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## Long-term effects of social skills training on the social competence of children

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## Long-term effects of social skills training on the social competence of children

### Abstract

When one hears the term "social skills" many different ideas may come to mind. Yet no one can deny that social skills are an extremely important aspect of every person's life. This paper is devoted to defining and examining the long-term effects of social skills training on the social competence of children.

**Long-Term Effects of Social Skills Training  
on the Social Competence of Children**

**A Literature Review**

**Presented in Partial Fulfillment of the Requirements for  
the Degree Masters of Arts in Education**

**by  
Stephanie Lynn Schmitz**

**The University of Northern Iowa**

**July 25, 1995**

This Research Paper by:

Stephanie G. Schmitz

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on the Social Competence of Children

has been approved as meeting the  
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# CHAPTER I

## INTRODUCTION

When one hears the term “social skills” many different ideas may come to mind. Yet no one can deny that social skills are an extremely important aspect of every person’s life. This paper is devoted to defining and examining the long-term effects of social skills training on the social competence of children.

Recently there has been renewed interest directed towards the study of social skills and the treatment of socially deficient behavior. Although children’s social behavior was of considerable interest in the 1920’s and the 1930’s, less attention was given to this topic during and immediately following World War II. Recently, however, researchers have once again focused on the assessment of children’s social behavior. Hops and Greenwood (1988) outlined four factors which have brought about this renewed interest. First, economic and social conditions have produced large numbers of working parents in both single-parent and intact families. Such an expansion has led to a large increase in the number of children placed in some sort of day care. This increase leads one to question the quality of present-day child care facilities and the effect they will have on the child. Second, the recent developmental literature uniformly indicates that peer interaction provides unique opportunities for children to learn specific social skills that are not otherwise attainable. Third, research examining short- and long-term effects of social maladjustment has stimulated recent interest. For example, the authors state that some people consider a low level of social adjustment to be a significant indicator of



vulnerability and risk in children. Fourth and finally, the research literature reveals a highly significant inverse relationships between social competence and various forms of psychopathology.

The concept of social skill has been defined in many ways. For example, Hops and Greenwood (1988) define social skills as “those specific observable behaviors that form the bases for the judgments of a child’s competence by agents in the social environment.” Elliott, Sheridan & Gresham (1989) define social skills as “learned behaviors that affect interpersonal relations with peers and adults. They are discrete, situation-specific behaviors that are affected by age, sex, social status, and the persons with whom one interacts.” It is not hard to notice that although the above definitions vary in some way, a string of commonality unites them. Hops and Greenwood (1988) capitalize on this commonality by saying that while definitions vary, most definitions refer to an individual’s ability to achieve successful outcomes in their social relationships.

In contrast, social skills deficit refers to an individual’s lack of ability to achieve successful outcomes in social relationships. Hops and Greenwood (1988) describe this deficit as an “assumption that individuals who are judged to be socially incompetent lack the specific social skills that are necessary for such social relationships.” Elliott, et al (1989) depict this deficit in terms of an “interfering response,” which is defined as something that will override the performance of a socially skilled response (e.g. aggression towards a peer).

The dramatic impact a social skills deficit can have on a child is implied when put into a different context. Hops and Greenwood (1988) state that the impact of social

relationships is so big that it has been found to contribute to almost all types of behavior disorder and/or psychopathology. For example, they say that research has shown social dysfunction to be present more often in children with hyperactivity, depression, obesity and learning disabilities. Further, Gresham and Nagle (1980) assert that such children are more likely to show a high incidence of school maladjustment, school dropout, delinquency, and mental health difficulties.

Because of the above and other empirical evidence (Coie & Dodge, 1983; Coie & Kreihbel, 1984; Parker & Asher, 1987) that has accumulated with respect to the profound negative effects of social skills deficit, it seems only natural that a method for helping children improve their social skills would be introduced. This method can be encompassed in one term--social skills training. Such a method was introduced as "it was assumed that systematic intervention which would aid in the acquisition of such social skills would increase one's successful functioning in interpersonal relationships" (Hops and Greenwood, 1988).

As mentioned earlier, this paper examines the long-term effects of social skills training on the social competence of children. First, a brief description of some general assessment procedures in the identification and treatment of social skills deficit is presented. Second, some of the more common interventions that have been used and their effectiveness is examined. Third, studies describing long-term effects of social skills training is discussed. Fourth and finally, the conclusion attempts to tie all articles together in terms of the empirically demonstrable effectiveness associated with social skills training.

## CHAPTER II

### GENERAL ASSESSMENT PROCEDURES

The purpose of social skills assessment has been described as concerning either identification/classification or intervention/program planning (Elliott, et al, 1989). The authors go on to briefly mention the methods used for assessing social skills. They say that such methods vary along three primary dimensions: the source of information, the specificity of information (global/molar to specific/molecular behaviors), and the proximity to target behavior. Thus, methods can rely on different sources, such as parents and teachers. From these sources, information is provided that varies in specificity, ranging from global/molar to molecular behaviors. Finally, the proximity of behavior is examined and can occur either concurrently with the target behavior, or can be removed in time and space from the actual occurrence of the target behavior. (Table 1 located in the appendix characterizes some social skills assessment methods along the three dimensions).

Elliott, et al (1989) then briefly discuss the general process of the assessment of social skills. In this context, social skills assessment is characterized by a series of hypothesis-testing sequences. Such hypotheses are generated in order to answer questions regarding identification, intervention and evaluation of treatment effects. Further, when planning appropriate interventions, social skills assessment should proceed from global to specific. However, when evaluating the effectiveness of interventions, assessment should proceed in the opposite direction, from behavior-specific outcomes to a more global analyses of social behavior outcomes. Finally, the authors say that although there is not a

uniform standard battery of tests for assessing the social skills of a child, a practitioner should do their best to choose methods that are reliable, valid and practical.

In their chapter, “Social Skills Deficit”, Hops and Greenwood (1988) describe a multipurpose-multimethod structure for assessing social skills. The authors attempt to show that the use of multiple methods may be best for successfully achieving the various clinical goals of screening, identifying specific behaviors targeted for treatment, and evaluating the process and the outcome of planned intervention. Within such a framework, three purposes, or stages, of behavioral assessment are established: to identify children who are socially incompetent; to identify the specific deficits that preclude their successful interpersonal functioning; and to evaluate the treatment’s impact while it is in effect and over the short and long run.

The Diagnostic Identification of Children in Need of Treatment: This stage has two levels, first a screening at a gross level followed by more precise measurement which leads to the determination of the nature of difficulty.

At the first level, screening, the purpose of assessment is “to simply identify children who may be problematic or at risk for later, more severe behavioral disturbances”. The three most popular screening methods are nominations, rankings and sociometrics. First, nominations are done by adults who identify problem children. Second, rankings are done by rank-ordering children along a particular dimension, and was found by Greenwood, et al (1979) to be a reliable and valid procedure for identifying children with social skill problems. Third and finally, sociometric scores provide information about the extent to which a child is liked or disliked by their peers, by simply

asking the peers to make written or verbal nominations/responses to questions about their preferred playmates or friends. Sociometrics have been shown to have high concurrent and predictive validity.

All of the studies that have been chosen for this paper have used sociometrics to identify those children that would most benefit from some variation of social skills training. In fact, a few studies assert that sociometrics is such an important tool in identifying children with social skill problems, that some time should be spent in discussing their value. For this reason, a more detailed description of sociometrics is briefly discussed. Sociometrics, as defined above, is a subset of a broader term, peer-referenced assessment, which describes the collection of techniques which are designed to either measure the specific behavior or roles of persons in a social group, or to measure the attraction among members of a specific group (Gresham & Stuart, 1991). The authors go on to say that because the information collected by peers cannot be obtained from other sources, such data are unique and potentially valuable with regards to a child's social competence. Also, because much of the intervention is aimed at increasing peer acceptance, prior knowledge of the feelings peers hold towards the target child(ren) is particularly important.

