCIALIZATION SELF-STATEMENT TEST - THERAPIST INSTRUCTIONS

ROLE PLAY SITUATION DESCRIPTIONS

SOCIALIZATION SELF-STATEMENT TEST - TEST FORMAT

(Male and female versions)

Therapist Instructions

1. For each interaction, the assessor should be the same sex as the child for each of the four scenes.
2. If the subject does not make an initial response in 10 seconds, stop the scene and recheck with the child his/her understanding of the scene (i.e., "Do you understand the situation? You have a friend . . .") If no response during the second attempt, stop after 10 seconds and administer the SSST. If child does not respond in 10 seconds following a counter-response, move to the next counter-response or terminate scene, as appropriate.
3. Counterbalance the presentation of situations (1234, 2341, 3412, 4123, etc.).
4. Administer SSST following each situation. Thus, each child should fill out SSST a total of 4 times per assessment (one following initiate-friend, initiate-stranger, conflict-friend, conflict-stranger).

SSST Role-Play Situations

Pretreatment Situations:

Conflict-Stranger:

Imagine a boy/girl you don't know found out that you had a game he/she likes and he/she borrowed it from you. The boy/girl hasn't returned it yet, even though he/she said he/she would. You would really like to have your game back. This boy/girl walks into the classroom before school starts and sees you. Remember, this is a boy/girl you don't know. He/she walks up and says:

Adult: Hi, your game is really neat!

If child assertive:

1. Well, I would really like to keep it a few more days.
2. Come on, I only need it for a few more days.
3. But I haven't even played it yet!

If child unassertive:

I'll get it back to you in a week or so.

Thanks, that will give me a chance to play with it a lot.

Conflict-Friend: Same as above except that "friend" is used to replace "boy/girl you don't know."

Initiate-Friend:

Imagine that you are on the playground and a friend of yours has a ball and he/she is walking around and playing with it. You really would like to play with the ball now, too. Remember, the boy/girl is a good friend of yours. Ready--go ahead.

Child:

Adult: Well, I don't know if I want to play or not.

If child assertive:

1. OK, what do you want to play?

If child unassertive:

I might just kick it around

Child:

Initiate-Stranger: Same as above except that "boy/girl you don't know" is used to replace "friend."

Posttreatment Situations:

Conflict-Friend:

Imagine that you have a friend who is sitting near you in one of your classes. You can't hear the teacher very well because he/she is tapping his/her pencil on the desk. You would really like to say something to your friend about the noise. Remember, this boy/girl is a friend of yours.

Adult: Begin tapping pencil loudly on desk

If child assertive:

1. Oh, come on, it's not bothering you.

2. But it hardly makes any noise.

3. I don't care if I hear the teacher.

If child unassertive:

This is really boring.

I hope this is over soon.

Conflict-Stranger: Same as above except that "boy/girl you don't know" is used to replace "friend."

Initiate-Stranger:

Imagine that part of your class is playing a game during math and that you have to work on some really hard math problems as part of the game. You'd really like to play, but you need to ask for some help with the math problems in order to play. A boy/girl you don't know has almost finished. You'd really like some help from him/her. Remember, this boy/girl is someone you don't know. Ready--go ahead.

Child:

Adult: Well, I don't know if I want to.

If child assertive:

1. OK, have you started yet?

If child unassertive:

I might keep working on my own math problems

Child:

Initiate-Friend: Same as above except that "friend" is used to replace "boy/girl you don't know."

SSST-I-Male

It is obvious that boys think a lot of different things when they are in situations like the one we just pretended to be in. What you think in a situation determines how you will behave in that situation.

Below is a list of things which you may have thought to yourself during the situation you just acted out. Read each item and decide how often you may have been thinking that thought in the situation we just pretended to be in. (Describe situation.)

Circle a number from 1 to 5 for each item. There are no right or wrong answers.

	Never	Hardly Ever	Some- times	Often	Very Often
1. I was thinking that he would be nice and let me play.	1	2	3	4	5
2. I was thinking that he would rather play with other boys	1	2	3	4	5
3. I was thinking that it was worth a try--that I may as well ask.	1	2	3	4	5
4. I was thinking that if I made a mistake, he wouldn't like me.	1	2	3	4	5
5. I was concerned that he might get mad.	1	2	3	4	5
6. I was thinking that he was having a good time, and I didn't want to interrupt.	1	2	3	4	5
7. I was thinking that I was bored.	1	2	3	4	5
8. I was thinking that I should be nice and ask the other boy to play.	1	2	3	4	5
9. I was afraid that he didn't want me to play.	1	2	3	4	5

	Never	Hardly Ever	Some- times	Often	Very Often
10. I was afraid that the other boy would be mean.	1	2	3	4	5
11. I was thinking that I really wanted to play.	1	2	3	4	5
12. I was thinking that the other boy would feel bad if I don't ask.	1	2	3	4	5
13. I was thinking that he would be fun to play with.	1	2	3	4	5
14. I was thinking that the other boy would rather play by himself.	1	2	3	4	5
15. I was afraid that we wouldn't get along.	1	2	3	4	5
16. I was thinking that the other boy would really like me to play with him.	1	2	3	4	5

SSST-I-Girls

It is obvious that girls think a lot of different things when they are in situations like the one we just pretended to be in. What you think in a situation determines how you will behave in that situation.

Below is a list of things which you may have thought to yourself during the situation you just acted out. Read each item and decide how often you may have been thinking that thought in the situation we just pretended to be in. (Describe situation.)

Circle a number from 1 to 5 for each item. There are no right or wrong answers.

	Never	Hardly Ever	Some- times	Often	Very Often
1. I was thinking that she would be nice and let me play.	1	2	3	4	5
2. I was thinking that she would rather play with other girls	1	2	3	4	5
3. I was thinking that it was worth a try--that I may as well ask.	1	2	3	4	5
4. I was thinking that if I made a mistake, she wouldn't like me.	1	2	3	4	5
5. I was concerned that she might get mad.	1	2	3	4	5
6. I was thinking that she was having a good time, and I didn't want to interrupt.	1	2	3	4	5
7. I was thinking that I was bored.	1	2	3	4	5
8. I was thinking that I should be nice and ask the other girl to play.	1	2	3	4	5
9. I was afraid that she didn't want me to play.	1	2	3	4	5

	Never	Hardly Ever	Some- times	Often	Very Often
10. I was afraid that the other girl would be mean.	1	2	3	4	5
11. I was thinking that I really wanted to play.	1	2	3	4	5
12. I was thinking that the other girl would feel bad if I don't ask.	1	2	3	4	5
13. I was thinking that she would be fun to play with.	1	2	3	4	5
14. I was thinking that the other girl would rather play by herself.	1	2	3	4	5
15. I was afraid that we wouldn't get along.	1	2	3	4	5
16. I was thinking that the other girl would really like me to play with her.	1	2	3	4	5

SSST-C-Boys

It is obvious that boys think a lot of different things when they are in situations like the one we just pretended to be in. What you think in a situation determines how you will behave in that situation.

Below is a list of things which you may have thought to yourself during the situation you just acted out. Read each item and decide how often you may have been thinking that thought in the situation we just pretended to be in. (Describe situation.)

Circle a number from 1 to 5 for each item. There are no right or wrong answers.

	Never	Hardly Ever	Some- times	Often	Very Often
1. I was thinking that I had the right to say something.	1	2	3	4	5
2. I was thinking that he would understand if I say something	1	2	3	4	5
3. I was worried that I would miss out on what I was doing if I said anything.	1	2	3	4	5
4. I was thinking that the other boy wouldn't like me.	1	2	3	4	5
5. I was thinking that I would just have to put up with the situation.	1	2	3	4	5
6. I was thinking that it was no use saying anything.	1	2	3	4	5
7. I was thinking that if I said something nicely it wouldn't hurt the other boy's feelings.	1	2	3	4	5
8. I was thinking that if I don't say something this will keep happen- ing.	1	2	3	4	5

	Never	Hardly Ever	Some- times	Often	Very Often
9. I was thinking that he shouldn't be doing what he did.	1	2	3	4	5
10. I was concerned that the other boy would tell others not to like me.	1	2	3	4	5
11. I was thinking that I didn't want to put up with this any more.	1	2	3	4	5
12. I was concerned that the other boy would get mad.	1	2	3	4	5
13. I was thinking that if I wanted to hear, then I needed to say some- thing.	1	2	3	4	5
14. I was thinking that maybe somebody else would say something.	1	2	3	4	5
15. I was thinking that I didn't care what the other boy thought.	1	2	3	4	5
16. I was thinking that I didn't want to hurt the other boy's feelings.	1	2	3	4	5

SSST-C-Girls

It is obvious that girls think a lot of different things when they are in situations like the one we just pretended to be in. What you think in a situation determines how you will behave in that situation.

Below is a list of things which you may have thought to yourself during the situation you just acted out. Read each item and decide how often you may have been thinking that thought in the situation we just pretended to be in. (Describe situation.)

Circle a number from 1 to 5 for each item. There are no right or wrong answers.

