

Self-Efficacy, Efficacy Appraisal And Social Skills In  
Children

by

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(Abstract)

According to the current literature, dysfunctional social behavior in children is purported to be strongly related to adult behavior problems. Hersen and Bellack (1977) reported that deficits in children's social skills are generally the result of "a deficient learning history, wherein the necessary responses never became a viable part of an individual's repertoire, or the result of the disruptive effects of anxiety that inhibit behavior" (p. 510). Thus, social skills training usually consists of a behavioral-acquisition procedure designed to provide the necessary skills repertoire, promote more skillful response alternatives, and reduce social anxiety.

Based on social learning theory (Rotter, 1972) and Bandura's (1977) theory of self-efficacy, individuals who display dysfunctional social behavior in a given situation may be handicapped by perceived inefficacy, rather than, or

in addition to, a lack of appropriate social knowledge of social skill. To date, no research has examined the relative roles of self-efficacy and children's self-efficacy appraisal in producing social skill deficits in either aggressive or withdrawn children.

The purpose of the present research was two-fold: (1) to assess and investigate the relationship between self-efficacy, self-efficacy appraisal skills, and social behavior, and (2) to examine the relative effectiveness of a social skills training group, a social skills plus efficacy appraisal group, and a discussion group in remediating social skill deficits in children judged to exhibit aggressive and withdrawn behaviors in the classroom and on the playground.

In general, the results of the current research failed to support the experimental hypotheses. Nevertheless, post-treatment changes in efficacy appraisal and self-efficacy were obtained, and some differential effects of treatment attributable to status of subject were reported. Unfortunately, however, post-treatment changes on measures of efficacy appraisal and self-efficacy did not generalize to produce subsequent changes in social behavior. Several alternative explanations for these results are discussed.

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## INTRODUCTION

### OVERVIEW

The objective of this research was to evaluate the relative effectiveness of several intervention strategies designed to modify dysfunctional social behavior in school age children. Specifically, the relative effectiveness of an attention-control condition, a social skills training condition, and a social skills plus self-efficacy generalization condition was evaluated. Behavioral observations and psychometric assessment were conducted during pre-training and post-training to provide assessment of behavioral change.

### BACKGROUND

#### Introduction

Relative to the extensive literature on adult psychopathology and interpersonal behavior, research in the area of children's social skills has been deemphasized until recently. According to Michelson and Wood (1980), this is due in part to a relative neglect of social-emotional dimensions in child development within the American educational system (e.g., Cooke & Apolloni, 1976), and to the dominance of psychoanalytic and Piagetian theories of

development in psychology during the last several decades (e.g., Lewis & Rosenblum, 1975). More recently, however, a variety of studies have supported the contention that children's social skills are inherently related to adjustment in later life. Researchers have been particularly interested in the extent to which early childhood dysfunctional social behavior is indicative of dysfunction in later life. Although research has not yet clearly demonstrated a direct causal link between childhood dysfunction and future functioning, the available literature strongly supports the existence of a longitudinal relationship. Social dysfunction in children has been found to be associated with social maladjustment (Gronlund & Anderson, 1963; Kohn, 1977; Ullman, 1957), adult aggressive behavior (Clarizio, 1969), delinquency (Roff, Sells, & Golden, 1972), and adult mental health problems (Cowen, Pederson, Babigan, Izzo, & Tros, 1970, 1973; Garnezy, 1973, 1974; Roff, 1977; Watt, 1972). Thus, according to the current literature, dysfunctional social behavior in children is purported to be strongly related to adult behavior problems.



### Social Skills

Social skills have been conceptualized and defined in a variety of ways. In their review of assessment and training of children's social skills, Michelson and Wood (1980) reviewed various definitions of social skills extant within the literature. In 1942, Chittenden defined dominant assertion, cooperative assertion, and nonassertive submission as components of social skills. Lowe and Cautela (1978), however, noted that a number of social behaviors did not necessarily qualify as "assertive behaviors" and promoted use of the more generic term "social skills". Emphasizing the role of social skill in obtaining reinforcement, Libet and Lewinson (1973) defined social skills as the ability to emit behaviors that were positively or negatively reinforced rather than behaviors that were punished or extinguished by others. Similarly, Hersen and Bellack (1977) conceptualized social skills to be the ability "to express positive and negative feelings in the interpersonal context without suffering a loss of social reinforcement" (p. 512). In 1978, Hersen and Bellack emphasized the extent to which social skills are situation specific noting that the "determination of effectiveness depends upon the context of the interaction and the parameters of the specific situation" (p. 72).

A number of common, salient characteristics are contained in these various definitions (Michelson & Wood, 1980, p. 251):

1. Specific discrete verbal and nonverbal response components determine the adequacy of social behavior.
2. Behavioral repertoires involved in interpersonal situations are primarily learned response capabilities.
3. As the parameters of adequate social behavior vary from situation to situation, social skilled behavior is situationally specific.
4. Socially adept children behave in ways that are both appropriate and effective.
5. Social competency obtains maximized reinforcement from the social environment.
6. Social skills involve social interactions that have been described as interdependent and reciprocal in nature.
7. Deficits and excesses in social behavior that are dysfunctional for the individual can be identified, targeted and remediated by training.

## SOCIAL SKILLS TRAINING

### Relevant Applications

According to social learning theory, social skills are learned behaviors that are acquired and maintained through reinforcement contingencies in specific situations and that are associated with an individual's expectation that reinforcement is obtainable, and valued, in these settings.

Thus, it logically follows that social behavior or, specifically, the behavior potential of appropriate social behavior, can be modified by altering either an individual's ability to obtain social reinforcement or his or her expectation that reinforcement is in fact obtainable.

According to Hersen and Bellack (1977) deficits in social skills are generally the result of "a deficient learning history, wherein the necessary responses never became a viable part of an individual's repertoire, or the result of the disruptive effects of anxiety that inhibit behavior" (p. 510). Based on this assumption, social skills training usually consists of a behavioral-acquisition procedure. Direct training procedures designed to provide the necessary skills repertoire and to promote more skillful response alternatives, as well as reduce social anxiety, have generally been the treatments of choice.

According to Bellack and Hersen (1977), treatment of dysfunctional social behavior typically involves instructions, feedback, behavioral rehearsal and reinforcement so as to teach children "what to say and do". Modeling has also been utilized to facilitate the adoption of an adequate style of delivery, accompanied by appropriate nuances and non-verbal gestures. This type of approach to training is appealing on the basis of (a) the inherent

flexibility of the procedure, allowing it to be tailored to the children's needs, and (b) the abundance of research supporting its effectiveness with both adults and children (Bellack & Hersen, 1977, 1980; Curran, 1975; Edwards, 1972; Hersen & Bellack, 1976; Hersen, Miller, & Alford, 1974; LaGrecca & Santogrossi, 1980; Michelson & Wood, 1978, 1980; Ollendick & Hersen, 1979).

Typically, social skills training has utilized these five treatment components concurrently within the training sessions. Children are instructed or coached as to how to perform a skillful response and given both positive and corrective feedback following attempts to perform the targeted behaviors. Live modeling, participant modeling, and video taped modeling have been utilized in order to provide an active demonstration of the targeted behaviors. Behavioral rehearsal and the implementation of role play scenarios are employed to allow the child to practice appropriate social behaviors, and reinforcement (both social and tangible) is delivered contingent upon the child's progressively accurate demonstration of the targeted behavior.

### Social Withdrawal

Inadequate social behavior which results in a significant loss of social reinforcement often serves to foster the expectation that future behavior will also fail to yield reinforcement (Greenwood, Walker, & Hops, 1977). In fact, social interaction may come to be viewed as aversive, and a fear of interaction may develop. Subsequently, social isolation or socially withdrawn behavior often develops and frequently persists into adulthood (Waldrop & Halverson, 1975). Throughout the literature, socially withdrawn children have been described as unassertive, isolated, shy, passive, and lethargic (Bower, Amatea, & Anderson, 1976; Michelson & Wood, 1980; Palmer, 1977; Patterson, 1964).

Although social withdrawal was not viewed generally to be problematic in the past (Cooke & Apolloni, 1976), recent research has supported the need for intervention designed to remediate social isolation. A variety of studies have sought to promote more appropriate and more frequent social interaction in withdrawn children through social skills training and related programs. Hart, Buell, Harris, and Wolf (1964), Buell, Stoddard, Harris, and Baer (1968), and Whitman, Mercurcio, and Caponigri (1970) evaluated the efficacy of both social reinforcement and token

reinforcement in modifying withdrawn behavior. Dramatic increases in the amount of play, behavior, and social interactions with other children was reported. Several studies examined the effects of social skills training consisting of instructions, modeling and reinforcement on preschool to middle age, socially withdrawn children and their peers (Cooke & Apolloni, 1976; Strain & Timm, 1974; Strain, Shores, & Kerr, 1976). Generally, the results of these studies reported that social skills training and the delivery of contingent reinforcement directed towards withdrawn children increased social interaction in these children as well as their peers.

Bornstein, Bellack, and Hersen (1977) employed a social skills program consisting of instructions, modeling, behavior rehearsal, and reinforcement with socially isolated children and reported significant behavior change on simulated role play scenes and limited classroom behaviors. Whitehill (1978, cited in Van Hasselt et al., 1979) and others administered similar training programs and reported improvements in general conversation skills as well as component behaviors.

The efficacy of social skills training relative to a control condition has been examined by Gottman et al. (1976) and Hymel and Asher (1977). The results of these studies

revealed significant improvement in sociometric rating, and a redistribution of social interaction for children in social skills groups. A similar study by Oden and Asher (1977) however, failed to demonstrate significant differences between treatment and control conditions.

Thus, the available literature tends to support the effectiveness of social skills training and social reinforcement in modifying socially withdrawn behavior. Future research in this area should seek to systematically investigate the relative salience of the various treatment components (e.g., instructions, modeling, coaching, etc.) in remediating social isolation in children. Similarly, the generalizability and long-term effectiveness of treatment should be explored further (Ollendick, 1982).

### Social Aggression

Just as social withdrawal can be viewed as a result of loss of reinforcement due to social inadequacy or a fear of social interaction, socially aggressive behavior can be conceived as an antagonistic, assaultive attempt to obtain social reinforcement (Group for the Advancement of Psychiatry, 1976; Ollendick, 1982). As with social withdrawal, socially aggressive behavior is likely to persist into adulthood (Patterson, 1971). Theoretically,

children with primary skill deficits might resort to aggressive, provoking behavior in an attempt to counteract the reinforcement loss they experience and approach interpersonal situations without appropriate caution(Freedman, Rosenthal, Donahoe, Schlundt, & McFall, 1978; Ollendick & Hersen, 1979). Thus, aggressive children should also benefit from social skills training designed to promote a more socially appropriate repertoire of interpersonal skills. The literature available tends to support this contention.

A variety of studies have attempted to promote more appropriate social interaction in aggressive children. Pinkston, Reses, LeBlanc, and Baer (1973) examined the effects of extinction and reinforcement on aggressive behavior in a single case design. They reported that while the reinforcement of aggressive behavior (through teacher attention) led to an increase in aggressive responses, extinction or a withdrawal of teacher attention, reduced aggressive behavior. In Chittenden's (1942) pioneering study, socially aggressive nursery children were assigned to treatment groups in which they observed short role play scenarios depicting social conflict situations and discussed response alternatives with the experimenter. Children in these training groups displayed significantly decreased dominant behavior relative to control groups.



Several studies have examined the efficacy of social skills training with aggressive, juvenile delinquent and psychiatric inpatients. Bornstein, Bellack, and Hersen (1980) administered a social skills training program consisting of instructions, modeling, rehearsal, and feedback to four aggressive children who were psychiatric inpatients. Although significant improvements were reported for all subjects, follow-up data designed to assess treatment generalization were inconclusive. Calpin and Kornblith (1978) administered a similar training program to four aggressive children inpatients, and showed significant improvements in affect expression, requests for new behavior, and overall social skills in three of the four children at a three month follow-up assessment. Elder, Edelstein, and Narick (1979) administered a social skills training program to four aggressive adolescent psychiatric patients. Training consisted of instructions, modeling, behavior rehearsal and feedback and reinforcement. Post-training responses on trained and untrained role-play scenes revealed fewer interruptions, more appropriate responses to negative situations, more appropriate requests, and fewer fines and time-out administrations in the ward setting. Elder et al. (1979) also reported that three of the four adolescents were discharged at follow-up. Gross, Brigham,

Hopper, & Balonga, 1979) administered social skills and self-management training to 10 predelinquent and delinquent youths and reported significant improvements on ratings scales, parent and teacher reports, court records, grades, and school attendance which were maintained on a two month comparative follow-up assessment. Ollendick and Hersen (1979) evaluated the effects of social skills training and discussion groups with 27 juvenile delinquents. Social skills training included instructions, modeling, behavior rehearsal, and feedback and reinforcement. They reported significantly increased eye contact, fewer aggressive responses, more responses requesting rather than demanding behavior change, and more acceptance of compliments for delinquents in social skills groups relative to control or discussion groups. Significant differences in pre/post locus of control and state anxiety were also reported for delinquents receiving social skills training. Thus, based on the literature, social skills training has been shown to be effective in remediating both socially aggressive and socially withdrawn behavior in children and adolescents.

## ASSESSMENT OF SOCIAL SKILLS

### Introduction

According to Hops and Greenwood (1979) the assessment of social skills in children has generally not been as careful and comprehensive as the behavioral model would suggest. A variety of authors have proposed frameworks for adequate behavioral assessments (Bellack & Hersen, 1979; Cone & Hawkins, 1977). Generally, a multimethod approach consisting of self report, behavioral, significant other, and physiological assessment has been recommended. The following review will briefly present some of the strategies most frequently used to assess social skills in children.

### Self-Report Assessment

The assessment of social skills has frequently taken the form of self-report measures or inventories designed to assess how individuals perceive themselves and their social behavior (Michelson & Wood, 1980). Although subjectivity and a lack of external validity may potentially confound self-report measures, their inherent efficiency, quantifiability, and convenience have perpetuated their popularity (Michelson, Foster, & Ritchey, 1981).

Several instruments have been developed in an attempt to assess assertive behavior in children. Vaal and

McCulloch (1975) and D'Amico (1976) modified Rathus' Assertiveness Scale (Rathus, 1973) to be used with junior high and elementary students. Assertiveness self-report measures have also been developed by Reardon, Hersen, Bellack, and Foley (1979), Ollendick (1979), and Wood and Michelson (1978). Similarly, Clar, Caldwell, and Christian (1980) developed a self-report scale to assess frequency and quality of social conversations with peers and teachers.

Self-report inventories have also been directed towards the assessment of children's self concept (Piers & Harris, 1969), social perception (Flavell, Botkin, & Fry, 1968; Glucksberg & Krauss, 1967), role-taking abilities (Chandler, 1973; Reardon et al., 1978), and self-efficacy statements (Ollendick, 1982). All of these instruments have been used in social skills research.

Other self-report assessment strategies have been directed towards the perceptions of others. For example, sociometric measures, designed to assess a child's social status, have typically utilized rating scales, a peer ranking procedure, or a peer nomination procedure. In that sociometric measures have been shown to correlate with various measures of social competency (Cowen et al., 1970; Feldhausen, Thurston, & Benning, 1970, 1973; Greenwood et al., 1977; Gottman, Gonso, & Rasmussen, 1975), they are

frequently used to identify and select children for further evaluation and/or intervention (Michelson & Wood, 1980; Ollendick, 1981).

### Behavioral Assessment

According to Van Hasselt et al. (1979), behavioral assessment has typically entailed naturalistic observations and analogue tasks.

Naturalistic observations have been conducted in vivo through direct observation and occasionally through videotaping (Eisler, Hersen, & Argas, 1973; Kent, O'Leary, Diament, & Dietz, 1974). Generally, data are collected on the rate, frequency, or percentage of interactions or total behaviors across a variety of response categories providing a measure of interaction skills (Van Hasselt et al. 1979). Although naturalistic observations are potentially confounded by expectancies of observers or subjects, the reactivity to the observational process, and variables which affect the reliability of the coding system (Van Hasselt et al., 1979), several authors have proposed methodological precautions to eliminate these confounds (Gottman, 1977; Reid, 1970; Thompson, Holmberg, & Baer, 1974). Thus, naturalistic observation is a frequently utilized procedure for assessing children's social interactions and the effects of interventions designed to modify their behavior.

Observation cannot only take place in the natural environment but can also be conducted within contrived, structured situations and role-play simulations. According to Michelson and Wood (1980), structured observations generally involve a peer or adult confederate who interacts in a contrived situation with all the subjects, thus providing standardized and controlled behavior samples. Although structured observations have not been used extensively to assess social skills in children, applications of structured observations have included controlled play situations (Chittenden, 1942) and interactions designed to assess assertiveness (Kogen & Carlson, 1975; Wood & Michelson, 1978).

The Behavioral Assertiveness Test for Children (Bornstein et al., 1977) has been employed in a number of studies. Consisting of nine interpersonal role-play situations, the BAT-C has frequently been utilized to assess social skill and treatment outcome (Bornstein, Bellack, & Hersen, 1978; Panepinto, 1976, cited in Van Hasselt, 1979; Whitehill, 1978), the relationship between assertiveness scores and behavioral variables as well as developmental changes in assertive behavior (Reardon et al., 1978), self-expressive, other-enhancing, and assertive repertoires (Rinn, Mahla, Markle, Barnhart, Owne, & Supinck, 1978, cited

in Van Hasselt, 1979), and social skill deficits in delinquent boys (Freedman et al., 1978; Ollendick & Hersen, 1979).

#### Significant Other Assessment

The assessment of social skills in children has also employed reports and ratings by teachers and/or parents. Although Michelson (in press) reviewed some of the more salient problems which potentially confound teacher's judgments, a number of authors have supported the reliability of teachers' ratings (Clarfield, 1974, Cowen et al., 1973; Gesten, 1976). These ratings are frequently used to provide data relevant to initial screening and the referral of children with social skill deficits (Michelson & Wood, 1980. This type of assessment has typically involved a Likert-type scale format (Evers & Schwarz, 1973; Kohn & Rasman, 1972; Kohn, 1977; Rinn et al., 1978) or a behavioral checklist (Achenbach, 1978; Cowen et al., 1973; Quay & Peterson, 1967; Walker, 1970) on which teachers are asked to indicate the extent to which children exhibit various behaviors.

### Physiological Assessment

In order to provide a comprehensive assessment of social skills in children, physiological measures should be employed in order to examine a child's arousal or anxiety and the extent to which this arousal might serve to inhibit or enhance social behavior. According to Van Hasselt, et al. (1979), although a number of studies have employed physiological measures with children (Katz & Zlutnick, 1977; Spring, Greenberg, & Scott, 1974), social skill assessment has not typically included physiological assessment in the past. While research does not conclusively support the existence of a clear relationship between emotional states and behavioral performance (Eisler, 1976; Van Hasselt et al. 1979), physiological measures nevertheless, provide a means of assessing the effects of social skills training on anxiety and the possible correlation between high social anxiety and skill deficits. Unfortunately, however, the nature of social skills research with children frequently prohibits the collection of physiological data. Thus, social skills research has typically relied on direct, self-report measures of physiological states when physiological measures were obtained. For example, Ollendick and Hersen (1979) employed the State-Trait Anxiety Inventory for Children (Spielberger, 1973) with delinquent adolescents and



reported a reduction in anxiety following social skills training. Although direct physiological measures were not obtained, clear decrements in self-reported anxiety were evident. Future research should strive to assess the physiological, as well as the cognitive and motoric response systems, to further examine the relationship between these systems and performance.