Further, information gathered from sociometrics allows one to assess a child's sociometric status. Children can be classified as being in one of the four extreme types of social status groups (Coie, 1985). These groups are described by peers in behavioral terms that differentiate them both from each other and also from average

status. The four types include rejected, neglected, controversial, and popular. (Table 2 located in the appendix presents a visual description of the four social status groups).

The rejected group is composed of children who receive few positive nominations and many negative nominations. They are described as being disruptive and aggressive, more unhappy, and easily aroused to anger by other children. In contrast, the neglected child is seen as more shy and isolated than other children. They are described as receiving few positive and negative nominations. The controversial child is one who receives many votes on both the positive and negative dimensions. They are also described as a “distinctive, highly visible group who have a social impact that is of strikingly mixed valence” (Coie, 1983). Finally, popular children are those who receive many positive nominations and few, if any, negative nominations. Coie goes on to assert that, of the four types of social status, the rejected status is seen as both the most stable and as the most at-risk for future problems.

At the second level, defining the problem, assessment is concerned with “verifying the results of screening or referral in relation to actual behavior and in terms of relationships to more sensitive criteria” (Hops & Greenwood, 1988). This procedure consists of comparing various measures of a child’s behavior to some available norms. Such comparisons can be done either indirectly through standardized behavior rating scales or checklists, or directly when data are gathered through direct observations. This can be done through such methods as Behavior Ratings and Checklists, Sociometrics, Peer Behavior Ratings, Direct Observations, and using Normative Data for Decision Making. It was noted that although sociometrics are best used for the purpose of screening, they

may be useful here for identifying the four more specific subgroupings (e.g. popular, rejected, neglected, controversial).

Treatment Design: At this second stage of the assessment of social skills, three levels are included: Pinpointing behavior change targets, Specifying the Antecedent and Consequent Variables in the Environment that may be controlling the targeted behaviors or directly competing behaviors, and Selecting a particular intervention strategy from the data designed to decrease excesses and increase skills.

The first level, pinpointing behavior change targets, can be done either globally, by focusing on a wide range of behaviors, or specifically, by focusing on specific behaviors. The methods used in this level include Sociometrics, Behavior Rating Scales and Checklists, Self-Report, and Direct Observations. Once again, at this stage sociometrics have some major limitations. Their main shortcoming is that they do not provide clear targets for behavior change.

The second level, Specifying the Antecedent and Consequent variables, is included as the authors say that for interventions to be truly effective, they should not only aimed at the skills of the target child, but also at those nonverbal factors (e.g. smiling) that “are known to increase the probability of peer response and subsequent generalization and maintenance of interaction.” This is mainly done through observing the child in their natural environment.

Treatment Evaluation: At this final stage in the assessment of social skills, there are two purposes: the continued measurement of behavioral identifiers in order to determine whether the specific objectives or performance are being achieved and

maintained; and the use of precise, experimental designs to evaluate whether or not the changes can be causally attributed to the intervention. Three procedures, which include Single-Subject Designs, Group Designs and Follow-ups, can be used to evaluate the effectiveness of treatment over the short and long-term.

The first procedure, Single-Subject Design, is accomplished primarily through continuous monitoring. This data provide immediate feedback on how well the intervention objectives are being met. The data can also provide evidence of generalization to other settings. Second, the primary goal of the Group Design, is to evaluate the effectiveness of an intervention compared to both an untreated control and to other “forms” of treatment. Third and finally, Follow-Up assessment has two purposes: to reveal the power of the intervention to produce significant and permanent gains over a period of time, and to control for developmental changes. Such data are important as it shows whether or not the treatment had any lasting effects, and whether the effects were significant enough to warrant the use of such treatment again.



## CHAPTER III

### SOCIAL INTERVENTIONS

As was mentioned earlier, some researchers have found social skills training to be an effective means for helping children improve their social skills. Elliott, et al (1989) describe a general conceptual framework for social skills training. First, socially deficient behaviors are defined and stated in observable terms, and antecedent and consequent conditions surrounding the behaviors are defined. Some behaviors that have been found to lead to social rejection include such reciprocal activities as giving and receiving negative social reinforcement (Strain & Shores, 1977). Second, the identified behaviors are assessed by assessment procedures (e.g. sociometrics, ratings), and the target children are selected. Third, empirical procedures are prescribed to fit the student's needs as determined by assessment (e.g. coaching, modeling). Fourth and finally, the effects of such procedures are evaluated empirically by the assessment methods upon which students were selected for training.

Of course, many variations of social skills training that have been tried and evaluated. Elliott, et al (1989) state that the myriad of procedures that have been tried can be classified under four major headings: operant conditioning, modeling, coaching, and social-cognitive interventions. The authors go on to say that such interventions can be conceptualized as involving manipulation of antecedent and/or consequences, modeling, or cognitive-behavioral procedures. (Table 3 located in the appendix provides examples of popular treatment strategies that illustrate each category).

Operant conditioning interventions consist primarily of providing social or material reinforcement of targeted prosocial behaviors in naturalistic or contrived settings (Elliott, et al, 1989). These authors list such examples as reinforcement-based procedures, group contingencies and peer-mediated reinforcement as some popular social skill training strategies under this heading. Further, Oden and Asher (1977) state that the use of methods to train isolated children in social skills, such as conditioning and shaping, has been shown to be promising. For example, they say that in shaping procedures, social praise or tangible rewards have been used to increase the frequency of children's peer interactions gradually.

Modeling interventions are described by Elliott, et al, (1989) as involving the training of desired behaviors through filmed, videotaped, or live demonstrations of the skills to be acquired. The popular social skill training strategies that the authors listed under this heading include symbolic modeling, live modeling and participant modeling. Oden and Asher (1977) have also found modeling procedures to show some promise in the training of children in social skills. They state that many studies using modeling procedures involve children in viewing films in which other children receive positive experiences when they approach each other to join in an activity or conversation.

Elaboration on coaching and social-cognitive procedures is done because they are the primary methods of intervention used in the studies reviewed by the author. The author was not able to locate articles discussing long-term effects of the other two methods mentioned above, operant conditioning and modeling. Therefore, long-term

effects of social skills training were only reviewed from the coaching and social-cognitive perspective.

Coaching interventions are described by Elliott, et al, (1989) as consisting of direct verbal instruction, accompanied by discussion of the desired social behaviors. The popular social skill training strategies that these authors listed under the coaching heading are self-instruction, self-monitoring, self-reinforcement, and desensitization/flooding.

Two of the first researchers to describe and implement a coaching method were Oden and Asher (1977). This method includes three components. First, the children are verbally instructed in such social skills as: participation, which includes getting started and paying attention; cooperation, which includes taking turns and sharing; communication, which includes talking and listening; and validation support, which includes smiling and offering help. Second, they are provided with an opportunity to practice these social skills by playing with a peer. Third and finally, they have a post-play review session with the coach that includes behavioral rehearsal and feedback.

Finally, Oden and Asher (1977) state that although the effects of verbal cues in shaping and modeling procedures have not been assessed in training research, such effects have been somewhat discussed in the coaching literature. For example, they discuss some more recent research that found, as a result of coaching, an observed decrease in negative peer interactions and an increase in positive interactions in the target children's play activity, which is based on the average rating received by others when asked how much they like to play with a target child (Zahavi & Asher, 1976).

Finally, social-cognitive strategies are described by Elliott, et al (1989) as focusing on any of several cognitive processes that have been associated with social competence and problem solving. The popular social skill training strategies that these authors listed under the social-cognitive heading include peer initiation strategies and cooperative learning strategies. The underlying concept of peer initiation strategies is that children are responsible for interacting with other children, and in cooperative learning strategies, the children are held partly accountable for the actions of the entire group.

Rubin, Daniels-Beirness, and Bream (1984) state that one area of social knowledge that seems to be necessary for the initiation and maintenance of positive peer relationships is the ability to think about solutions to social problems. Further, these authors list such abilities as processing social information, understanding thoughts, feelings and intentions of others, considering alternative plans of action, anticipating social consequences and evaluating outcomes, as collectively being complex social-cognitive skills that have far-reaching effects on the development of normal peer relationships.