	Never	Hardly Ever	Some- times	Often	Very Often
1. I was thinking that I had the right to say something.	1	2	3	4	5
2. I was thinking that she would understand if I say something	1	2	3	4	5
3. I was worried that I would miss out on what I was doing if I said anything.	1	2	3	4	5
4. I was thinking that the other girl wouldn't like me.	1	2	3	4	5
5. I was thinking that I would just have to put up with the situation.	1	2	3	4	5
6. I was thinking that it was no use saying anything.	1	2	3	4	5
7. I was thinking that if I said something nicely it wouldn't hurt the other girl's feelings.	1	2	3	4	5
8. I was thinking that if I don't say something this will keep happening.	1	2	3	4	5

	Never	Hardly Ever	Some- times	Often	Very Often
9. I was thinking that she shouldn't be doing what she did.	1	2	3	4	5
10. I was concerned that the other girl would tell others not to like me.	1	2	3	4	5
11. I was thinking that I didn't want to put up with this any more.	1	2	3	4	5
12. I was concerned that the other girl would get mad.	1	2	3	4	5
13. I was thinking that if I wanted to hear, then I needed to say something.	1	2	3	4	5
14. I was thinking that maybe somebody else would say something.	1	2	3	4	5
15. I was thinking that I didn't care what the other girl thought.	1	2	3	4	5
16. I was thinking that I didn't want to hurt the other girl's feelings.	1	2	3	4	5

APPENDIX G

TREATMENT OUTCOME EXPECTANCY MEASURE

Please read the questions below and circle the number which matches how you feel about the things you will be learning about making friends. You can circle any number from one to ten which best matches how you feel.

1. Does the way we will be learning how to make and keep friends seem like a good way to learn?

1	2	3	4	5	6	7	8	9	10
No, not a good way at all				Sort of a good way					Yes, seems like a real good way

2. How sure are you that the group will help you make friends?

1	2	3	4	5	6	7	8	9	10
Not sure at all				I think it will help					I'm positive it will help

3. If you knew someone your age who had trouble making and keeping friends and that person asked you about the group, do you think the group would be helpful?

1	2	3	4	5	6	7	8	9	10
No				Maybe					Yes

4. How sure are you that the group would help you if you moved to a new school and had all new children in your class? Would being in the group help you make friends?

1	2	3	4	5	6	7	8	9	10
Don't think it would help				Think it would help					I'm sure it would help

5. How much do you think the group will help you in situations outside of school, like getting along with children your age in the neighborhood?

1	2	3	4	5	6	7	8	9	10
Won't help at all				Think it would help					Know it will help

APPENDIX H
SELF-EFFICACY TEST

ANSWER SHEET

Question 1

1	2	3	4	5
Not sure at all I could do it	Probably couldn't do it	Maybe could do it	Probably could do it	Really sure I could do it

Question 2

If you could do what she just did, what do you think the boy would do?

- A. He would cut in front of me anyway.
- B. He would see that I'm right and go to the end of the line.
- C. He would go to the end of the line, but he would be angry with me.
- D. None of these: He would _____

Question 3

1	2	3	4	5
Not sure at all I could do it	Probably couldn't do it	Maybe could do it	Probably could do it	Really sure I could do it

Question 4

If you did what she did, what do you think the boy would think or feel about you?

- A. He would not care what I thought about how fast he ran.
- B. He would feel good about what I said and think I were nice.
- C. He would think I was silly for saying he did a good job.
- D. None of these: He would _____

Question 5

1	2	3	4	5
Not sure at all I could do it	Probably couldn't do it	Maybe could do it	Probably could do it	Really sure I could do it

Question 6

If you did what he just did, what do you think the girl would do?

- A. She would say okay and give me my pen back, and get another one somewhere else.
- B. She would keep my pen anyway.
- C. She would give my pen back but be angry with me.
- D. None of these: She would _____

Question 7

1	2	3	4	5
Not sure at all I could do it	Probably couldn't do it	Maybe could do it	Probably could do it	Really sure I could do it

Question 8

If you did do what he did, what do you think the girl would think and feel about what you said to her?

- A. She would feel good that I congratulated her on her high grade and would think I was nice.
- B. She would not care that I congratulated her.
- C. She would think I was silly for saying something about her good grade.
- D. None of these: She would _____

Question 9

1	2	3	4	5
Not sure at all I could do it	Probably couldn't do it	Maybe could do it	Probably could do it	Really sure I could do it

Question 10

If you could do what he/she did, what do you think the new boy/girl would do and feel?

A. He/she would join us and feel good that I was including him/her.

B. He/she would not join us.

C. He/she would join us, but would become my friend.

D. None of these: She would _____

APPENDIX I

THERAPEUTIC RELATIONSHIP/MOTIVATION MEASURE

1. How did you like the group today?

1	2	3	4	5
It was great	A lot	Some	A little	Not at all

2. How did you feel about coming to the group today?

1	2	3	4	5
Could hardly wait	Very much wanted to	Really didn't care	Rather stay in class	Didn't want to come at all

3. How much are you looking forward to next week's group?

1	2	3	4	5
Can't wait	A lot	Pretty much	A little	Not at all

4. How much do you think your group teachers helped you today?

1	2	3	4	5
A whole lot	Pretty much	Some	A little	Not at all

5. How much did you like talking and being with your group teachers today?

1	2	3	4	5
A whole lot	Pretty much	Some	A little	Not at all

APPENDIX J

PEER PREFERENCE TEST

PPT-(M/F)

For each thing to do below, put a circle around the letter "A" if you would rather do it alone, put a circle around the letter "B" if you would rather do it with someone your own age, or put a circle around the letter "C" if you would rather do it with a grown-up. For each thing to do, be sure to circle only one letter.

	A Alone	B With someone your own age	C With a grown-up
1. Play	A	B	C
2. Go to the playground	A	B	C
3. Read	A	B	C
4. Play ball	A	B	C
5. Work on a puzzle	A	B	C
6. Go roller skating	A	B	C
7. Color a picture	A	B	C
8. Go in a swimming pool	A	B	C
9. Ride a bike	A	B	C
10. Eat a snack	A	B	C
11. Watch television	A	B	C
12. Go for a walk	A	B	C

Name_____ Age_____ Grade_____

APPENDIX K
REINFORCEMENT VALUE MEASURE

Below are 2 situations that could happen to you. For each pair of statements, pick the one that you would like most to happen to you. Circle the one that you would like to happen to you the most. Circle only one in each pair of two.

1. Friends ask you to work with them.
2. Be first to finish your work.

1. Be given a bar of chocolate.
2. Friends ask you to join them in something they are doing.

1. Be free to do what you like.
2. Friends ask you to work with them.

1. Friends ask you to join them in something they are doing.
2. Be first to finish your work.

1. Be free to do what you like.
2. Be given a bar of chocolate.

1. Teacher puts you in charge of recess.
2. Friends ask you to join them in something they are doing.

1. Be first to finish your work.
2. Be free to do what you like.

1. Be given a bar of chocolate.
2. Friends ask you to work with them.

1. Friends ask you to join them in something they are doing.
2. Be free to do what you like.

1. Be first to finish your work.
2. Be given a bar of chocolate.

1. Teacher writes "Excellent" on your paper.
2. Be the only one who can answer a question correctly.

1. Be given an ice cream.
2. Friends ask you to sit with them.

1. Be free to go outside.
2. Teacher gives you an A+ on your paper.

1. Friends ask you to sit with them.
2. Be the only one who can answer a question correctly.

1. Be free to go outside.
2. Be given an ice cream.

1. Teacher gives you an A+ on your paper.
 2. Friends ask you to sit with them.
-
1. Be the only one who can answer a question correctly.
 2. Be free to play outside.
-
1. Be given an ice cream.
 2. Teacher writes "Excellent" on your paper.
-
1. Friends ask you to sit with them.
 2. Be free to go outside.
-
1. Be the only one who can answer a question correctly.
 2. Be given an ice cream.
-
1. Teacher gives you an A+ on your paper.
 2. Have only your paper put on the bulletin board.
-
1. Be given a snack.
 2. Teacher puts you in charge of recess.
-
1. Be free to play outside.
 2. Teacher gives you an A+ on your paper.
-
1. Teacher puts you in charge of recess.
 2. Have only your paper put on the bulletin board.
-
1. Be free to play outside.
 2. Be given a snack.
-
1. Teacher writes "Excellent" on your paper.
 2. Friends ask you to work with them.
-
1. Have only your paper put on the bulletin board.
 2. Be free to play outside.
-
1. Be given a snack.
 2. Teacher writes "Excellent" on your paper.
-
1. Teacher puts you in charge of recess.
 2. Be free to play outside.
-
1. Have only your paper put on the bulletin board.
 2. Be given a snack.

APPENDIX L

DEGREE OF DIFFICULTY SCALE

A. INITIATE SITUATIONS

B. CONFLICT SITUATIONS

Degree of Difficulty Scale - I

Below are descriptions of situations which might present problems for you in terms of taking the first step in meeting others or getting into games. For instance, the first situation mentions that you want to ask to play kickball. It may be hard for you to ask whether or not you can play, or that may be a situation that is easy for you to handle. What I would like you to do is to read each situation described below, and rate on the line below each situation just how hard it would be for you to do what the situation describes. There are no right or wrong answers. Just imagine yourself in that situation and rate how hard it would be for you to do or say what the situation describes. Pretend all the children are your age, and that they are all boys. Do you understand what I am asking you to do?

1. There are a group of children playing kickball, and you ask whether you can play.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

2. You get a ball on the way to recess and ask if anyone wants to play a game.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

3. You ask another boy about something you don't know anything about.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

4. You ask a boy if you can borrow his bike for a little while.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

5. You have to ask someone in your class to work on a class project with you.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

6. You ask someone to play with you at recess.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

7. You see someone with a ball on the playground and ask to play.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

8. You are new in school, and ask someone to introduce you to your classmates.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

9. You ask another boy for help on a math problem.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

10. The teacher introduces a new game during recess, and you have to ask someone to be your teammate.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

Degree of Difficulty Scale - C

Below are descriptions of situations which might present problems for you in terms of doing what you would like to be able to do without making the particular situation worse. For instance, the first situation mentions the boy butting up in line. You would not like to lose your place in line, but it might be hard for you to decide exactly what to say to this person about butting up. What I would like you to do is to read each situation described below, and rate on the line below each situation just how difficult that situation would be for you to say or do something which would help to make the situation better for you. Some of the situations may be sort of simple for you to do or say what you would like, while others may be real hard for you. There are no right or wrong answers. Just imagine yourself in that situation and rate how hard it would be for you, in that situation, to do or say something which would make the situation better. Pretend all the children are your age, and that they are all boys. Do you understand what I am asking you to do?