### SOCIAL LEARNING THEORY

#### Social Learning Theory and Social Skills

During the past 25 years, Rotter, Bandura, Thorndike, and numerous others have contributed to the development of a social learning theory of personality. According to Rotter (1972), social learning theory (SLT) is a molar theory of personality which incorporates an expectancy construct in addition to the empirical law of effect. In an attempt to account for complex human social behavior, SLT rests on the assumption that the primary unit of investigation for the study of the individual is the interaction of the individual and his/her meaningful environment. Thus, it follows that human social behavior is learned and modifiable. Developmentally, "personality" is thought to be determined by antecedent events in the life of the individual. Further, behavior is described as directional or goal

directed, such that an individual's response is selected in accordance with the motivation to maximize his/her positive reinforcement. Behavior is not determined solely by the nature or importance of goals or reinforcements, but is also influenced by a person's anticipation or expectancy that the goal or reinforcement will be attained. According to Rotter (1977), these expectations are determined by previous experience.

Social learning theory utilizes four primary concepts to explain and subsequently predict behavior: behavior potential, expectancy, reinforcement value, and the psychological situation. Behavior potential is essentially the potentiality of behavior X occurring in a given situation as a function of the expectancy of the occurrence of reinforcement following behavior X, and the value of reinforcement in that situation. Expectancy is conceptualized to be an individual's estimate of the probability that behavior X will result in reinforcement in a given situation. The concept of reinforcement value is independent of expectancy and is defined as an individual's preference for a particular reinforcer, where the probability of obtaining that reinforcer is equal to the probability of obtaining alternative reinforcers. Finally, the concept of psychological situation refers to the nature

of a given situation and the salient cues available within that situation which serve as determinants of behavior X. According to social learning theory, as individuals are exposed to new experiences, expectancies and reinforcement values change and subsequently alter behavior potential.

Social learning theory provides a convenient and useful framework for conceptualizing social skills deficits. Interpersonal social behavior is inherently related to the acquisition of social, cultural, and economic reinforcers (Michelson & Wood, 1980). In that individuals possessing dysfunctional social skills are not as likely to receive such reinforcers, they are vulnerable to the negative effects of a loss of reinforcement (Lewinsohn, 1975). Children who possess socially inadequate interpersonal skills often resort to social aggression or social withdrawal as a result of their inability to effectively obtain social reinforcement (Freedman, Rosenthal, Donahue, Schlundt, & McFall, 1978; Patterson, Reid, Jones, & Conger, 1975). Reinforcement loss also promotes an expectation that social interactions will be met with further negative consequences. Thus, persistent failures in social interaction and further loss of reinforcement serve to maintain and exacerbate existing social skill deficits.

### Relevance of Self-Efficacy for Social Skills Training

As mentioned previously, social learning theory utilizes four primary concepts to explain and subsequently predict behavior: behavior potential, expectancy, reinforcement value, and the psychological situation. Expectancy or an individual's estimate of the probability that behavior X, in a given situation, will result in reinforcement is thus conceived to be a major determinant of subsequent behavior. As contemporary theorists have begun to reemphasize the role of cognitions as mediators of behavior, the concept of expectancy has received increased emphasis (Balles, 1972; Heneman & Schwab, 1972).

Bandura (1977) has proposed that the concept of expectancy can be conceived to consist of two distinct types of expectations: efficacy expectations and outcome expectations. Outcome expectancy is defined as a person's estimate that a given behavior will result in certain outcomes and, thus, is that expectancy utilized within social learning theory. Bandura (1977), however, contends that psychological procedures serve as a means of creating and strengthening expectations of personal efficacy or the belief that one can successfully execute the behavior required to produce desirable outcomes. According to Bandura,

Given appropriate skills and adequate incentives (reinforcement value), efficacy expectations are a primary determinant of people's choice of activities, how much effort they will expend, and how long they will sustain effort in dealing with stressful situations. (p. 191)

Similarly, an individual's perception of his or her capabilities will subsequently influence thought processes and emotional reactions during anticipatory and actual interactions with the environment (Bandura, 1981). Individuals who judge themselves to be ineffective in meeting specific situational demands and frequently judge their self-efficacy to be low, are more likely to exhibit debilitated performance and avoid confronting such demands even though they may possess adequate abilities. Thus, a low sense of self-efficacy generally results in inefficacious performance.

According to social learning theory, self-efficacy is the product of diverse sources of information conveyed by direct and mediated experiences (Bandura, 1981). Expectations of personal efficacy develop as the result of information from four primary sources: performance accomplishments, vicarious experience, verbal persuasion, and physiological states. Performance accomplishments or personal mastery experiences are viewed to be the most salient source of information. If an individual has experienced successful task mastery in the past, their

subsequent sense of self-efficacy will be enhanced and they will have more confidence in their abilities to execute appropriate behaviors. Similarly, vicarious experience or observing another successfully master a task also serves to enhance an individual's appraisal of self-efficacy, although the efficacy expectations induced by modeling alone are likely to be weaker and more vulnerable to change than expectations resulting from personal accomplishments. Suggestion and verbal persuasion also serve to induce efficacy expectations, although, again, this source of information is much less salient than one's own accomplishments. Finally, emotional arousal or anxiety provides a fourth source of information. An individual's appraisal of self-efficacy is hypothesized to be lower in stressful or taxing situations. It should be noted that these sources of self-efficacy appraisal, though intuitively appealing, have not been empirically determined nor evaluated.

While each of these four major sources may provide information relevant to the appraisal of one's self-efficacy, it is not necessarily the case that an individual will attend to all of these sources. Quite the contrary, individuals do not always make accurate appraisals of their own capabilities. According to Bandura (1981), accurate

self-efficacy appraisal entails learning to use diverse sources of efficacy information relevant to the task, situation, characteristics of performance, and conditional outcomes. Efficacy appraisal also necessitates the ability to integrate efficacy information from a variety of past performances taking into consideration the fluctuation in performance and outcome. Thus, "personal efficacy entails versatile improvisation of multiple cognitive and manual skills in transaction with the environment" (Bandura, 1981, p. 220).

It subsequently follows that young children are generally too cognitively and experientially naive to make accurate appraisals of their efficacy. Their inability to appropriately monitor and integrate salient cues and sources of information tends to result in efficacy appraisals based on only the most salient cues presently available. With age and experience, children become more proficient in the use of diverse, less salient, sequential sources of information (Parsons, Moses, & Yulish-Muszynski, 1977; Parsons & Ruble, 1977), and more adept at accurately appraising their capabilities (Bandura, 1981). Nevertheless, some children develop these abilities much more slowly than others. According to Bandura (1981, p. 222),

many children are severely handicapped by perceived inefficacy stemming from frequent mis-attributions of performance difficulties to per-

sonal limitations. They have much to gain from changing judgmental orientations that leads them to underestimate their capabilities.

False perceptions of inefficacy generally tend to exacerbate existing decrements in performance. Thus, research directed towards remediation of inaccurate perceptions of inefficacy should serve to promote enhanced behavioral performance.

Intuitively, Bandura's (1977) theory of self-efficacy holds a great deal of relevance for the area of social skills and particularly dysfunctional social behavior in aggressive and withdrawn children. Individuals who display dysfunctional behavior in a given situation may be handicapped by perceived inefficacy, rather than or in addition to a lack of appropriate social knowledge or social skill. Such individuals might conceivably avoid social situations in which they judge their behavior to be inefficacious, even though they possess appropriate social knowledge and capabilities. Thus, their skill deficits may be conceived to be secondary rather than primary, the former suggesting a disruption of adequate performance while social knowledge and capabilities have been previously acquired. Individuals possessing a low sense of self-efficacy in regards to social skills should tend to initiate less coping behavior, expend less effort and persist for a shorter



period of time in response to social situations. The theoretical assumptions underlying the importance of self-efficacy appear to be particularly relevant to socially inadequate withdrawn children who generally initiate less coping behavior, and respond less frequently to social situations. Social skills training has generally consisted of direct primary training designed to provide the necessary skills repertoire and promote more skillful response alternatives. In other words, training has generally sought to remediate deficient behavioral skills directly, and typical training strategies have been theoretically more consistent with conceptualization of aggressive rather than withdrawn behavior. According to Elder, Edelstein, and Narick (1979), interventions designed to decrease aggressive behavior have generally assumed that "aggressive behaviors result from either interpersonal skill deficits or a lack of other nonaggressive social skills" (p. 162). To date, no research has examined the relative roles of self-efficacy and self-efficacy appraisal in producing social skill deficits in either aggressive or withdrawn children. The following research is directed towards the investigation of this relationship in regard to the remediation of social dysfunction in children.

### PURPOSE OF THE PRESENT RESEARCH

The purpose of the present research was two-fold: (1) to assess and investigate the relationship between self-efficacy, self-efficacy appraisal skills, and social behavior, and (2) to examine the relative effectiveness of a social skills training group, a social skills plus efficacy appraisal group, and a discussion group in remediating social skill deficits in children judged to exhibit aggressive and withdrawn behaviors in the classroom and on the playground.

### GENERAL EXPERIMENTAL DESIGN

Based on the results of pre-treatment psychometric assessment and behavioral observation of social interaction skills, subjects were assigned to one of three treatment groups (see Table 1): social skills training, social skills training plus efficacy appraisal, or discussion control. Thus, a three group outcome design was utilized. All subjects were assessed immediately after treatment. This design provided a post-treatment evaluation of self-report and behavioral changes resulting from treatment.

Pre-treatment and post-treatment assessments employed psychometric instruments designed to assess social status, assertiveness, outcome expectancy, social knowledge, self-

efficacy, self-efficacy appraisal skills, and state anxiety, as well as teacher ratings and behavioral observations, in order to provide a comprehensive multimethod assessment of various response systems.

Table 1

## Design

	<u>Aggressive</u>	<u>Popular</u>	<u>Withdrawn</u>	<u>Total</u>
Social Skills	10	4	6	20
Social Skills + Efficacy	8	4	8	20
Attention Control	9	4	6	19
Total	27	12	20	59

EXPERIMENTAL HYPOTHESES

Based on social learning theory, Bandura's (1977) theory of self-efficacy and the proposed relationship between efficacy appraisal and self-efficacy, and the social skills literature, the following hypotheses were tested:

1. Subjects in a social skills plus efficacy appraisal group will perform significantly better than subjects in a social skills group or subjects in an attention control group on post-treatment measures designed to assess sociometric status, social behavior, outcome expectancy, self-efficacy, efficacy appraisal skills, and state anxiety.

2. It is further hypothesized that an interaction between treatment conditions and status will be obtained. In that the literature supports the contention that withdrawn children's social skills are theoretically more likely to be hampered by a poor sense of self-efficacy (Bandura, 1981), it follows that withdrawn children would be more likely to profit from treatment designed to enhance their self-efficacy appraisal skills, and subsequently their self-efficacy. Thus, it is hypothesized that the social skills plus efficacy appraisal condition will be the most salient condition for withdrawn children. Withdrawn children in the social skills plus efficacy appraisal group will perform significantly better than withdrawn children in the social skills group or the attention control group on post-treatment measures designed to assess sociometric status, social behavior, outcome expectancy, self-efficacy, efficacy appraisal skills, and state anxiety.

3. Traditional social skills training has generally sought to remediate socially dysfunctional behavior through direct primary training designed to provide the necessary skills repertoire and promote more skillful assertive response alternatives. In that aggressive behavior is generally assumed to result from interpersonal skills deficits and/or a lack of nonaggressive social skills (Elder et al., 1979), traditional social skills training may be the most salient intervention strategy for aggressive children. Thus, it is hypothesized that aggressive children in the social skills group will perform significantly better than aggressive children in either the social skills plus efficacy appraisal group or the attention control group on posttreatment measures designed to assess sociometric status, social behavior, outcome expectancy, selfefficacy appraisal skills and state anxiety.

## METHOD

### SUBJECTS

The subjects were male (n=31) and female (n=28) fourth grade students from the Montgomery County School System (Virginia) who were identified as socially deficient or socially skilled. Dysfunctional children (n=47) were recruited based on the following criteria:

1. The child was low in peer popularity, scoring below the mean on peer sociometric instruments, and
2. The child was categorized by his/her teacher as socially withdrawn or aggressive relative to his/her peers, and
3. The parents of the child consented to his/her participation in the project.

Children were identified as aggressive or withdrawn relative to their peers based solely on their social behavior in school. Thus, these labels should in no way be construed to delineate generalized behavior patterns vis a vis traits, personalities, or predispositions. Assessment was conducted within strictly circumscribed scenarios relevant to 4th graders' social behavior in elementary school.

Subjects were assigned to groups of ten such that each group consisted of approximately four socially aggressive

and four socially withdrawn children, as well as two children identified as popular based on teacher and sociometric ratings. Popular children (n=12) were included in the treatment group only to provide models of positive behavior, and thus were not included in post-treatment outcome analyses. Each group contained approximately the same number of males and females.

#### EXPERIMENTAL AND CONTROL GROUPS

##### Social Skills Training

Social skills training utilized instruction, feedback, modeling, behavior rehearsal, and social reinforcement; it centered around two training components: response training and social perception (Ollendick, 1980). Thus, training emphasized acquisition of social skills as well as the ability to perceive social situations. The strategy of social skills training was based on the assumption that training is a learning based treatment aimed at enhancing positive interpersonal skills in order to facilitate effective interaction with others (Ollendick, 1982).

Response training centered around promoting socially appropriate verbal and nonverbal response components, specifically in regard to conversation skills, prosocial skills, and assertion skills. Training in responses neces-

sary to initiate, maintain, and terminate conversations emphasized routine greeting and terminating responses as well as behaviors found to facilitate supportive questioning, positive conversation feedback, and proportion of time spent talking (Minkin et al., 1976) such as eye contact, greetings, opening remarks, head nods, agreeing with another, and closing remarks. Prosocial skills training was directed towards promoting those responses which have been found to be necessary for positive daily interactions and maintaining friendships (Barrett & Yarrow, 1979) such as sharing (Cooke & Apolloni, 1977), giving help (Charlesworth & Hartup, 1976), and giving compliments (Cooke & Apolloni, 1977). Assertiveness training entailed both positive assertion such as the expression of appreciation of help, acceptance of compliments and approval of another's actions and affection, and negative assertion, such as standing up for one's rights, the expression of negative feelings and disagreement.

Social perception training focused on affect recognition skills (Cowan, 1966; Rothenberg, 1979; Silver, Waterman, Sobesky, & Ryan, 1979). Thus training involved recognizing and describing how another person feels.

### Social Skills Training Plus Efficacy Appraisal

Subjects in this condition received social skills training as previously described with the addition of a cognitive modeling component designed to enhance the accuracy of self-efficacy appraisal skills. Cognitive modeling procedures have been shown to promote generalized, durable improvements in cognitive skills in children (Debus, 1976; Meichenbaum & Asarnow, 1979). In the present project, models verbalized their thought processes and judgmental strategies on how to judge personal self-efficacy. Covert thought was represented overtly (Bandura, 1981). While performing various tasks relevant to social skills training as previously described, models identified efficacy-relevant cues and verbalized rules for interpreting and integrating efficacy information and social comparative information so as to make subsequent efficacy appraisals. Generally, these strategies and rules entailed promoting the appropriate consideration of information from the four primary sources of efficacy expectations: performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal (Bandura, 1977). Within a variety of role-played interpersonal situations, models overtly attended to these four sources by considering the following questions:

1. How have I been able to do in the past in similar situations?
2. How are others like me able to do?



3. What have others told me I can do?
4. How have I felt in similar situations in the past and how do I feel now?
5. How well can I do now?

Thus, modeling was designed to promote the appropriate consideration of relevant sources of efficacy-information so as to subsequently increase the accuracy of efficacy-appraisal.

#### Attention Control

Subjects in this condition served as controls for the attention received by subjects in the treatment groups. Group sessions were conducted in a discussion format and centered on problems in getting along with other children, parents, and teachers. The specific behavioral strategies of instruction behavioral rehearsal, modeling, feedback, and social reinforcement, were not utilized in this condition, nor was attention given to cognitive or efficacy appraisal skills.

### MANIPULATION CHECK OF TRAINING PROCEDURES

Research assistants (n = 2) were instructed to blindly rate tape recordings of treatment sessions following the post-treatment data collection so as to provide a manipulation check on the treatment conditions. Research assistants received brief instructions regarding the nature of the three treatment conditions. They were subsequently asked to blindly listen to tape recordings of various treatment sessions, and to categorize each recording as a Social Skills group session, a Social Skills plus Efficacy Appraisal group session, or an Attention Control group session. Assistants rated recordings of 12 sessions, comprising 25% of the total treatment sessions, and correctly categorized all 12 of the recordings.

### MEASURES

A variety of measures were administered so as to provide a comprehensive assessment battery (Ollendick & Hersen, 1984). Cognitive, motoric, and physiological response systems were assessed through self-report measures, behavioral observations, and significant other ratings.

### Self-Report

A number of self-report instruments were administered so as to assess how individuals perceive themselves and their social behavior.

Self-report assessment employed the 20-item Trait Scale of the State-Trait Anxiety Inventory for Children (STAIC, form C-2) (Spielberger, 1973). Spielberger's scale consists of items such as "I feel confident" or "I feel upset", for which children are instructed to respond on a 4-point scale ranging from "almost never" to "almost always". The STAIC has been reported to possess high reliability and validity (Finch & Kendall, 1978; Ollendick, Finch, & Nelson, 1976; Spielberger, 1973) with internal consistency ranging from .78 to .81 and retest reliability ranging from .65 to .71. The How-I-Feel Questionnaire was employed to examine its relationship with other measures and to assess changes in self-reported anxiety resulting from training.

The Children's Assertiveness Inventory (CAI) was also employed to assess children's assertive behavior in a self-report format (Ollendick, 1978, 1984). This scale consists of 14 items such as: "When someone your age does a good job, do you tell them so?". The children were asked to respond either "yes" or "no". The CAI has been reported to possess a considerable degree of validity and reliability,

with test-retest reliability ranging from .61 to .86. Although internal consistency was reported to be relatively low (.20 - .31), these estimates were attributed to the fact that the scale was comprised of a heterogeneous sample of specific situations involving assertiveness with peers (Ollendick, 1984). This scale was utilized to assess its relationships with other measures and to assess the effects of training on assertive behavior.

Self-report assessment also employed several experimental scales designed for the proposed research. In that these scales are in the formative state, data related to reliability and validity are unavailable at this time.

A social knowledge questionnaire was employed to assess the children's knowledge of appropriate social behavior in five scenarios requiring negative assertion, positive assertion, and conversation skills (see Appendix ). After each scenario was presented, the subjects were instructed to indicate what they thought they should do in that situation by circling one of four alternatives.