Another researcher who has been prominent in the social-cognitive field is Robert Selman. Much of his work has been on a specific component of the social-cognitive component--social role/perspective taking. This specific component is seen to play an important part in the child's development and performance of social skills. Social role taking refers to "the ability to understand the self and others as subjects, to react to others as to the self, and to react to the self's behavior from the other's point of view." Selman then breaks down the development of social role taking into four levels. Each level is then divided into sections on how the child perceives both people and relationships.

Level 0--Egocentric Role Taking: The child in this stage is unable to either differentiate between points of view or relate perspectives.

Level 1--Subjective Role Taking: In this stage, the child begins to realize that people think and feel differently because they are in different situations or have different information. Yet the child is still unable to maintain their own perspective while simultaneously putting him/herself in the place of others.

Level 2--Self-Reflective Role Taking: The child in this stage is now aware that people think and feel differently as each person has his/her own uniquely ordered set of values or purposes. Further, the child begins to be able to reflect on the self's behavior and motivation from the other's point of view.

Level 3--Mutual Role Taking: The child is now able to differentiate the self's perspective from the point of view taken by some average member of a group. Further, the child can conceive of a third person. The child is also able to realize that both self and other can consider each party's point of view simultaneously and mutually.

Other studies and researchers have also risen to describe the social-cognitive perspective. For example, Nelson and Carson (1988) discuss the promise of SPS training (social problem-solving), developed by Spivak and Shure in 1974. They say that SPS training assumes that "the acquisition of skills to make friends and to resolve interpersonal conflicts will help to promote mental health and to prevent problems in living". Further, some have found SPS research to consistently lead to increases in children's performance and generalization of targeted social behaviors and/or peer acceptance as a function of SPS training (Ladd, 1981; Bierman & Furman, 1984).

Finally, although the effectiveness of the above four methods has varied, Elliott, et al (1989) reported that, in general, it has been found that no single treatment approach is uniformly effective. Rather, the effectiveness of social skills training procedures varies considerably among subjects, settings, and therapists. However, the authors report on some research done by Schneider and Byrne (1985) which does show some general trends in treatment effectiveness. For example, when doing a comparison of mean effect sizes across all studies with all types of problems, it was clear that operant conditioning techniques generally were more effective than modeling and coaching procedures, which in turn were more effective than social-cognitive methods. Also, the researchers found the mean effect size data on treatments done specifically for withdrawn students to indicate that modeling procedures are overwhelmingly more effective than operant and social-cognitive techniques, and have infrequently involved coaching techniques.

Finally, Gresham and Nagle (1980) found that coaching leads to greater decreases in negative peer interaction than modeling. Such a finding led the authors to the assumption that modeling is more effective in increasing the rates of positive peer interaction, and coaching is more effective in inhibiting the rates of negative peer interaction.

## CHAPTER IV

### REVIEW OF STUDIES

The articles examined in this paper were first selected according to the length of time between post-test and follow-up (i.e. minimum of six months). Very few articles employing the minimum amount of follow-up were found. Also, a couple of articles employing the above criteria were not included in this review due to such factors as overly complicated, statistical results and the use of non-empirical, qualitative techniques (e.g. three studies). Therefore, only five articles discussing the long-term effects of social skills training were reviewed by the author.

The minimum length of time between post-intervention and follow-up in the five studies was six months(two studies), and the maximum length of time was one year(three studies). Before each study is reviewed separately, a brief synthesis discussing some general similarities and differences between them will be done.

First, although the five studies showed some variability in the setting, there was also much similarity. Two studies were set in Canada, while the other three studies were set in the United States. Also, three of the studies dealt with poverty/lower-class to middle-class SES subjects, while two dealt with primarily middle-class subjects.

When looking at the population of the five studies, there is much overlap. All five of the studies used participants in the third and fourth grades, and one of those particular studies increased their sample size to fifth and sixth grade. Further, only two studies noted the race of their participants, with one using white children and the other black. The

majority of the studies used only a moderate number of participants. Two of the studies employed less than 50 participants, while two of the studies used under 100 total participants. The remaining study had over 200 children with half of them participating in the intervention, and the other half in the control group.

The measures used by the five studies in order to identify the target children were numerous, yet still involved some overlap. For example, all five of the studies used some sort of sociometric technique. Also, two studies used behavioral observation with each employing some sort of coding technique. While sociometrics and observation were the most popular measures used, there were also other measures utilized. Some examples include teacher ratings, parent ratings, and social skills checklists including the Rutter B2 scale, the Kid's Social Situation Checklist, and a Self-Esteem Inventory. The actual interventions used fell into two of the general categories mentioned in an earlier chapter-- coaching and social cognition. The studies used some variation of these two methods, however. For example, under the social-cognition heading, while one study used a drama simulation game as the intervention, the other two used some sort of problem-solving technique. Under the coaching heading, both studies used roughly the same sequence of procedures.

When looking at the duration of the intervention, there was a little more variability. For example, two of the studies used a four week duration of intervention, but one used only six play sessions, and the other had their subjects participate two times a week for one hour. One study used a duration of 18 weeks (or 4.5 months), and worked with subjects for one hour per week. Another study used a duration or 12 weeks (or 3 months)



and had subjects participate two times a week for one hour. Finally, the last study had two intervention periods, including six weeks in the fall and six weeks in the spring. In both periods, the subjects participated in the intervention once a week. Finally, the two studies which used a six month follow-up used a four week intervention duration and an 18 week intervention respectively.

The results of the five studies also showed some variability. The first two studies discussed implemented a coaching intervention. One of the studies employing a coaching intervention found an increase in peer acceptance for the coached children, but found a significant effect only for play ratings (as described in the previous chapter). At follow-up one-year later, however, although the coached children continued to improve in peer acceptance, they only approached significance in the play ratings when compared with the other two groups (e.g. peer-pairing, control). A second and final study using a coaching intervention found improvements for social status for those groups employing both academic and social skills training. At follow-up one-year later, this significant improvement by groups receiving academic tutoring continued. There were also decreases in some disruptive classroom behavior. Although the group receiving only social skills training showed some increases, they were not significant.

Three studies employed social-cognitive techniques. One of the studies found significant decreases in problem behavior for the treatment group leading to no significant differences between groups, which persisted to follow-up six months later. Also, while the younger age group showed significant gains in self-esteem, these gains did not persist to follow-up. Although the treatment group showed overall improvements, no other

significant effects were found. In a second study employing a social-cognitive technique, some significant effects were found in the interpersonal problem-solving area in generating more assertive and fewer passive and aggressive responses, increases in peer popularity, academic performance and conduct. These findings were also found again one-year later. The most interesting finding of this study was that each group showed the greatest improvement in the area that was not identified as a problem. The third and final article employing a social-cognitive technique, had two separate sub-studies. In the first sub-study, it was found that those in the treatment group showed no significant increases on various dimensions of social problem-solving knowledge and performance. However, at follow-up six-months later, the younger age group showed increases in problem behaviors and self-efficacy, and decreases in peer acceptance, while the older age group showed increases in competence and self-efficacy. In the second sub-study, the authors were trying to promote generalization of social problem-solving skills to other areas. However, the subjects in the treatment group did not show significant improvements in behavioral adjustment, self-efficacy or peer acceptance.

Coaching Interventions: This type of procedure was employed in the first two studies that will be discussed. The first article that will be discussed is “Coaching Children in Social Skills for Friendship Making”, by Sherri Oden and Steven Asher. This study is mentioned in almost every study that was reviewed. Also, the other coaching study employed basically the same coaching method that was employed in the Oden and Asher (1977) study, while adding some minor variations.

In order to begin this study, the authors selected 12 third- and fourth-grade classrooms from three predominately middle-class schools in Champaign, Illinois. The researchers administered two roster-and-rating sociometric questionnaires to each classroom both before the intervention, after the intervention and again at follow-up one-year later. The children were then asked two questions: How much they liked to play with a certain person, and how much they liked to work with a certain person. Also, a “best friends” peer-nomination technique was also administered, in which children were asked to name one to three of their best friends in the classroom.