1. You are standing in line, and a boy butts up in front of you.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

2. Someone asks you to sit near him at lunch, but you want to sit by someone else.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

3. You want to play a certain game, and the boy you are playing with says "no."

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

4. You can't hear the teacher in class, and you want to tell some classmate to quiet down.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

5. A boy borrowed a game, and hasn't brought it back after saying that he would.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

6. You are in the middle of a game, and a boy calls you a name.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

7. A boy thinks that you took his turn in kickball and yells at you.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

8. A boy begins to make new rules during the middle of the game.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

9. A boy won't let you into a game.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

10. A boy trying to get answers from you on a test.

1	2	3	4	5
very hard	hard	pretty difficult	easy	very easy

APPENDIX M

TREATMENT BY SOCIOMETRIC GROUP ASSIGNMENTS

		Sociometric Category			
		Popular	Aggressive	Withdrawn	Total
Treatment	Behavior Therapy	4 (2M,2F)	10 (7M,3F)	6 (1M,5F)	20 (10M,10F)
	Cognitive Therapy	4 (2M,2F)	5 (3M,2F)	12 (9M,12F)	21 (9M,12F)
	Attention Therapy	4 (1M,3F)	9 (7M,2F)	6 (2M,4F)	19 (10M,9F)
	Total	12 (5M,7F)	24 (17M,7F)	24 (7M, 17F)	60 (29M,31F)

APPENDIX N

BEHAVIOR THERAPY GROUP TREATMENT MANUAL

Behavior Therapy Groups

General Guidelines

Format of Training Program:

1. Review of Previous Training Session. Trainers invite comments from the children about what they learned during the last training session. Children are praised for completing homework assignment and for practicing their social skills. Previous week's skills are then reviewed.
2. Introduction of a New Skill Area. Trainers introduce a new skill area by describing and asking children to describe the skill and why it is important for positive peer interactions. Trainers also mention the components of the skill area, and prepare the children to observe modeling of skill.
3. Modeling of Appropriate Social Skill. Trainers role-play short vignettes utilizing appropriate social skill component. Review with children the use of all components of the social skill. Children are asked to describe the behavior of the models, and to plan how they could use these behaviors with peers in school and at home. Where appropriate, discuss how to handle "refusals" from peers.
4. Role Play. The children role-play the skill with trainers and each other. Typically, this is done in pairs, while the other children in the group observe them. Praise for correct performance and constructive comments for improvements are offered by trainers, children involved in the role play, and observers. Practice of skills is repeated, until all children can perform skills accurately.
5. Verbally Review Skill Area. Trainers verbally review skill areas covered within the session with the group as a whole. Children are asked to list components, and specific children are questioned in order to ensure that all children have acquired knowledge of skill area.
6. Homework Assignment. Homework assignments are handed out, and explanation provided. Following explanation, at least one child is requested to review the directions for the assignment, to ensure that lack of understanding of the assignment does not prevent completion.
7. Relationship/Motivation Measure Completed.

Behavior Therapy - Session 1

1. Introduce self to group, then children do the same. Discuss purposes of group, i.e., to learn different ways of making and keeping friends, and that the following skills will be worked on: greeting others, joining activities, extending invitations (asking others to join in), conversational skills, sharing and cooperating with others, and verbal compliments. Let children name the group. Answer questions about the group, and review instructions so everyone knows everyone's name.
2. Explain that each week group members will be given practice sheets (don't say homework) to work on. Discuss importance of these, emphasize their completion, and mention each group will begin with collection and discussion of each sheet.
3. Go around group. Have children mention which of the skills noted in #1 above is most difficult for them and why (start with popular children). Write down responses.
4. Skills training: Smiling.
 - a. Explain importance of smiling: (1) Shows that you are having a good time and (2) that you like the people you are with.
 - b. Discuss:

What are some times when you smile with other people your age?
 What should you do when someone you are playing or working with smiles at you?
 How do you feel when someone smiles at you?
 When is the last time you smiled before coming into the group?
 (Have each child respond to at least one question.)
 - c. Have each child pretend he or she is in the situation noted above, i.e., the last time he or she smiled, and illustrate smiling. Model if no children volunteer. Have popular child be "responder" and smile back, then switch. Provide feedback to each member (e.g., "I really like the way you smile," "That's a nice smile").
 - d. Practice sheet:

M	T	W	Th	F
I smiled at (name)				
During (activity)				
 - e. Explain practice - as with all future assignments. Have one or two children re-explain assignment. Stress importance of completing sheets and bringing them back. Ask 1 or 2 children where there is a safe place for them to keep sheet.
 - f. Administer outcome expectancy and motivation/relationship measure.

*For all subsequent sessions, note which children have difficulty with particular skills - this will be used for review of all skills during session 8.

Behavior Therapy - Session 2

1. Review previous training session.
 - a. What did we talk about - why is skill important.
 - b. Review names.
2. Review practice sheets.
 - a. Reinforce return of sheets.
 - b. Emphasize importance of returns.
 - c. Mark practice completion sheet aloud (e.g., "Mike did his ...").
 - d. Have 2 children discuss their practice (not children who did not return sheets).
3. Skills training: Greeting Others
 - a. Discuss importance of greeting others (why it is important).
Stress that greetings are a sign of friendship.
 - b. How can we greet others? What sorts of things are important to do when we greet others:
 - (1) look at person
 - (2) smile
 - (3) use person's name
 - (4) greet nicely (e.g., "Hi, how are you")
 - (5) give name; request name if needed
 - c. Model with a volunteer - walk up to a child (sitting or playing outside of group) and perform 1-4 above. Select child in group to watch for each skill component. Check with each of 4 children as to whether or not you performed all components. (Model with friend and stranger.)
 - d. Discuss how children can use this skill in everyday situations (greet children in classroom; child sick previous day; teacher; neighborhood children; etc.).
 - e. Have each child practice greeting and responding to greeting (i.e., saying "Hi" back, smiling) one at a time with feedback from group on use of components. Reinforce appropriate performances and provide feedback for improvement. Each child should be in 4 role plays (initiate-friend; initiate-stranger; respond-friend; respond-stranger).
 - f. Verbally review skill area.
 - g. Practice sheet - write name under day and check if looked at, smiled, etc.

	M	T	W	Th	F
looked at					
smiled					
used name					
greeted nicely					
(gave name and					
asked for name)					
 - h. Motivation/relationship measure.
 - i. Prompt children who did not return sheets last week, stress importance; prompt those who complied to keep up the good work.

Behavior Therapy - Session 3

1. Review previous training session: Greetings
 - a. What did we talk about?
 - b. What are parts of greeting?
2. Review practice sheets.
 - a. Reinforce return of sheets.
 - b. Mark practice completion sheet.
 - d. Have children discuss their practice (have 1 or 2 role-play).
3. Skills training: Complimenting Others
 - a. What is a compliment? Why is giving compliments important?
 - b. What sorts of things are important to do when we give compliments:
 - (1) smile
 - (2) use other person's name
 - (3) saying something positiveaccept compliments:
 - (1) smile
 - (2) say "thanks"
 Discuss different ways of handling compliments poorly (ignoring, denial).
 - c. Model giving of compliment (one leader to the other); 2nd leader responds--gives compliment to a group member. Check with group members as to whether components were all used.
 - d. Discuss how this skill can be used in everyday situations (recess, tests, clothes, etc.). Mention use in games if children do not (e.g., "Way to go, Bill").
 - e. Stand up outside of group and have each child give and receive compliment (use situations from d). That is:

A
gives
compliment
to B

B

receives
from A;
gives to C

C
receives from B;
gives to D

Stop after each practice scene and have group provide feedback and reinforcement.

- f. Discuss importance of physical appearance/grooming with regard to compliments. One of trainers leaves group and returns with clothing looking sloppy (e.g., shoes untied, poor posture, shirt or blouse out). Emphasize that everyone can look neat and clean. Discuss what being neat and clean means - clothes, combed hair, teeth brushed, etc.
- g. Verbally review skill area, i.e., what are the components of compliments?

- h. Practice sheets: I complimented _____ on _____. I said _____.
(3 sheets per child)
- i. Motivation/relationship measure.
- j. Again, emphasize practice sheets - speak to those not returning work individually briefly after session as possible - discuss in positive terms (i.e., the best way to learn skill).

Behavior Therapy - Session 4

1. Review previous training session: Compliments
 - a. What did we talk about?
 - b. What are parts?
2. Review practice sheets.
 - a. Reinforce return of sheets.
 - b. Mark practice completion sheet.
 - c. Have children discuss their practice (including role-play).
3. Skills training: Sharing/Cooperation
 - a. What does sharing/cooperation mean? - Give examples.
 - b. Why is it important?
 - c. What are important things to do?
 - (1) share materials
 - (2) don't fight over who goes first
 - (3) take turns
 - (4) being good winner/good loser
 - (5) follow game rules
 - (6) help others (e.g., learn game or rules)

Discuss #4, #5, #6 - what does this mean? Why are #5 and #6 important?
 - d. Model sharing (one leader to the other)
 - (1) Deck of cards - give out to play Fish (only leaders) - have argument over who goes first - then have one agree to go second. Have one win, with loser congratulating..
 - e. Discuss when sharing/cooperation can be used in everyday situations (playing at recess, lining up, etc.).
 - f. Hand out cards (3 each) - winner is one who has largest # points. Can turn in one card for replacement. Pull one child out of group before cards distributed, ask him/her to pretend he/she doesn't know rules after cards are given and have him ask for help. Also, have him/her pretend he/she is having trouble adding cards. Discuss group's response, role play appropriately, as needed. Reinforce helping behavior, and reinforce good winner/loser behavior. Play several hands.
 - g. Verbally review skill area - emphasize importance - what are components?
 - h. Practice sheets: I shared/cooperated with _____. What did you do _____. (4 examples)
 - i. Motivation/relationship measure.

