

2002

## Best practices in social skills training with preschool children

Kathleen M. Twohig  
*University of Northern Iowa*

Copyright ©2002 Kathleen M. Twohig

Follow this and additional works at: <https://scholarworks.uni.edu/grp>

 Part of the [Early Childhood Education Commons](#)

*Let us know how access to this document benefits you*

---

### Recommended Citation

Twohig, Kathleen M., "Best practices in social skills training with preschool children" (2002). *Graduate Research Papers*. 1640.

<https://scholarworks.uni.edu/grp/1640>

This Open Access Graduate Research Paper is brought to you for free and open access by the Student Work at UNI ScholarWorks. It has been accepted for inclusion in Graduate Research Papers by an authorized administrator of UNI ScholarWorks. For more information, please contact [scholarworks@uni.edu](mailto:scholarworks@uni.edu).

---

## Best practices in social skills training with preschool children

### Abstract

This review of literature focuses on several aspects of social skills training with preschool children. The importance of positive social skills is discussed. Numerous definitions are offered, and a clarification is made between social skills and social competence. The review highlights how social skills deficits may be classified and common dimensions of social skills. Issues and methods in assessment are explained. Finally, effective interventions that have received empirical research support are described as well as issues in generalization. Further research should address the following questions: What specific social skills are appropriate for certain ages? How do boys and girls differ in their social skills at certain ages and how are social skills affected as children mature? Is the developmental timing of social skills training important? What cultural and environmental issues pertain to social skills training? What type of setting for social skills training with preschool children is most effective? Is collaboration between teachers and other educators (e.g., school psychologists) an effective way to teach children social skills in the classroom? How can educators involve parents more fully in the social skills training process? What are best practices in the generalization of social skills for preschool children? What strategies are preschools using to teach children social skills?

BEST PRACTICES IN  
SOCIAL SKILLS TRAINING WITH  
PRESCHOOL CHILDREN

A Research Paper  
In Partial Fulfillment  
of the Requirements of the Degree  
Master of Arts in Education

Kathleen M. Twohig  
University of Northern Iowa

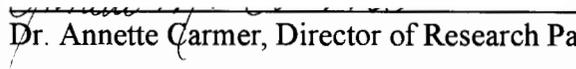
May 2002

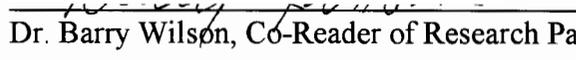
This Research Paper by: Kathleen M. Twohig

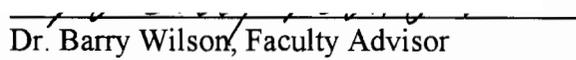
Entitled: Best Practices in Social Skills Training with Preschool Children

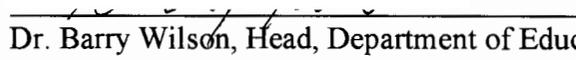
Has been approved as meeting the  
research paper requirement for the Degree of

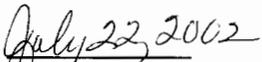
*Master of Arts in Education: Educational Psychology*

  
Dr. Annette Carmer, Director of Research Paper

  
Dr. Barry Wilson, Co-Reader of Research Paper

  
Dr. Barry Wilson, Faculty Advisor

  
Dr. Barry Wilson, Head, Department of Educational  
Psychology & Foundations

  
Date Approved

## ABSTRACT

This review of literature focuses on several aspects of social skills training with preschool children. The importance of positive social skills is discussed. Numerous definitions are offered, and a clarification is made between social skills and social competence. The review highlights how social skills deficits may be classified and common dimensions of social skills. Issues and methods in assessment are explained. Finally, effective interventions that have received empirical research support are described as well as issues in generalization. Further research should address the following questions: What specific social skills are appropriate for certain ages? How do boys and girls differ in their social skills at certain ages and how are social skills affected as children mature? Is the developmental timing of social skills training important? What cultural and environmental issues pertain to social skills training? What type of setting for social skills training with preschool children is most effective? Is collaboration between teachers and other educators (e.g., school psychologists) an effective way to teach children social skills in the classroom? How can educators involve parents more fully in the social skills training process? What are best practices in the generalization of social skills for preschool children? What strategies are preschools using to teach children social skills?

## TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION.....	1
Statement of Problem.....	1
Purpose of Review.....	2
Search Methods.....	3
Important Terms.....	3
Overview.....	4
II. REVIEW OF THE LITERATURE.....	5
Importance of Social Skills Training.....	5
Rationale for Teaching Positive Social Behaviors.....	5
Advantages of Social Skills Training in Preschool.....	7
Definition of Social Skills.....	9
Appropriate Social Skills Dimensions for Preschool Children.....	12
Historical Presentation of the Classification of Social Skills Deficits.....	15
Assessment.....	17
Purposes.....	17
Methods to Assess Social Skills Deficits.....	17
Projective-Expressive Techniques.....	18
Self-Report Instruments.....	18
Interviews.....	19
Sociometric Techniques.....	19

Observations.....	20
Behavior Rating Scales.....	22
Social Skills Rating System.....	22
Preschool and Kindergarten Behavior Scales.....	24
Assessment Goals and Recommendations.....	25
Effective Social Skills Interventions.....	26
Assumptions.....	26
Goals and Objectives of Social Skills Training.....	27
Goals .....	27
Objectives.....	27
Theoretical Approaches to Intervention.....	28
Operant Interventions.....	29
Social Learning Interventions.....	31
Cognitive-Behavioral Interventions.....	32
Eclectic Approaches.....	33
Cognitive-Social Learning Model.....	33
Skillstreaming.....	37
Stop & Think.....	41
Fostering Generalization.....	43
Critique of Research.....	47
III. SUMMARY/CONCLUSION.....	48
Summary of Findings.....	48

Remaining Research Questions.....50

Implications for School Psychologists.....50

REFERENCES.....52

CHAPTER 1  
INTRODUCTION  
Statement of Problem

There is increasing awareness that, at the early age of preschool, the mastery of social skills and prosocial behaviors is a critical aspect in children's social, emotional, and mental well-being and development (McGinnis & Goldstein, 1990). Children who do not possess appropriate social skills face a number of difficulties in their relationships and overall adjustment that may continue into adulthood (Gresham & Elliott, 1993).

“Social skills are those behaviors that occur in specific situations which predict important social outcomes for children and youth” (Gresham & Elliott, 1993, p. 139). Important social outcomes may consist of (a) positive self-esteem; (b) peer acceptance; (c) important others' evaluations of social skills; (d) positive adaptation to home, educational, and societal environments; and (e) academic success (Gresham & Elliott, 1993).

This literature review was guided by the following research questions: Why are social skills important for children to possess? What are advantages of training children at the preschool level? What definitions have been provided for the term social skill? What social skills are seen as suitable for preschoolers to possess? How are social skill deficits classified? What are best practices in the assessment of preschool children's social skills? What theoretical approaches to social skills intervention are effective? Are social skills generalizable to settings and situations other than the training environment? What strategies enhance generalization?