The children selected from the sociometric questionnaires were then randomly assigned to one of the three conditions: coaching, peer-pairing, or control. The training phase for all three conditions lasted for approximately four weeks. Moderately-liked peers were selected to be paired with the low-accepted children in the play sessions. Finally, the authors selected the highest-rated child of the same sex as all of the isolated children in each room to observe during one play session, in order to learn how popular children interact in the same play situations. These observations were then used as a template for the coached children.

In each coaching session, a certain sequence was followed. First, the coach would propose that a certain concept was important in helping to make the game fun to play with another person (e.g. participation, cooperation). Second, the coach would probe the child’s understanding by requesting certain examples in reference to the previously played game. Third, the coach repeated the child’s examples, or would provide examples if the child did not respond. Fourth, the child was asked to provide specific examples of the

opposite type of behavior. Fifth, the coach asked the child to evaluate which examples given would be most likely to make the game more fun for both the child and the other person. Sixth, the coach would ask the child to try out some of the positive examples in the play session that followed. Seventh and finally, the coach told the child that he would check for feedback on how helpful the discussed ideas were. In the later sessions, discussions were geared towards those concepts that the child did not seem to understand, and after mastery of those concepts, instruction focused on classroom play activities. Finally, in the last few coaching sessions, the coach would ask the child if he/she had a chance to try out some of the ideas in the classroom, and how helpful they felt them to be in making the game more fun for all involved.

In the peer-pairing condition, the children were brought to the play-session room with the same children who served as partners for the coached children and also played the same games as the coached children, but received no coaching instruction. Finally, in the control condition, the children were brought to the play-session room with the same peer partners as the other conditions, but were told to play separately, and no interaction would occur.

Results were given both at posttest and again at follow-up one-year later. First, the researchers found that the coaching group's increase was significantly greater on the play ratings than the other two groups taken together. The peer-pairing group's decline when compared with the control group's was not significantly different. They also found that partners and nonpartners increased their ratings of coached children, lowered their

ratings of peer-paired children, and kept their ratings of control children approximately the same.

Second, on the work sociometric ratings, the authors found that while the coaching group gained slightly more than the other two groups, the differences in gains were small, and were not significant. Third and finally, on the friendship nominations, although there were some gains over time in the number of friendship nominations, with coaching children gaining the most, they once again found no significance in the gains. Surprisingly, they also found that children not serving as peer partners increased their friendship nominations more often than those children who did serve as peer partners.

Results from the follow-up one-year later were then reported. The authors decided to only use the “play with” sociometric ratings at follow-up as they were the only post-test ratings shown to have significant effects. These ratings were used to determine whether the coached children had maintained their gains and continued to progress, or whether they had returned to their isolated status. Also, the authors located only 22 of the 33 children who were in the original sample. These 22 children were distributed over 11 classrooms; with eight children in the coaching group, seven children from the peer-pairing group, and seven children from the control group. Also, because they were in different classrooms, the classmates who rated them in the follow-up were not the same as those who rated them prior to and immediately following intervention.

The follow-up data on the “play with” sociometric ratings showed that the coached children continued to improve, and that these formerly isolated children were only somewhat below their classroom mean. The peer-pairing group made some gain, while

the control group made no gain beyond their posttest ratings. The coached children's change, compared with the other groups' change, approached significance. Further, they found that the peer-pairing group's change was not significantly different from the control group's change. The authors concluded that the low peer acceptance appears to be a rather enduring characteristic without some type of intervention.

The authors found that the overall results of their study indicate that coaching was effective in increasing isolated children's peer acceptance. They found that at the follow-up assessment one-year later, the coached children had moved toward even greater inclusion by their peers. However, the coaching did not seem to generalize to the work ratings or "best friends" nominations.

Finally, the authors examined what part of their coaching procedure might have been the most effective. They concluded that the important aspects most probably included focusing on concepts important to children's social relationships (e.g. participation, cooperation, communication, validation support), instructing children in these concepts by asking them to suggest examples, asking children to evaluate these social behaviors for play setting in terms of benefit for themselves and others, and finally, providing children with immediate social situations in which to practice such concepts. The authors also added that while this present study did not find a gain in positive social behavior parallel to the gains in peer acceptance, past research has found a positive correlation between these two variables (Hartup, et al, 1967).

This study was very interesting as it incorporated both sociometrics as a means for identifying isolated children and for looking at their progress, and also a step-by-step

sequence for coaching children in concepts that are important for initiating and maintaining social relationships. Although it is encouraging to see the indications of possible gains and progress of the coached children in some of their problematic social areas, it appears that most of the indications of gains, with one exception, were not significant. The other measures, work ratings, friendship nominations, and behavioral observations showed no significant differences. This indicates that the coaching did not generalize to other areas.

So, as said earlier, although such indications of gains are encouraging, because the change was not significant, it leaves the reader wondering if it was actually the training that was causing the change, or if it was some external factor, such as adult attention or greater one-on-one exposure with peers. Further, because the follow-up sociometrics were done by different classmates, it is hard to tell whether the children were continuing to improve due to the previous intervention or due to the introduction of new classmates. This study does give new insight into a possible, effective social skills intervention for children, yet because the results do not show many significant changes, or any generalization to other areas, further research needs to be done on such a method in order to identify the components which led to the significant increase in the “play ratings”.

The second study employing a coaching technique that will be discussed is “Effects of Academic Tutoring on the Social Status of Low-achieving, Socially Rejected Children”, by John D. Coie and Gina Krehbiel. The authors state that a major goal of their study was to “determine whether effective procedures for remedying social skill deficits or, alternatively, academic deficiencies would have positive secondary effects in the other

domains of competency.”

The authors note that their study was aimed primarily at rejected children. They state that they chose to research the rejected population for several reasons. These reasons include findings that rejected children: interact frequently with their peers and are more disruptive and aggressive than other children, are the ones at substantial risk for future adjustment problems, have problems in academic performance, and are found to be more frequently engaged in off-task or task-inappropriate behavior than other children. Further, the authors targeted fourth grade rejected children who also had serious academic problems in reading and/or math. These children were predominately lower- to lower-middle-SES population, and all forty subjects were black.

The sociometric measures the authors used in order to identify the target children were given three times--in May of the third-grade year, in May of the fourth-grade year, and May of the fifth-grade year. At each point, all third graders were given rosters of all their third-grade peers, and were asked to select the names of the three children on the roster whom they liked most and then the three children whom they liked least. Further, California Achievement Tests were administered as part of the routine end-of-year testing by the school system, and teachers were asked to name children who had serious problems in math and/or reading.

The forty targeted children were then randomly assigned to one of the four treatment conditions: an academic skills training condition (AS), a social skills training condition (SS), a combined academic and social skills training condition, and a no-treatment control condition. Intervention began when the observations were completed in



October, and continued until early April. There were no significant pretreatment score differences on any measure among the four groups. Children were observed in their classrooms during periods in which they were to be working in their seats at academic tasks both before the intervention programs began and also again in May, at the conclusion of the intervention.

The 20 children assigned to the two treatment conditions that included academic skills training met with individual tutors during school time for a total of approximately 30-35 sessions during the period from October to April, and worked on either math, reading, or both, depending on the child's assessed academic deficiencies.

The 20 children assigned to the social skills training condition were coached in the procedures used by Oden and Asher in 1977. Each trainer worked with five subjects individually once a week during the fall for six weeks. The authors report that the essential elements of this program were to pair a target child in play with another same-sex, non rejected child from the classroom and to coach the target child in positive types of behavior before and after these play periods. Further, the four types of behavior that were coached in these sessions included participation, cooperation, communication, and validation or support, using roughly the same sequence as used by Oden and Asher (1977). Then, in January, the 20 participants receiving this social skills training were divided into four same-sex groups, which met weekly after school for six weeks.