Self-efficacy was assessed both prior to and after administration of the revised BAT-C (see below). The self-efficacy questionnaire preceding the BAT-C consisted of the same five scenarios used to assess social knowledge (see Appendix). After each scenario was presented, subjects were

instructed to indicate whether or not they could do what was asked of them and to indicate how sure they were that they could do what was asked of them by responding on a 5-point scale ranging from "not sure at all" to "really sure". Finally, they were instructed to respond on a 5-point scale ranging from "not at all" to "totally" to describe how much their previous answers were based on: (1) what they have done in the past; (2) what they have seen others like them do; (3) what others have told them they could do; and (4) how they would feel in this situation. Thus, the extent to which they attended to sources of efficacy information was assessed. Following the administration of the BAT-C, another self-efficacy questionnaire was administered. After observing a male or female model role-play appropriate social behavior in a given situation, subjects were instructed to indicate how sure they were that they could have done what the model did by responding on a 5-point scale (see Appendix A). This scale also assessed subjects' outcome expectations. Subjects were instructed to choose one of four possible outcomes as the most likely to occur if they did do what the model did.

### Behavioral Assessment

Measures generating behavioral data were also used. Behavioral observations were conducted both in structured role-play scenarios and in the natural environment. The Behavioral Assertiveness Test for Children and its variants (Ollendick, 1981) has been employed extensively in research with children. The test consists of a number of role-play situations designed to examine the nature of social skills and the effects of social skills training. These situations involve interaction with both male and female role prompts in situations assessing both negative and positive assertion. Subject's performance on each scene is typically rated on duration of looking and reply, smiles, latency of response, compliance content, request for new behavior, affect, and overall assertiveness. The present research employed 5 role-play scenes; two scenes always utilizing male role prompts, two scenes always utilizing female role prompts, and the final scene utilizing a same-sex prompt to that of the child. Two scenes assessed assertiveness to negative situations, two assessed assertiveness to positive situations, and one assessed conversation skills.

In vivo, behavioral observation of children's interaction skills were also conducted. Observation took place during free-play and organized games in the

naturalistic setting. The behaviors observed included those behaviors specifically trained and related to high social skills and high peer sociometric rating (Gottman et al., 1975; Gottman, Gonzos, & Schuler, 1976; Hartup, Glazer, & Charlesworth, 1967; Hymel & Asher, 1977; Oden & Asher, 1977; Ollendick, 1981). Behaviors included the number of social interactions and the percentage of interactions considered positive or negative, the number of initiations, responses and continuations of previous interactions, the relative frequency of verbal and nonverbal behaviors, and whether the child was with an adult, a peer, or alone. Inter-rater reliability was calculated on 21% of the behavioral observations, and revealed inter-rater agreement on 87.28% of the observations. Thus, an assessment of social interaction skills was conducted to examine its relationship with other measures and the effects of social skills training.

#### Significant Other Ratings

To provide additional comprehensive assessment, data were also obtained from peers and teachers. Peer sociometric measures utilized both the peer nomination and the roster and rating method (Hymel & Asher, 1977; Van Hasselt et al., 1979). Previous research has reported

sociometric status to be related to current social adjustment (Gottman et al., 1975) and later social adjustment (Cowen et al., 1973). Peer nomination entailed each subject listing the names of three children in their class "whom they like to play with most". Each child's score consisted of the number of nominations received from same-sex peers (subjects in this age group generally give low ratings to opposite sex peers) (Hymel & Asher, 1977). The roster and rating method has been found to be positively related to the nominations method and possesses adequate reliability and validity (Hymel & Asher, 1977; Oden & Asher, 1977). Subjects were provided an alphabetized list of all their classmates and instructed to rate each child on a scale of 1 through 5 according to how much they liked to play with that child. A rating of 1 indicated that they "don't like to" play with that child, and 5 indicated that they "like to a lot". Each child's score consisted of the average rating received from his or her same-sexed peers. Peer sociometrics were utilized in the proposed research both as a criterion for subject selection and as a method to assess and measure change in sociometric status.

Assessment also employed teacher's ratings of children's behavior. Previous research has shown teachers to be sensitive raters of maladaptive as well as adaptive



behaviors (Clarfield, 1974; Cowen et al., 1973). The present research utilized both teacher ratings and teacher nominations. Teachers were asked to fill out the AML (Cowen et al., 1973), a screening device for children consisting of 11 items; five assessing aggressive behavior, five assessing withdrawn behavior, and one assessing learning disability. The teacher is instructed to rate each child on each of the items on a 5-point scale, 1 indicating "seldom" and 5 indicating "all of the time". Test-retest reliability and interjudge reliability for this scale have been found to range from .80 to .86 for each of the subscales. Teachers were also asked to nominate 12 children from their class, three judged to be socially aggressive, three judged to be socially withdrawn, and six children judged to be well adjusted. Data from both of these instruments were used in subject selection and to assess change resulting from training. Table 2 delineates the type of assessments used in this study and their respective descriptions.

Table 2

## Measures

Type	Description
Self-Report	How-I-Feel-Questionnaire (Spielberger, 1973)
	Children's Assertiveness Inven- tory (Ollendick, 1979, 1983)
	Social Knowledge Scale (experimental)
	Self-Efficacy Scale (experimental)
	Outcome Expectancy Scale (experimental)
	Efficacy-Appraisal Scale (experimental)
Behavioral Assessment	Behavioral Assertiveness Test for Children-Revised (Bornstein et al., 1978)
	Interactive Behavior Assessment (Gottman et al., 1975)
Significant Other	The AML Scale (Cowen et al., 1973)
	Sociometric Ratings (Hymel & Asher, 1977)

## PROCEDURE

The present research entailed a treatment phase and two administrations of the assessment battery: pretreatment and post-treatment.

### Pretreatment Assessment

Psychometric assessment and behavioral observations were conducted to provide data for subject selection and an assessment of the effects of social skills training. Data were collected during group assessment, individual assessment, and individual observation sessions.

Initially, psychometric assessment was conducted with ten classes of fourth graders in the Montgomery County School System. The teacher rating forms, Children's Assertiveness Inventory, the How-I-Feel-Questionnaire and peer sociometrics were administered during this initial group assessment. Based on the results of the teacher rating, teacher nominations, and the peer sociometric scales, 59 children were selected as subjects for the proposed research; 20 children were assessed to be socially withdrawn, 27 children assessed to be socially aggressive, and 12 children assessed to be well adjusted.

Subsequent to classroom assessment and subject selection, behavioral observations were conducted during

freeplay and structured game periods to assess social interaction skills in the naturalistic environment. After receiving parental consent for those children selected to participate in the program, small group assessments were conducted and scales designed to assess general outcome expectancy, social knowledge, and trait anxiety were administered. Individual assessments were subsequently conducted during which time the Behavioral Assertiveness Test for Children--Revised and scales designed to assess self-efficacy, efficacy appraisal skills, and situation specific outcome expectancy were administered.

### Training

The 59 subjects were assigned to one of three experimental conditions to comprise six groups (two social skills, two social skills plus efficacy appraisal, and two attention control groups) with each group consisting of approximately four aggressive children, four withdrawn children, and two well adjusted children. All groups contained approximately an equal number of males and females.

Subjects in each of the conditions received 8 weeks of training or group discussion. One 45-minute session was conducted each week. The focus and strategies of these

groups were a function of the relative experimental condition.

During sessions two through eight, the "Good Behavior Game" was implemented within all groups to help effectively manage disruptive behavior and to enhance the relative training procedures. During each training session, each group of children was divided into two teams. Group contingencies were utilized such that each team was assigned one point whenever one of the members of that team engaged in a disruptive behavior. Disruptive behavior, such as speaking without raising a hand, out of seat, interrupting others, or failure to complete homework were discussed during the second group session. Group rules addressing these behaviors were discussed and posted throughout the eight sessions. If either, or both teams exceeded a total of five points (four points for sessions 5-8), that team did not receive 10 minutes of free time at the end of the session and returned to the classroom.

#### Posttreatment Assessment

Immediately following the completion of training, post-treatment assessment was conducted to determine the efficacy of training in producing short-term changes in dysfunctional behavior. This assessment entailed both individual and

group sessions and utilized the same psychometric and behavioral observation strategies as pre-treatment assessment.

## RESULTS

### PRETREATMENT EQUIVALENCE OF TREATMENT GROUPS AND STATUS

A series of analyses of variance (ANOVA) were conducted on pretreatment measures to assure that counter balanced assignment of subjects to the three experimental conditions resulted in equivalence of groups on selection criteria (e.g., dysfunctional behavior) and various dependent measures of interest. Pretreatment groups were not significantly different on selection criteria or on most of the dependent measures. However, significant main effects for group were obtained on two of the remaining dependent measures (see Table 3). An analysis of variance revealed a significant main effect for group on the self-efficacy scale administered prior to the role-play test ( $F(2, 43) = 3.31, p < .04$ ), with the mean for the attention control group less than the mean for both the social skills group and the social skills plus efficacy appraisal group. Thus, subsequent analyses on this measure utilized covariance procedures.

Analyses of variance were also conducted to ensure that aggressive and withdrawn children differed on the selection criteria and to investigate the extent to which they differed on various dependent measures (see Table 4).

Pretreatment means for the aggressive children were significantly different from those for the withdrawn children ( $F(2, 43) = 6.99, p < .01$ ) on the A scale of the AML teacher rating scale. However, pretreatment means for status were not significantly different on any of the remaining selection criteria or on any of the various dependent measures.

Separate analyses of variance were conducted to investigate the pretreatment performance of aggressive, withdrawn, and popular children on the selection criteria (see Table 4). Significant main effects for status were obtained on the A subscale and the L subscale of the AML teacher rating scale, and on the standardized sociometric rating measure. On the A subscale of the AML, aggressive children scored significantly higher than both the withdrawn children and the popular children ( $F(2, 54) = 9.48, p < .0003$ ) who did not differ from one another. On the L subscale, popular children scored significantly lower than either the aggressive or withdrawn children ( $F(2, 54) = 3.19, p < .04$ ) who did not differ from one another. Finally, popular children scored significantly higher than either aggressive or withdrawn children on the standardized sociometric measure ( $F(2, 54) = 48.65, p < .0001$ ). Once again, the aggressive and withdrawn children did not differ from each other.



### RELATIVE EFFICACY OF TREATMENT CONDITIONS

The relative efficacy of the three treatment conditions was examined through 2 X 3 X 2 (status X treatment X time) univariate analyses of variance and univariate analyses of covariance. Following overall 2 X 3 X 2 univariate analyses of variance, simple main effect analyses were conducted to further elucidate the main effect of individual independent variables.

### HYPOTHESIS I

Subjects in a social skills plus efficacy appraisal group will perform significantly better than subjects in a social skills group or subjects in an attention control group on post-treatment measures designed to assess sociometric status, social behavior, outcome expectancy, self-efficacy, efficacy appraisal skills, and state anxiety.

Contrary to predictions of Hypothesis 1, subjects in the social skills plus efficacy appraisal group did not perform significantly different from subjects in the social skills group or the attention control group on any of the dependent measures except for the efficacy appraisal measure (see Table 5). Subjects in the social skills plus efficacy appraisal group (Group II) responded significantly different than subjects in the social skills group (Group I), and subjects in the attention control group (Group III) on the measure designed to assess efficacy appraisal.

These analyses revealed a significant group X time interaction ( $F(2, 39) = 5.35, p < .0089$ ) on the efficacy appraisal measure (total score). Simple main effect analyses and Student-Newman-Keuls tests revealed significant differences between the results for Group II and the results for Group I ( $F(2,39) = 4.20, p < .02$ ), with the mean for Group II significantly lower than the mean for Group I at post-treatment assessment (see Table 6).

Analyses of variance also revealed a significant group X time interaction ( $F(2, 39) = 4.16, p < .02$ ) on the subvariable C of the efficacy appraisal measure ("How much are your answers based on what you have been able to do in the past?"). Simple main effect analysis of variance and Student-Newman-Keuls test revealed significant differences between the results for Group II and the results for Group I ( $F(2, 42) = 3.53, p < .03$ ), with the mean for Group II significantly lower than the mean for Group I at post-treatment assessment (see Table 6).

A similar trend for group differences on subvariable E of the efficacy appraisal scale ("How much are your answers based on what others have told you you are able to do?") was obtained. The mean for Group II was generally lower than the mean for Group I at posttreatment assessment ( $F(2, 42) = 3.07, p < .0571$ ). Significant and near significant main

effects were obtained for time, suggesting that subjects generally responded differentially during pretreatment and posttreatment assessment on the efficacy appraisal measure (total score) ( $F(1, 39) = 29.29, p < .0001$ ) and on the efficacy appraisal scale subvariable C ( $F(1, 39) = 14.09, p < .0006$ ); D ( $F(1, 39) = 4.03, p < .0516$ ); E ( $F(1, 39) = 8.61, p < .0056$ ); and F ( $F(1, 39) = 17.60, p < .0002$ ) (see Appendix B for description of efficacy appraisal measure subvariables). The results suggest that subjects collapsed across status and group, tended to endorse these items more strongly at posttreatment than at pretreatment. Thus, all subjects tended to report increased attendance to each of the four sources of self-efficacy information following the treatment phase.

A significant main effect for time was also obtained on the self-efficacy scale administered prior to the behavioral role-play scenarios ( $F(1, 39) = 8.32, p < .0063$ ), suggesting that subjects reported an increased sense of self-efficacy during posttreatment assessment relative to pretreatment assessment. Analysis also suggests that all subjects generally reported a higher sense of self-efficacy during posttreatment assessment than during pretreatment assessment ( $F(1, 39) = 4.00, p < .0526$ ) on the self-efficacy scale administered following the behavioral role-play scenarios.

Unfortunately, however, significant group X time, status X time, and group X status X time interactions were not obtained, and thus it is impossible to attribute this pre-post change to specific treatment effects.

## HYPOTHESIS II

Withdrawn children in the social skills plus efficacy appraisal group will perform significantly better than withdrawn children in the social skills group of the attention control group on posttreatment dependent measures designed to assess sociometric status, social behavior, outcome expectancy, self-efficacy, efficacy appraisal skills, and state anxiety.

Analyses of variance did not reveal significant differences among the withdrawn children in the three treatment conditions on any of the posttreatment dependent measures except for efficacy appraisal (see Table 7). A significant group X status X time interaction was obtained on the efficacy appraisal scale (total score) ( $F(2, 39) = 4.88, p < .01$ ) (see Table 8). Subsequent simple interaction and simple main effect analyses and Student-Newman-Keuls test did not reveal significant differences attributable to treatment condition on posttreatment scores for the withdrawn children. Analyses conducted by status revealed a significant main effect for time on the efficacy appraisal scale (total score) ( $F(1, 16) = 8.44, p < .01$ ). The posttreatment means for withdrawn children (collapsed across

group) on the efficacy appraisal measure were significantly higher than the pretreatment means. Unfortunately, a significant group X time interaction was not obtained, and this pre-post change cannot be attributed to specific treatment effects.

A significant group X status X time interaction was also obtained for subvariable D of the efficacy appraisal scale ("How much are your answers based on what others have told you you are able to do?") ( $F(2, 39) = 4.47, p < .01$ ). Simple interaction and simple main effect analyses and Student-Newman-Keuls tests revealed significant group differences on pretreatment scores, but subsequent analyses of covariance failed to reveal significant group differences at posttreatment for withdrawn children (see Table 8). However, an analysis of variance conducted on pretreatment to posttreatment change scores (post minus pre) by status revealed a main effect for group that approached significance ( $F(2, 13) = 3.69, p < .0539$ ). Student-Newman-Keuls tests revealed that the mean for the attention control group was greater than the mean for the social skills group. The mean for withdrawn children in the attention control group and the efficacy appraisal group had a positive valence while the mean for withdrawn children in the social skills group had a negative valence. Thus, overall,

the post-treatment means for Group II and III increased while the posttreatment means for Group I decreased indicating that withdrawn children in the attention control and efficacy appraisal conditions reported increased attendance to subvariable D at post-treatment assessment. Withdrawn children in the social skills group reported decreased attendance to subvariable D at post-treatment assessment.

### HYPOTHESIS III

Aggressive children in the social skills group will perform significantly better than aggressive children in either the social skills plus efficacy appraisal group or the attention control group on posttreatment measures designed to assess sociometric status, social behavior, outcome expectancy, self-efficacy, efficacy appraisal skills, and state anxiety.

Preliminary analyses of variance did not reveal significant differences between the aggressive children in the three treatment conditions on any of the posttreatment measures except for the efficacy scale (see Table 9). A significant group X status X time interaction was obtained on the efficacy appraisal scale (total score) ( $F(2, 39) = 4.88, p < .01$ ). Simple interaction and simple main effect analyses and Student-Newman-Keuls tests revealed significant differences ( $F(2, 24) = 4.01, p < .03$ ) between the results for the aggressive children in the social skills group and

the aggressive children in the social skills plus efficacy appraisal group (see Table 10). The group mean for aggressive children in the social skills condition was significantly higher than the group mean for the aggressive children in the social skills plus efficacy appraisal condition. Thus, aggressive children in the social skills condition reported significantly more attendance to the various sources of efficacy appraisal information at posttreatment assessment than did aggressive children in the social skills plus efficacy appraisal condition.

Preliminary analyses of variance also revealed a significant group X status X time interaction of subvariable D of the efficacy appraisal scale ("How much are your answers based on what you have seen others like you able to do?") ( $F(2, 39) = 4.47, p < .01$ ). Subsequent simple interaction and simple main effects analyses and Student-Newman-Keuls tests conducted by status and time failed to reveal significant differences between aggressive children in the three treatment conditions. However, an analysis of variance conducted on pretreatment to posttreatment change scores (post minus pre) by status revealed a significant main effect for group ( $F(2, 21) = 4.57, p < .02$ ) for the aggressive (or withdrawn) children. Pre-post change on subvariable D for aggressive children in the social skills

condition was significantly greater than change for the aggressive children in the social skills plus efficacy appraisal condition. In fact, the mean for aggressive children in the social skills condition had a positive valence while the mean for aggressive children in the social skills plus efficacy appraisal condition had a negative valence. Thus, overall, the posttreatment means for Group I increased while the posttreatment means for Group II decreased.

Similarly, an analysis of variance conducted by group on change scores for subvariable D revealed a significant main effect for status ( $F(1, 12) = 6.38, p < .02$ ) in Group I, such that the scores for aggressive children were significantly greater than the scores for withdrawn children. The means scores for aggressive children increased from pretreatment to posttreatment while the scores for withdrawn children decreased.

### ADDITIONAL ANALYSES

#### Homework Completion

Analyses of variance and Student-Newman-Keuls tests were conducted to assure that the various treatment groups did not significantly differ in regard to the completion of homework assignments (see Table 11). The results failed to



reveal a significant main effect for group ( $F(2, 44) = .80$ ,  $p < .45$ ), and suggest that the subjects in the three treatment conditions did not significantly differ in the extent to which they completed the practice sheets distributed following sessions one through seven.

#### Attendance

Analyses of variance and Student-Newman-Keuls tests were conducted to assure that the various treatment groups did not significantly differ in regard to children's occasional absence from the sessions (see Table 11). The results failed to reveal a significant main effect for group ( $F(2, 40) = 1.34$ ,  $p < .27$ ).