## Purpose of Review

Recently, there has been growing interest in the development of social skills and social competence in children. Widespread interest has increased due to the negative implications that have been found for children with poor social skills (Choi & Heckenlaible-Gotto, 1998; Cox & Schopler, 1991; Elliott, Sheridan, & Gresham, 1989). The extensive interest has spurred a debate about the effectiveness of social skills training (Evans, Axelrod, & Sapia, 2000; Ogilvy, 1994). Questions have also arisen regarding the appropriate age to begin skill training (Mize & Ladd, 1990). Numerous authors have suggested that social skills training benefits children's social, emotional, and academic growth and development (Elliott, McKeivitt, & DiPerna, 2002; Erwin, 1994). And, research suggests that the preschool years are an effective time to begin social skills training (Elliott et al., 2002; Mize & Ladd, 1990; Schneider & Byrne, 1985).

The purpose of this paper is to review the literature on social skills training with preschool children. The paper examines issues pertaining to social skills training with children such as the importance of social skills training with preschoolers, the distinction between social skills and social competence, and explores recent attempts that have been made to construct appropriate dimensions of social skills with children.

The review also explores the purposes of assessment, the goals of an assessment model, and methods that may be used to assess children's social skills. Goals and objectives of social skills training are discussed along with methods to foster generalization.

## Search Methods

The literature review was completed using the following steps. First, a search was conducted using ERIC, PsychINFO, Infotrac, and Educational Digest databases. Search terms included social skills training, preschool, assessment, programs, and authors that were prominent in the field of social skills training. Articles were selected if they seemed to offer pertinent information on preschool social skills training and were published after 1985. Secondly, a computer search was conducted for books published after 1985 on social skills training at the Rod Library on the University of Northern Iowa campus. Books were examined for topics related to social skills training with preschool children. Other articles and books were selected from the reference sections of relevant books and articles and through correspondence with professionals in the field of school psychology.

## Important Terms

### Generalization

“The occurrence of relevant behavior under different, nontraining conditions (i.e., across subjects, settings, people, behaviors, and/or time)” (Stokes & Baer, 1977, p. 350).

### Social Competence

“A general evaluative term referring to the quality or adequacy of a person’s overall performance in a particular task” (McFall, 1982, p. 12).

### Social Skills

According to the social validity definition, are the behaviors which, within given situations, predict important social outcomes for children and youth (Gresham, 1998).

## Social Skills Training

The process of directing and instructing in specific social skills essential in carrying out suitable interpersonal interactions and relations (Malik & Furman, 1993).

### Overview

This review provides information about aspects of social skills training. The rationale for teaching social skills to preschool children is discussed. Social skills are defined and the difference between social skills and social competence is clarified. Developmental issues with regard to social skills training are explored, specifically for preschoolers. A historical presentation of the classification of social skills deficits is offered. Best practices in the assessment of preschoolers' social skills are explored. Effective interventions are discussed, including operant, social learning, cognitive-behavioral, and eclectic approaches. Issues and approaches to promote skill generalization are reviewed. Finally, a summary of the current literature including implications for school psychologists and further research questions are presented.

## CHAPTER 2

### REVIEW OF THE LITERATURE

One of the most significant accomplishments of a child's development is the capability to interact effectively with others (Gresham, Sugai, & Horner, 2001). Children who lack appropriate social skills experience rejection, social isolation, and are less happy (Michelson, Sugai, Wood, & Kazdin, 1983). Researchers have claimed that interventions aimed at strengthening children's peer relations and interactions are essential to their positive growth and development. The most common method is considered to be social skills training (Erwin, 1994). In recent years, social skills training procedures have become more popular and widely used (Elliott et al., 2002; Ogilvy, 1994). Elliott et al. (2002) claimed that there is extensive support for the use of social skills training for all children and particularly for preschool children. However, numerous literature reviews have questioned the effectiveness of social skills training and the optimal age to begin social skills training (Evans et al., 2000; Mize, 1995; Ogilvy, 1994). The following sections include information on research that has been completed in the area of social skills training, specifically with preschool students.

#### Importance of Social Skills Training

##### *Rationale for Teaching Positive Social Behaviors*

One rationale for teaching positive social behaviors stems from studies that show direct relationships between social skills and school achievement. Studies have also suggested that students who react in prosocial ways to the teacher (e.g., paying attention, smiling at the teacher) often receive more positive consideration and have higher rates of

success in academic pursuits (Mize, 1995). Researchers have also found that children who lack appropriate social skills are more likely to have school adjustment problems and lower rates of academic achievement (Gresham, 1988; Parker & Asher, 1987).

As is the case with social skills and academic achievement, there is also a correlation between social skills and peer relationships. Children with well-developed social skills have more chances to interact with peers and that boosts the learning of social behaviors (Mize, 1995). Studies also suggest that social skills serve as a protective factor against stress, as children with adequate social skills have the ability to receive greater social support from their peers (Luthar, 1991).

Kupersmidt, Coie, and Dodge (1990) reviewed literature that associated children's peer relationship problems to disorders in childhood, adolescence, and adulthood. They also considered if early peer rejection caused these disorders. In their study, peer rejection often surfaced as a predictor of maladjustment. Overall, children and adolescents' psychological health and social adjustment is based on the extent to which they form significant friendships, receive feelings of acceptance from others, establish and maintain meaningful interpersonal relations, and terminate harmful or damaging relationships (Kupersmidt et al., 1990; Parker & Asher, 1987, as cited in Gresham, 2002).

Ladd and Price (1987) found evidence that children's peer interaction difficulties in preschool carry on into elementary school, making the children likely candidates for later peer rejection or neglect in adolescence and adulthood. The quality of the interaction among preschool children is a predictor of their school adjustment in

elementary school and may also forecast their status among their peers in future settings. Early social rejection may be difficult for children to overcome and, in the long run, may interfere with their ability to develop important social skills (Mize & Ladd, 1990). Therefore, children who learn social skills at an early age are at less risk for later rejection and or neglect by their peers. Finally, numerous studies have found that children in preschool do have the opportunity to benefit from social skills interventions (e.g., Mize & Ladd, 1990; Schneider & Byrne, 1985; Yarrow, Scott, & Waxler, 1973).

Much of the interest in studying children's relationships with their peers is due to the power of this variable to predict later outcomes. Parker and Asher (1987) performed a comprehensive review of the peer relations research literature. The authors evaluated several studies that assessed peer acceptance, aggression, and withdrawal as predictors of different types of negative outcomes (e.g., mental health problems later in life, withdrawal from school, criminal behavior). The authors found considerable evidence that difficulties in peer relations in childhood forecasted certain negative outcomes, such as delinquency, disruptive behavior problems, and psychological maladjustment. Clearly, children who consistently display social skills deficits face negative outcomes, which seem to be antecedents for problems in adulthood (Elliott, Sheridan, & Gresham, 1989).