Control group children had no contact with the project staff other than that had by other nonproject children in their classrooms and were not identified to the teachers as participating in the project.

Follow-up assessment was done one year after the post-intervention assessment, in May of the fifth-grade year. Only 28 of the 40 participants were available for the achievement tests, and 32 of the 40 were available for sociometric testing.

Although results were given on both on academic performance and social status, only the results for social status will be discussed. In the post-intervention assessment, the authors found a significant effect for the academic skills training group when looking at social status. Further, all three intervention conditions produced significant improvements when compared with the control group. The academic skills training condition was superior to the social skills training condition, but the combined conditions was not significantly different from the other two. Also, the authors found academic skills training resulted in significant increases in standardized liked-most scores compared with those groups not receiving tutoring. They found only a marginally significant main effect for academic skills training on the liked-least variable, although the changes for this variable indicates that all three intervention groups had large reductions in liked-least nominations.

At the follow-up one year later, the authors found a significant main effect for academic skills training on the social preference variable. They also found that both groups receiving academic skills training maintained the same level of social status improvement as they had achieved by the end of the intervention program.

In the behavior change category, the academic skills training groups increased both their solitary on-task behavior and solitary, non-disruptive, off-task behavior. Also, the academic skills training groups received significant increases in positive teacher attention.

In conclusion, the authors found that, as a group, social preference scores moved

from those of extremely rejected children to those of average-status children. They felt that in large part, this shift was the result of fewer peers having a negative feeling toward them as seen by the sociometric ratings. The authors also noted that although the social skills training group did show partial improvement in social preference scores at the postintervention, they disappeared altogether at follow-up. The authors caution that although the social impact of the social skills training program was not as great as that of the academic skills training program, some extraneous variables make it unfair and inappropriate to compare the two programs. The authors conclude by saying that intervention programs appear to be most successful when they are tailored to fit the observed deficits of the children for whom intervention is intended.

This article gives good support to the effectiveness of academic skills training on social preference/status. Significant main effects were seen on many of the variables, and on those exceptions, a positive trend was still seen. It seems reasonable to suggest, as the authors noted, that improvement in academics can lead to a decrease in frustration and acting-out behavior, which can in turn lead to greater peer acceptance. One limitation may be that because all 40 target children had academic deficiencies, the academic skills training program may have been most effective as it was most tailored to the subjects need. Therefore, comparing the effects of the academic skills group with the social skills group may not be feasible. Perhaps targeting socially deficient children with and without academic problems may lead to a fairer and more appropriate comparison. Finally, subsequent investigations should perhaps study what in particular it is about the program that led to increases in both academic and social preference.

Social-Cognitive Interventions: These types of interventions were employed in the final three articles that will be discussed. The third article that will be discussed is “Social skills training in schools: an evaluation study,” by C.M. Verduyn, W. Lord, and G.C. Forrest. First, the authors explain that in designing the present study, “particular attention was paid to issues of generalization of newly acquired skills. Also, a problem-solving approach was used in the groups in order to encourage the children to identify potentially difficult situations and to plan strategies which are likely to lead to a successful outcome”.

The measures used to identify the target children consisted of the following: the Rutter B2 scale, in which the teacher assesses the frequency of specific emotional and antisocial behaviors, and consists of a series of descriptions of behavior such as “bullies other children”; and a standardized sociometric questionnaire, in which each child was required to nominate the three children in his/her class with who he/she would most like to play with, sit next to and work with. Thirty-four 10-13 aged children at an Oxford middle school were identified and subsequently allocated at random to treatment (n=17) and no treatment control (n=17).

Both groups were compared on measures administered on three occasions--before and after the treatment sessions, and six months later. These measures included: a social behavior checklist completed by parents and teachers, which looked at the frequency of behaviors; the Children’s social situation checklist completed by the children, which asked such questions as “Do you take friends home often?”; the Self-Esteem inventory in which the child replied that a statement was “Like me” or “Unlike me”; and a Weekly diary of social activities completed by the children, which was done each morning and consisted of

four sentences. Also, a rating of change was done by teachers at post-intervention only. Finally, all screening and pre-intervention measures were repeated at follow-up six months later.

The intervention was held twice weekly for one hour over four weeks. At each session, a specific aspect of social interaction was considered using teaching, group discussion, modeling and role play. Each session followed a formal structure consisting of: a brief discussion of homework from the previous session, a warm-up exercise related to the week's theme, an introduction to the theme of the session, a brief didactic period, a behavioral rehearsal of a situation from a group member's experience with feedback and discussion, and finally, summing up the homework. Booster sessions followed the same format as the earlier sessions, and used similar strategies.

Results were then reported. First, in the parents' behavior checklist, while the treatment group had significantly more problem behavior than controls before the intervention, the mean number of problems for the treatment group decreased significantly resulting in no significant difference between treatment and control groups post-treatment and also at follow-up six months later. Second, although no overall treatment effect was found, the younger age group (10-11 yrs.) showed significant gains in Self-Esteem following treatment. At follow-up, although the persistence of treatment effects was still evident, it was not significant. Third, in the teacher's social behavior checklist, and also the children's social situation checklist, there were no significant differences found between the groups at pre- or post-treatment or at follow-up. Fourth, in the children's social activity diary, while there were no significant differences between groups in social

activity scores, post-treatment found the treatment group more socially active than controls, which persisted into the follow-up. These gains, however, were not significant. Fifth and finally, in teacher's comments, although all agreed that social skills training should be part of the school's function, no specific reasons were given.

The authors concluded by saying that such results lend further support to the suggested effectiveness of social skills training with children who have problem behaviors at school, as they felt the probability of the specific changes being due to the treatment itself was greater than the probability of them being due to any extraneous factor. Further, they felt that perhaps the most important feature of the results was the indication that learning generalized to situations at home according to parental reports, and encouraged peer group contact. They were therefore surprised to find an absence of significant improvement in the school-based ratings according to teacher reports, but felt that could be due to a possible rating effect due to the changes in teacher attitudes toward the program. Finally, the authors were pleased to see a significant increase in scores on the measure of self-esteem for the younger age band, as they felt that improvements in self confidence are likely to affect the children's approach to future difficulties.

Although it is encouraging to see an indication of improvement in social skills, especially generalizing to the home environment, the lack of significant improvements somewhat detract from the findings. The only two measures which were found to have significant improvements were the parent behavior checklist done by parents and the self-esteem inventory done by the participants, for the younger age. Further, it is possible that increases in parent ratings were due to parents and/or students wanting to and expecting

to see a change possibly leading to inflated ratings. It would also be interesting to uncover why only the younger age band showed significant improvements in the self-esteem category. Age itself could be a possible extraneous factor leading to the observed improvements, as the younger age may be more open to interventions. Finally, the possible teacher rating effect mentioned could have had a large impact on the results.

Overall, although the indication of gains were encouraging, they should be interpreted with caution. One should pay particular attention to the number of significant improvements found and if these increases persisted into the long-term follow-up. If one wanted to do further research on such an intervention method, they could perhaps follow the authors suggestions for potential improvements. These improvements included increasing the number of sessions and period of intervention allowing for better adjustment of the children to the program.

The fourth study that will be discussed is “Social Skills Training with Underachievers, Disruptive, and Exceptional Children”, by Mary J. Rotheram. She states that the rationale for her study is that “if training were generalized, it would, first, affect social relationships, and secondarily, lead to gains in academic skills”. She went on to say that such an assumption was examined by comparing the impact of a social skills training program on children who initially varied in both their academic and social skills.

The participants were all students in three fourth, fifth and sixth-grade classrooms and were primarily from lower-class backgrounds. All students in the three classrooms participated after parental consent had been obtained. They were then randomly assigned by classroom to either social skills training or a no-treatment control condition. The

students were then divided into four categories: Disruptive children, Underachievers, children classified simultaneously as Disruptive and Underachievers (Multiple Problems), and Exceptional Children. This division was done by teacher and achievement ratings.