Behavior Therapy - Session 5

1. Review previous training session: Sharing/Cooperation
 - a. What was topic?
 - b. Why important? What are important parts to remember?
2. Review practice sheets.
 - a. Reinforce return of sheets/mark practice completion sheets.
 - b. Discuss and role-play homework with 2-3 group members.
3. Skills training: Invitations (own and others)
 - a. Why is this skill important?
 - b. Components of making and giving invitations
 - (1) smile
 - (2) look at person
 - (3) use person's name
 - (4) ask person to do something with you
 - (5) set time and date
 - (6) if person busy, ask for another time
 - (7) if invited, say yes, or if busy, explain/set alternative time
 - c. Model invitations - at recess, one therapist invites another to join him/her for kickball (use 1-5 above). Discuss use of 1-5. Have group members monitor use of components.
 - d. Discuss use of invitations in everyday situations (recess, class, inviting someone home, etc.). Have children discuss last time they extended invitation or were invited. What happened?
 - e. Split into 2 groups of 5 (make these groups different each time). Have each group member role-play situations derived from D above, with positive response. Provide feedback and reinforcement from group.
 - f. Have each group member initiate invitation with responder (therapist). Therapist should alternate between negative response with excuse (e.g., "No, I'm busy" - with excuse, and just responding "No" persistently. Reinforce appropriate behavior, i.e., checking for alternate time, not getting angry.) Have group members discuss each performance. Each member should practice to satisfactory performance.
 - g. Groups back together - verbally review skill area - what are components?
 - h. Practice sheet:

M T W Th F

I invited

I was invited by

Pick one above and describe who it was _____, what was invitation for _____, and did you:

smile_____ look at person_____ use person's name_____ set time_____. If person busy, did you: check for another time_____; did you get mad if refused_____.

- i. Motivation/relationship measure.

Behavior Therapy - Session 6

1. Review previous training session: Invitations
 - a. What was topic?
 - b. What are important components to remember?
2. Review practice sheets.
 - a. How many invitations everyone had.
 - b. Discuss several descriptions and checklist..
 - c. Role-play one or two invitations.
3. Skills training: Joining Activities
 - a. What should you do if you want to join another child or group?
 - b. List of important components
 - (1) smile
 - (2) look at person
 - (3) use person's name
 - (4) greet them
 - (5) ask to join nicely
 - (6) imitate member of group - don't disagree or change topics

If others say No
 don't get mad
 leave
 join others or play alone that time if they refuse more than once

When others join you:
 smile
 let them join ("Hi, Sure, come on!")
 offer a reason if you say no (e.g., "Sorry, we're in the middle of a game. You can play the next one, though.")

 - c. Model joining activity: Therapist playing ball - other therapist asks to join (use b1-b6) - positive response - feedback from group. Model same scenario, with negative response (b1-b6 plus model not getting made, and leaving to play alone after being rejected twice). Ask for feedback, with suggestions as to what responder could have done differently (e.g., give explanation).
 - d. Discuss application in everyday situations (recess, class project, etc.). When has it happened recently to you in terms of individuals and joining groups?
 - e. Role play: Split into 2 groups of 5 with situations from d above
 - (1) Initiate with individual
 - (2) Initiate with group

For (1) and (2) above, let individual or group know secretly whether to say "yes" or "no." Each child should try 1 and 2. Get group feedback, reinforce performance of components. Each member repeat until components mastered.
 - f. Group together - discuss difficulties - review components verbally.
 - g. Practice sheets 3x in next week, join activity (at least one group). Emphasize effort, not success.

M T W Th F

Joined activity

I let someone join in

Did I (pick one situation): smile _____, look at person_____,
greet them_____, ask to join nicely_____, imitate group
member_____. If s/he or they said no: didn't get mad_____.
Tried twice_____. Left or joined others_____.
h. Motivation/relationship measure.

Behavior Therapy - Session 7

1. Review previous training session: Joining Activities
 - a. What was topic and why important?
 - b. What are important parts to remember? (refer to list on session 6-3b)
2. Review practice sheets.
 - a. Review 1 or 2 descriptions of situations and discuss.
 - b. Role-play - one individual and one group activity, with feedback and reinforcement.
3. Skills training: Conversations
 - a. What are important things to remember when you are having a conversation (eye contact, voice volume, tone of voice, listening)? What are some things you might talk about at school and in the neighborhood when you have conversations (use in later role plays).
 - b. List of important components
 - (1) smile
 - (2) eye-contact
 - (3) open-ended questions (how, why, not do you, have you, or other questions leading to yes or no answers)
 - (4) using free information
 - (5) self statements (opinions, feelings)
 - (6) summarizing
 - (7) being prepared for silences
 - c. Model conversation: Use 1-7 above (scenario is sitting down for lunch)

"Hi, Nancy"	smile, eye contact
"Hi, Wynn, how're you doing?"	open ended question
"Good - what do you have for lunch?"	open ended question
"Oh, another bologna sandwich!!"	free information
"Sounds like you don't like bologna, how come?"	open ended question
"I get it every day!!!"	
"I don't like it either."	
"What else do you have?"	self statement; open ended question
"I've got an orange. I like those."	self statement
"Yeah, I like those too. How did you do on the spelling test?"	free information; open ended question
"Lousy! I hate spelling!"	self statement; open ended question
"Oh, yeah? How come?"	open ended question

Discuss and listen to tape of conversation above, have group members pick out use of 1-7.

 - d. Discuss application in everyday situations (lunch, recess, playing games, class projects). When was group member's last conversation? Discuss.

Behavior Therapy - Session 7 (continued)

- e. Role play: Split into 2 groups with situations from 3a and d above. Limit to 2 minutes/person. Get group feedback on use of components. Initially, therapist should role-play responder for 2 children and use self-statements, open ended questions, and supply free information to make it easier for members. Have final 3 children role play with other children.
- f. Group back together - discuss difficulties - review components verbally.
- g. Practice sheets: at least 3 conversations.

M T W Th F

Conversations

(Check if occurs)

Topic of one of the conversations:_____. What
 did I do well: smile_____, eye contact_____, open ended
 question_____, free info_____, self statements_____.

- h. Motivation/relationship measure.

Behavior Therapy - Session 8

1. Review previous training session: Conversations
 - a. What was topic?
 - b. What are important parts to remember about conversation (see 7-3b)
2. Review practice sheets.
 - a. Review those records of compliers - reinforce compliance.
 - b. Select 2-3 conversations to discuss and reinforce effort and what child did well; inquire as to how child could improve; what was hardest?
3. Skills training: Review all skills
 - a. Have children note what skills have been discussed and practiced, list on board or sheet - have each child note which skill was most difficult to learn. Making progress with that skill?
 - b. Split into 2 groups of 5. Based upon prior notes (see end of session one) and child self-reports (a), have each child practice his or her most deficient skill (joining activities, conversation, etc.) with suggested situations from targeted child or other children in group (the former is preferable). Provide feedback and reinforcement.
 - c. Group back together - select 1-2 children to practice skill in front of entire group.
 - d. Discuss end of group with children - reinforce their attendance, practice, effort, your enjoyment of group, etc. Let them know it will be critical for them to continue to practice skills, and that they will be seen in group and individually for final part of the group, and will be asked to answer some questions about making friends.
 - e. Administer relationship/motivation measure.

APPENDIX O

COGNITIVE THERAPY GROUP TREATMENT MANUAL

Cognitive Therapy Groups

General Guidelines

Format of Training Program:

1. Review of Previous Training Session. Trainers invite comments from the children about what they learned during the last training session. Children are praised for completing homework assignment and for practicing their social skills. Previous week's skills are then reviewed.
2. Introduction of a New Skill Area. Trainers introduce a new skill area by describing and asking children to describe the skill and why it is important for positive peer interactions. Trainers also mention the components of the skill area, and prepare the children to observe modeling of skill.
3. Skill Practice. Trainers (sometimes with 2 split groups) present interpersonal problematic situation and require use of cognitive skills (see #2 above). Each problem dealt with extensively (i.e., until no solutions elicited during alternative solution skill training). Emphasis is on group's active participation in problem solving process (i.e., therapist does not provide solutions until group ideas are exhausted).
4. Verbally Review Skill Area. Trainers verbally review skill areas covered within the session with the group as a whole. Children are asked to list components, and specific children are questioned in order to ensure that all children have acquired knowledge of skill area. This is not specifically noted in session by session plans, so be certain to include.
5. Homework Assignment. Homework assignments are handed out, and explanation provided. Following explanation, at least one child is requested to review the directions for the assignment, to ensure that lack of understanding of the assignment does not prevent completion.
6. Relationship/Motivation Measure Completed.

Cognitive Therapy - Session 1

1. Introduce self, have children do same. Discuss purpose of group, i.e., to learn different ways of making and keeping friends and that we'll be talking and practicing different ways to do this. Let children name the group.
2. Explain that each week group members will be given practice sheets (don't say homework) to work on - discuss importance of these, emphasize their completion, and mention that each group will begin with collection and discussion of each sheet.
3. Skills training: Role Taking (Feelings).