#### Treatment Expectancy

Analyses of variance and Student-Newman-Keuls tests were also conducted to assure that the various treatment groups did not significantly differ in regard to children's expectations of treatment efficacy. A questionnaire designed to assess subject's expectations that the treatment groups would be beneficial for themselves and/or other children was administered at pretreatment assessment and at the completion of the first and eighth sessions. Thus, children's expectations of the efficacy of the treatment

groups were assessed at three intervals during the treatment phase. Subsequent analysis failed to reveal significant differences between children's expectations at pretreatment and after the first and eighth sessions (see Table 11) ( $F(2, 81) = .07, p < .93$ ). Analyses also failed to reveal significant differences in children's expectations attributable to group ( $F(4, 81) = .90, p < .46$ ); status ( $F(2, 81) = .28, p < .75$ ); or group X status ( $F(4, 81) = .77, p < .55$ ). According to these results, children's expectations of the efficacy of the treatment groups did not differ as a function of status, treatment condition, or stage in treatment.

### Therapist Differences

This study utilized two primary therapists and three assistant co-therapists to conduct the treatment groups. Both primary therapists were doctoral candidates in psychology and the assistant therapists were undergraduate psychology majors who received academic credit for undergraduate research. Each primary therapist (therapist A and therapist B was responsible for conducting three treatment groups each week; one social skills group, one efficacy appraisal group, and one attention control group.

Analyses of variance were conducted on pretreatment to posttreatment change scores to examine the extent to which primary therapist A and B may have inadvertently contributed differentially to pre-post change (see Tables 12 and 13). These analyses failed to reveal significant effects attributable to therapist on dependent measures of sociometric status, outcome expectancy, self-efficacy, or state anxiety. These analyses did, however, reveal several interactions suggestive of differential pre-post change attributable to therapist on specific measures of efficacy appraisal.

Analyses of variance revealed an effect for therapist X status on subvariable C of the efficacy appraisal measure that approached significance ( $F(1, 34) = 4.08, p < .0512$ ). Analyses of variance also revealed a significant therapist X group X status interaction on subvariable D of the efficacy appraisal scale ( $F(3, 34) = 4.72, p < .0074$ ). Subsequent simple interaction and simple main effect analyses revealed a significant therapist X group interaction ( $F(1, 13) = 8.54, p < .01$ ) for the withdrawn children, and a significant main effect for therapist for the aggressive children in the attention control group ( $F(1, 7) = 5.93, p < .01$ ).

Correlational Relationship between Self-Efficacy, Efficacy Appraisal, and Social Behavior

Pearson Product-Moment Correlations were conducted on selected dependent measures at pretreatment so as to investigate the relationship between self-efficacy, efficacy appraisal, and social behavior (see Table 14). These results failed to reveal significant correlations between self-efficacy and selected measures of social behavior, however significant correlations were obtained between both pre-role play and post-role play self-efficacy and efficacy appraisal (total score) (see Table 14). These results revealed a .40 correlation ( $p < .005$ ) between efficacy appraisal and pre-role play self-efficacy and a .45 correlation ( $p < .002$ ) between efficacy appraisal and post-role play self-efficacy. Thus, although efficacy appraisal correlated strongly with self-efficacy, significant correlations were not obtained between self-efficacy and measures of social behavior.

## DISCUSSION

In general, the results of the current research failed to support the experimental hypotheses. Although post-treatment changes on the efficacy appraisal measure were obtained, results failed to reveal important post-treatment differences on measures of state anxiety, outcome expectancy, self-efficacy, social behavior, or sociometric status.

Analyses of variance conducted to investigate the pretreatment equivalence of status obtained mixed results. Although children identified as aggressive and children identified as withdrawn were significantly different on the A Scale of the AML Teacher Rating Scale (designed to assess aggressive behavior), significant differences between the aggressive and withdrawn children were not obtained on the M scale (designed to assess withdrawn behavior). Thus, based on the AML, children identified as withdrawn exhibited significantly less aggressive behavior than children identified as aggressive but they did not exhibit significantly more withdrawn behavior. A question can be raised as to whether children identified as withdrawn by teachers clearly represented a socially withdrawn sample.

Analyses conducted to investigate the pretreatment performance of aggressive and withdrawn children relative to popular children revealed similar findings. Popular children scored significantly higher on standardized sociometric measures, and significantly lower on the L scale of the AML (designed to assess learning disabilities) than either aggressive or withdrawn children. Aggressive children scored significantly higher on the A scale of the AML than either withdrawn or popular children. However, there were no significant differences among the aggressive, withdrawn, or popular children on the M scale. Thus, based on the AML, children identified as withdrawn did not exhibit significantly more withdrawn behavior than children identified as popular. Although all children identified as withdrawn were categorized by their teacher as socially withdrawn relative to their peers, pretreatment AML scores do not support the existence of a clearly socially withdrawn sample of subjects.

The potential confound of the socially withdrawn sample may have served to prevent significant main effects for status on measures of outcome expectancy, self-efficacy, and state anxiety. Theoretically, the argument was made that withdrawn children would exhibit a debilitated sense of self-efficacy and outcome expectancy, and a heightened sense

of state anxiety relative to aggressive children. The results of the current research did not support this argument.

Hypotheses made regarding the efficacy of the three treatment conditions and the relative salience of treatment conditions for withdrawn and aggressive children received only partial support. According to Hypothesis I, the social skills plus efficacy appraisal condition would result in significantly better performance at post-treatment than either of the other two treatment conditions, regardless of status. The results obtained did not support this hypothesis.

The mean total score on the efficacy appraisal measure for children in the efficacy appraisal condition was significantly lower than the mean total score for children in the social skills condition. Subsequent analyses of the individual items of the efficacy appraisal scale revealed significant and near significant differences between the efficacy appraisal group and the social skills group on subvariables C and E ("How much are your answers based on what you have been able to do in the past?" and "How much are your answers based on what others have told you you are able to do?" respectively). On both of these items the mean score for children in the efficacy appraisal condition

(Group II) was lower than the mean score for children in the social skills condition (Group I). Thus, subjects that observed models making self-efficacy appraisals and appropriately attending to the four salient sources of efficacy information espoused by Bandura (1981), reported less attendance to their own past behavior and to other's judgments of their abilities when appraising their own self-efficacy. However, further investigation of the results revealed that the efficacy appraisal scores for Group II did not decline as a function of treatment, but rather the efficacy appraisal scores for Groups I and III increased from pretreatment to post-treatment. In actuality, there was very little change in the efficacy appraisal scores for Group II.

Analyses also revealed significant and near significant effects for time on the efficacy appraisal measure and on the two self-efficacy scales. These results suggest that subjects collapsed across status and group tended to report increased attendance to the four sources of self-efficacy information and increased self-efficacy following the treatment phase.

According to the predictions of Hypotheses II and III, the relative efficacy of the treatment conditions would interact with the status of the subjects. The efficacy



appraisal condition would be the most salient for withdrawn children, such that withdrawn children in Group II would perform significantly better than withdrawn children in either of the other treatment conditions. Similarly, the social skills condition would be the most salient for aggressive children, such that aggressive children in Group I would perform significantly better than aggressive children in either of the other treatment conditions.

The results failed to support the predictions of Hypothesis II in regard to any of the dependent measures. Specifically, in regard to the efficacy appraisal measure, the results tended to support the efficacy of all three treatment conditions. Although the mean efficacy appraisal total score for withdrawn children in Group II increased from pretreatment to post-treatment, the scores for withdrawn children in Groups I and III also increased. In fact, an analysis conducted by status collapsed across group revealed that the mean efficacy appraisal total score increased significantly at post-treatment assessment for all withdrawn children.

A near significant effect suggestive of differential efficacy of treatment for withdrawn children was obtained on subvariable D of the efficacy appraisal measure ("How much are your answers based on what others have told you you are

able to do.") These results suggest that the mean score for withdrawn children in the attention control group and the efficacy appraisal group increased from pretreatment to post-treatment while the mean for withdrawn children in the social skills group decreased. Thus, on this particular variable the social skills treatment condition generally resulted in attenuating the performance of withdrawn children.

The results failed to support the predictions of Hypothesis III on all of the dependent measures except for the efficacy appraisal scale. Aggressive children in the social skills condition reported significantly more attendance to the four sources of information on the efficacy appraisal measure at post-treatment assessment than did the aggressive children in the efficacy appraisal condition. Subsequent analyses of the individual items on the efficacy appraisal measure revealed further support for Hypothesis III on subvariable D ("How much are your answers based on what you have seen others like you able to do?"). Analysis of pre-post change revealed that aggressive children in the social skills condition exhibited significantly more pre-post change on subvariable D than did aggressive children in the efficacy appraisal condition. In fact, the post-treatment means for aggressive children in

Group I increased while the means for aggressive children in Group II decreased. Similarly, within the social skills group, aggressive children exhibited significantly more pre-post change than withdrawn children. The post-treatment means for aggressive children increased while the means for withdrawn children decreased. Thus, on the efficacy appraisal scale in general, the social skills condition appears to have been the most salient treatment condition for aggressive children. On subvariable D specifically, aggressive children in Group I performed significantly better than aggressive children in Group II. Within Group I, aggressive children performed better than withdrawn children.

Additional analyses were conducted to examine the extent to which children in the three treatment groups differed in regard to homework completion, attendance, and treatment expectancy. The results failed to reveal significant differences on these measures attributable to treatment condition. Analyses were also conducted to examine the extent to which the various therapists may have contributed differentially to pre-post change. A near significant therapist X status interaction was obtained on subvariable C of the efficacy appraisal scale. A significant therapist X group interaction was obtained for

withdrawn children. The pre- to post-treatment mean on subvariable D for withdrawn children in Group I declined with therapist A and remained relatively stable for therapist B, while the pre- to post-treatment means for withdrawn children in Group II increased with therapist A and decreased with therapist B. Thus, differential effects due to therapist were obtained for withdrawn children on subvariable D of the efficacy appraisal scale. These differential effects may have contributed to the results previously noted, wherein the pre- to post-treatment means for withdrawn children in the social skills condition decreased while the means for withdrawn children in the attention control condition and the efficacy appraisal condition increased.

In sum, the results of the current research provided evidence of changes in reported efficacy appraisal at post-treatment assessment, although these changes were not clearly consistent with the predictions of the experimental hypotheses. The results most relevant to Hypothesis I revealed a general increase in the efficacy appraisal scores for Groups I and III, and relatively no change in the pretreatment to post-treatment scores for Group II. Thus, the conclusion drawn from these results alone would be that both Groups I and III resulted in increased efficacy

appraisal scores, while Group II had a negligible effect, if any, on efficacy appraisal. However, if these results are reviewed independently for aggressive and withdrawn children, the subsequent conclusions are quite different. The results of the efficacy appraisal scale (total score) and the results of subvariables C, D, and E, reveal that the scores for withdrawn children in Group II generally increased from pretreatment to post-treatment while the scores for aggressive children in Group II generally decreased. On subvariable F, the scores for aggressive and withdrawn children generally increased. Thus, when these results are reviewed according to status of the subjects, it can be concluded that the efficacy appraisal scores for withdrawn children in Groups I, II, and III generally increased. The scores for aggressive children in Groups I and III generally increased, while the scores for aggressive children in Group II generally decreased. According to these results, the relative effect of the efficacy appraisal treatment condition varied as a function of status. The efficacy appraisal treatment condition appears to have been somewhat more salient for withdrawn than for aggressive children in terms of enhancing efficacy appraisal. Similarly, the efficacy appraisal scores for aggressive children in the social skills treatment condition increased

significantly more than the scores for aggressive children in the efficacy appraisal condition. Therefore, the social skills condition appears to have been somewhat more salient for aggressive condition in terms of enhancing efficacy appraisal.

Generally, however, the social skills condition, the efficacy appraisal condition, and the attention control condition all tended to result in increased efficacy appraisal scores at post-treatment. Thus, all three treatment condition appear to have been somewhat effective in altering efficacy appraisal. Methodologically, there are several other explanations which may serve to account, at least in part, for these results. Numerous authors have commented on the extent to which self-report measures may be confounded by methodological variables (Borkovec, 1978; Teasdale, 1978). Increased efficacy appraisal scores may have been due to the fact that children, having previously completed the efficacy appraisal scale at pretreatment assessment, were simply more familiar with the scale and what it was they were being asked to do (the metacognitive task). Increased familiarity with the measure may have resulted in children making less conservative judgments regarding their attendance to efficacy relevant sources of information. Unfortunately, due to the experimental nature

of the self-efficacy and efficacy appraisal scale, test-retest reliability relevant to this issue was not available.

Another possible explanation for the general increase in efficacy appraisal scores, regardless of treatment condition, may be a result of the order in which the self-efficacy and efficacy appraisal scales were administered. The pre-role play self-efficacy scale and the efficacy appraisal scale comprised distinct items on the same questionnaire (see Appendix B). Theoretically, efficacy appraisal, or the attendance to efficacy relevant information, takes place prior to making judgments of self-efficacy (Bandura, 1981). However, methodological considerations warranted presenting children with a given scenario, asking them to make a judgment regarding their ability to exhibit appropriate social behavior in that scenario (self-efficacy), and finally asking them how they made that judgment (efficacy appraisal). Thus, children were asked to make retrospective efficacy appraisals relative to estimations of their self-efficacy. Increased efficacy appraisal scores may have been a function of an increase in children's estimations of their self-efficacy. In other words, children may have been more likely to strongly endorse efficacy appraisal items following a strong endorsement of self-efficacy. Intuitively, this would be

particularly likely with children who either did not understand the nature of the efficacy appraisal task, or who were not developmentally mature enough to make metacognitive judgments. As previously reported, pre-role play self-efficacy scores increased significantly from pretreatment to post-treatment along with efficacy appraisal scores. Pearson Product-Moment Correlations conducted on selected dependent measures at pretreatment revealed a significant positive correlation between pre-role play self-efficacy scores and efficacy appraisal scores. Although theoretically efficacy appraisal scores would be expected to correlate positively with self-efficacy, it is not clear from these results whether heightened self-efficacy resulted from increased attendance to efficacy relevant information or if heightened efficacy appraisal scores were a methodological artifact of how efficacy appraisal was measured.

As previously mentioned, although scores on the pre-role play measure for subjects collapsed across group and status increased significantly from pretreatment to post-treatment, no significant group X time interactions were obtained and these effects cannot be attributed to treatment effects. Conceivably, changes from pre- to post-treatment reports of self-efficacy could be confounded by a number of



circumstantial variables. Pretreatment assessment was conducted approximately six months into the school year, and post-treatment assessment was conducted during the final three weeks of the year. Posttreatment increases in perceived self-efficacy could have reflected the fact that children may have been more familiar with their peers towards the end of the year, and may have subsequently judged themselves to be more likely to exhibit appropriate social behavior. Similarly, children were assessed by the same experimenters during both assessments. Increased self-efficacy scores may be due in part to increased familiarity and comfort with the experimenters and with the research project. One way to elucidate the potential effect of extra-experimental variables on self-efficacy and efficacy appraisal scores would have been to have included a no treatment, waiting list control condition in the experimental design. Unfortunately, a limited population of aggressive and withdrawn children prohibited the inclusion of a waiting list control group in the present research.

If the results are assumed to be purely a function of the experimental manipulation and not confounded by extra-experimental variables, the question remains as to why changes in efficacy appraisal and self-efficacy did not generalize to produce changes in social behavior.

Throughout the literature purporting to support self-efficacy theory, Bandura claims that changes in self-efficacy correlate positively with behavior change. Nevertheless, the current research failed to support this claim. The results failed to reveal post-treatment change on any of the measures designed to assess social behavior.

According to Bandura (1977) and Kazdin (1978), both success experiences and appropriate cognitive appraisal of these experiences serve to create generalized expectations of self-efficacy. Although success experiences were provided via the social skills plus efficacy appraisal treatment conditions, children's appraisal of these experiences may not have been sufficient to promote generalized expectations of self-efficacy and subsequent behavior change. In other words, children may have perceived the training environment as being much more conducive to success experiences, and may have been more likely to attribute these experiences to the unique aspects of the treatment groups rather than to their own ability. Social contingencies present within the training environment and generally less obvious or absent from children's natural environment (e.g., prompting by the therapist, peer reinforcement, etc.) may have served to promote appropriate social behavior within the treatment groups (Tryon, 1981).

Thus, although children may have reported increased perceived self-efficacy in respect to circumscribed experimental scenarios, those expectations of self-efficacy may not have been sufficient to generalize to the children's natural environment. Perhaps, as Tryon (1981) contends, positive correlations between post-treatment evaluations of self-efficacy and behavior are generally a function of the way self-efficacy is assessed. If a subject is asked to judge whether he can exhibit a certain behavior and then asked to exhibit that behavior, one would expect a strong congruence between verbal reports and subsequent behavior as a function of social contingencies. Tryon suggests that minimizing the association made between the assessment of efficacy expectations and subsequent behavioral assessment would serve to minimize social demand. The nature of the present research and the assessment of social behavior via self-report, teacher report, peer report, role play, and direct observation may have served to minimize children's association of efficacy assessment and subsequent behavioral assessment. Thus, the positive correlations between self-efficacy expectations and behavior typically reported by Bandura as supporting his theory of behavior change may be a function of his methodology. The nature of the present research may have served to inadvertently control for the effects of social demand.

Still, it may be the case that the number of training sessions made in the present research was insufficient. For example, in a study designed to investigate the efficacy of short-term group social skills training for socially isolated children (Edelson & Rose, 1982), the authors concluded that training programs consisting of eight hourly sessions were of too short a duration to promote maintenance and generalization of behavior change. Similarly Ladd and Mize (1983) noted that "training methods that are too abbreviated . . . are likely to have little or no effect on children's social skills" (p. 129). Thus, the eight-week training format utilized by the current research may not have been of sufficient duration to promote behavior change in light of changes in efficacy appraisal and self-efficacy expectations.

Finally, the failure to obtain post-treatment changes in social behavior may have been due to the small sample size and subsequently low power of the statistical analyses conducted. As previously mentioned, a limited pool of socially withdrawn and aggressive children (based on recruitment criteria) resulted in a relatively small sample of subjects. Analyses conducted by status and group resulted in a relatively small number of subjects per cell within the experimental design. Subsequently, this small

cell size may not have been sufficient to correctly reject the null hypotheses if indeed they were false. Although analyses of variance are relatively robust in respect to sample size, nevertheless, treatment effects would have had to have been reasonably profound in order to attain statistical significance.

Thus, a number of explanations exist for the current findings. The results obtained may be an artifact for the methodology utilized in the current research, or may have been confounded by several extra-experimental variables. Additionally, children's appraisal of the success experiences provided via the treatment conditions may not have been sufficient to promote generalized expectations of self-efficacy and subsequent behavior change. Finally, the abbreviated nature of the treatment program and the relatively small sample size may have been insufficient to clearly promote and demonstrate post-treatment change.

## CONCLUSION

The purpose of the present research was to investigate the relationship between self-efficacy, self-efficacy appraisal skills, and social behavior, and to examine the relative efficacy of three treatment conditions in remediating social skill deficits in socially aggressive and socially withdrawn children. The results generally failed to support the experimental hypotheses. Nevertheless, posttreatment changes in efficacy appraisal and self-efficacy were obtained, and some differential effects of treatment attributable to status of subject were reported. Unfortunately, however, post-treatment changes on measures of efficacy appraisal and self-efficacy did not generalize to produce subsequent changes in social behavior.