#### *Advantages of Social Skills Training in Preschool*

Given these possible negative outcomes, it is necessary that educators recognize young children with social skills difficulties and implement necessary interventions as early as possible (Elliott et al., 2002). Most social skill interventions have been geared

toward children in elementary school (Mize & Ladd, 1990). However, preschool children with difficulties in peer relations also have the opportunity to benefit from social skills training. In fact, Schneider and Byrne (1985) reported in a meta-analytical study that social skills interventions are more effective for preschool children than elementary school children.

There are several reasons why the preschool age is a crucial period to begin social skills training. The first reason is that during the infant or toddler stage of development, a child's level of social competence is established, and by preschool, it is possible to see connections between a child's social competence and peer acceptance. Therefore, Mize and Ladd (1990) asserted that it is possible to recognize children in preschool settings who could benefit from social skills instruction.

Another reason why preschool social skill interventions may be successful is attributed to the preschool environment. Mize and Ladd (1990) discussed the notion that this time period is conducive to social skills training because parents and teachers are more open to social development and do not place as great an emphasis on academics as in elementary or high school. The instructional design of most social skills interventions is also consistent with the behavioral methods and teaching practices of preschool teachers. Also, reputational biases are less rigid and peer groupings are more flexible during the preschool years than in other ages, so children may be more likely to be accepted by their peers after learning or changing certain negative behaviors (Mize, 1995). The preschool years are an ideal period to introduce social skills training to children who have difficulties interacting with others. Given that appropriate social skills

are important for preschoolers to possess, it is necessary to implement effective skill training techniques.

### Definition of Social Skills

The term social skills has been defined in numerous ways. Merrell and Gimpel (1998) identified 16 different definitions for the term, although no certain definition has gained common acceptance in the research literature. The authors also stated that there is a tendency to misunderstand the term and it is often defined incorrectly. Merrell and Gimpel (1998) described reasons for the difficulty in providing a satisfactory definition:

The difficulty in providing an adequate definition of social skills is partly because the construct is deceptively simple, yet relies heavily on a number of other psychological constructs and basic human traits such as personality, intelligence, language, perception, appraisal, attitude, and behavior-environment interaction. The diversity of related traits, abilities, and behaviors that constitute social skills, along with the complexity of behavior-environment interaction necessary for their acquisition and performance, has resulted in numerous definitions. (p. 3)

Another reason for the lack of a widespread definition stems from the notion that individuals from different backgrounds and specialties are concerned with the concept of social skills. Different subject areas (e.g., professionals from the fields of psychology, social work, special education) look at the construct from different perspectives (Merrell & Gimpel, 1998). Therefore, it is not surprising that a number of different definitions still exist.

Michelson et al. (1983) discussed the difficulty in defining social skills. The authors devised an “operational definition” and include components that are essential in order for conceptualization to occur:

1. Social skills are primarily acquired through learning (e.g., observation, modeling, rehearsal, feedback).
2. Social skills comprise specific and discrete verbal and nonverbal behaviors.
3. Social skills entail both effective and appropriate initiations and responses.
4. Social skills maximize social reinforcement (e.g., positive responses from one’s social environment).
5. Social skills are interactive by nature and entail both effective and appropriate responsiveness (e.g., reciprocity and timing of specific behaviors).
6. Social skill performance is influenced by the characteristics of the environment (i.e., situational specificity). That is, such factors as age, gender, and status of the recipient affect one’s social performance.
7. Deficits and excesses in social performance can be specified and targeted for intervention (p. 3).

Gresham (1986) divided the numerous definitions for social skills into three major types: peer-acceptance, behavioral, and social validity. The peer acceptance definition characterizes children as socially skilled through popularity indicators or if their peers accept them. This definition is helpful in identifying children who are unaccepted,

disliked, or rejected, but is not useful in establishing interventions for certain behaviors that lead to rejection. The behavioral definition identifies social skills as situation-specific behaviors that decrease the possibility of punishment and increase the possibility of reinforcement based on one's social behavior. This definition specifies antecedents and consequences based on a certain behavior in order to develop strategies to assess social skills deficits and create interventions. However, the definition does not make certain that the behaviors are socially important.

The social validity definition is characterized as the most "heuristic" (Elliott, Sheridan, & Gresham, 1989, p. 198) and states that social skills are behaviors that predict important social outcomes for children and youth (Gresham, 1986). Important social outcomes may include peer group acceptance and friendships; adequate psychological adjustment; positive teacher and parent judgments of social skills; academic competence; and sufficient self-esteem (Elliott, Sheridan, & Gresham, 1989; Gresham, 2002). This definition has received increasing empirical support because it correlates important social outcomes while examining situation-specific behaviors (Caldarella & Merrell, 1997; Gresham, 1986). This definition has been most significant for recent developments in the social skills literature (Caldarella & Merrell, 1997).

The social validity definition also discriminates between the terms social skill and social competence. The constructs of social skills and social competence have often been used interchangeably in the research literature but there are differences between them (Elliott & Gresham, 1993). It is important to distinguish between them because they are independent from each other (McFall, 1982). According to McFall (1982), social

competence is a summary term used to judge whether a person has performed adequately on a specific task. Social skills, however, are certain behaviors that an individual must demonstrate to perform capably on a given task. These precise behaviors result in evaluations based on opinions of other people (e.g., teachers, peers); evaluations based on a sample; or contrasts made with reference to a clear criterion (e.g., number of tasks presented correctly) (Gresham, 2002; McFall, 1982).

McFall's (1982) view of social competence identifies social skills as certain behaviors that produce judgments by others regarding those behaviors. Social skills are specific actions that "must be taught, learned, and performed" (Gresham, 2002, p. 1030). The judgments made in different situations and periods of time regarding the behaviors represent social competence.

#### Appropriate Social Skills Dimensions for Preschool Children

There is no certain set of social skills that are seen as suitable for preschoolers. This may be due to various preschool settings, differences between children, and cultural values, which create an array of behaviors that might be seen as appropriate for preschoolers to possess (Swetnam, Peterson, & Clark, 1983). However, in order to increase the likelihood of socially valid interventions, it is important to understand the social skills of preschoolers that are significant to their development and to their teachers and parents.

In a study by Elliott, Barnard, and Gresham (1989), a group of parents were asked to identify the most important social skills for their children to possess. Upon being given a list of 50 social behaviors from Gresham and Elliott's Social Skills Rating

System (1990), the parents chose the following skills: (a) shows respect for others' feelings; (b) attends to instructions; (c) asks for parent consent before leaving the house; (d) tells a parent of difficulties; and (e) gives an adult information about emergencies or mishaps.

Teachers in the study by Elliott, Barnard, & Gresham (1989) reported that the most imperative social skills in their classrooms were: (a) obedience to directions; (b) assignment completion within a reasonable time period; (c) asks necessary questions when uncertain of expectations for class work; (d) cooperation with peers; and (e) listens to directions. Numerous researchers have found similar results as Elliott and his colleagues in their surveys of parents' and teachers' expectations for children's social skills.