Within the social skills groups, a drama simulation game was conducted for one-hour sessions twice a week for 12 weeks, and each session followed a specific sequence. This sequence included: teaching assertiveness, presentation of a problem situation, group problem solving, and behavioral rehearsal and feedback on performance.

Data were collected in four areas. The first area, social skills measures, included problem-solving ability and assertiveness. These components were assessed only following the intervention as no pretreatment measures were available due to scheduling problems at the school. Two instruments, The Problem-solving test for Individuals and the Assertion Quiz, were group administered to all participants. The second area, teacher ratings, were done two weeks prior to the intervention, two weeks following the intervention, and one-year later. The teacher rated each participant's popularity and comportment on a 1 to 10 scale. The third area, peer ratings, were done two weeks prior to the intervention, two weeks following, and one-year later. Participants in each class rated their three best friends. The fourth and final area, academic performance, was evaluated by collecting the grade-point average for each participant one month prior to the intervention, two months following the intervention, and one-year following the intervention.

Results were collected immediately following the intervention and again one-year later. First, on the Interpersonal problem-solving instrument, the author found no



significant difference on the number of alternatives generated. She did, however, find that the social skills group generated significantly more assertive and significantly fewer passive and aggressive responses than did the control group. Further, Exceptional subjects and Underachievers generated significantly more assertive responses as a means to solve their interpersonal problems than did the other two groups.

On the Assertion Quiz, then author found main effects for intervention and behavioral style immediately following treatment. The social skills group reported more assertive responses overall, and the Underachievers and Exceptional subjects also reported more assertive behavior than the other groups. One-year later, main effects for intervention and behavioral style were still evident. Further, popularity among Underachievers in the social skills groups rose significantly when compared to other groups, and the finding was still evident one-year later. Finally, the Exceptional subjects in the social skills group demonstrated significantly greater increases in grades than the other groups although the overall grade point average of the social skill treatment group had risen. These increases were also found one-year later.

On the teacher ratings of achievement, the scores of the Disruptive subjects increased more than any other group, and one-year later, a significant main effect was found. Further, the social skills group, overall, was rated by the teacher as higher in achievement, but the Disruptive and Exceptional students demonstrated the highest gains. Finally, the children with Multiple Problems in the control classes dropped significantly in achievement in the year following intervention.

On teacher ratings of comportment, the social skills group demonstrated significantly greater improvement in comportment, and these improvements were significantly greater among the Underachievers and Exceptional subjects receiving social skills training. The change continued to be the greatest for the Underachievers throughout the following year.

The author concludes that her analysis confirms that social skills training leads to improvement in interpersonal problem-solving ability, assertiveness, teacher perceptions, grades and peer popularity. These positive effects persist in varying degrees over the next year depending on the presenting style of the child. She does say however, that a pattern emerges in which each group shows the greatest improvement in the area that is not identified as a problem area for that group. She went on to point out that the positive changes are found predominately on measures that reflect social relationships, and feels that this may indicate that the positive changes in social relationships are beginning to impact on achievement with a cumulative effect. Finally, she says that the results of her study indicate that training acts mainly to strengthen areas in which few problems exist. However, in one group, the Underachievers, their rising achievement level one-year following the intervention suggests that over time, competence in one area may generalize to competence in areas of deficiencies. Such findings, she concludes by saying, are in contrast to past research which has generally worked on a model of strengthening deficits.

This study showed some very encouraging results--significant increases in assertive behavior and social relationships. In fact, all four groups that were exposed to social skills training showed increases when compared to the four groups that were not exposed to

social skills training. However, one somewhat troubling finding was that such increases were found in the area that was not identified as a problem for that group. It is troubling because, it seems impossible to both identify what components of the social skills training were effective, and which components were effective for each group. Because these components are not identified, it would be difficult to follow-up her research and even more difficult to suggest that generalization to the deficit area will occur. A suggestion may be to use the same social skills training procedures with only one of the four groups in order to identify effective components for that particular group.

The fifth and final study that will be discussed is “Evaluation of a Social Problem-Solving Skills Program for Third and Fourth-Grade Students” by Geoffrey Nelson and Patricia Carson. This study utilizes SPS (social problem-solving) training in hopes that “acquisition of skills to make friends and to resolve interpersonal conflicts will help to promote mental health and to prevent problems in living”. Further, the authors hypothesized that the children who receive SPS training will show positive changes on the following variables: knowledge, performance, and generalization of affective and SPS skill, self-efficacy and peer acceptance. Two studies were conducted using the SPS method.

Study 1: The participants for study 1 were 101 children from four Grade 3 and 4 classes in two schools. One grade 3 class and one grade 4 class participated in the program, and one grade 3 and one grade 4 class served as a nonequivalent control group. The majority of the children were white, and the SES level ranged from the poverty level

to middle-class level. A 6-month follow-up was conducted on 77 of the original 101 subjects.

Five outcome measures were used. The first measure, the social skills knowledge test (SSKT), was used to assess children's knowledge of affective and SPS skills. The second measure, the social skills role play test (SSRPT), was used to assess children's ability to perform affective and SPS skills. The third measure, the child behavior rating scale (CBRS), is a teacher rating of classroom behavior and consisted of two scales: 11 problem behaviors rated on a five point scale, and 15 competent behaviors also rated on five point scales. The fourth measure, the children's self-efficacy for peer interaction (CSPI), consists of 22 items which tap children's feelings of confidence in dealing with peer interaction situations. Finally, the fifth measure, sociometric measures, utilized the "best friends" peer nomination method in order to assess peer acceptance.

The SPS program was conducted for 1 hour per week for 18 weeks. The classes were divided into groups of five or six. The program was divided into three equal parts. The first six lessons focused on an understanding and recognizing feelings. The next six lessons focused on specific behaviors for friendship making and getting along with others. Finally, the last six lessons focused on SPS skills.

All of the assessment measures were administered to children in October, prior to the intervention, and in May, after the program had ended. Also, six months later, the CSPI and the CBRS were completed.

The implementation of the program in grade 4 went fairly smoothly, but in grade 3, there were several children who had developed patterns of conflict throughout the year.

Accordingly, this class showed the greatest deterioration on the CBRS problem dimensions. The results were obtained both immediately following the program, and again six months later. The study found that those participants in the treatment group showed significant increases on the various dimensions of SPS knowledge and performance compared with the controls. Further, the changes from pretest to follow-up suggested that the third-grade participants in the treatment group showed significant increases in problem behavior and self-efficacy and decreases in peer acceptance, whereas the fourth-grade participants in the treatment group showed significant increases in competence and self-efficacy.

Study 2: In the second study, the emphasis was on changing the environment to promote generalization. Two strategies, coaching/cooperative peer group activities and self-monitoring, were used in order to promote social skills generalization and peer acceptance. The purpose of this study was to evaluate the effects of an SPS program in two classrooms. It was hypothesized that the children in the classroom employing self-monitoring and peer pairing along with the SPS program, would show the greatest gains in self-efficacy, and peer acceptance compared to children in the other two classes.

In this study, three classrooms from one school agreed to participate in the program. They were divided into two treatment groups and one control group. Further, four outcome measures were used. These measures were the same as in the first study, except that the SSKT was not used as it intercorrelated highly with the SSRPT. Also, in

addition to the one role play involving friendship making, a second role play involving conflict resolution was included.

The program itself consisted of the two treatment classes completing all of the 34 lessons in the program in four months. Once again, emphasis was placed on the quality as well as the quantity of solutions. In the first treatment group, the teacher also used self-monitoring and peer-pairing activities. The peer pairs were rotated so that everyone had paired off with his/her classmates for two 15 minute periods. The first period consisted of interviewing the partners to learn as much as possible about him/her. The second period was devoted to working or playing together on an assignment, activity or game. Also, the students completed a journal at the end of each day describing how they felt, problems they encountered, and solutions they employed.