If, in fact, as Bandura contends, self-efficacy is a viable cognitive construct ultimately involved in all types of therapeutic interventions, efficacy appraisal must also play a crucial role in behavior change. Kazdin (1978) notes:

Self-efficacy is altered only if the information is appropriately appraised by the individual and incorporated. Self-efficacy may not be related to different treatment experiences unless these are appraised in an appropriate fashion. This information would seem to move cognitive appraisal rather than self-efficacy to the center of the stage. After all, whether self-efficacy is changed depends upon the individual's appraisal of his or

her experiences and ability. Cognitive appraisal becomes a logically prior consideration to self-efficacy. Self-efficacy would seem to be altered only when certain types of appraisals exist (pp. 179-180).

Previous research has sought to understand the impact of self-efficacy expectations on subsequent behavior in hopes of understanding and promoting behavior change. Unfortunately, however, little consideration has been given to the manner in which self-efficacy expectations are created. Future research aimed at elucidating the role of self-efficacy in behavior change cannot afford to ignore the inherent contribution of cognitive appraisal in this regard.

## REFERENCES

- Achenbach, T.M. (1978) The child behavior profile: I. Boys aged 6 through 11. Journal of Consulting and Clinical Psychology, 46, 478-488.
- Allen, K.E., Hart, B., Buell, J.S., Harris, F.R., & Wolf, M.M. (1964) Effects of social reinforcement on isolate behavior of a nursery school child. Child Development, 35, 511-518.
- Bandura, A. (1977) Self-efficacy: Toward a unifying theory of behavior change. Psychological Review, 84, 191-215.
- Bandura, A. (1981) Self-referent thought: A developmental analysis of self-efficacy. In J.H. Flavell & L. Ross (Eds.), Social cognitive development. Cambridge, MA: Cambridge.
- Bellack, A.S. & Hersen, M. (1977) Behavior modification: An introductory textbook. Baltimore, MD: Williams & Wilkins.
- Bellack, A.S. & Hersen, M. (Eds.) (1979) Research and practice in social skills training. New York: Plenum Press.
- Blackwood, R. (1970) The operant conditioning of verbally mediated self-control in the classroom. Journal of School Psychology, 8, 257-258.
- Borkovec, T.D. (1978) Self-efficacy: Cause or reflection of behavior change? Advances in Behaviour Research and Therapy, 1, 163-170.
- Bornstein, M.R., Bellack, A.S., & Hersen, M. (1977) Social skills training for unassertive children: A multiple-baseline analysis. Journal of Applied Behavior Analysis, 10, 183-195.
- Bornstein, M.R., Bellack, A.S. & Hersen, M. (1980) Social skills training for highly aggressive children. Behavior Modification, 4, 173-186.
- Bower, S., Amatea, E., & Anderson, R. (1976) Assertiveness training with children. Elementary School Guidance and Counseling, 8, 236-245.



- Buell, J., Stoddard, P., Harris, F.R., & Baer, D.M. (1968) Collateral social development accompanying reinforcement of outdoor play in a preschool child. Journal of Applied Behavior Analysis, 1, 167-173.
- Calpin, J.P. & Kornblith, S.J. (1978) Training aggressive children in conflict resolution skills. Paper presented at the Annual Meeting of the Association for the Advancement of Behavior Therapy, Chicago.
- Camp, B., Blom, G., Herbert, F., & Van Doorwick, W. (1966) Think aloud: A program for developing self-control in young aggressive boys. Unpublished manuscript, University of Colorado School of Medicine.
- Chandler, M.J. (1973) Egocentrism and antisocial behavior: The assessment and training of social perspective-taking skills. Developmental Psychology, 9, 326-332.
- Charlesworth, R. & Hartup, W.W. (1967) Positive social reinforcement in the nursery school peer group. Child Development, 38, 993-1002.
- Chittenden, G.F. (1942) An experimental study in measuring and modifying assertive behavior in young children. Monograph of the Society for Research in Child Development, 7, 1-87.
- Clarfield, S.P. (1974) The development of a teacher referral form for identifying early school maladaptation. American Journal of Community Psychology, 2, 199-210.
- Clarizio, H.F. (Ed.) (1969) Mental health and the educative process. Chicago: Rand McNally.
- Clark, H.B., Caldwell, C.P., & Christian, W.P. (1980) Classroom training of conversational skills and remote programming for the practice of these skills in another setting. Unpublished manuscript.
- Cone, J.D. & Hawkins, R.P. (Eds.) (1977) Behavioral assessment: New directions in clinical psychology. New York: Brunner/Mazel.
- Cooke, T.P. & Apolloni, T. (1976) Developing positive social emotional behaviors: A study of training and generalization effect. Journal of Applied Behavior Analysis, 9, 65-78.

- Cowan, P.A. (1966) Cognitive egocentrism and social interaction in children. American Psychologist, 21, 623.
- Cowen, E.L., Pederson, A., Barbigian, H., Izzo, L., & Trost, M.A. (1973) Long-term follow-up of early detected vulnerable children. Journal of Consulting and Clinical Psychology, 41, 438-446.
- Curran, J.P. (1975) Social skills and systematic desensitization in reducing dating anxiety. Behaviour Research and Therapy, 13, 65-68.
- D'Amico, W. (1976) Revised Rathus assertiveness scale for children, grades 3-8. Marblehead, MA: Educational Counseling and Consulting Services.
- Debus, R.L. (July 1976) Observational learning of reflective strategies by impulsive children. Paper presented at the 21st International Congress of Psychology, Paris.
- Denney, D. (1975) The effects of exemplary and cognitive models and self rehearsal on children's interrogative strategies. Journal of Experimental Child Psychology, 19, 476-488.
- Drabman, R.S., Spitalnik, R., & O'Leary, K.D. (1973) Teaching self-control to disruptive children. Journal of Abnormal Psychology, 82, 10-16.
- Edelson, J.L. & Rose, S.D. (1982) Investigations into the efficacy of short-term group social skills training for socially isolated children. Child Behavior Therapy, 3, 1-16.
- Edwards, N.B. (1972) Case conference: Assertive training in a case of homosexual pedophilia. Journal of Behavior Therapy and Experimental Psychiatry, 3, 55-63.
- Eisler, R.M. (1976) The behavioral assessment of social skills. In M. Hersen & A.L. Bellack (Eds.), Behavioral assessment: A practical handbook. New York: Pergamon.
- Eisler, R.M. & Fredericksen, L.W. (1980) Perfecting social skills: A guide to interpersonal behavior development. New York: Plenum.
- Eisler, R.M., Hersen, M., & Agras, W.S. (1973) Videotape: A method for controlled observation of non-verbal interpersonal behavior. Behavior Therapy, 4, 420-425.

- Elder, J.P., Edelstein, B.A., & Narick, M.M. (1979) Adolescent psychiatric patients: Modifying aggressive behavior with social skills training. Behavior Modification, 3, 161-178.
- Evers, W.L. & Schwartz, J.C. (1973) Modifying social withdrawal in preschoolers: The effects of filmed modeling and teacher praise. Journal of Abnormal Child Psychology, 1, 248-256.
- Feldhusen, J.F., Thurston, J.R., & Benning, J.J. (1970) Longitudinal analyses of classroom behavior and school achievement. The Journal of Experimental Education, 38, 4-10.
- Feldhusen, J.F., Thurston, J.R., & Benning, J.J. (1973) A longitudinal study of delinquency and other aspects of children's behavior. International Journal of Criminology and Penology, 1, 341-351.
- Finch, A.J. & Kendall, P.C. (1978) Anxiety in children: Theoretical views and research findings. In L.E. Bentler & R.Green (Eds.), Special problems in child and adolescent behavior. Westport, CT: Technomic.
- Flavell, J.H., Botkin, P.J., & Fry, C.L. (1968) The development of role-taking and communication skills in children. New York: Wiley.
- Freedman, B.J., Rosenthal, L., Donahoe, C.P., Schlundt, D.G., & McFall, R.M. (1978) A social-behavioral analysis of skill deficits in delinquent and non-delinquent boys. Journal of Consulting and Clinical Psychology, 46, 1448-1462.
- Garmezy, N. (1973) Children at risk: The search for the antecedents of schizophrenia. Part I. Conceptual models and research methods. Schizophrenia Bulletin, 8, 14-90.
- Garmezy, N. (1974) Children at risk: The search for the antecedents of schizophrenia. Part II. Ongoing research programs, issues, and intervention. Schizophrenia Bulletin, 2, 55-125.
- Gesten, E.L. (1976) A health resources inventory: The development of a measure of primary-grade children. Journal of Consulting and Clinical Psychology, 44, 775-786.

- Glucksberg, S., Krauss, R.M., & Weisberg, R. (1966) Referential communication in nursery school children: Method and some preliminary findings. Journal of Experimental Child Psychology, 3, 333-342.
- Glynn, E.L., Thomas, J.D., & Shee, S.M. (1973) Behavioral self-control of on-task behavior in an elementary classroom. Journal of Applied Behavior Analysis, 6, 105-113.
- Gottman, J.M. (1977) Toward a definition of social isolation in children. Child Development, 48, 513-517.
- Gottman, J., Gonso, J., & Rasmussen, B. (1975) Social interaction, social competence, and friendship in children. Child Development, 46, 709-718.
- Gottman, J., Gonso, J. & Schuler, P. (1976) Teaching social skills to isolated children. Journal of Abnormal Child Psychology, 4, 179-197.
- Greenwood, C.R., Walker, H.M., & Hops, H. (1977) Some issues in social interaction/withdrawal assessment. Exceptional Children, 43, 490-499.
- Gross, A.M., Brigham, T.A., Hopper, C., & Balongna, N.C. (1979) Self-management and social skills training with preadolescent and delinquent youths. Paper presented at the Annual Meeting of the Southeastern Psychological Association, New Orleans, LA.
- Groundland, H. & Anderson, C. (1963) Personality characteristics of socially accepted, socially neglected and socially rejected junior high pupils. In J. Seidman (Ed.), Education for mental health. Cromwell, N.Y.
- Group for the Advancement of Psychiatry. (1976) Psychopathological disorders in childhood: Theoretical considerations and a proposed classification. New York.
- Hart, B.M., Reynolds, N.N., Baer, D.M., Brawley, E.R., & Harris, F.R. (1968) Effect of contingent and non-contingent social reinforcement on the cooperative play of a preschool child. Journal of Applied Behavior Analysis, 1, 73-76.
- Hartup, W.W., Glazer, J.A., & Charlesworth, R. (1967) Peer reinforcement and sociometric status. Child Development, 38, 1017-1024.

- Hersen, M. & Bellack, A.S. (1977) Assessment of social skills. In A.R. Ciminero, K.S. Calhoun, & H.E. Adams (Eds.), Handbook for behavioral assessment. New York: Wiley.
- Hersen, M. & Bellack, A.S. (1976) Social skills training for chronic psychiatric patients: Rationale, research findings, and future directions. Comprehensive Psychiatry, Katz17|, 559-580.
- Hops, H. & Greenwood, C.R. (1980) Assessment of children's social skills. In E.J. Mash & L.G. Terdal (Eds.), Behavioral assessment of childhood disorders. New York: Guilford.
- Hymel, S. & Asher, S.R. (1977) Assessment and training of isolated children's social skills. Paper presented at the Society for Research in Child Development, New Orleans.
- Kagen, S. & Carlson, H. (1975) Development of adaptive assertiveness in Mexican and United States Children. Developmental Psychology, 11, 71-78.
- Katz, R.C. & Zlutnick, S. (1975) Behavior therapy and health care. New York: Pergamon Press.
- Kazdin, A.E. (1978) Conceptual and assessment issues raised by self-efficacy theory. Advanced in Behaviour Research and Therapy, 1, 177-185.
- Kent, R.N., O'Leary, K.D., Diament, C., & Dietz, A. (1974) Expectation biases in observational evaluation of therapeutic change. Journal of Consulting and Clinical Psychology, 42, 774-781.
- Kohn, M. (1977) Social competence, symptoms, and underachievement in childhood: A longitudinal perspective, New York: Winston.
- Kohn, M. & Rosman, B.C. (1972) Relationship of pre-school social-emotional functioning to later intellectual achievement. Developmental Psychology, 11, 445-452.
- Ladd, G.W. & Mize, J. (1983) A cognitive-social learning model of social-skill training. Psychological Review, 90, 127-157.

- LaGrecca, A.M. & Santogrossi, D.A. (1980) Social skills training with elementary school students: A behavioral group approach. Journal of Consulting and Clinical Psychology, 48, 220-227.
- Lewis, M. & Rosenblum, L.A. (1975) Friendship and peer relations. New York: Wiley.
- Libet, J.M. & Lewinsohn, P.M. (1973) Concept of social skill with special reference to the behavior of depressed persons. Journal of Consulting and Clinical Psychology, 40, 304-312.
- Meichenbaum, D. & Asarnow, J. (1979) Cognitive-behavior modification and metacognitive development: Implications for the classroom. In P.C. Kendall & D. Hollon (Eds.), Cognitive-behavioral interventions: Theory, research, and procedures. New York: Academic Press.
- Michelson, L., Foster, S.L., & Ritchey, W.L. (1981) Social skills assessment of children. In B.B. Lahey & A.E. Kazdin, (Eds.), Advances in Clinical Child Psychology, Vol. 4. New York: Plenum Press.
- Michelson, L. & Wood, R. (1980) Behavioral assessment and training of children's social skills. Progress in Behavior Modification, 9, 241-292.
- Michelson, L. & Wood, R. (1978) Development and evaluation of an assertive training program for elementary school children. Paper presented at the Annual Meeting of the Association for Advancement of Behavior Therapy, Chicago.
- Oden, S. & Asher, S.R. (1977) Coaching children in social skills for friendship making. Child Development, 48, 495-506.
- Ollendick, T.H. (1984) Development and validation of the children's assertiveness inventory. Child and Family Behavior Therapy, in press.
- Ollendick, T.H. (1982) Assessment and treatment of socially withdrawn and aggressive children. Unpublished Research Proposal, Virginia Polytechnic Institute and State University.
- Ollendick, T.H. (1981) Assessment of social interaction skills in school age children. Behavioral Counseling Quarterly, 1, 227-243.

- Ollendick, T.H. (1979) The children's assertiveness test. Unpublished manuscript, Indiana State University.
- Ollendick, T.H. & Hersen, M. (1984) Child behavioral assessment: Principles and procedures. New York: Pergamon Press.
- Ollendick, T.H. & Hersen, M. (1979) Social skills training for juvenile delinquents. Behaviour Research and Therapy, 17, 547-554.
- Ollendick, T.H., Finch, A.S., & Nelson, W.M. (1976) Correlates of question-making by emotionally disturbed and normal children. Psychological Reports, 38, 923-924.
- Palmer, P. (1977) The mouse, the monster, and me. San Luis Obispo, CA: Impact.
- Parsons, J.E., Moses, L. & Yulish-Muszydinski, S. (1977) The development of attributions, expectancies, and persistence. In success and failure attributions and student behavior in the classroom. Symposium presented at the meeting of the American Psychological Association, San Francisco.
- Parsons, J.E. & Ruble, D.N. (1977) The development of achievement-related expectancies. Child Development, 48, 1075-1079.
- Patterson, G.R. (1964) An empirical approach to the classification of disturbed children. Journal of Clinical Psychology, 20, 326-337.
- Patterson, G.R. (1971) Families: Applications of social learning to family life. Champaign, IL: Research Press.
- Patterson, G.R., Reid, J.G., Jones, R.R., & Canger, R.E. (1975) A social learning approach to family intervention. (Vol. 1). Eugene, OR: Catalise.
- Piers, E.V. & Harris, D.B. (1969) The Piers-Harris children's self-concept scale. Nashville, TN: Counselor Records and Tests.
- Pinkstan, E.M., Respes, N.M., LeBlanc, J.M., & Baer, D.M. (1972) Independent control of a preschool child's aggression and peer interaction by contingent teacher attention. Journal of Applied Behavior Analysis, 6, 115-124.

- Quay, H.C. & Peterson, D.R. (1967) Manual for the behavior problem checklist. Mimeo.
- Rathus, S.A. (1973) A 30-item schedule for assessing assertive behavior. Behavior Therapy, 4, 398-406.
- Reardon, R.C., Hersen, M., Bellack, A.S., & Foley, J.M. (1979) Measuring social skill in grade school boys. Journal of Behavioral Assessment, 1, 87-105.
- Reid, J.B. (1970) Reliability assessment of observation data: A possible methodological problem. Child Development, 41, 1143-1150.
- Robin, A., Schneider, M., & Dolnick, M. (1976) The turtle technique: An extended case study of self-control in the classroom. Psychology in the Schools, 12, 120-128.
- Roff, M., Sells, B., & Golden, M.M. (1972) Social adjustment and personality development in children. Minneapolis: The University of Minnesota Press.
- Rothenberg, B. (1970) Children's social sensitivity and the relationship to interpersonal competence, interpersonal comfort, and intellectual level. Developmental Psychology, 2, 335-350.
- Rotter, J.B., Chance, J.E., & Phares, E.J. (1972) Applications of a social learning theory of personality. Chicago: Holt, Rinehart, & Winston, Inc.
- Silvern, L.E., Waterman, J.M., Sobesky, W., & Ryan, V.L. (1979) Effects of a developmental model of perspective taking training. Child Development, 50, 243-246.
- Spring, C., Greenberg, L., Scott, J., & Hopwood, J. (1974) Electrodermal activity in hyperactive boys who are methylphenidate responders. Psychophysiology, 11, 456-462.
- Spielberger, C.D. (1973) Preliminary manual for the state-trait anxiety inventory for children. ("How I Feel Questionnaire"). Palo Alto: Consulting Psychologist Press.
- Strain, P.S., Shores, R.E., & Kerr, M.M. (1976) An experimental analysis of "spillover" effects on the social interaction of behaviorally handicapped preschool children. Journal of Applied Behavior Analysis, 9, 31-40.



- Strain, P.S. & Timm, M.A. (1974) An experimental analysis of social interaction between a behaviorally disordered pre-school child and her classmate peer. Journal of Applied Behavior Analysis, 7, 583-592.
- Teasdale, J.D. (1978) Self-efficacy: Toward a unifying theory of behavioural change. Advances in Behaviour Research and Therapy, 1, 211-215.
- Thompson, C., Holmberg, M., & Baer, B. (1974) A brief report on a comparison of time-sampling procedures. Journal of Applied Behavior Analysis, 7, 623-626.
- Tryon, W.W. (1981) A methodological critique of Bandura's self-efficacy theory of behavior change. Journal of Behavior Therapy and Experimental Psychiatry, 12, 113-114.
- Ullman, C.A. (1957) Teachers, peers, and tests as predictors of adjustment. Journal of Educational Psychology, 48, 257-267.
- Vaal, J.J. & McCullagh, J. (1975) The Rathus assertiveness schedule: Reliability at the junior high level. Behavior Therapy, 6, 566-567.
- Van Hasselt, V.B., Hersen, M., Whitehill, M.B., & Bellack, A.S. (1979) Social skills assessment and training for children: An evaluation review. Behaviour Research and Therapy, 17, 413-437.
- Waldrop, M.F., & Halverson, C.F. (1975) Intensive and extensive peer behaviors: Longitudinal and cross-sectional analyses. Child Development, 46, 19-26.
- Walker, H.M. (1970) Walker problem behavior identification checklist. Los Angeles, CA: Western Psychological Services.
- Watt, N.F. (1972) Longitudinal changes in the social behavior of children hospitalized for schizophrenia as adults. The Journal of Nervous and Mental Disease, 155, 42-53.
- Whitemore, T.L., Mercuro, J.R. & Capanigri, V. (1970) Development of social responses in two severely retarded children. Journal of Applied Behavior Analysis, 3, 133-138.