Researchers have attempted to derive common dimensions, or clusters, of social skills. Caldarella and Merrell (1997) conducted a qualitative meta-analysis to obtain an "empirically based taxonomy" of children's levels of social skill functioning. The authors had a thorough understanding of the most widely used definitions for the construct of social skills when constructing the taxonomy. Previous empirically based taxonomies have focused on child and adolescent maladaptive behaviors, but this study was the first to attempt in the research literature to develop a taxonomy of positive social behaviors. The authors analyzed 21 empirically based, factor analytic research studies based on 20 years of research which utilized 19 social skills inventories and rating scales. The studies included more than 22,000 students with ages spanning from 3-18.

Caldarella and Merrell (1997) used four “levels” to analyze each empirical study: (a) characteristics of the study; (b) aspects of common social skills identified in the study; (c) an examination of factor items associated with these aspects; and (d) the creation of a social skills taxonomy. Using these levels, the authors divided common skills addressed in the studies into five broad dimensions: (a) peer relations skills (occurring in 11 of the studies analyzed), (b) self-management skills (occurring in 11 studies), (c) academic skills (occurring in 10 studies), (d) compliance skills (occurring in 8 studies), and (e) assertion skills (occurring in 7 studies).

Caldarella and Merrell (1997) stated that the taxonomy is useful for practitioners to focus on when developing assessment and intervention strategies. The authors stated that the taxonomy is a valuable resource for individuals to utilize in order to (a) provide a classification system to use to refer to the typical five patterns; (b) identify areas in which children may be weak or have strengths; (c) plan behavioral interventions; (d) evaluate the results of the interventions; and (e) assist in the development of theory with regard to the cause, prognosis, and reactions of students to the social skill interventions.

Elliott and Gresham (1993) identified five major clusters of social skills that form the acronym CARES. The clusters are cooperation, assertion, responsibility, empathy, and self-control. Cooperative behaviors include helping, sharing, and obeying rules. Assertive behaviors are initiating and responding to other people’s actions (e.g., responding to peer pressure). Responsibility is a behavior that expresses the ability to communicate with others and to care for one’s property. Empathy is characterized by

being concerned about others' feelings. Self-control usually surfaces in conflict situations, when a child is required to respond appropriately to certain events and actions.

#### Historical Presentation of the Classification of Social Skill Deficits

Elliott and Gresham (1993) proposed that social skills deficiencies are caused by a number of different factors, including a lack of prompts or chances to learn or execute social skills; an absence of social knowledge; the existence of behaviors that obstruct attainment or hinder performance of social skills; insufficient practice or feedback; and a lack of appropriate reinforcement when performing social skills. A social skill deficiency may be due to one or a number of these factors.

Gresham (2002) stated that when a student demonstrates social difficulties, it is imperative to establish the specific type of social skill deficits the child has in order for appropriate interventions to take place. The four basic types of social skill difficulties have been identified and are based in part on Bandura's (1977) distinction between learning and performance. They are (a) skill deficits; (b) performance deficits; (c) self-control skill deficits; and (d) self-control performance deficits (Gresham, 1986).

Gresham (1986) differentiated between performance and acquisition deficits. A social performance deficit describes students who have the social skill(s) in their repertoires, but do not perform them at acceptable levels under certain situations. A social acquisition deficit refers to either the failure to differentiate which social behaviors are suitable under certain situations or the lack of knowledge for carrying out a particular social skill. Performance deficits can be considered "won't do" and acquisition deficits can be seen as "can't do" deficits (Gresham, 2002, p. 1032).

These deficits in acquisition or performance may be accompanied by interfering problem behaviors. Problem behaviors may include internalizing behaviors (e.g., depression) and externalizing behaviors (e.g., aggressiveness). These behaviors may inhibit the acquisition or performance of a desired behavior. The self-control skill deficit applies to an individual who has not learned a certain social skill because of an interfering response (e.g., anxiety) that has blocked the acquisition of the skill. Self-control refers to the likelihood that an interfering response will block the performance of a positive social response (Elliott, Sheridan, & Gresham, 1989). Children with self-control performance deficits do possess specific skills in their behavioral repertoires, but the presence of interfering responses blocks the performance of these skills at levels which are deemed suitable (Gresham, 1998).

Gresham (2002) also discussed another type of deficit, referred to as a fluency deficit. This type of deficit is characterized by a child who is knowledgeable of and wants to perform the social behavior but performs uneasily or demonstrates an imperfect performance of the skill. This form of deficit may be due to a lack of contact with appropriate models of the behavior or also may be due to inadequate amounts of practice or reinforcement. Students with fluency deficits should receive opportunities for rehearsal and practice of the desired skills.

The knowledge of these categories is valuable in terms of assessment, diagnosis, and intervention (Gresham, 1986). It is not necessary to educate children on certain social skills if they have already acquired them. Likewise, it is not beneficial to design

interventions to increase performance of a skill if the students have not yet acquired it in the first place.

## Assessment

### *Purposes*

Assessment is essential to the creation of effective interventions for the social skill deficiencies of children. Generally, the purpose of assessment has been for either identification of social skills deficits and/or evaluation of the treatment outcomes (Elliott et al., 2002; Sheridan & Walker, 1999). Hops and Greenwood (1988) identified three purposes of assessment: (a) to identify children who are socially unskilled; (b) to identify certain deficits which impede their social functioning; and (c) to evaluate the treatment's influence while it is in effect.

Although a standard battery of tests for assessing social skill deficits does not exist, the assessment methods should be valid, reliable, and practical (Elliott, Sheridan, & Gresham, 1989). Assessment should be characterized by a number of hypothesis-testing sequences. The hypotheses are made in an effort to answer questions concerning identification, intervention, and evaluation of the treatment outcomes.

### *Methods to Assess Social Skill Deficits*

Merrell (2001) identified six types of methods that may be used to assess social skills deficits: (a) projective-expressive techniques; (b) self-report; (c) interviews; (d) sociometric techniques; (e) behavioral observations; and (f) behavior rating scales. The author identified direct behavioral observation and behavior rating scales as the most effective methods for assessing children's social skills.

### *Projective-Expressive Techniques*

Projective-expressive techniques, such as sentence-completion tests or thematic methods of assessment, may be used to develop a relationship with the child and develop possible hypotheses. However, it is difficult to find evidence that these techniques are valuable in the identification and classification of social skills (Merrell, 2001).

### *Self-Report Instruments*

Self-reports are a child's self-perceptions regarding his or her level of social functioning (Jones, Sheridan, & Binns, 1993). The child's responses are compared with a normative group and may be useful in identifying problems in self-concept along with depression and anxiety. There is little research to support the efficiency of this method. The only experimentally researched self-report instrument that is designed to assess social skills is the self-report form in Gresham and Elliott's (1990) Social Skills Rating System (SSRS; as cited in Merrell, 2001) and this may be used only for students at the elementary and high school levels (Jones et al., 1993).