Have children make a list with you of feelings that people have (add own, as needed). Read vignettes and have children identify what feeling might match vignette. If child gives inappropriate emotion, ask why. If still irrelevant, ask other children.

Have children split into 2 groups. Help them derive a "people" list (e.g., grandma, policeman - make sure same age peer included). Discuss what might make each feel happy, sad, frustrated, lonely, scared, etc. Bring groups together and share information. Discuss how you can tell how others are feeling. Have children demonstrate several emotions.

Have children split into 2 groups and set time limit (5-10 minutes) to make list of things they could do to make peers (1) happy, (2) mad, (3) sad. Bring groups together and discuss. Ask members what "happy" things they have done lately.

4. Practice Sheet: Make a list (3 each) of things that made a classmate happy or sad during next week.

Happy

Sad

How I Could Tell

5. Administer outcome expectancy and relationship/motivation measure.

Cognitive Therapy - Session 2

1. Review previous training session.
 - a. What was talked about? Why important?
 - b. Review names.
2. Review practice sheets.
 - a. Reinforce return of sheets.
 - b. Mark practice completion sheets aloud.
 - c. Discuss 2 completed sheets.
3. Skills training: Problem Solving Steps.
 Explain to group that it helps sometimes to think about what you can do about a problem and there are steps you can take that help a lot. At this point, one therapist takes the other's pencil and asks the group, "Does _____ have a problem? What is it? (has no pencil):

That's Step #1 - Say exactly what the problem is.

Next, we have to decide what the goal is (have group define "goal"). This is:

Step #2 - Decide on a goal.

Discuss what the next step might be, then list:

Step #3 - Stop and think before you act.

Discuss why #3 is so important.

Discuss problem of child wanting to join ongoing activity but doesn't know how. How does child know he/she has a problem? (feels unhappy, is bored). Then go through steps #1-#3.

Using 4 problem cards, review:

1. What is _____ feeling?
2. How can you tell?
3. What is the problem?
4. What is the goal?

Give out crossword puzzle (review after completion).

Ask children what the 4th step in problem solving might be, and let them know that it will be discussed (alternative solution thinking) next session.

4. Practice sheet: Pick out 2 problems you have during the next week and write down steps.

a. How did I know I had a problem?	a.
b. What was my goal?	b.
c. Did I stop and think first?	c.
5. Administer relationship/motivation measure.

Cognitive Therapy - Session 3

1. Review previous training session.
 - a. What was talked about? Why is it important? How can it help you get along with other children?
2. Review practice sheets.
 - a. Reinforce return of practice sheets.
 - b. Emphasize importance of the returns.
 - c. Mark completion of practice sheets aloud.
 - d. Have 2-3 children discuss practice sheet.
3. Skills training: Alternative Solution Thinking.
 Let children know that you are going to describe a problem that comes up between children. Their job is to tell what the child in the story could do to solve the problem (do or say). The idea is to think of lots of different ways to solve the problem.

Problem #1: If possible, draw 4 (3 on one side, 1 on the other) stick figures on the board (or construction paper). The problem here is that this child wants to join the group in a game of tag and these children aren't paying any attention. What can this child (point) do or say to get into the game? Write solutions on board or construction paper (as they occur, explain concept of enumerations to children).

Split into 2 teams for problem 2. Have children write down responses to put on board (so that other team does not hear responses).

Problem #2: Have children pose problem before splitting into 2 groups. If no problem presented, use the following. Draw stick figures of mother and daughter. This girl's mother went to work and Susan (girl) went to the store to buy her mother a book she had asked for. Susan bought the wrong book and now her mom is mad. What can Susan do or say so that her mom won't be mad?

Bring groups together - compare solutions - reinforce effort by both teams. Discuss purpose of games:

- 1) Why do you think we wanted as many solutions as we could come up with?
- 2) Why is it important to keep thinking of ideas even when you think you've run out?
- 3) Is there always a perfect solution to every problem? Why not?
- 4) How might practicing this help make and keep friends?

Time permitting: Problem #3: For this problem, the idea is to help one child, Alice, get a chance to ride Barbara's bike:

- 1) divide group into 2 teams
- 2) ask child from team 1 for solution
- 3) ask child from team 2 for different solution
- 4) return to group 1 (new child)
- 5) continue back and forth until both groups run out of ideas.

Each child is given turn; if child whose turn it is does not have solution, any child on team can produce one. Keep solutions listed under team1 or team2 headings.

4. Practice sheet: Elicit situation from group which comes up a lot in school or neighborhood. Have them write this problem on their sheet. For next group, they should list all the solutions they can think of for that problem. If no problem given, present problem of child seeing friend being teased by another child
5. Administer relationship/motivation measure.

Cognitive Therapy - Session 4

1. Review previous training session.
 - a. What did we talk about? Why important?
2. Review practice sheets.
 - a. Reinforce return of practice sheets.
 - b. Emphasize importance of the returns.
 - c. Mark practice completion sheets aloud.
 - d. Have 2 children discuss their practice (not children who did not return sheets).
3. Skills training: Consequential Thinking.
 Let children know that we are now going to come up with solutions and look at what might happen next if that solution were picked. Goal is to name all the consequences they can, pro or con, and then decide whether the idea is a good one.

Keep group intact and present the following problem:

Problem #1: Judy wants her sister to stop playing her radio so loudly. Pick one (best to start with one conducive to naming consequences - e.g., "hit her"), and state, "If Judy (e.g., hits her), what might the consequence be? What might happen next?"

Set up chart

<u>Solution</u>	<u>Consequences</u>
Hit her	
.	
.	

Continue to elicit responses (What might the sister do or say; how might sister feel). Explain enumerations as they occur.

Discuss how many children think response (e.g., hitting) is good and not good. Why, why not?

Review one more solution (one you deem "good" if previous choice was "bad," and vice versa).

Problem #2: Split into 2 groups after presenting following problem:

Timmy wants Michael to give him the basketball because it's his turn to shoot for the basket. Michael keeps throwing and won't give up his turn.

Group lists solutions and votes on which is best (structure so that at least 2 solutions are closely examined in terms of consequences).

Bring groups together - select one representative from each team to present their choice and defend it--other team questions choice(s) (e.g., why that solution? why not . . .).

Discuss why we talked about consequences - and why list all possible consequences? Why is it important? Are we always sure a certain consequence will happen? How might practicing this help make friends?

4. Practice sheet: Elicit problem from group or use situation from last week (see Week 1 practice sheet). Assignment: list all solutions and list all possible consequences for 2 solutions.
5. Administer relationship/motivation measure.

Cognitive Therapy - Session 5

1. Review previous training session.
 - a. What did we talk about? Why is skill important?
2. Review practice sheets.
 - a. Reinforce return of practice sheets.
 - b. Mark practice completion sheets.
 - c. Discuss 2 completed sheets.
3. Skills training: Consequences Pairing.

Let children know that goal now is to offer solutions, follow it up with a consequence, return to the problem for a second solution and possible consequences, etc. Goal is to link pairs of solutions and consequences.

Keep group intact and present problem from group. If no problem presented, present one involving boy being asked to go to the football field after his mom told him not to. Elicit solutions and not possible consequences after each solution.

Select team 1 and 2. Each team gives one new, different solution and a consequence for that solution. If a child gives a solution that's the same as one already given, the other team goes. As soon as no one on a team can give a new, different solution, other team gets a chance. If someone on another team can give one, that team wins by having the greatest # of solutions. Problem from groups or seeing new kid in class and wanting to make friends.

Discuss why it's important to think of a solution and consequence pair. How do we know if a consequence will be good or bad? What can we do if a consequence is a bad one?

4. Practice sheet:

Elicit problem from group or use situation of being a new boy/girl in school and wanting to make friends. Write down 5-6 solutions and pair with a consequence. Pick your best choice (circle).

Solutions

Consequence

- 1
- 2
- 3
- 4
- 5
- 6

5. Administer relationship/motivation measure.

Cognitive Therapy - Session 6

1. Review previous training session.
 - a. What was discussed - why important - review basic components.
2. Review practice sheets.
 - a. Reinforce return of practice sheets.
 - b. Mark completion sheets.
 - c. 2-3 children discuss practice.

3. Skills training: 6 Problem Solving Steps

Elicit 6 steps from children; provide if necessary (write on board/chart)

- 1) Say exactly what problem is
- 2) Decide on you goal
- 3) Stop to think before you act
- 4) Think of as many solutions as you can
- 5) What might happen next?
- 6) When you have a solution, try it!!

Have children split into 2 groups and devise 2 problems from own experiences (if needed, use teasing problem, butting in line, or physical aggression). Have groups go through 1-6 with minimal guidance, and assign roles for skits. Rehearse verbally the skits. One situation should be the same for both groups. Bring groups together, enact role play, and discuss how #6 derived. Each group should be cued to listen for steps 1-6 and pay attention to feelings of performer.

Time permitting: Entire group can work on selected problem of any member using Steps 1-6.

4. Practice sheet:

Pick one problem you are having or just had and go through steps 1-6.

- 1
- 2
- 3
- 4
- 5
- 6

5. Administer relationship/motivation measure.

Cognitive Therapy - Session 7

1. Review previous training session.
 - a. What was discussed - why important - review basic components (6 steps).
2. Review practice sheets.
 - a. Reinforce return of practice sheets.
 - b. Mark completion sheets.
 - c. 3-4 children discuss practice.

3. Skills training: Self Statements

Discuss use of self statements and how they influence what we do and say (e.g., lousy grade on test; 6th grader vs. 2nd graders takes ball, etc.). Have group come up with examples of situations which are influenced by what we say to ourselves.