**Appendix A**  
**TABLES OF RESULTS**

**Table 3**

Pre-Treatment Equivalence of Groups: Means for Group I (n = 20),  
II (n = 20), and III (n = 19)

Measures	Social Skills $\bar{X}$	Social Skills + Efficacy Appraisal $\bar{X}$	Attention Control $\bar{X}$
<u>Selection Criteria:</u>			
AML - A	9.26	12.00	10.56
AML - M	9.13	8.90	8.81
AML - L	2.00	2.20	1.94
Standardized Sociometric	-0.33	-0.62	-0.66
<u>Remaining Dependent Measures:</u>			
Pre-Role Play Self-Efficacy	31.22	31.31	28.46
Subvariable C	17.11	17.50	16.39
Subvariable D	16.44	16.44	16.39
Subvariable E	16.11	14.50	15.15
Subvariable F	15.61	16.75	16.00
Post-Role Play Self-Efficacy	20.56	19.75	20.00
Outcome Expectancy	13.06	12.81	13.39
How-I-Feel	38.35	38.80	36.53
Social Knowledge	4.30	4.20	4.20

**Table 4**

Pre-Treatment Equivalence of Status: Means for Aggressive (n = 27),  
Withdrawn (n = 20), and Popular (n = 12) Children

Measures	Aggressive	Withdrawn	Popular
<u>Selection Criteria:</u>			
AML - A	12.79 <sub>a</sub>	9.47 <sub>b</sub>	7.00 <sub>b</sub>
AML - M	8.71	9.74	8.33
AML - L	2.14 <sub>a</sub>	2.26 <sub>a</sub>	1.50 <sub>b</sub>
Standardized Sociometric	-1.10 <sub>a</sub>	-0.77 <sub>a</sub>	1.24 <sub>b</sub>
<u>Remaining Dependent Measures:</u>			
Pre-Role Play Self-Efficacy	30.89	29.20	
Subvariable C	17.46	16.42	
Subvariable D	16.43	16.42	
Subvariable E	15.96	14.31	
Subvariable F	15.86	16.47	
Post-Role Play Self-Efficacy	20.33	19.78	
Outcome Expectancy	12.96	13.22	
How-I-Feel	37.79	39.11	

NOTE: Within each row, means with the same subscript are not significantly different at  $p < .05$ .

Table 5  
 Relative Efficacy of Treatment Conditions:  
 Means and Standard Deviations for Group I (N=20)

Measures	AGG		Post		Pre		WD		Post		Pre		AGG ± WD	
	X	SD	X	SD	X	SD	X	SD	X	SD	X	SD	X	SD
<u>Self Report:</u>														
How I Feel	38.36	10.73	41.40	10.07	39.14	9.14	34.14	9.58	38.67	10.01	38.41	10.35	38.41	10.35
Assertion	10.73	6.40	10.44	1.62	10.00	2.00	10.50	.53	10.44	5.12	10.46	1.36	10.46	1.36
Pre-Self Eff	31.64	2.77	31.60	3.95	30.57	4.76	32.83	3.43	31.22	3.57	32.06	3.70	32.06	3.70
Post-Self Eff	20.20	5.21	20.60	4.41	21.17	2.29	23.50	2.24	20.56	4.33	21.69	3.96	21.69	3.96
Outcome Exp	13.00	1.38	13.20	.62	13.16	.72	13.50	1.00	13.06	1.16	13.31	.78	13.31	.78
<u>Behavioral Assessment:</u>														
<u>Role Play</u>														
Latency	35.00	18.86	23.16	8.04	34.09	26.28	28.41	16.11	34.65	21.68	25.32	12.10	25.32	12.10
Duration	74.09	22.81	106.40	42.74	69.29	21.59	86.71	28.89	72.22	22.16	98.29	38.43	98.29	38.43
Content	36.36	7.15	40.70	3.08	36.29	8.30	38.14	6.36	36.33	7.50	39.65	4.80	39.65	4.80
<u>Behavioral Interaction</u>														
Peer Positive	67.27	33.51	69.40	21.38	62.29	30.34	68.50	26.25	65.33	31.96	68.91	23.60	68.91	23.60
Peer Negative	3.64	4.41	7.20	7.32	1.29	3.27	00.00	00.00	2.72	4.12	3.27	6.03	3.27	6.03
Alone	19.73	25.79	21.20	25.21	35.29	31.68	3.33	3.93	25.78	28.33	11.45	18.23	11.45	18.23
<u>Significant Other</u>														
AML-A	11.36	3.22	14.25	2.43	7.71	2.81	8.00	1.85	9.94	3.52	11.13	3.84	11.13	3.84
AML-M	8.91	2.67	12.00	3.17	9.00	2.15	10.00	1.07	8.94	2.45	11.00	2.48	11.00	2.48
AML-L	2.27	.77	2.75	.46	2.00	.78	2.25	.46	2.17	.77	2.50	.52	2.50	.52
Peer Sociom.	-.66	.63	-.41	1.33	-.77	.62	-.63	.78	-.71	.62	-.49	1.14	-.49	1.14

Table 5 (continued)

Relative Efficacy of Treatment Conditions:  
Means and Standard Deviations for Group II (N=20)

Measures	Pre		Post		AGG		WD		Pre		Post		AGG ± WD	
	X	SD	X	SD	X	SD	X	SD	X	SD	X	SD	X	SD
<u>Self Report:</u>														
How I Feel	38.13	7.24	32.88	6.50	39.25	6.63	40.25	12.20	38.69	6.85	36.56	10.32		
Assertion	9.71	2.20	8.29	2.40	10.57	1.74	9.75	1.61	10.14	1.99	9.07	2.12		
Pre-Self Eff	31.88	2.10	32.75	2.05	30.75	3.62	31.13	3.40	31.31	2.91	31.94	2.84		
Post-Self Eff	20.50	2.68	20.88	1.31	19.00	4.38	18.00	4.65	19.75	3.65	19.44	3.66		
Outcome Exp	12.75	1.25	13.00	.89	12.88	1.09	12.63	1.54	12.81	1.09	12.81	1.26		
<u>Behavioral Assessment:</u>														
<u>Role Play</u>														
Latency	32.07	7.75	19.63	9.13	27.14	14.73	17.37	6.10	24.61	11.86	18.50	7.72		
Duration	127.38	38.28	132.00	48.60	94.88	49.05	87.75	34.56	111.13	44.42	109.88	47.18		
Content	40.00	3.10	40.50	3.39	34.00	8.07	37.63	2.47	37.00	6.74	39.06	3.26		
<u>Behavioral Interaction</u>														
Peer Positive	71.75	16.34	73.25	25.04	75.63	20.05	87.38	15.44	73.69	18.10	80.31	21.68		
Peer Negative	7.00	9.11	3.13	3.56	1.38	3.76	00.00	00.00	4.19	7.42	1.56	2.94		
Alone	19.63	18.16	12.25	19.20	19.75	18.92	6.33	9.39	19.69	18.24	9.44	15.14		
<u>Significant Other</u>														
AML-A	15.25	4.61	14.63	6.65	10.75	6.13	10.13	5.28	13.00	5.80	12.38	6.33		
AML-M	8.00	3.76	10.00	4.67	10.25	3.38	9.13	4.30	9.13	3.70	9.56	4.44		
AML-L	2.38	1.02	2.25	.86	2.25	1.00	2.13	.81	2.31	1.00	2.19	.82		
Peer Sociom.	-1.54	.63	-.90	1.00	-.71	.71	-.55	.74	-1.13	.78	-.76	.89		

Table 5 (continued)

Relative Efficacy of Treatment Conditions:  
Means and Standard Deviations for Group III (N=19)

Measures	Pre		Post		AGG		WD		Pre		Post		AGG ± WD		Post			
	X	SD	X	SD	X	SD	X	SD	X	SD	X	SD	X	SD	X	SD		
<u>Self Report:</u>																		
How I Feel	36.78	9.28	39.33	11.64	38.75	5.04	38.00	3.46	37.38	8.15	38.92	9.79	38.92	9.79	38.92	9.79	38.92	9.79
Assertion	11.89	1.71	10.75	1.24	10.25	.46	10.50	1.60	11.38	1.63	10.67	1.34	10.67	1.34	10.67	1.34	10.67	1.34
Pre-Self Eff	29.11	3.59	31.44	3.40	27.00	5.72	30.50	3.11	28.46	4.21	31.15	3.21	31.15	3.21	31.15	3.21	31.15	3.21
Post-Self Eff	20.33	3.43	21.33	3.25	19.25	3.33	22.50	2.67	20.00	3.37	21.69	3.08	21.69	3.08	21.69	3.08	21.69	3.08
Outcome Exp	13.11	1.32	13.67	.84	14.00	.76	13.25	2.19	13.38	1.24	13.54	1.36	13.54	1.36	13.54	1.36	13.54	1.36
<u>Behavioral Assessment:</u>																		
<u>Role Play</u>																		
Latency	44.31	23.77	37.34	25.28	20.02	7.53	17.85	10.78	36.84	22.49	31.34	22.83	31.34	22.83	31.34	22.83	31.34	22.83
Duration	76.11	27.23	85.11	30.16	125.75	76.44	86.00	19.51	91.38	49.42	85.38	25.95	85.38	25.95	85.38	25.95	85.38	25.95
Content	35.89	6.50	38.77	8.54	40.00	2.00	39.00	4.96	37.15	5.79	38.85	17.51	38.85	17.51	38.85	17.51	38.85	17.51
<u>Behavioral Interaction</u>																		
Peer Positive	83.67	22.37	71.43	33.43	83.25	12.68	77.25	30.70	83.54	19.63	73.55	31.85	73.55	31.85	73.55	31.85	73.55	31.85
Peer Negative	5.78	13.08	2.71	5.73	1.50	1.60	2.00	3.70	4.46	11.00	2.45	5.00	2.45	5.00	2.45	5.00	2.45	5.00
Alone	6.22	13.48	15.42	35.44	9.25	13.49	15.25	26.42	7.15	13.29	15.36	31.78	15.36	31.78	15.36	31.78	15.36	31.78
<u>Significant Other</u>																		
AML-A	12.33	5.18	13.75	3.24	10.00	4.07	9.75	3.33	11.62	4.91	11.75	3.79	11.75	3.79	11.75	3.79	11.75	3.79
AML-M	9.11	4.69	11.75	3.81	10.00	3.38	10.00	3.30	9.38	4.28	10.88	3.56	10.88	3.56	10.88	3.56	10.88	3.56
AML-L	1.78	.81	2.25	1.16	2.75	.89	2.50	.53	2.08	.93	2.38	.89	2.38	.89	2.38	.89	2.38	.89
Peer Sociom.	-1.24	.89	-.47	.86	-.88	.51	-.63	.94	-1.13	.80	-.52	.87	-.52	.87	-.52	.87	-.52	.87

**Table 6**

Relative Efficacy of Treatment Conditions: Means and ANOVA for Group I (n = 20),

II (n = 20), and III (n = 19)

Treatment Groups	EFFICACY APPRAISAL SCALE											
	Total Score		Subvariable C		Subvariable D		Subvariable E		Subvariable F		Pre	Post
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post		
Social Skills	65.27	77.19 <sub>a</sub>	17.11	20.13 <sub>a</sub>	16.44	17.94	16.11	18.94	15.61	20.19		
Social Skills + Efficacy Appraisal	65.19	66.69 <sub>b</sub>	17.5	17.44 <sub>b</sub>	16.44	16.06	14.50	15.13	16.75	18.06		
Attention Control	63.92	73.77 <sub>ab</sub>	16.38	19.08 <sub>ab</sub>	16.38	18.85	15.15	17.38	16.00	18.46		

ANOVA

Source	DF	F	P	DF	F	P	DF	F	P	DF	F	P
Group	2	1.57	.22	2	0.42	.66	2	.94	.40	2	3.10	.0558
Time	1	29.29	.0001	1	14.09	.0006	1	4.03	.0516	1	8.61	.005
Group X Time	2	5.35	.009	2	4.16	.02	2	2.27	.12	2	1.21	.31
											17.6	.0002
											2	1.89
												.17

NOTE: Within each column, means with the same subscript are not significantly different at p < .05.



**Table 7**

Relative Efficacy of Treatment Conditions: Means for Withdrawn Children in Group I (n = 6), II (n = 8), and III (n = 6)

Measures	Social Skills		Social Skills and Efficacy Appraisal		Attention Control	
	Pre	Post	Pre	Post	Pre	Post
<u>Self-Report:</u>						
How-I-Feel	39.14	34.14	39.25	40.25	38.75	38.00
Assertion	10.00	10.50	10.57	9.75	10.25	10.50
Pre-Role Play Self-Efficacy	30.57	32.83	30.75	31.13	27.00	30.50
Post-Role Play Self-Efficacy	21.17	23.50	19.00	18.00	19.25	22.50
Outcome Expectancy	13.17	13.50	12.88	12.63	14.00	13.25
<u>Behavioral Assessment:</u>						
<u>Role Play</u>						
Latency	34.09	28.41	27.14	17.37	20.02	17.85
Duration						
Content	36.29	38.14	34.00	37.63	40.00	39.00
<u>Behavioral Interaction:</u>						
Peer Positive	62.29	68.5	75.63	87.38	83.25	77.25
Peer Negative	1.29	.00	1.38	.00	1.50	2.00
Alone	35.29	3.33	19.75	6.63	9.25	15.25

Table 7 - cont'd

Relative Efficacy of Treatment Conditions: Means for Withdrawn  
Children in Group I (n = 6), II (n = 8), and III (n = 6)

Measures	Social Skills		Social Skills and Efficacy Appraisal		Attention Control	
	Pre	Post	Pre	Post	Pre	Post
Significant Other:						
AML - A	7.71	8.00	10.75	10.13	10.00	9.75
AML - M	9.00	10.00	10.25	9.13	10.00	10.00
AML - L	2.00	2.25	2.25	2.13	2.75	2.50
Peer Socio- metrics	-0.77	-0.63	-0.71	-0.55	-0.88	-0.63

Table 8

Relative Efficacy of Treatment Conditions: Means for Withdrawn

Children in Group I (n = 6), II (n = 8), and III (n = 6)

Treatment Groups	Total Score		EFFICACY APPRAISAL SCALE											
	Pre	Post	Subvariable C		Subvariable D		Subvariable E		Subvariable F					
			Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Social Skills	66.86	73.50	16.00	18.83	18.14	17.00	16.00	19.16	16.71	18.5				
Social Skills + Efficacy Appraisal	61.38	68.50	16.63	17.50	15.38 <sub>b</sub>	16.38	13.00	16.25	16.38	18.38				
Attention Control	62.50	78.75	16.75	20.00	15.50 <sub>b</sub>	19.50	16.78	14.00	16.25	20.50				

ANOVA

Source	DF	F	P	DF	F	P	DF	F	P	DF	F	P		
Status	1	.03	.86	1	.38	.54	1	.03	.87	1	.01	.93		
Time	1	29.29	.0001	1	14.09	.0006	1	4.03	.0516	1	8.61	.006		
Status X Time	1	1.48	.23	1	.91	.35	1	.00	.99	1	3.95	.0540		
Status X Group	2	4.88	.01	2	.21	.81	2	4.47	.02	2	1.20	.31		
X Time														
												2	2.69	.08

**Table 9**

Relative Efficacy of Treatment Conditions: Means for Aggressive Children in Group I (n = 10), II (n = 8), and III (n = 9)

Measures	Social Skills		Social Skills and Efficacy Appraisal		Attention Control	
	Pre	Post	Pre	Post	Pre	Post
<u>Self-Report:</u>						
How-I-Feel	38.36	41.4	38.13	32.88	36.78	39.33
Assertion	10.73	10.44	9.71	8.29	11.89	10.75
Pre-Role Play Self-Efficacy	31.64	31.60	31.88	32.75	29.11	31.44
Post-Role Play Self-Efficacy	20.20	20.60	20.5	20.88	20.33	21.33
Outcome Expectancy	13.00	13.10	12.75	13.00	13.11	13.67
<u>Behavioral Assessment:</u>						
<u>Role Play</u>						
Latency	35.00	23.16	22.07	19.64	44.31	37.34
Duration						
Content	36.36	40.70	40.00	40.50	35.89	38.78
<u>Behavioral Interaction:</u>						
Peer Positive	67.27	69.4	71.75	73.25	83.67	71.43
Peer Negative	3.64	7.20	7.00	3.13	5.78	2.71
Alone	19.73	21.1	19.63	12.25	6.22	15.43

Table 9 - cont'd

Relative Efficacy of Treatment Conditions: Means for Aggressive Children in Group I (n = 10), II (n = 8), and III (n = 9)

Measures	Social Skills		Social Skills and Efficacy Appraisal		Attention Control	
	Pre	Post	Pre	Post	Pre	Post
<u>Significant Other:</u>						
AML - A	11.36	14.25	15.25	14.63	12.33	13.75
AML - M	8.91	12.00	8.00	10.00	9.11	11.75
AML - L	2.27	2.75	2.38	2.25	1.78	2.25
Peer Socio metrics	-0.66	-0.41	-1.54	-0.98	-1.24	-0.47

Table 10

Relative Efficacy of Treatment Conditions: Means for Aggressive

Children in Group I (n = 10), II (n = 8), and III (n = 9)

Treatment Groups	Total Score		EFFICACY APPRAISAL SCALE						Subvariable F	
	Pre	Post	Subvariable C	Subvariable D	Subvariable E	Subvariable F	Subvariable G	Subvariable H	Pre	Post
Social Skills	64.27	79.40 <sub>a</sub>	17.82	20.90	15.36	18.5	16.18	18.80	14.91	21.20
Social Skills + Efficacy Appraisal	69.00	64.88 <sub>b</sub>	18.38	17.38	17.5	15.75	16.00	14.00	17.13	17.75
Attention Control	64.56	71.56 <sub>ab</sub>	16.22	18.67	16.78	18.56	15.67	16.78	15.89	17.56

Source	DF	F	P	DF	F	P	DF	F	P	DF	F	P			
Status	1	.03	.86	1	.38	.54	1	.03	.87	1	.01	.93	1	.18	.67
Time	1	29.29	.0001	1	14.09	.0006	1	4.03	.05	1	8.61	.006	1	17.60	.0002
Status X Time	1	1.48	.23	1	.91	.35	1	.00	.99	1	3.95	.0540	1	.03	.86
Group X Status X Time	2	4.88	.01	2	.21	.81	2	4.47	.02	2	1.20	.31	2	2.69	.08

NOTE: Within each column, means with the same subscript are not significantly different at p < .05.