One main weakness of the SSRS student form is its low reliability. Internal consistency reliability for Social Skills, Problem Behaviors, and Total Scales were adequate for the student form but coefficients for the subscales were not acceptable. Test-retest reliability coefficients for the Total Scales and subscales of Social Skills and Problem Behaviors were not sufficient. No student ratings were adequately reliable for making precise interpretations (Gresham & Elliott, 1990). Hence, there is a great discrepancy between children's self-reports and measures such as direct observation and behavior rating scales (Merrell, 2001). Moreover, self-report measures may be useless

with preschool children because children at that age typically do not have the reading ability necessary for these instruments (Jentsch & Merrell, 1996).

### *Interviews*

Interviewing is the most commonly used and oldest assessment method.

Interviews may occur with the child, the parents, and/or the teachers (Jones et al., 1993).

Interviews allow for flexibility and may provide the interviewer with pertinent and functional information regarding environmental circumstances, allowing the assessment method to be linked to the intervention (Merrell, 2001). However, the use of interviewing in assessing children's social skill deficits has not been studied or condensed into a format that allows for consistent use on the part of clinicians. Preschool children may not have the vocabulary required for these interviews (Jentsch & Merrell, 1996). Merrell (2001) asserted that the use of interviewing should be considered as a secondary technique in the assessment of social skills.

### *Sociometric Techniques*

Sociometric techniques take the form of peer rating, peer ranking, and peer nomination, and may allow for a classification of a student's social position (Jones et al., 1993; Merrell, 2001). These techniques have high levels of reliability and validity and may be strong forecasters of future social outcomes but there are practical difficulties in this process (Merrell, 2001). The first difficulty is in the construct that is being measured. Peer-acceptance measures do not necessarily measure deficits in social skills. Another issue has to do with the group nature of the assessment. Sociometric measures must be done with the entire group of students in order to be valid and it is difficult to get

parental and administrative consent because of the fear of additional social rejection for some children due to the assessment. Also, if informed consent from parents is required, it is an overwhelming task to receive consent for all involved.

### *Observations*

Direct observations provide a measure of a child's social interactions in certain settings, permit a functional analysis of the child's behaviors in the context of the social environment, and allow a chance to monitor the reactions of other children (Jones et al., 1993). The most appropriate settings for observations are in environments where the targeted child interacts with peers. Merrell (2001) advocated for the use of a coding system in order to document certain behaviors. Unlike other assessment methods, there are no specific instruments to use for observation. Observational procedures that are designed to meet the needs of the situation are used to assess the target child. There are a small number of available assessment tools used for observation of a child's social skills and none available for use with preschool children.

One published assessment tool that is worth noting is the Peer Social Behavior Code (PSBC), a component of Walker and Severson's (1992) *Systematic Screening for Behavior Disorders* (SSBD), a multiple-gating screening system (Merrell, 2001). The PSBC is designed for children in grades 1-6 and consists of a series of 10-second intervals. Recording forms are provided and include spaces for 40 recordings, although the number of intervals used for an observation varies depending on the circumstance. Usually, observations last 15 minutes and are conducted during free-play situations. Five recording categories are used: Parallel Play, Alone, Social Engagement, Participation,

and No Codable Response. Behavior in the first two categories is coded by checking the appropriate box. Behavior for categories of Social Engagement and Participation is coded as either positive (+) or negative (-). The No Codable Response category is checked when the child is interacting with an adult or is not in sight of the observer.

Following the observation, the data is transferred to an observational summary form (Merrell, 2001). The observer enters the number of intervals recorded for each category. The percentage of time spent for each category is determined by dividing the total number of intervals in the observational period into the intervals documented under different categories and then multiplying by 100. Normative tables are provided in the SSBS manual and are used to interpret the PSBC data. Overall, the psychometric properties for the PSBC are highly impressive and extensive research went into constructing the instrument. The PSBC may serve as an ideal model to develop similar coding tools, especially for younger children.

Despite the empirical basis for using behavioral observation to assess the social skills of children, the technique is time-consuming and psychometric problems may arise due to a lack of planning and execution of the observation (Merrell, 2001). The third concern has to do with the number of observations that are necessary in order to obtain a reliable and valid measurement of behavior. Merrell (2001) cited a study by Doll and Elliott (1994) in which the authors found that for young children it may be necessary to obtain several observations over time in order to ensure that a reliable social observation has taken place. The authors provided a rationale that the social behavior in

young children is often reactive or influenced by the specific social context or social demands of the environment.

### *Behavior Rating Scales*

Behavior rating scales are one of the most widely used techniques to assess child behavior (Merrell, 2001). They can facilitate a number of different assessment decisions (Demaray et al., 1995). They can be used (a) as part of the screening, referral, and identification process; (b) to compare behaviors in different environments; (c) to examine behavior at different time periods; and (d) in research. One of the major advantages of behavior rating scales is the capability to attain judgments about several different behaviors from different sources in a timely manner.

Two published social skills rating scales with preschool norms are currently available: the Social Skills Rating System (Gresham & Elliott, 1990) and the Preschool and Kindergarten Behavior Scales (Merrell, 1994).

*Social Skills Rating System.* The preschool version of the Social Skills Rating System (SSRS) offers different forms for parents and teachers (Gresham & Elliott, 1990). The majority of the SSRS items describe positive social behaviors. Responses are completed on a 3-point likert-type scale, as teachers and parents are asked to rate behaviors on their occurrence. The SSRS consists of 40 items that are presented as two categories of social competence: Problem Behaviors (10 items) and Social Skills (30 items). Positive features of the manual include its comprehensive, well-designed manual, and its capability in comparing multi-rater evaluations (Demaray et al., 1995; Fantuzzo, Manz, & McDermott, 1998).

The SSRS is one of the most comprehensive behavior rating scales available. However, the lack of supporting reliability and validity evidence for the 40-item preschool version is a concern along with the small normative sample (Merrell, 1999). Fantuzzo et al. (1998) stated that a thorough factor analysis has not been completed and reliability or validity data has not yet been established because the psychometric properties recorded in the test manual were obtained from an earlier 60-item tryout version of the SSRS. The tryout version differed in length and item count from the published instrument. Additionally, the SSRS was modified after the tryout version was administered. Several items were removed, added, or rewritten prior to the release of the published version.

Fantuzzo et al. (1998) performed the first empirical research study of the reliability and validity of the preschool version of the SSRS. In the study, the researchers addressed three major questions. First, they questioned whether the preschool version of the SSRS evidenced important psychological constructs and matched those provided in the test manual. Their second research question asked if there was empirical support for the two domains of Social Skills and Problem Behavior. Finally, their third research question was whether the sociometric measures for peer acceptance provided divergent and convergent validity for the two domains. The sample for the study included 943 preschool children attending a Head Start program. The students' teachers completed the preschool version of the SSRS. Sociometric data were collected during individual child interviews.