Have children split into 2 groups and take 2-3 problems from previous practice sheets. Goal: Come up with as many self-statements as they can which would help person do something about the problem and which would prevent boy/girl from doing anything (e.g., he won't like me; if I want to solve this problem, I'd better do something).

Bring group together and discuss above assignment.

Role play (2 therapists) following situations:

1. Boy walking up to other, demanding pencil; first boy surrenders pencil.
2. Same as #1, but boy replies, "I need it," rather than giving it up.
3. Girl telling other girl that if she doesn't let her use jumprope, she'll tell teacher she hit her; girl gives up rope.
4. Same as #3, but girl says, "You can tell anything you want, but you can't use the rope until I'm finished."

Discuss after each scenario what first child may be saying to him/herself and whether inhibiting statements are true.

4. Practice sheet:

Situation (Problem)	_____
Said to myself	_____
What I did	_____

5. Administer relationship/motivation measure.

Cognitive Therapy - Session 8

1. Review previous training session.
 - a. What was discussed - why important -
2. Review practice sheets.
 - a. Reinforce return of practice sheets.
 - b. Mark completion sheets.
 - c. 3-4 children discuss practice.
3. Skills training: Review Skills verbally
 1. Role taking
 2. Alternative solutions thinking
 3. Consequential thinking
 4. Pairing solutions & consequences
 5. Problem-solving steps (list)
 6. Self-statements

Have children derive above list as group, list on board or chart.

Situation from group and integrate into Steps 1-7 above (for #1, derive feelings of everyone in the situation; for 6, what self statements would help or hurt performance?

What happens if final step among problem-solving steps (i.e., pick solutions and try) doesn't work? What can you do (repeat process and try another solution) and say to yourself that would help you try?

Split into 2 groups. Using situation used above, role play "failures." That is, have group members try solutions, fail, try another, etc. Have each member try with either same or different solutions.

Group together - discuss end of group - reinforce attendance, practice, effort, your enjoyment of group, etc. Let them know it will be critical to continue to practice skills and that they will be seen as group and individually for the final part of the group, and will be asked to answer some questions about making friends.

4. Administer relationship/motivation measure.

APPENDIX P
ATTENTION CONTROL GROUP

Attention Control Groups

Session 1 - Introduction

1. Introduce self to group, then children do the same. Discuss purpose of group, i.e., to learn different ways of making and keeping friends, and that we'll be talking about different ways to do this. Let children name the group. Answer questions about the group.
2. Explain that each week group members will be given practice sheets (don't say homework) to work on; discuss importance of these, emphasize completion, and mention that each group will begin with collection and discussion of each sheet.
3. Discuss importance of having rules for the group and solicit group participation in choosing general rules for the group. Suggest that the most important rule might be that only one person talks at a time. Have the children generate other rules.
4. Explain that the project for the day is to (1) put the group name and the names of group members on the poster board, and (2) to write the group rules on poster board so that these can be posted during each group. Provide markers and poster board and allow children to complete tasks.
5. Pass out the practice sheets to each child and answer any questions.

Practice Sheet

My Name is _____

I had a conversation with _____

and we talked about _____

Stress importance of completing sheets and bringing them back.

6. Administer outcome expectancy and relationship/motivation measure.

Attention Control - Session 2

Participation, Sharing, Affect Recognition

1. Review practice sheets
 - a. reinforce return of sheets
 - b. emphasize importance of returns
 - c. mark practice completion sheet aloud
 - d. have two children discuss their practice

2. Activity: Scarf Game
 - A. Tell the children that you are going to give them a signal or cue, and when you do that they are to respond by doing something. When you give another cue, they are to stop what they are doing. Note that it is important to follow directions and take turns so everyone has a chance to participate.
 - B. Using a scarf, instruct students to hum as you drop the scarf to the floor. Drop the scarf from as high as you can reach. When the scarf hits the floor, they must stop and be very quiet until it is dropped again. Repeat several times and praise students for responding to cue.
 - C. Explain that the scarf will now be used as a cue for talking. Give the scarf to a student and ask the child to tell the group what they like most about their best friend. After that student has finished, have him/her pass the scarf to the next student and so on, until each student has had a chance.

3. Use the same procedure for the following topics:
 - A. The scariest moment of your life.
 - B. The funniest thing that ever happened to you.
 - C. What are some reasons for taking turns when we talk about things together?

4. Activity: Illustrated Pictures

Present affect recognition pictures to the group one at a time, asking the children:

- A. Have you ever felt this way?
- B. How do you think this person feels?
- C. What happened to make you feel that way?

Instruct children to raise their hands and ask permission to hold the scarf and answer any questions:

Session 2 - cont'd

5. Pass out practice sheets to each child and answer any questions:

Practice Sheet

My name is _____

I talked to _____

He/She felt _____

because _____

6. Administer relationship/motivation measure.

Attention Control - Session 3Conversation Skills

1. Review practice sheets
 - a. reinforce return of sheets
 - b. mark practice completion sheet aloud
 - c. have two children discuss their practice
2. Activity: Information Game
 - A. Explain to children that today they will be playing a game called "Information Please," and that it will help them to get to know each other better. Explain that each child will have a chance to serve on the panel and to be interviewed by the panel.
 - B. Explain that the panel members will decide on the questions they wish to ask and have the panel clear the questions with you. All questions should be cleared to insure that the children being interviewed are not asked inappropriate questions. Before the interview begins, assure the students being interviewed that they have the right to refuse to answer any question by saying "I pass." Have the panel members and interviewees introduce themselves and proceed with the interview.
 - C. Have children take turns being interviewed until each child has taken a turn. If children have difficulty choosing appropriate questions, you may wish to suggest questions from the following list:
 - secret pal
 - birthday
 - favorite color
 - " holiday
 - " hobby
 - " animal
 - " grade
 - " teacher
3. Pass out practice sheets to each child and answer any questions

Practice Sheet

Find a magazine picture of each of the following feelings. Cut them out and paste them below.

Angry

Happy

Surprised

Worried

Attention Control - Session 4

Discussion of Feelings

1. Review practice sheets
 - a. reinforce return of sheets
 - b. mark practice completion sheet aloud
 - c. have two children discuss their practice
2. Activity: Feeling Wheel
 - A. Pass out feeling wheels to each student. Explain that the wheel has spaces for 12 common feelings and that the stronger form of the feeling is in the middle of the wheel and the everyday feeling is on the outside.
3. B. Read the first of four situations, and ask children to put their finger on the feeling they would have in that situation. Note feelings children select, and point out that there may be differences in the way they feel in these situations based on their own differences and experiences.
 - C. Continue to read each situation, pointing out several children's selections.
 - D. Instruct the children to again select the feeling they would have in response to the story about Rita and Ernie. As the story describes how Rita is feeling, all of the girls in the group are to show their feelings by their facial expressions and by placing their fingers on the feeling wheel. The boys are to do the same as the story describes how Ernie is feeling.
4. Pass out practice sheets, answer questions.

Practice Sheet

I feel lovely when _____

I feel surprised when _____

I feel embarrassed when _____

I feel angry when _____

5. Administer relationship/motivation measure.

Attention Control - Session 5Role Taking

1. Review practice sheets
 - a. reinforce return of sheets
 - b. emphasize importance of returns
 - c. mark practice completion sheet aloud
 - d. have two children discuss their practice
2. Activity: Trip-to-the-Moon Game
 - A. Ask the group to brainstorm the following question: If you could take a trip to the moon, what would you take along? Write all ideas on the chalkboard.
 - B. After a list has been developed, ask the children to pretend that you are on the moon and a problem develops with your spaceship so that only the pilot can go back to earth. You will be stranded on the moon for a week until another spaceship can rescue you. The pilot says that you may keep with you only five of these items. Which five things would you choose to keep?
 Encourage students to discuss the value of each item on the list before choosing the five they would keep. Provide assistance as needed.
3. Pass out practice sheets/answer questions.

Practice Sheet

Pick a comic book or TV hero and write down what you would do
 or say so that we know who you are_____

 _____.

4. Administer relationship/motivation measure.

Attention Control - Session 6Giving/Following Instructions

1. Review practice sheets
 - a. Reinforce return of sheets
 - b. emphasize importance of returns
 - c. mark practice completion sheet aloud
 - d. have two children discuss their practice
2. Activity: Map Game
 - A. So that students can practice giving accurate instructions, give each student a pencil and a copy of the following map. Tell the students that this is a make-believe map of the community, pointing out the relative locations of north, south, east, and west and the school. Instruct the children to choose a spot where they live and to mark it with an "X". Then ask each child to give the rest of the group directions from the school to his/her house. After each of the students has given directions to the group, allow the children to compare maps and discuss why some directions were easier to follow than others. Discuss the importance of accurate directions.
3. Pass out practice sheets/answer questions.

Practice Sheet

Describe two times when you cooperated with someone else. Why did you cooperate?

4. Administer relationship/motivation measure.

Attention Control - Session 7Cooperation

1. Review practice sheets

- a. reinforce return of sheets
- b. emphasize importance of returns
- c. mark practice completion sheet aloud
- d. have two children discuss their practice

2. Activity: Anagrams

Divide the students into two teams. Explain that they are going to play a game, the object of which is to solve some scrambled words or anagrams which you will write on the board. After you have written a word on the board, the first team to unscramble the word correctly will receive a point. Note however, that students must raise their hand to get a chance to solve the puzzle. If they call out an answer without raising their hand, the answer does not count. At the end of the period, the team with the most points gets five minutes of extra free time. Select words from the following list:

excuse = sucexe
 eight = tgeih
 clock = klcoc
 stamp = mapst
 pencil = lenpic

desk = sekd
 group = pguro
 Kevin = veinK
 dress = serds
 cafeteria = aftreciae

3. Activity: Nerf Basketball

After completing the anagrams, explain that the remainder of the period will be spent playing nerf basketball. Using the same two teams, instruct the students to play horse, or match shots, using a nerf ball and a wastepaper basket placed against the wall. As stated previously, the team with the most points (total points from both anagrams and nerf basketball) gets five minutes of extra free time at the end of the session.