The implementation of the program went very smoothly, and the teachers felt that the program had helped the children to learn to solve their problems with peers more independently. Results were taken at the end of the intervention. Children in all three group tended to improve on all of the measures. The three groups did not differ significantly on any of the SSRPT, the CBRS, the CSPI, or the sociometric ratings. However, in spite of efforts to improve upon the first program by using techniques to promote generalization, the authors noted that the participants in the treatment group did not show significant improvements in self-efficacy, behavioral adjustment or peer acceptance.

The authors conclude by saying that the results of the two studies fail to support the utility of SPS training as a mental health promotion strategy for young children. First,

the authors found that measures of SPS skill knowledge and performance were not consistently related to teachers' ratings of behavioral adjustment, self-efficacy or peer acceptance. Second, although the children who participated in the interventions improved significantly in their knowledge of and performance of affective and SPS skills, the authors felt that such improvements could be due to maturation, the passage of time or variables other than the program.

Only the first treatment group in the second study reported positive results on behavioral adjustments, but not on self-esteem or peer acceptance. Their results have also been mixed. Thus, the authors conclude, cognitive effects appear to be the only clearly documented changes resulting from SPS training with children. They feel that the value of SPS training may have been overestimated.

The authors conclusion about the effectiveness of SPS training is both encouraging and discouraging. It is encouraging because changes in cognitive effects, such as knowledge and performance of affective and SPS skills, have been documented. It is discouraging as in other areas that were to be generalized to, such as behavioral adjustment, self-efficacy and peer acceptance, no changes were found. Perhaps, as the authors note, changes in such global variables may be more affected by the classroom, school and family contexts in which children live. Therefore, a suggestion for future research may be to focus on measures of SPS skills in actual classroom and playground situations in order to more accurately determine the effects of SPS training, and to discover which components of SPS training are more effective in certain settings/contexts.

## CHAPTER V

### CONCLUSION

The area of social skills has just recently begun to receive renewed interest and attention. Along with this attention has come awareness of the presence and impact of social skills deficit. Therefore much research has focused on acquiring social skills through intervention geared toward increasing the child's successful function in interpersonal situations (Hops and Greenwood, 1988). This paper was devoted to defining and examining long-term effects of social skills training on the social competence of children.

The assessment of social skills has been found to be somewhat complex. As noted in Elliott, et al (1989) there is no standard battery of tests or methods for assessing social skills. Rather they state that assessment can be characterized by a series of hypothesis-testing sequences. Moreover, assessment should proceed from general to specific whereas evaluation and intervention should proceed from specific to general.

In a previous section, a multipurpose-multimethod structure for assessing social skills was described (Hops and Greenwood, 1988). In this framework, their multimethod approach may be the best approach for successfully achieving the various clinical goals of screening, identifying specific behaviors targeted for treatment, and evaluating the process and the outcome of planned intervention. This approach also identifies practical methods, or instruments, for change agents to use in applied settings (e.g. teachers and school psychologists). No mention was made of sociocultural differences and the potential



impact the results and identification made by assessment measures may have on such differences.

Next, the various intervention procedures that have been employed were discussed. Although a number of procedures have been identified as effective treatment methods for social skills deficits, Elliott, et al (1989) showed that they can be classified under four major headings; operant conditioning, modeling, coaching, and social-cognitive intervention. The authors go on to say that no single treatment approach is uniformly effective. Rather the effectiveness varies considerably among subjects, settings and therapists.

Finally, Elliott, et al's (1989) report on a meta-analytic investigation done to study the effectiveness of the four main intervention methods on single-subject studies was described. This review of long-term effects of social skills training cannot completely support or reject their findings, as only two of the headings were studied, those being coaching and social-cognition. The findings from the five studies give a very complex picture of these interventions.

Coaching: Under this heading, both studies reviewed found increases in social status and peer acceptance. However, each study also found something unique. For example, the first study found that although there were increases in all areas for the treatment group following intervention, the only significant increase was in the "play ratings." Further, at follow-up one-year later these increases persisted, but the treatment group's change only approached significance when compared to the other two groups. In the second study employing a coaching technique, the authors found that significant

increases in social status and peer acceptance as well as significant decreases in behavioral problems, were present in the groups that received either academic tutoring alone or in combination with social skills training. These significant effects persisted to the follow-up one-year later.

Although each study did find some significant increases that tended to persist to the follow-up, their findings are somewhat mixed. In general, these studies do not give much support to the overall effectiveness of a coaching strategy when used alone. Further short-and long-term research needs to be done on the coaching intervention.

Social-cognition: Under this heading, although all three studies did show increases in problem-solving knowledge and performance, the results of the three studies tended to be more variable. For example, in the first study, the treatment group showed a significant decrease in problem behaviors and a significant increase in social activities. Also, the younger age group showed significant gains in self-esteem. These findings persisted at follow-up six months later, with the exception of the significant gains in self-esteem made by the younger age group. A unique feature of this study was the generalization of learning from school to home as found by parent reports.

In the second study, the treatment group was further divided into four groups according to their primary deficit area. The results showed that those in the treatment group, especially Exceptional and Underachieving subjects, generated significantly more assertive responses as a means to solve interpersonal problems than the other two groups. Further, popularity and comportment among the Underachievers rose significantly. Also, Exceptional subjects improved significantly in grades and Disruptive subjects increased

significantly in achievement. All of these findings persisted to the follow-up one-year later. The unique feature of this study was the emergence of a pattern in which each group showed the greatest improvement in the area not identified as a problem area for them. This suggests that individuals with certain difficulties respond best to certain components.

The third and final study under the social-cognition heading was divided into two studies. The first study looked solely for an increase in knowledge and performance of social problem-solving skills. The results showed the treatment groups to improve significantly on both variables. However, the results also showed that from pre-test to follow-up six months later, the younger age group showed increases in problem behavior and self-efficacy and decreases in peer acceptance. In contrast, the older age group showed increases in these variables. In the second study, the emphasis was on changing the environment to promote generalization. As was the case of the first study, those in the treatment group increased in their performance of social problem-solving skills, but this increase did not generalize to other areas such as behavioral adjustment, self-efficacy or peer acceptance. The authors feel these results fail to support the utility of social problem-solving training as a mental health promotion strategy for the young children.

Although the results of the social-cognitive studies tend to show more significant increases than the coaching studies, findings are inconsistent. First, although the studies did show persistence of their short-term findings to the follow-up, both six months and one-year later, their findings concerning generalization was not so uniform. While one

study showed generalization to other settings, another showed no generalization to other behavioral areas, and a third showed increases in non-deficit areas.

This author feels that more research is needed in the area of both short-term and long-term effects of social skills training. For example, it appears that while at least one significant increase is found in every study, these increases generally fail to support the original hypothesis and support another less emphasized area.

Further, findings concerning generalization of the target behavior tend to suggest that certain components in an intervention tend to promote certain results. For example, the most viable findings of this review are located in the second study which employed both a coaching and an academic tutoring technique (Coie & Kreihbel, 1984). The results show the academic tutoring method to produce significant improvements in peer acceptance and significant decreases in disruptive behavior. In addition, the results report the academic tutoring group to also show significant improvements in academics. Yet a limitation pointed out by the authors is that it is unfair to compare the two techniques as the academic tutoring groups included some positive components (e.g. adult attention) that the coaching group did not. The authors concluded by stating that they could not say which specific components of the academic tutoring method actually made it successful for each group and that more research in this particular area needs to be done.

Similarly, in another study, although some significant findings were reported, surprisingly each group showed the greatest improvement in an area that was not identified as a problem (Rotheram, 1982). Once again, although the author found

significant improvements, she was not able to report on which components were the most effective for each group and also felt that more research needs to be done.

Therefore this author believes it to be essential that intervention programs be broken down and those certain components that affect certain areas (e.g. achievement, peer acceptance) be identified. Once these components are identified, programs can be designed from a combination of those components that will best help the individuals who possess a deficit in that area. Only then will there be a truly effective social skills training program for each individual.