Overall, the researchers' findings indicated that the factor structure on the actual rating system does not match the factor structure in the test manual (Fantuzzo et al., 1998). Results also showed that the two groups of items for the Social Skills and Problem Behaviors domains are inversely related to the common social competence construct and ratings from the two groups of items do not offer two types of independent information as the test manual proposed. Finally, the findings did not offer information about convergent and divergent validity for the SSRS factors. Fantuzzo et al. (1998) discussed that although the SSRS has several strengths, future studies need to be conducted regarding the relationship between the Social Skills and Problem Behaviors domains, the preschool parent version, and concurrent validity.

*Preschool and Kindergarten Behavior Scales.* The Preschool and Kindergarten Behavior Scales (PKBS) offers 76 items in a likert-type format which teachers, parents, and day-care providers complete to measure social skills of children ages 3-6 (Merrell, 1994). The PKBS is composed of two scales: Social Skills and Problem Behavior. The Social Skills scale contains 34 items and is comprised of three subscales: Social Cooperation, Social Interaction, and Social Independence. The Problem Behavior Scale contains 42 items and is separated into two broad-band subscales, internalizing and externalizing problems, and five narrow-band subscales, Self-Centered/Explosive, Attention Problems/Hyperactive, Antisocial/Aggressive, Social Withdrawal, and Anxiety/Somatic Problems.

Unlike the SSRS, the PKBS and its items were devised specifically for preschool-aged children. A large normative sample was used and the scale was developed through

a thorough review of social skills literature (Merrell, 1999). Overall, research suggests that the PKBS has high validity and reliability and is a useful social skills assessment tool for children.

Jentzsch and Merrell (1996) examined the construct validity of the PKBS using a sample of 94 Kindergarten students. The authors compared the children's scores on the PKBS with the Scale of Social Competence and School Adjustment and a modified version of Achenbach's Teacher's Report Form. The two scales of the PKBS (i.e., Social Skills and Problem Behavior) were found to possess both convergent and discriminant validity. The authors also stated that the PKBS has the ability to discriminate children who are at-risk for behavior problems. Limitations of the study include the small and unrepresentative sample size, as primarily white children from a rural town served as participants.

#### *Assessment Goals and Recommendations*

Sheridan, Hungelmann, and Maughan (1999) identified the goals of a comprehensive social skills assessment model: (a) to identify socially valid behaviors and skills that are meaningful in the social context; (b) to establish expectations, demands, and standards for the behaviors in the environment; (c) to investigate environmental situations that cause, support, discriminate, and dampen certain behaviors; (d) to recognize a child's skills, strengths, and weaknesses that are related to certain important social behaviors; (e) to use this information to develop effective interventions; and (f) to assess the outcomes in terms of their significance to the child in certain social conditions and settings.

Assessment is a critical yet oftentimes overlooked component to recognize social skills deficits in children and therefore offer appropriate interventions (Merrell & Gimpel, 1998). A multi-method, multi-source, and multi-setting assessment is necessary in order for the procedure to be valid (Jones et al., 1993; Merrell, 2001; Sheridan et al., 1999). The most critical aspects of the assessment are that it permits a functional analysis of behavior (Elliott, Sheridan, & Gresham, 1989; Gresham, 1998) and that the assessment is linked to the intervention (Merrell, 2001; Sheridan et al., 1999). Merrell (2001) stated that best practices in social skills assessment is to use behavior rating scales supplemented with interviews with appropriate people (e.g., teachers, parents, and/or the student) and observations.

## Effective Social Skills Interventions

### *Assumptions*

Sugai and Lewis (1990, as cited in Sugai, 1998) addressed six assumptions regarding social skills instruction. The first assumption is that social skills are learned behaviors that can be taught in the same way other skills are taught. Sometimes the learning that occurs is planned (e.g., direct instruction) and other times it is unplanned (e.g., modeling), but in all situations, children can learn them. The second assumption is that problems in behavior management are social skills problems. It is common for educators to impose consequences for behavior problems. However, social skills instruction is a more proactive approach and teaches that these behavior problems are learning problems. Appropriate instruction provides the student with an alternate response or a replacement for the behavior of concern.

The third assumption is that social skills are closely related to academic competence and a child needs to have appropriate social skills before she can succeed in the classroom (Sugai & Lewis, 1990, as cited in Sugai, 1998). Students who have not learned these social skills are more likely to struggle academically. Fourth, setting up a social skills curriculum takes time and requires energy on the part of the educator. Fifth, it is important to note that the perfect curriculum does not exist. It is impossible to develop a curriculum that addresses the myriad of social skills deficits that exist. Lastly, the instructional skills required to teach academics are the same that may be utilized to help children learn social skills.

### *Goals and Objectives of Social Skills Training*

#### *Goals*

It is possible to achieve three important goals when one possesses and performs appropriate social skills (Walker, Schwarz, Nippold, Irvin, & Noell, 1994). Social skills permit an individual to instigate and develop affirmative social relations with others. Second, social skills assist an individual in successfully managing the behavioral requirements of certain settings. Third, social skills allow an individual to effectively communicate and assert one's needs, desires, and inclinations and they allow for a competent performance in a variety of educational, personal, societal, and occupational contexts.

#### *Objectives*

Social skills training is the process of directing and instructing in specific social skills that are essential in carrying out suitable interpersonal interactions and relations

(Malik & Furman, 1993). There are four objectives of social skills training: (a) encouraging the acquisition of prosocial skills; (b) improving the individual's performance of social skills; (c) eliminating problem behaviors; and (d) assisting in the generalization of the social behavior (Gresham and Elliott, 1993). It is important to note that an individual might have a combination of acquisition and performance deficits and/or some interfering problem behaviors. It is possible for an individual to have a combination of these. This knowledge is necessary when planning and implementing interventions so that an appropriate strategy is used to match the social skills training with the type of deficit the child has. The selection of appropriate social skills intervention relies on whether the problem in social skills functioning is attributed to deficits in acquisition or performance of the desired behaviors (Elliott et al., 2002).

#### *Theoretical Approaches to Intervention*

Elliott et al. (2002) classified the range of procedures that may be used to treat social skills deficits in preschool children. These include operant conditioning, social learning, and cognitive-behavioral procedures. With regard to the most effective intervention, research has shown that all three types of interventions have the potential to be very effective. Results of different studies suggest that operant and social learning interventions have been the most effective procedures for preschool students. The following interventions were selected for review because of their empirical support in the literature.

### *Operant Interventions*

Operant methods focus on overt, distinct behaviors and the antecedent and consequent events that surround the behavior. Reinforcement and/or punishment is provided based on the display of desired targeted behaviors and used to manage the behaviors, along with the manipulation of antecedents and consequences. Operant procedures presuppose that a child has acquired certain skill(s) but does not perform them at preferred levels (Jones et al., 1993). Unresponsive social environments often cause young children's social interactions to fail. Teachers manipulate antecedent conditions when they cue and/or prompt students to engage in positive social interactions in a constructive environment (Elliott et al., 2002). Two antecedent approaches that are often used are cooperative learning and peer social initiation.