4. Pass out practice sheets/answer questions.

Practice Sheet

When someone blames me for something I didn't do, I feel _____

When someone asks me to do something I don't want to do, I feel _____

5. Administer relationship/motivation measure.

Attention Control - Session 8Closure for Group

1. Review practice sheets
 - a. reinforce return of sheets
 - b. mark practice completion sheets aloud
 - c. have two children discuss their practice
2. Activity: During the final session, the first objective is to generally discuss the rationale for the group; to generally learn different ways to meet people, to make friends, and to get along better with people.

The therapist should also address and reinforce the progress and improvement of the group collectively and individually where appropriate. The therapist should also prompt feedback from group members as to:

1. Were the activities fun?
2. Were the activities helpful?
3. What did you like best? least?
4. What have you learned?
5. What do you do differently now than before the group?

Thus, the second objective is to conduct an informal verbal assessment of the activities, procedures, problems, and general impact of the group to facilitate future evaluation/modification.

The final and major objective of the session is to provide appropriate closure for the group. Thus, the session should be conducted as informally as possible. The provision of snacks and punch when possible might serve to promote this informality, as well as to provide something fun and different for the students.

APPENDIX Q

Analyses of Variance on Selection Variables

Pretreatment Group Differences

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
AML(A)					
Total	978.97	47			
Group	31.20	2	16.60	0.78	.50
Subjects (Group)	947.77	45	21.06		
AML(M)					
Total	527.65	47			
Group	1.63	2	0.81	.07	.93
Subjects (Group)	526.02	45	11.68		
AML(L)					
Total	37.00	47			
Group	1.64	2	0.81	1.04	.34
Subjects (Group)	35.36	45	0.78		

APPENDIX R

Pretreatment Analyses of Variance
for Behavioral Measures

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
A. Peer Positive Behavioral Observations					
Total	32,713.02	46			
Group (G)	3,228.22	2	1,614.11	2.40	.10
Status (S)	642.34	1	642.34	0.96	.41
Subjects (G * S)	28,842.46	43	670.75		
B. Peer Negative Behavioral Observations					
Total	1,623.94	46			
Group (G)	33.44	2	16.72	0.47	.64
Status (S)	49.81	1	49.81	1.39	.26
Subjects (G * S)	1,540.69	43	35.83		
C. Classroom Disturbance/Disrespect Defiance Devereux Combined Subscales					
Total	2,932.17	47			
Group (G)	77.41	2	33.70	0.80	.48
Status (S)	1,002.72	1	1,002.72	23.82	< .001*
Subjects (G * S)	1,852.04	44	42.09		

*Aggressive > Withdrawn

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
D. External Reliance/Creative Initiative Devereux Combined Subscales					
Total	2,751.75	47			
Group (G)	217.71	2	108.86	2.09	.14
Status (S)	243.71	1	243.78	7.68	< .05*
Subjects (G * S)	2,290.26	44	52.05		

*Aggressive > Withdrawn

E. Sociometric Ratings					
Total	24.93	47			
Group	1.86	2	0.93	1.82	.17
Subjects (Group)	23.07	45	0.51		

APPENDIX S

Pretreatment Analyses of Variance
for Status Differences

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
AML(A)					
Total	2,413.08	59			
Status	420.22	2	210.11	6.01	< .01*
Subjects(Status)	1,992.86	57	34.96		
*Aggressive > Withdrawn, Popular					
AML(M)					
Total	1,621.15	59			
Status	16.65	2	8.32	0.30	.75
Subjects(Status)	1,604.49	57	28.14		
AML(L)					
Total	88.34	59			
Status	6.28	2	3.14	2.19	.13
Subjects (Status)	82.06	57	1.43		
Sociometric Ratings					
Total	91.21	59			
Status	63.28	2	31.64	64.91	.001*
Subjects (Status)	27.93	57	0.49		
*Popular > Aggressive, Withdrawn					

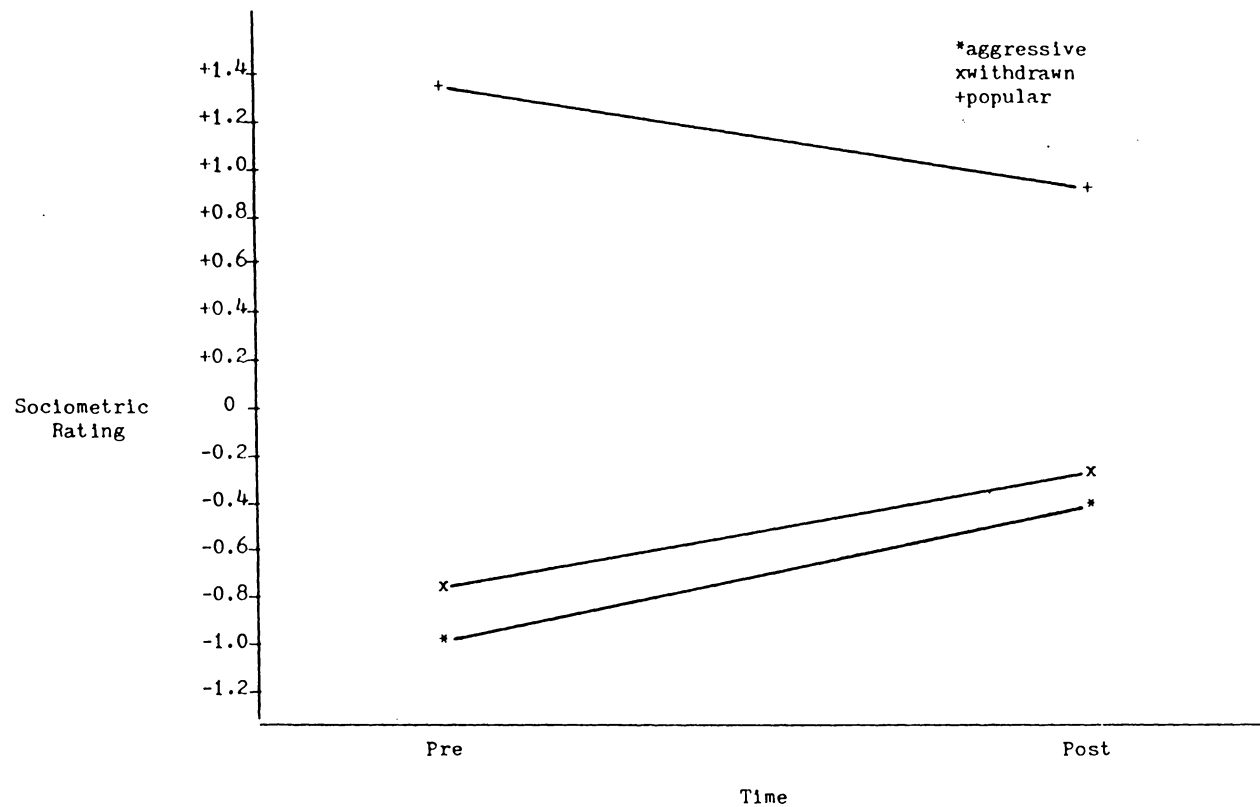
APPENDIX T

Treatment Outcome Analyses of Variance
for Behavioral Measures

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
A. Peer Positive Behavioral Observations					
Total	757.89	72			
Group (G) * Pre-Post (PP)	19.04	2	9.52	0.90	.42
Status x PP	3.59	1	3.59	0.34	.56s
G * S * PP	15.30	2	7.65	0.72	.50
PP * Subjects(G*S)	719.96	67	10.58		
B. Peer Negative Behavioral Observations					
Total	349.94	72			
Group (G) * Pre-Post (PP)	2.65	2	1.32	0.27	.77
Status x PP	12.94	1	12.94	2.63	.08
G * S * PP	5.40	2	2.70	0.55	.58
PP * Subjects(G*S)	328.95	67	4.91		
C. Classroom Disturbance/Disrespect Defiance Devereux Combined Subscales					
Total	667.43	47			
Group (G) * Pre-Post (PP)	35.96	2	17.99	1.28	.29
PP * Subjects(G*S)	631.47	45	14.03		