**Table 11**

Additional Analyses: Means for Groups I (n = 20),  
II (n = 20), and III (n = 19)

Measures	Social Skills	Social Skills + Efficacy Appraisal	Attention Control
Homework	50.48	45.20	58.05
Attendance	7.50	7.69	7.83
<u>Treatment Expectancy:</u>			
Time 1	17.50	19.13	22.23
Time 2	18.17	19.06	22.00
Time 3	19.06	18.06	21.69

Table 12

Therapist Differences on the Efficacy Appraisal Scale: Change Scores  
for Withdrawn Children in Group I (n = 6), II (n = 8), and III (n = 6)

Treatment Groups	EFFICACY APPRAISAL SCALE							
	Sub-variable C Therapist		Sub-variable D Therapist		Sub-variable E Therapist		Sub-variable F Therapist	
	A	B	A	B	A	B	A	B
Social Skills	-.50	5.25	-5.5	.75	2.50	3.25	.50	2.75
Social Skills + Efficacy Appraisal	.25	1.50	3.25	-1.25	.00	6.50	2.75	1.25
Attention Control	-	3.25	-	4.00	-	4.75	-	4.25

  

ANOVA												
SOURCE	DF	F	P	DF	F	P	DF	F	P	DF	F	P
Therapist	1	1.30	.26	1	3.18	.08	1	1.77	.19	1	1.80	.19
Group	2	3.33	.0477	2	1.37	.27	2	.70	.50	2	1.76	.19
Status	1	.07	.79	1	1.20	.28	1	2.26	.14	1	.53	.47
Therapist X Group	2	1.70	.20	2	3.32	.0484	2	1.66	.21	2	.19	.83
Ther X Stat	1	4.08	.0512	1	.03	.87	1	.76	.39	1	.37	.55
Ther X Group X Stat	3	1.62	.20	3	4.72	.007	3	.64	.59	3	2.60	.07



**Table 13**

Therapist Differences on the Efficacy Appraisal Scale: Change Scores for Aggressive Children in Group I (n = 10), II (n = 8), and III (n = 9)

Treatment Groups	EFFICACY APPRAISAL SCALE							
	Sub-variable C Therapist		Sub-variable D Therapist		Sub-variable E Therapist		Sub-variable F Therapist	
	A	B	A	B	A	B	A	B
Social Skills	3.83	1.75	2.50	5.25	4.17	1.25	5.00	9.00
Social Skills + Efficacy Appraisal	.20	-3.00	-2.00	-1.33	-3.20	.00	-1.20	3.67
Attention Control	1.00	4.25	.00	4.00	.20	2.25	2.00	1.25

  

ANOVA												
SOURCE	DF	F	P	DF	F	P	DF	F	P	DF	F	P
Therapist	1	1.30	.26	1	3.18	.08	1	1.77	.19	1	1.80	.19
Group	2	3.33	.0477	2	1.37	.27	2	.70	.50	2	1.76	.19
Status	1	.07	.79	1	1.20	.28	1	2.26	.14	1	.53	.47
Therapist X Group	2	1.70	.20	2	3.32	.0484	2	1.66	.21	2	.19	.83
Ther X Stat	1	4.08	.0512	1	.03	.87	1	.76	.39	1	.37	.55
Ther X Group X Stat	3	1.62	.20	3	4.72	.007	3	.64	.59	3	2.60	.07

**Table 14**

Pearson Product Moment Correlations Between Self-Efficacy, Efficacy Appraisal, and Social Behavior at Pre-Treatment Assessment

Measures	Pre-Role Play Self-Efficacy	Post-Role Play Self-Efficacy
<u>Self-Report:</u>		
How-I-Feel	.07 / .64	-.09 / .54
Assertion	.12 / .42	.18 / .24
Efficacy Appraisal	.40 / .005	.45 / .002
Outcome Expectancy	-.09 / .54	-.24 / .11
<u>Behavioral Assessment:</u>		
<u>Role Play</u>		
Latency	.07 / .65	.13 / .38
Duration	-.03 / .85	.01 / .97
Content	.11 / .47	.10 / .51
<u>Behavioral Interaction:</u>		
Peer Positive	-.02 / .89	.07 / .65
Peer Negative	.09 / .54	-.16 / .29
Alone	-.05 / .75	.12 / .43
<u>Significant Other:</u>		
AML - A	-.18 / .21	-.17 / .28
AML - M	-.29 / .05	-.27 / .07
AML - L	.22 / .14	-.13 / .41
Peer Sociometrics	.05 / .74	.13 / .41

NOTE: Correlation Coefficients / PROB

**Appendix B**  
**DEPENDENT MEASURES**

**HOW-I-FEEL QUESTIONNAIRE**  
STAIC FORM C-2

NAME \_\_\_\_\_ AGE \_\_\_\_\_ DATE \_\_\_\_\_

DIRECTIONS: A number of statements which boys and girls use to describe themselves are given below. Read each statement and decide if it is *hardly-ever*, or *sometimes*, or *often* true for you. Then for each statement, put an X in the box in front of the word that seems to describe you best. There are no right or wrong answers. Do not spend too much time on any one statement. Remember, choose the word which seems to describe how you usually feel.

- |     |  |                          |             |                          |           |                          |       |
|-----|--|--------------------------|-------------|--------------------------|-----------|--------------------------|-------|
| 1.  | I worry about making mistakes . . . . .                          | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 2.  | I feel like crying . . . . .                                     | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 3.  | I feel unhappy . . . . .   | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 4.  | I have trouble making up my mind . . . . .                       | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 5.  | It is difficult for me to face my problems . . . . .             | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 6.  | I worry too much . . . . .                                       | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 7.  | I get upset at home . . . . .                                    | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 8.  | I am shy . . . . .   | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 9.  | I feel troubled . . . . .  | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 10. | Unimportant thoughts run through my mind and bother me . . . . . | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 11. | I worry about school . . . . .                                   | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 12. | I have trouble deciding what to do . . . . .                     | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 13. | I notice my heart beats fast . . . . .                           | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 14. | I am secretly afraid . . . . .                                   | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 15. | I worry about my parents . . . . .                               | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 16. | My hands get sweaty . . . . .                                    | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 17. | I worry about things that may happen . . . . .                   | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 18. | It is hard for me to fall asleep at night . . . . .              | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 19. | I get a funny feeling in my stomach . . . . .                    | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |
| 20. | I worry about what others think of me . . . . .                  | <input type="checkbox"/> | hardly-ever | <input type="checkbox"/> | sometimes | <input type="checkbox"/> | often |

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Assertion Scale

T. H. Ollendick

Name \_\_\_\_\_ Age \_\_\_\_\_ Sex \_\_\_\_\_

Please answer these questions with a Yes or No by circling your answer.

- |     |   |     |    |
|-----|---|-----|----|
| 1.  | When you meet someone your age, do you start talking with them?   | Yes | No |
| 2.  | When someone your age tells you that you look nice, do you disagree with them?  | Yes | No |
| 3.  | When someone your age tells you that you are doing a good job, do you agree?  | Yes | No |
| 4.  | When someone your age tells you they want to play a game but you don't feel like it, do you play with them?               | Yes | No |
| 5.  | When you get angry with someone your age, do you let them know?   | Yes | No |
| 6.  | When someone your age asks to borrow something special and you would prefer they not use it, do you let them?             | Yes | No |
| 7.  | When you like someone your age, do you tell them?   | Yes | No |
| 8.  | When someone your age cuts in front of you in line, do you tell them to go to the end?                                    | Yes | No |
| 9.  | When someone your age does a good job with something, do you congratulate them?   | Yes | No |
| 10. | When someone your age takes something that is yours, do you let them take it?   | Yes | No |
| 11. | When someone your age asks you to do a lot of things and you are getting tired of doing them, do you continue to do them? | Yes | No |
| 12. | When someone your age treats you unfairly, do you remain quiet about it?  | Yes | No |
| 13. | When you do something good, do you tell someone your age about it?  | Yes | No |
| 14. | When you do something wrong to someone your age and are at fault, do you apologize to them?                               | Yes | No |

## Social Knowledge Questionnaire for Social Skills-Children

DIRECTIONS: Listed below are a number of situations in which you might find yourself. Read each situation and then indicate what you think you should do if you were in that situation by circling the best answer. Choose just one answer; remember there are no right or wrong answers.

- I. Imagine that you are standing <sup>in line</sup> at a movie. A boy comes up to you and wants you to let him and his friends cut in line in front of you. The line is very long and you don't want to miss the beginning of the movie. You should:
- A. Let him cut in front of you anyway;
  - B. Tell the teacher;
  - C. Tell him no because you might miss the first part of the movie, and that he should go to the end of the line;
  - D. Push him out of the way.
- II. Pretend you are running relays on the playground and a boy runs really fast and helps your team win the relay. You should:
- A. Say nothing;
  - B. Tell him he did a good job and congratulate him;
  - C. Ask him how he learned to run so fast;
  - D. None of these: you should \_\_\_\_\_.
- III. Pretend that a girl in your class has borrowed your only ink pen and now you need it back to do your classwork. You should:
- A. Take it away from her;
  - B. Ask her if you can use it;
  - C. Tell her that you need it back to do your classwork;
  - D. Try to borrow a pen from someone else.
- IV. Pretend the teacher just told the class that a certain girl got the highest grade on a spelling test. You should:
- A. Congratulate her on doing such a good job;
  - B. Ask her how she did so well;
  - C. Say nothing;
  - D. None of these: you should \_\_\_\_\_.
- V. There is a new boy/girl in your class. He/she is sitting alone at recess and looks kind of scared and lonely. You want to make him/her feel welcome. You should:
- A. Introduce yourself and help him/her meet your friends;
  - B. Say nothing, and wait until you have a chance to get to know him/her;
  - C. Ask him/her where he/she is from;
  - D. None of these: you should \_\_\_\_\_.

Self-Efficacy Questionnaire for Social Skills-Children (revised)  
(Pre-Bat)

DIRECTIONS: Listed below are a number of situations in which you might find yourself. First, indicate whether or not you would be able to do what is asked of you, if you tried your best. Then, indicate how sure you are of being able to do it. Finally, indicate why you think you would or would not be able to do it. There are no right or wrong answers.

I. Imagine that you are standing in line at a movie. A boy comes up to you and wants you to let him and his friends cut in line in front of you. The line is very long and you don't want to miss the beginning of the movie.

a) Could you tell the boy that you do not want to let him and his friends cut in line in front of you?

yes \_\_\_\_\_ no \_\_\_\_\_

b) How sure are you that you could do it?

	1	2	3	4	5
Not sure at all		Probably not	Maybe	Probably	Really sure

c) How much are your answers based on what you have been able to do in the past?

	1	2	3	4	5
Not at all		A Little	Moderately	A Lot	Totally

d) How much are your answers based on what you have seen others like you able to do?

	1	2	3	4	5
Not at all		A Little	Moderately	A Lot	Totally

e) How much are your answers based on what others have told you you are able to do?

	1	2	3	4	5
Not at all		A Little	Moderately	A Lot	Totally

f) How much are your answers based on how you would feel in this situation? (e.g., happy, sad, angry, scared)

	1	2	3	4	5
Not at all		A Little	Moderately	A Lot	Totally

II. Pretend you are running relays on the playground and a boy runs really fast and helps your team win the relay.

a) Could you compliment the boy on how fast he ran and how he helped the team?

yes \_\_\_\_\_ no \_\_\_\_\_

b) How sure are you that you could do it?

Not sure at all <sup>1</sup>      Probably not <sup>2</sup>      Maybe <sup>3</sup>      Probably <sup>4</sup>      Really sure <sup>5</sup>

c) How much are your answers based on what you have been able to do in the past?

Not at all <sup>1</sup>      A Little <sup>2</sup>      Moderately <sup>3</sup>      A Lot <sup>4</sup>      Totally <sup>5</sup>

d) How much are your answers based on what you have seen others like you able to do?

Not at all <sup>1</sup>      A Little <sup>2</sup>      Moderately <sup>3</sup>      A Lot <sup>4</sup>      Totally <sup>5</sup>

e) How much are your answers based on what others have told you that you are able to do?

Not at all <sup>1</sup>      A Little <sup>2</sup>      Moderately <sup>3</sup>      A Lot <sup>4</sup>      Totally <sup>5</sup>

f) How much are your answers based on how you would feel in this situation? (e.g., happy, sad, angry, scared)

Not at all <sup>1</sup>      A Little <sup>2</sup>      Moderately <sup>3</sup>      A Lot <sup>4</sup>      Totally <sup>5</sup>

III. Pretend that a girl in your class has borrowed your only ink pen and now you need it back to do your classwork.

a) Could you tell the girl that you need your pen back now to do your classwork?

yes \_\_\_\_\_ no \_\_\_\_\_

b) How sure are you that you could do it?

Not sure at all <sup>1</sup>      Probably not <sup>2</sup>      Maybe <sup>3</sup>      Probably <sup>4</sup>      Really sure <sup>5</sup>

c) How much are your answers based on what you have been able to do in the past?

Not at all <sup>1</sup>      A Little <sup>2</sup>      Moderately <sup>3</sup>      A Lot <sup>4</sup>      Totally <sup>5</sup>



- d) How much are your answers based on what you have seen others like you able to do?

1	2	3	4	5
Not at all	A Little	Moderately	A Lot	Totally

- e) How much are your answers based on what others have told you you are able to do?

1	2	3	4	5
Not at all	A Little	Moderately	A Lot	Totally

- f) How much are your answers based on how you would feel in this situation? (e.g., happy, sad, angry, scared)

1	2	3	4	5
Not at all	A Little	Moderately	A Lot	Totally

- IV. Pretend the teacher just told the class that a certain girl got the highest grade on a spelling test.

- a) Could you go up to her and congratulate her on getting the highest grade on the spelling test?

yes \_\_\_\_\_ no \_\_\_\_\_

- b) How sure are you that you could do it?

1	2	3	4	5
Not sure at all	Probably not	Maybe	Probably	Really sure

- c) How much are your answers based on what you have been able to do in the past?

1	2	3	4	5
Not at all	A Little	Moderately	A Lot	Totally

- d) How much are your answers based on what you have seen others like you able to do?

1	2	3	4	5
Not at all	A Little	Moderately	A Lot	Totally

- e) How much are your answers based on what others have told you you are able to do?

1	2	3	4	5
Not at all	A Little	Moderately	A Lot	Totally

- f) How much are your answers based on how you would feel in this situation? (e.g., happy, sad, angry, scared)

1	2	3	4	5
Not at all	A Little	Moderately	A Lot	Totally

V. There is a new boy/girl in your class. He/she is sitting alone at recess and looks kind of scared and lonely. You want to make him/her feel welcome.

- a) Could you introduce yourself and invite him/her to be on your team in a game of kickball?

yes \_\_\_\_\_ no \_\_\_\_\_

- b) How sure are you that you could do it?

1	2	3	4	5
Not sure at all	Probably not	Maybe	Probably	Really sure

- c) How much are your answers based on what you have been able to do in the past?

1	2	3	4	5
Not at all	A Little	Moderately	A Lot	Totally

- d) How much are your answers based on what you have seen others like you able to do?

1	2	3	4	5
Not at all	A Little	Moderately	A Lot	Totally

- e) How much are your answers based on what others have told you you are able to do?

1	2	3	4	5
Not at all	A Little	Moderately	A Lot	Totally

- f) How much are your answers based on how you would feel in this situation? (e.g., happy, sad, angry, scared)

1	2	3	4	5
Not at all	A Little	Moderately	A Lot	Totally

## Self-Efficacy - Role-Play Test

## DIRECTIONS:

In a few minutes I'm going to ask you to pretend some things. I'm going to describe some situations and I'd like you to pretend that you are really there. I'm going to ask you to imagine that you are with people you know and you will be doing different kinds of things with them, like playing outside, or doing work in school. When I describe each scene to you, I want you to pretend that it is happening right now.

At times (male assistant's name) and at other times (female assistant's name) will help us by pretending that they are with you in these situations. We might pretend that he is a boy in your class or that she is your best friend at home. After I describe a situation, (male assistant's name) or (female assistant's name) will say something to you. Then, I want you to say what you really would say if you really were in that situation with that person. Do you know what I mean?

OK, let's try a situation. Remember to pretend that it is really happening now and say whatever you would say in that situation. In some of these you might feel angry or irritated at the other person. Now here's one:

(The practice negative assertion scene is presented and counter-responses delivered by the assistant. If the subject appears to understand and gave an appropriate response, the next part is presented.)

In other scenes, you might feel happy and friendly towards the other person. Listen to this one:

(The practice positive assertion scene is presented and counter-responses delivered by the assistant.)

Now remember to say what you would really say in these situations, whatever would be on your mind. Now, we'll do some more. Ready?

Negative Assertion: Male Model

(female narrator)

1. Imagine that you are standing in line at a movie. A boy comes up to you and wants you to let him and his friends cut in line in front of you. The line is very long and you don't want to miss the beginning of the movie.

P: "Let us cut in front of you."

(Subject's response)

Assertive Sequence

Initial counter Response:

- 1a. But we don't want to have to wait at the end of this long line.

(Subject's response)

Counter response options:

- 1b. Look how long the line is. What difference will it make if we cut in here?

or

- 1c. I'm sure you'll have plenty of time to see the movie.

Unassertive Sequence

Initial counter response:

- 11a. So it's okay if we cut in line here?

(Subject's response)

- 11b. I'm sure you'll have plenty of time to see the movie.

or

- 11c. Look how long the line is. What difference will it make if we cut in here?

## Positive Assertion: Male Model

(female narrator)

II. Pretend that you are running relays on the playground and a boy runs really fast and helps your team win the relay. He says:

P: "Whew, that was hard".

(Subject's response)

Counter response set:

1a. I've been practicing hard for a week now.

(Subject's response)'

1b. I really want to run well for the team.

## Negative Assertion: Female Model

(male narrator)

III. Pretend that a girl in your class has borrowed your only ink pen and now you need it back to do your classwork. She says:

P: "I want to keep your pen until next week."

(Subject's response)

Assertive Sequence

Initial Counter Response

1a. How about if I get the pen back to you in 4 or 5 days?

(Subject's response)

Counter response Options:

1b. But I really need the pen and I'll get it back to you as soon as I can.

or

1c. I'll try to get the pen back to you as soon as I can.

Unassertive Sequence

Initial Counter Response

11a. You don't mind then if I keep it until next week?

(Subject's response)

11b. I'll try to get the pen back to you as soon as I can.

or

11c. But I really need the pen and I'll get it back to you as soon as I can.

Positive Assertion: Female Model

(male narrator)

- IV. Pretend the teacher just told the class that a certain girl got the highest grade on a spelling test. She's sitting next to you and she says:

P: I'm really glad I did well on the test.

(Subject's response)

Counter Response set

1a. I've been studying hard for a week now.

(Subject's response)

1b. I really wanted to get a good grade.

Conversation skills

Narrator (opposite sex)

- V. There is a new boy/girl in your class. He/she is sitting alone at recess and looks kind of scared and lonely. You want to make him/her feel welcome, and ask him/her to play kickball. You go up to him/her and he/she says:

P: (same sex model): "Hi, my name is \_\_\_\_\_,  
Today is my first day at school."

(Subject's response)

Counter response set

1a. I'd really like to play kickball with you and your friends.

or

1b. I'd really like to be on your team.