Goodwin (1999) defined cooperative learning as a small, diverse group of children working together to achieve a task. A collaborative relationship should be encouraged and children should have the opportunity to learn and demonstrate prosocial behaviors. Learning a skill is accomplished best in a situation that seems natural to the learner. A cooperative learning setting would be the most natural way to practice and reinforce necessary social skills (Johnson, Johnson, & Holubec, 1988).

Peer social initiation is a method in which trained peers reinforce the target child for presenting appropriate social skills and initiate and maintain social relationships with the child. Elliott et al. (2002) noted that this approach has the potential to be useful as long as the target child's rate of interaction is above zero.

Consequent strategies that may be employed include reinforcement strategies and behavioral contracts (Gresham & Elliott, 1993). Reinforcement strategies are contingent on whether a child demonstrates a given social behavior and may include the use of a point system, attention, or praise. Behavioral contracts are agreements written by the student and a mentor that document the connection between a certain behavior and the consequences of that action.

Elliott et al. (2002) also described another procedure used to modify and eliminate difficult, interfering behaviors that block the acquisition or performance of a social skill. Differential reinforcement is a technique in which a certain behavior is reinforced during the occurrence of a certain stimulus (e.g., saying please and thank you), but is not reinforced when another stimulus is presented (e.g., swearing). This method attempts to rid the target child of detrimental behaviors and increase positive behaviors.

Gresham and Elliott (1993) discussed the use of positive practice. The authors described this technique as the “component of overcorrection” (p. 149). This is the strategy of having a student repeatedly practice a suitable behavior that is unable to coexist with an improper behavior. An example is having a student who teases another child be encouraged and told to constantly give praise and be nice to the teased child.

Another strategy is response cost. In order to decrease the occurrence of a certain behavior, a positive reinforcer is taken away. Response cost may involve penalties or fines. An advantage of response cost is that it is easy to apply and maintain in group settings (Gresham & Elliott, 1993).

Group contingencies entail the delivery of consequences for group behavior. Besides being time-efficient and requiring little effort on the part of the teacher because students manage their own behavior, this technique can be applied in different ways. Reinforcement can be given based on the behavior of the individual independent from others' behavior (independent group contingency); based on the group behavior (interdependent group contingency); or a dependent group contingency, in which reinforcement is applied based on the behavior of certain children (Jones et al., 1993). Group contingencies have been successful for social skills training, are used frequently, and are similar to cooperative learning techniques (Elliott et al., 2002; Gresham & Elliott, 1993).

### *Social Learning Interventions*

Social learning procedures are based on Bandura's (1977) social learning theory, which states that behavior is a result of observation and reinforcement (Elliott et al., 2002). This procedure encourages the use of modeling as a method to learn socially correct behaviors. Modeling, or observational learning, is a visual method of learning a behavior in which an individual watches another person perform that desired skill (Gresham & Elliott, 1993; Michelson et al., 1983). Bandura (1977) stated that this approach is one of the most effective ways to instruct social behavior and has empirical support as an intervention that promotes social skills development both for children and adolescents.

Interventions using modeling techniques involve the training of desired social behaviors through videotaped, filmed, or live displays of the skills to be obtained. Two

modeling approaches may be utilized by practitioners: (a) live modeling, in which the target individual observes appropriate social skills being modeled by other individuals; and (b) participant modeling, in which the target student is expected to model certain social skills (Elliott, Sheridan, & Gresham, 1989).

Peer mediated interventions have also been powerful reinforcers for positive student behavior and are based on the notion that children with social skills deficiencies may be positively affected when their peers reinforce appropriate social skills. Research has suggested that using peers as mediators may influence the rate of positive social behaviors (Mathur & Rutherford, 1991, as cited in Elliott et al., 2002). Peer mediation may be more effective than teacher mediation because peers have more opportunities to observe the targeted child more consistently and apply necessary reinforcements (Elliott et al., 2002).

### *Cognitive-Behavioral Interventions*

Cognitive-behavioral procedures concentrate on the child's internal control of her behavior. The child's ability to solve problems and to regulate her own behavior are hallmarks of this approach. Cognitive-behavioral interventions focus on the cognitive processes that have been related to social problem solving and social competence. For young children, two commonly used cognitive-behavioral interventions are coaching and problem solving (Elliott, Sheridan, & Gresham, 1989).

Coaching is the transmission of verbal instruction from one individual to the other and involves three necessary steps: (a) presenting the social skill; (b) providing occasions to practice the skill; and (c) giving appropriate feedback (Gresham, 2002). The

coach should provide the child with understandable strategies and allow opportunities for practice and feedback (Gresham & Elliott, 1993; Michelson et al., 1983). Coaching procedures involve direct verbal training and discussion of the desired social responses. First, the coach should provide the student with specific regulations or steps for the behavior. Next, rehearsal takes place involving both the student and coach and then the coach provides feedback. Often, coaching is paired with other types of interventions (e.g., modeling, operant procedures) to increase its effectiveness (Elliott, Sheridan, & Gresham, 1989). Coaching has received increasing research support as a social skills training method (Elliott et al., 2002; Mize, 1995).

Social problem solving interventions have been devised that emphasize helping children learn to identify and cope with social or interpersonal difficulties in their environments (Elliott et al., 2002). The steps in social problem solving are to (a) recognize and describe the problem; (b) establish different ways to react to the problem; (c) forecast consequences for each type of reaction; and (d) choose the best alternative. Social problem solving interventions may be used in the classroom setting or individual students. Elliott et al. (2002, p. 1049) added that social problem solving interventions may be too cognitively difficult for preschool students and recommended that more “skill-oriented, externally reinforcing procedures” should be used with this population.

### *Eclectic Approaches*

*Cognitive-social learning model.* Ladd and Mize (1983) proposed a cognitive-social learning model of social skills training. In this model, they described the essential components that form the basis of social skills training and intervention. First, several

different people in different types of settings should model the responses that are desired in a continuous fashion. Secondly, it is necessary that the students be given necessary instruction and opportunities to perform the desired response proficiently and instinctively. Lastly, it is imperative that the responses elicit satisfying, affirmative experiences in order for the desired behavior to persist and increase.

Ladd and Mize (1983) also discussed the core components of social competence. In order for preschool children to act in socially skilled and appropriate ways, they must (a) have knowledge or ideas of suitable social goals and objectives and have an approach for attaining those goals; (b) be capable of converting these cognitive ideas into skillful behavior; and (c) constantly monitor and interpret the effects of their behavior on their social situations.

Mize and Ladd (1990) identified specific behaviors that shape preschool children's social interaction based on a review of empirical literature. The skills that are used to initiate and maintain play with others include prosocial leading, asking questions, commenting, and offering support. These four behaviors are targeted by Mize and Ladd's cognitive-social learning model for social skills training. The researchers sought to create a skills-training curriculum for preschoolers adapting the cognitive-social learning model developed previously (1983) into training methods suitable for their age.