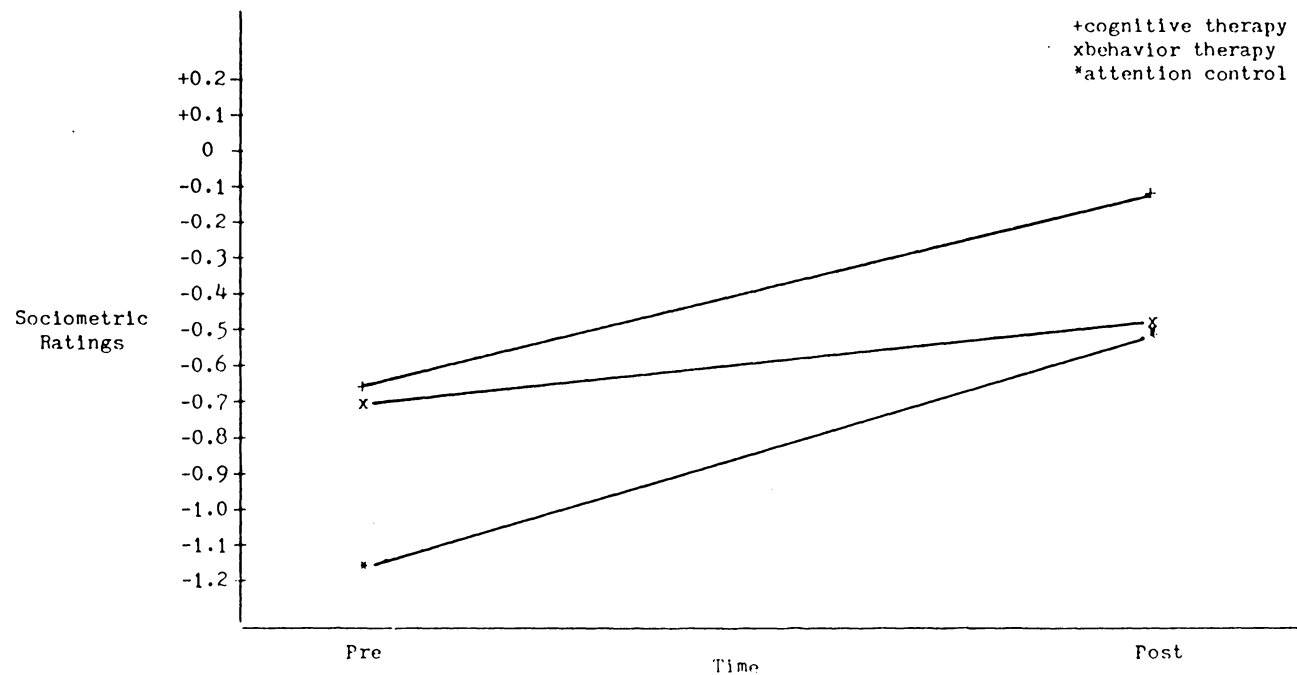
Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
D. External Reliance/Creative Initiative Devereux Combined Subscales					
Total	529.76	47			
Group (G) * Pre-Post (PP)	53.88	2	26.94	2.55	.09
PP * Subjects(G*S)	475.88	45	10.58		
E. Sociometric Ratings					
Total	24.99	95			
Group (G) * Pre-Post (PP)	.84	2	0.44	1.68	.19
Status (S) x PP	.20	1	0.20	0.77	.44
G * S * PP	.74	2	.37	1.42	.22
PP * Subjects(G*S)	23.61	90	0.26		

APPENDIX U
SOCIOMETRIC RATINGS BY STATUS
SOCIOMETRIC RATINGS BY TREATMENT GROUP



Mean sociometric ratings by sociometric status at pre- and post-treatment. Ratings are expressed in z scores with zero being class mean and ± 1 indicating 1 standard deviation from the class mean

Figure 3
Sociometric Ratings by Sociometric Status



Mean sociometric ratings by treatment group (excluding popular children) at pre- and post-treatment. Ratings expressed in z-scores with zero being class mean and ± 1 indicating 1 standard deviation from class mean

Figure 2
Sociometric Ratings by Treatment Group

APPENDIX V

Pretreatment Analyses of Variance
Cognitive Process Measures

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
A. Self-Efficacy Measure					
Total	135.06	46			
Group (G)	2.20	2	1.10	0.36	.66
Status (S)	1.05	1	1.05	0.34	.69
Subjects (G * S)	131.81	43	3.07		
Socialization Self-Statement Test					
B. Conflict - Friend					
Total	4,657.82	45			
Group (G)	38.32	2	16.16	0.16	.88
Status (S)	276.99	1	276.99	2.71	.08
Subjects (G * S)	4,292.51	42	102.20		
C. Initiate - Friend					
Total	5,422.93	45			
Group (G)	97.72	2	48.86	0.40	.52
Status (S)	250.12	1	250.12	2.07	.14
Subjects (G * S)	5,075.09	42	120.83		

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
D. Initiate - Stranger					
Total	4,696.98	45			
Group (G)	107.48	2	53.74	0.50	.47
Status (S)	75.24	1	75.24	0.70	.50
Subjects (G * S)	4,514.26	42	107.48		
E. Conflict - Stranger					
Total	3,184.42	45			
Group (G)	4.63	2	2.31	0.03	.82
Status (S)	101.56	1	101.56	1.38	.28
Subjects (G * S)	3,078.23	42	73.29		
F. Alternative Solutions Test: Nonforce Ratio					
Total	430.17	46			
Group (G)	29.66	2	14.83	1.61	.21
Status (S)	4.09	1	4.09	0.44	.51
Subjects (G * S)	396.42	43	9.22		
G. Alternative Solutions Test: Total Number of Solutions					
Total	1,701.75	46			
Group (G)	175.93	2	82.77	2.68	.08
Status (S)	112.50	1	112.50	3.42	.07
Subjects (G * S)	1,413.32	43	32.87		

APPENDIX W

Treatment Outcome Analyses of Variance
Cognitive Process Measures

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
A. Self-Efficacy Measure					
Total	239.96	88			
Group (G) * Pre-Post (PP)	1.85	2	0.92	0.340	.51
Status (S) * PP	3.97	1	3.97	1.46	.26
G * S * PP	7.98	2	3.99	1.47	.24
PP * Subjects(G*S)	226.16	83	2.72		
Socialization Self Statement Test					
B. Conflict - Friend					
Total	1,097.68	90			
Group (G) * Pre-Post (PP)	32.48	2	16.24	1.33	.25
Status (S) * PP	7.26	1	7.26	0.60	.46
G * S * PP	22.89	2	11.45	0.94	.38
PP * Subjects(G*S)	1,035.05	85	12.18		
C. Initiate - Friend					
Total	1,516.10	90			
Group (G) * Pre-Post (PP)	86.74	2	43.37	2.71	.09
Status (S) * PP	36.83	1	36.83	2.30	.13
G * S * PP	31.04	2	15.53	0.97	.38
PP * Subjects(G*S)	1,361.49	85	16.01		

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
D. Initiate - Stranger					
Total	1,145.67	90			
Group (G) * Pre-Post (PP)	49.54	2	24.77	1.98	.16
Status (S) * PP	4.76	1	4.76	0.38	.54
G * S * PP	26.06	2	13.03	1.04	.36
PP * Subjects(G*S)	1,065.31	85	12.53		
E. Conflict - Stranger					
Total	1,065.02	90			
Group (G) * Pre-Post (PP)	7.33	2	3.66	0.30	.74
Status (S) * PP	10.63	1	10.63	0.87	.35
G * S * PP	8.06	2	4.03	0.33	.72
PP * Subjects(G*S)	1,039.03	85	12.22		
F. Alternative Solutions Test: Nonforce Ratio					
Total	29.65	92			
Group (G) * Pre-Post (PP)	0.76	2	0.38	1.18	.28
Status (S) * PP	0.02	1	0.02	0.06	.92
G * S * PP	0.18	2	0.09	0.28	.70
PP * Subjects(G*S)	28.07	87	0.32		

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
G. Alternative Solutions Test: Total Number of Solutions					
Total	1,934.35	92			
Group (G) *					
Pre-Post (PP)	117.42	2	58.71	3.05	.06
Status (S) * PP ^A	81.94	1	81.94	4.25	<.05
G * S * PP	58.01	2	29.00	1.50	.27
PP * Subjects(G*S)	1,676.98	87	19.28		
H. Simple Main Effects Analysis: Posttreatment					
Total	4,893.56	47			
Status (S) ^A	436.93	1	436.93	4.51	< .05*
Subjects (S * G)	4,456.63	46	96.88		
^A *Withdrawn > Aggressive					

APPENDIX X

Pretreatment and Treatment Outcome Analyses of Variance
Cognitive Structure Measures

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
A. Pretreatment Peer Preference Test - Peer					
Total	286.28	46			
Group (G)	5.58	2	2.64	0.44	.62
Status (S)	21.57	1	21.57	3.58	.07
Subjects (G * S)	259.13	43	6.03		
B. Pretreatment Reinforcement Value Measure - Peer					
Total	576.51	46			
Group (S)	67.92	2	33.98	3.01	.07
Status (S)	22.69	1	22.69	2.01	.14
Subjects (G * S)	485.90	43	11.30		
C. Treatment Outcome Peer Preference Test - Peer					
Total	58.15	94			
Group (G) * Pre-Post (PP)	1.67	2	0.84	1.35	.17.
Status (S) * PP	0.34	1	0.34	.54	.69.
G * S * PP	0.23	2	0.11	.17	.89.
PP * Subjects(G*S)	55.91	89	0.62		

D. Treatment Outcome Reinforcement Value Measure - Peer

Total	985.78	96			
Group (G) *					
Pre-Post (PP)	24.82	2	12.41	1.22	.29.
Status (S) * PP	4.07	1	4.07	.40	.68.
G * S * PP	31.72	2	15.86	1.56	.23.
PP * Subjects(G*S)	925.17	91	10.17		

APPENDIX Y

Analysis of Variance
Relationship Motivation Measure

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Total	830.84	47			
Group (G)	100.85	2	50.43	3.08	.07
Status (S)	15.52	1	15.52	0.95	.33
G * S	28.25	2	14.13	0.87	.43
Subjects (G * S)	686.22	42	16.33		

APPENDIX Z

Analyses of Variance
Homework and Attendance

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
A. Homework					
Total	33,627.17	47			
Group	905.29	2	497.64	0.69	.51
Subjects (Group)	32,631.88	45	725.14		
B. Attendance					
Total	18.55	47			
Group	0.86	2	0.43	1.07	.35
Subjects (Group)	17.69	45	0.39		

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