Finally, the variance of program components and findings from the five studies reviewed, make it impossible to indicate which type of intervention is more effective overall when working with socially deficient children. It appears that each intervention is more effective in one area and less effective in another. Future research should concentrate on which areas each intervention is most beneficial to those involved.

**APPENDIX**

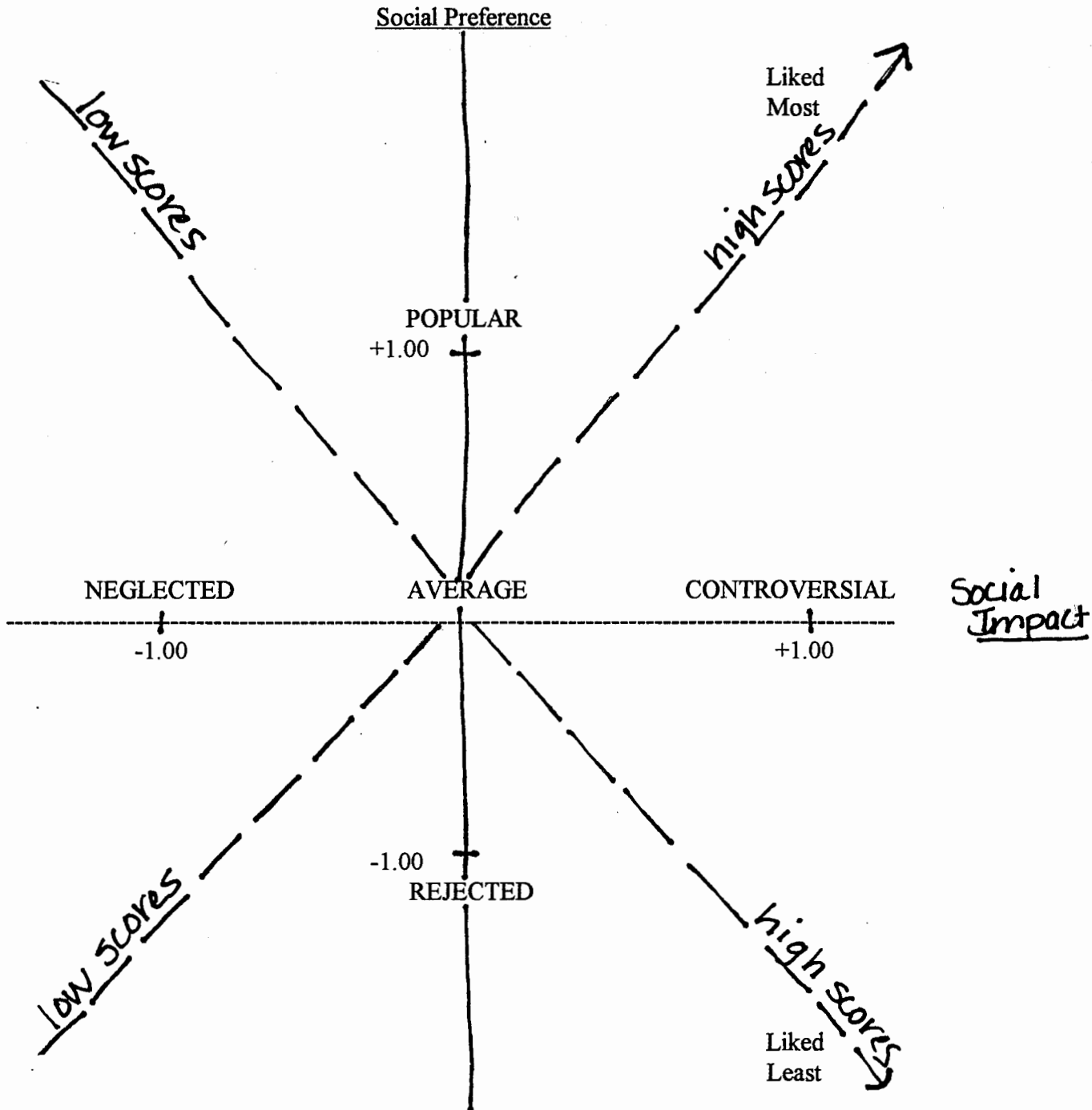
**Table 1**  
**Overview of Social Skills Assessment Methods and Their Characteristics**

Method	Source of information	Specificity of information	Proximity to target behavior
Sociometrics	Peers	Molar (social status)	Removed in time
Direct Observations	Third Party (psychologist/ teacher)	Molecular (discrete social behaviors)	Close in time
Ratings	Teacher, Parent Self	Molar-molecular (domain-specific behavior)	Removed in time
Role-plays	Third Party (psychologist/ teacher)	Molecular	Removed in time and situation
Behavioral Interviews	Child, Teacher Parent	Molecular	Removed in time

\*Source: Elliott, Sheridan & Gresham, 1989, pg. 201

Table 2

The relationships among positive and negative social choice measures, the dimensions of social preference and social impact, and five types of social status



\*Source: Coie, 1985, pg. 146



**Table 3**  
**Popular Social Skills Training Strategies**  
**Representative of Major Treatment Approaches**

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- A. Manipulation of Antecedents (social-cognitive strategies)
  - 1. Peer Initiation Strategies
  - 2. Sociodramatics
  - 3. Cooperative Learning Strategies
  - 4. Ecological Changes in the environment
  
- B. Manipulation of Consequences (operant conditioning)
  - 1. Reinforcement-based procedures
  - 2. Group contingencies
  - 3. Peer-mediated reinforcement
  
- C. Modeling-based Procedures
  - 1. Symbolic modeling
  - 2. Live modeling
  - 3. Participant modeling
  
- D. Cognitive-behavioral procedures (coaching strategies)
  - 1. Coaching
  - 2. Self-instruction, self-monitoring, self-reinforcement
  - 3. Desensitization/flooding

\*Source: Elliott, Sheridan & Gresham, 1989, pg. 201

## BIBLIOGRAPHY

1. Coie, John D. (1985). Fitting Social Skills Intervention to the Target Group.
2. Coie, John D., & Krehbiel, Gina. (1984). Effects of Academic Tutoring on the Social Status of Low-achieving, Socially Rejected Children. Child Development, 55, 1465-1478.
3. Elliott, Stephen N., Sheridan, Susan M., & Gresham, Frank M. (1989). Assessing and Treating Social Skills Deficits: A Case Study for the Scientist-Practitioner. Journal of School Psychology, 27, 197-222.
4. Gresham, Frank M., & Nagle, Richard J. (1980). Social Skills Training With Children: Responsiveness to Modeling and Coaching as a Function of Peer Orientation. Journal of Counseling and Clinical Psychology, 48(6), 718-729.
5. Gresham, Frank M., & Stuart, Dinah. (1992). Stability of Sociometric Assessment: Implications for Uses as Selection and Outcome Measures in Social Skills Training. Journal of School Psychology, 30, 223-231
6. Hops, Hyman, & Greenwood, Charles R. (1988). Social Skill Deficits. In E.J. Mash & L.G. Terdal (Ed.), Behavioral Assessment of Childhood Disorders (pp. 263-305). New York, NY: The Guilford Press.
7. Nelson, Geoffrey, & Carson Patricia. (1988). Evaluation of a Social Problem-Solving Skills Program for Third- and Fourth-Grade Students. American Journal of Community Psychology, 16(1), 79-99.
8. Oden, Sherri, & Asher, Steven, R. (1977). Coaching Children in Social Skills for Friendship Making. Child Development, 48, 495-506.
9. Rotheram, Mary J. (1982). Social Skills Training with Underachievers, Disruptive, and Exceptional Children. Psychology in the Schools, 19, 532-539.
10. Rubin, Kenneth H., Daniels-Beirness, Tina, & Bream, Linda. (1984). Social Isolation and Social Problem Solving: A Longitudinal Study. Journal of Counseling and Clinical Psychology, 52(1), 17-25.
11. Verduyn, C.M., Lord, W., & Forrest, G.C. (1990). Social Skills Training in schools: an evaluation study. Journal of Adolescence, 13, 3-16.