SOCIAL SKILLS STUDY  
SCORING CRITERIA

1. Eye Contact: Eye contact measured by whether or not Subjects look at assistant during the reply. Scored on an occurrence or non-occurrence basis.
2. Response Latency: Length of time (in seconds) from the delivery of the prompt to the beginning of the Subject's response (maximum=15 sec.)
3. Response Length: Number of words in Subject's response
4. Negative Assertion: Score on occurrence /non-occurrence basis

Compliance: Verbal content indicates compliance as indicated when the Subject does not resist the assistant's position (e.g., if he agrees to let him cut in front, borrow the book, etc). No response is scored compliance.

Aggressive: Verbal content indicates noncompliance but an aggressive tone or statement is made (e.g., Just try it! Shut up. No way! etc.)

Assertive: Verbal content indicates noncompliance (e.g., No. You'll have to wait, etc.)

Request for New Behavior: Verbal content indicates noncompliance and a change in behavior is requested (e.g., No, you'll have to go to the end of the line, etc.)

5. Positive Assertion: Score on occurrence/nonoccurrence basis

Denial: Verbal content reflects a denial of the positive situation. Either the Subject denies the compliment given ("it was nothing") or fails to give acknowledgment of good work of another.

Aggressive: Verbal content indicates aggressive response (e.g., "Of course I'm alright, stupid or "Are you kidding, I didn't want that sweater").

Acceptance: Verbal content reflects acceptance of compliment or praise but in a minimal way (e.g., "Oh, thanks," "it was ok," "yes, I wanted a sweater like that")

Praise: Verbal content indicates an expression of approval, admiration, or was complimentary toward role partner (e.g., "Wow, that was great," "What a good shot.")

--OR--

Appreciation: Verbal content reflects an expression of gratitude or thankfulness for the role partner's behavior ( e.g., "thanks, it's nice of you to help me up" "that was nice I feel good when you compliment me.")

ROLE PLAY SCENARIOS FOR EVALUATION OF  
SITUATION - SPECIFIC SELF - EFFICACY AND OUTCOME EXPECTANCY

I. Negative Assertion

(Following the BAT - CR)

Narrator (female model):

We are going to do something a little different now. We are going to act out a few more scenes but this time (assessor) and I will do the acting and your job is to watch us very carefully because after we finish, you will have to answer a couple of short questions. OK, Ready?

\*\*\*\*

Imagine that I am standing in line at a movie. A boy comes up to me and wants me to let him and his friends cut in line in front of me. The line is very long and I don't want to miss the beginning of the movie.

Male Model: "Let us cut in front of you."

Female Model: "No, I'm sorry, I can't do that."

M: "But we don't want to have to wait at the end of this long line."

F: "Well, other people got here first and it wouldn't be fair to them, so you'll have to go to the end of the line."

M: "Look how long the line is. What difference will it make if we cut in here."

F: "If you cut in here, the people behind you might miss the first part of the movie. You'll have to wait in line like everyone else."

Narrator (male model):

Ok. Now I want you to answer a few questions. (Give child answer sheet.) First, circle the number that tells how sure you are that you could say and do what (female model) just did in that situation. Circle "1" if you are not sure at all you could do what (female model) did; circle "2" if you think you probably could not do what she did; circle "3" if you think you maybe could do it; circle "4" if you probably could do it; and circle "5" if you're really sure you could do what she did.



Narrator (male model):

Got that? Now answer the 2nd question by circling the answer you think is true. Choose just one answer; remember there are no right or wrong answers. (Read questions aloud):

Question 2

If you could do what (female model) just did, what do you think the boy would do:

- a. He would cut in front of you anyway;
- b. He would see that you're 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 you;
- d. None of these: he would       ?      .

Narrator (male model):

"Now, you try what (female model) did." (Role play scene with child taking female model's role.)

"OK, watch us do another one".

## II. Postive Assertion

Narrator (female model):

Pretend we are running relays on the playground and a boy runs really fast and helps our team win the relay. I come up and say:

Female Model: "That was really fast!"

Male Model: "Well, I really tried to run as fast as I could."

F: "Well, you did and helped our team to win! That was good!"

Narrator (male model):

How sure are you that you could have done what (female model) did? Mark it on question #3.

## (Question 4)

If you did do what (female model) did, what do you think the boy would think or feel about you?

- a. He would not care what you thought about how fast he ran.
- b. He would feel good about what you said and think you were nice.
- c. He would think you were silly for saying he did a good job.
- d. None of these: He would \_\_\_\_\_?

## III. Negative Assertion

Narrator (male model):

Pretend that a girl in my class has borrowed my only ink pen and now I need it back to do my classwork. She says:

Female Model: "I want to use your pen for the rest of the day."

Male Model: "I'm sorry but I need it back now to do my classwork."

F: "How about if I give it back after this class lesson."

M: "No. I need it now. You'll have to get one somewhere else."

F: "But I really need it and I'll give it back in a little while."

M: "Sorry, but it's the only pen I have and I need it now to do my work."

Narrator (female model):

How sure are you that you could do what (male model) just did?  
Answer under Question #5.

## (Question 6)

If you did do what (male model) just did, what do you think the girl would do?

- a. She would say okay and give 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 \_\_\_\_\_?

## IV. Positive Assertion

Narrator (male model):

Pretend the teacher just told the class that a certain girl got the highest grade on a spelling test. I go up to her and say:

Male Model: "Congratulations on getting the highest grade on that spelling test."

Female Model: "Thanks."

M: "You must have studied real hard."

F: "Well I did, I studied all week for it."

M: "It paid off!"

Narrator (female model):

How sure are you that you could do what (male model) did? Answer under question #7.

(Question 8)

If you did do what (male model) did, what do you think the girl would think and feel about what you said to her?

- a. She would feel good that you congratulated her on her high grade and would think you are nice.
- b. She would not care that you congratulated her.
- c. She would think you were silly for saying something about her good grade.
- d. None of these: She would \_\_\_\_? \_\_\_\_.

## V. Conversation Skills

Narrator (same sex model):

There is a new boy/girl in your class. He/she is sitting alone at recess and looks kind of scared and lonely. I want to make him/her feel welcome.

Same Sex Model: "Hi, my name is \_\_\_\_\_. How's your first day at school going."

Opposite Sex Model: "Well, it's kind of hard not knowing anyone here".

Same: "Yeah, I know. My friends and I are going to play a game of kickball. Would you like to be on our team?"

Opposite: "Yeah, I sure would."

Same: "Good, come on and I'll help you meet my friends."

Narrator (opposite sex model);

How sure are you that you could do what (same sex model) did? Answer on question #9.

(Question 10)

If you could do what (same sex model) did, what do you think the new boy/girl would do and feel?

- a. He/she would join us and feel good that you were including him/her.
- b. He/she would not join us.
- c. He/she would join us, but would not become your friend.
- d. None of these; He/she would \_\_\_\_\_?\_\_\_\_\_.

ANSWER SHEET

Question 1.

- |                                  |                            |                      |                         |                              |
|----------------------------------|----------------------------|----------------------|-------------------------|------------------------------|
| 1                                | 2                          | 3                    | 4                       | 5                            |
| Not sure at all I<br>could do it | Probably couldn't<br>do it | Maybe could<br>do it | Probably could<br>do it | Really sure I<br>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<br>could do it | Probably couldn't<br>do it | Maybe could<br>do it | Probably could<br>do it | Really sure I<br>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<br>could do it | Probably couldn't<br>do it | Maybe could<br>do it | Probably could<br>do it | Really sure I<br>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 \_\_\_\_\_

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Question 7.

- |                                  |                            |                      |                         |                              |
|----------------------------------|----------------------------|----------------------|-------------------------|------------------------------|
| 1                                | 2                          | 3                    | 4                       | 5                            |
| Not sure at all I<br>could do it | Probably couldn't<br>do it | Maybe could<br>do it | Probably could<br>do it | Really sure I<br>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 \_\_\_\_\_

---



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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: He/she would \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

	BAM	E	I	R	C
1A	---	---	---	---	---
I	---	---	---	---	---
1A	---	---	---	---	---
1P	---	---	---	---	---
C	---	---	---	---	---

Observer \_\_\_\_\_  
 Date \_\_\_\_\_  
 Activity \_\_\_\_\_  
 Subject \_\_\_\_\_

Total Intervals \_\_\_\_\_

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	_____
19. A/P/O +/- I/R/C V/N	_____
20. A/P/O +/- I/R/C V/N	_____
Any additional comments	_____
	_____
	_____



Behavioral Observation Codes

- P-: connotes a negative interaction with a peer. This category supersedes all others if it occurs at any time during the the 5 second interval. Examples include pushing, kicking, cursing, name calling, etc.
- P+: connotes a positive interaction with a peer. This category is scored only if it occurs during the entire interval, thus it is scored conservatively. Examples include talking with another peer, helping, appropriate play, etc. Participation in a structured game (e.g., kick ball) also is scored P+.
- I: connotes an activity started by the observed with another or alone (score conservative).
- C: most common coding, for an ongoing activity.
- R: responding to another's prompt, greeting, initiation, etc.

Teacher \_\_\_\_\_ Date \_\_\_\_\_ Student \_\_\_\_\_

A M L  
BEHAVIOR RATING SCALE

Observed Behavior	Scale				
	Never (1)	Seldom (2)	Moderately often (3)	Often (4)	Most or all of the time (5)
1. Gets into fights or quarrels with other students	( )	( )	( )	( )	( )
2. Has to be coaxed or forced to work or play with other pupils	( )	( )	( )	( )	( )
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.   |

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 a "1" if you don't like to play with this student at all, a "2" if you like to a little, "3" if you like to some, "4" if quite a bit, and "5" a lot.

I like to play with \_\_\_\_\_:

	Not at all	A little	Some	Quite a bit	A lot
Richard A.	1	2	3	4	5
Kenneth A.	1	2	3	4	5
Dwayne B.	1	2	3	4	5
Ronald D.	1	2	3	4	5
Maurice D.	1	2	3	4	5
Benjamin E.	1	2	3	4	5
Melvin G.	1	2	3	4	5
David J.	1	2	3	4	5
Daryl L.	1	2	3	4	5
Jason M.	1	2	3	4	5
Christopher R.	1	2	3	4	5
Tommy S.	1	2	3	4	5
Julie C.	1	2	3	4	5
Jeannie E.	1	2	3	4	5
Cynthia G.	1	2	3	4	5
Mary H.	1	2	3	4	5
Rebecca H.	1	2	3	4	5
Jeri T.	1	2	3	4	5
Tracy S.	1	2	3	4	5
Angela R.	1	2	3	4	5
Angela S.	1	2	3	4	5
Veronica T.	1	2	3	4	5
	Not at all	A little	Some	Quite a bit	A lot

Appendix C  
GROUP OUTLINES

## Behavior Therapy Groups

General GuidelinesFormat 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. Motivational relationship model.

1. Review practice sheets (1-5)

- 1. Review practice sheets (1-5)
  - W. ...
  - ... 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
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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

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.

Additions to BT Group

\*1) Explain that the group will also talk about how good you think you are at doing some of these things, and how you make decisions about how good you are at something.

\*2) Discuss: How good do you think you are at smiling?

Just how good of a smiler are you?

(ask each child to respond)

(after all children have responded, go around the group again and ask each child "How did you decide how good of a smiler you were? What kinds of things were you thinking about when you were deciding how good of a smiler you were?")

After each has responded, the therapist should comment on the variety of things that people were thinking about, particularly noting those responses that reflect 1) past performances, 2) vicarious experience, 3) verbal persuasion, or 4) emotional arousal.

The therapist should then explain that most children think about four different kinds of things when they decide how good they are at doing something, (list these on board or poster) 1) what they have been able to do before, or how good they have been able to do the same type of thing in situations like this one, 2) what people like them are able to do, or how good they are able to do something, 3) how good people have told them they are at doing something, and 4) how they might feel about doing something in a certain situation, for example they might feel happy, or sad, or scared, and this might effect how good they would be able to do something.

The therapist should then model the process of deciding how good of a smiler s/he is, attending to each of the four sources of information. Explain to the group that you are going to decide how good of a smiler YOU are, and that you are going to think aloud as you decide.



In modeling this decision process, attend to each source of information successively being sure to include examples of each source as you "think aloud". Also take care to include coping cognitions (eg., let's see, oh yea, I almost forgot about what people like me are able to do. Well, let me think, who do I think is a lot like me and how good of a smiler are they?): Also try to include some reevaluation, and verbalization of feelings associated with self-doubt and uncertainty. Most importantly, be certain your modeling includes examples providing support that you may not be good at something. The goal here is to promote Accurate attention to the four salient sources of efficacy information, not to promote an inflated opinion of one's ability. Hence, your modeling should occasionally include information that may tend to negate your being good at something. (eg., let's see, there have been times in the past when I wasn't a very good smiler). Finally, your modeling should include reinforcing self-statements, addressing both information supporting you being good at smiling, and your attending to each of the four sources of information (eg., let's see, I thought about how good I have been able to smile in the past, etc.,etc.,etc. Good; I thought about each of the four different kinds of things that I should think about when I want to decide how good I am at something)

Now ask the children to again decide how good of a smiler they are, while you verbalize the four sources of information. Ask if anyone decided that they were a better or worse smiler this time, and reinforce them for making a better decision about how good of a smiler they were. Finally, time permitting, ask a child to share his thoughts about each of the four sources, and how he decided how good of a smiler he is.

BT + SE GROUP: Session I

- 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: greetin others, joining activities, extending invitations (asking others to join in); conversational skills, sharing and cooperating with others, and verbal compliments. Explain that the group will also talk about how good you think you are at doing some of these things, and how you make decisions about how good you are at something. Let children name the group. Answer questions about the group, and review introductions so everyone knows everyone's name.
- 2) Explain that each week 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.

## --Outcome Expectancy Measure

- 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 one child pretend he is in the situation noted above, i.e., the last time they 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) Discuss: 1) How good do you think you are at smiling?  
 Just how good of a smiler are you?  
 (ask each child to respond)  
 (after all children have responded, go around the group again and ask each child "How did you decide how good of a smiler you were? What kinds of things were you thinking about when you were deciding how good of a smiler you were?")

After each has responded, the therapist should comment on the variety of things that people were thinking about, particularly noting those responses that reflect 1) past performance, 2) vicarious experience, 3) verbal persuasion, or 4) emotional arousal.

The therapist should then explain that most children think about four different kinds of things when they decide how good they are at doing something (list these on board or poster), 1) what they have been able to do before, or how good they have been able to do the same type of thing in situations like this one, 2) what people like them are able to do, or how good they are able to do something, 3) how good people have told them they are at doing something, and 4) how they might feel about doing something in a certain situation, for example they might feel happy, or sad, or scared, and this might effect how good they would be able to do something.

The therapist should then model the process of deciding how good of a smiler s/he is, attending to each of the four sources of information. Explain to the group that you are going to decide how good of a smiler YOU are, and that you are going to think aloud as you decide.

In modeling this decision process, attend to each source of information successively being sure to include examples of each source as you "think aloud". Also take care to include coping cognitions (e.g., let's see, oh yea, I almost forgot

about what people like me are able to do. Well, let me think, who do I think is a lot like me and how good of a smiler are they?) Also try to include some reevaluation, and verbalization of feelings associated with self-doubt and uncertainty. Most importantly, be certain your modeling includes examples providing support that you may not be good at something. The goal here is to promote accurate attention to the four salient sources of efficacy information, not to promote an inflated opinion of one's ability. Hence, your modeling should occasionally include information that may tend to negate your being good at something, (e.g., let's see, there have been times in the past when I wasn't a very good smiler). Finally, your modeling should include reinforcing self-statements, addressing both information supporting you being good at smiling, and your attending to each of the four sources of information, (e.g., let's see, I thought about how good I have been able to smile in the past, etc. Good, I thought about each of the four different kinds of things that I should think about when I want to decide how good I am at something).

Now ask the children to again decide how good of a smiler they are, while you verbalize the four sources of information. Ask if anyone decided that they were a better or worse smiler this time, and reinforce them for making a better decision about how good of a smiler they were. Finally, time permitting, ask a child to share his thoughts about each of the four sources, and how he decided how good of a smiler he is.

## e. Practice sheet:

I smiled at \_\_\_(name)\_\_\_\_\_ M T W TH F

During \_\_\_(activity)\_\_\_\_\_

How good did I do? How do I know?

- f. 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 the sheets.

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

Note: Subsequent efficacy appraisal groups were identical to social skills groups with the addition of the cognitive modeling component.

## ATTENTION CONTROL GROUP

## SESSION 1

Introduction

- 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 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.

## 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:

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

Session 2 - cont'd

Practice Sheet

My name is \_\_\_\_\_

I talked to \_\_\_\_\_

He/She felt \_\_\_\_\_

because \_\_\_\_\_

6) Administer relationship/motivation measure.



## SESSION 3

Conversation 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

## 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 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.
  - 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 childrens' 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.
- 3) Pass out practice sheets, answer questions.

Practice Sheet

I feel lovely when \_\_\_\_\_

I feel surprised when \_\_\_\_\_

I feel embarrassed when \_\_\_\_\_

I feel angry when \_\_\_\_\_

- 4) Administer relationship/motivation measure.

## SESSION 5

Role 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.

## SESSION 6

Giving/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.

## SESSION 7

Cooperation

## 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

- a. 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  
 clodk = 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 basked 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.

## SESSION 8

Closure 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 objectives 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 D  
TEACHER NOMINATION FORMS

Teacher \_\_\_\_\_

Class \_\_\_\_\_

Date \_\_\_\_\_

## Teacher Nomination Form

All teachers have several children who are regular discipline problems. These children show their anger by such things as abusive language, pushing, hitting, fighting, and destroying property. These children's behavior may also involve less open acts of anger, such as knocking someone's books on the floor, making faces at someone, or trying to get others into trouble. Usually these are children with whom you've tried all kinds of discipline and sometimes it works and sometimes it doesn't! Please nominate three children in your room who best fit this description.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Another type of child regularly seen in classrooms is the withdrawn child. This child is shy and prefers to be alone most of the time. This child will seldom speak up for himself. If this child becomes the center of attention, he or she appears uncomfortable. This child avoids assuming any type of leadership and may appear sad, fearful, and easy to offend. Please nominate three children in your room who best fit this description.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Still another type of child regularly seen in the classroom is the well-adjusted child. This child is usually outgoing, friendly, and likes to be with other children. This child will usually speak up for himself/herself and is oftentimes perceived by other children, as well as the teacher, to be a leader. This child usually appears happy, and to be well-liked by the other children. Please nominate three boys and three girls in your classroom who best fit this description.

Boys

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Girls

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_



Listed below are the names of children in your class who scored below average on peer ratings of popularity. This is based on the measure given during the in-class assessment done in October, which asked each child to rate on a 1-5 scale how much they liked to play with each other child in the class. Please note whether these children are withdrawn or aggressive, and then rank order these children within each category.

EXAMPLE

<u>Students Name</u>	<u>Aggressive (A) or Withdrawn (W)</u>	<u>Rank Order</u>
John M.	A	1
Bill W.	W	2
Jane D.	W	1
Mary F.	A	2

<u>Students Name</u>	<u>Aggressive (A) or Withdrawn (W)</u>	<u>Rank Order</u>
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