Mize (1995) stated that many interventions are based on a cognitive-social learning model but many of the methods that are available are not adaptable to preschool-aged children. Overall, the program's purpose and philosophy are comparable to other social skills coaching curricula. This model has been termed a social skills coaching

program. These types of programs instruct children in the behaviors associated with peer acceptance, by using methods such as discussion, rehearsal, and feedback from the instructor or “coach” (Mize, 1995).

The most significant modification made to fit the developmental needs of preschool students was that the instruction focused heavily on role playing and modeling rather than with a heavy reliance on verbal instruction (Mize & Ladd, 1990). Mize and Ladd’s model (1990) used puppets to present new social knowledge to the preschool children. The puppets modeled and described both inappropriate and appropriate behaviors and also showed their consequences. The environments for the training were sociodramatic and constructive play settings because research has shown that the degree to which preschool children successfully engage in pretend play forecasts their peer acceptance in the preschool environment (Mize, 1995).

The instructional procedures that were used to teach children new ideas about social skills were adopted from Ladd and Mize’s (1983) guidelines (Mize & Ladd, 1990). These included: (a) establishing an intent to learn the skill; (b) defining the concept or skill; (c) providing positive and negative exemplars of the skill; (d) encouraging the child to remember and rehearse the skill concept; and (e) assisting the child in brainstorming other situations in which the skill could be used.

Mize and Ladd (1990) studied the changes in behavior and peer acceptance of low-status preschool students as a result of their cognitive-social learning model of social skills training. Children who were identified on the basis of sociometric criteria as lacking in social skills and had a low status among their peers were assigned to a skill-

training group (n=18) or a control group (n=15). The groups included only children who had low sociometric status and were low in their use of social skills. The skill-training was based on Ladd and Mize's cognitive-social learning model. The children in the skill training group were coached using four fundamental skills as proposed by Ladd and Mize (1983): leading peers, making remarks to peers, asking questions of peers, and supporting peers. The children participated in the intervention in pairs for eight 30-minute sessions. Social skills training and control sessions were conducted in a room near the students' classrooms. The control group was treated similarly, except that the focus of the sessions was spent instructing the pairs on how to play with the toys.

To assist in generalization, two children who did not meet the criteria for the skill training intervention were taken to the training room to play with the skill-training children for five minutes every day (Mize & Ladd, 1990). The children who were being trained were urged to apply the skills they had learned previously while playing with their peers. Also, between the sixth and eighth sessions the instructors coached each individual child in the natural classroom setting. The instructors worked closely with the child during these two 20-minute sessions and advised the child on ways to use the skills with peers. Instructors were careful to make the suggestions quietly so that the child's peers and teachers were not able to hear.

Results suggested that the trained preschoolers showed a considerable increase in their use of the trained skills, while the control group showed no change from pretest to posttest (Mize & Ladd, 1990). Sociometric measures did not show significant differences between pretest and posttest for either group. There were correlations found between the

preschool children using more of the trained skills in the classroom and an increase of children's knowledge of social approaches from pretest to posttest. The researchers did not find significant improvements in the children's peer acceptance immediately after training. However, after time passed, the skill-trained children did show a pattern of continued improvement through follow-up and sociometric measures while the control group did not.

*Skillstreaming.* McGinnis and Goldstein (1990) offered a psychoeducational, behavioral curriculum for social skills training for children ages 3 to 6, entitled *Skillstreaming in Early Childhood*. Forty specific social skills are taught and the skills are divided into beginning social skills, school related skills, friendship making skills, dealing with feelings, alternatives to aggression, and dealing with stress. There is a guiding strategy and specific techniques for the social skills training program. It consists of four components: (a) modeling; (b) role playing; (c) performance feedback; and (d) transfer training, or generalization. The Skillstreaming Program includes an adequate combination of social learning procedures and operant techniques.

Each of the 40 skills that are to be taught are first broken down into their basic parts (McGinnis & Goldstein, 1990). First, children are shown models of individuals performing the aspects of the behavior proficiently. Next, children practice the steps they have observed through role play and have the opportunity to obtain comments (e.g., praise, constructive criticism) from their peers and instructor regarding their demonstration. Finally, the program incorporates different procedures that increase the likelihood that the behaviors learned will generalize outside of the training setting.

To accomplish the four components, instructors lead a group of students through eight different steps (McGinnis & Goldstein, 1990). These steps include: (a) enhancing motivation; (b) identifying situations in which the skill is needed; (c) presenting the behavioral steps for the skill; (d) modeling the skill; (e) guiding the role play; (f) giving performance feedback; (g) transfer training; and (h) maintenance.

When children feel a need to learn a certain social skill, they will be more motivated to learn it (McGinnis & Goldstein, 1990). It is important that instructors choose skills that are relevant to the children being taught in order to increase motivation. Instructors may gain this information by talking to the children or reviewing the child's responses on the Child Skill Checklist, which is included in the curriculum workbook. Once a list of skills is gathered from the group to be taught, one skill is chosen for instruction at a time. Also, in order to increase motivation it is necessary that the children flourish in the early stages.

After a skill is chosen, instructors ask the children about certain situations in which the skill could be applied (McGinnis & Goldstein, 1990). This enables the students to reflect on situations that are difficult and to recognize when and where the skill can be used. Identifying situations also helps the child in later modeling and role playing.

The behavioral steps that correspond to the chosen skill are then presented to the students (McGinnis & Goldstein, 1990). It is important that the steps are placed where everyone can see them. The steps are useful during instruction and may be posted so that

the children can refer to them when faced with different social situations during the school day.

Step four is to model the skill (McGinnis & Goldstein, 1990). The instructor(s) should model the skill in a clear and explicit fashion. Usually, the modeling will consist of live scenes delivered by the teacher and another adult. If an adult is not available, a trained student could be the model as long as the teacher is the main person responsible for delivering the steps. Organization of the skill and proper preparation is necessary during this stage. Relevant situations should be depicted and two examples of the skill should be modeled for the students. Other guidelines include assigning observers, using a coping model, using verbal mediation, and depicting positive outcomes.

When guiding the role play, there should be an attempt to connect the skill to the children's life circumstances outside of the training setting (McGinnis & Goldstein, 1990). This may be achieved through group discussion format. The main purpose of the role play is for the actors to perform the steps that have been modeled and discussed previously. Instructors should encourage the role play to focus on present and future events rather than connecting the skill to past situations. Other procedures in the role play include: selecting the actors, setting the stage, and conducting the role play. During the role play, it is important that the instructor coaches the actors in following the behavioral steps. All members of the group should be given a chance to be the main actors at least one time.

Following each role play, a short performance feedback time should be allotted in which the actor is given feedback from the instructor and peers regarding the

performance of the steps and encouragement to perform the desired skill outside of the role play setting (McGinnis & Goldstein, 1990). This feedback aims to focus attention on the role play and assists in preventing boredom and negative behaviors. In all phases of feedback, the instructor and students should remain positive and the behavioral focus of Skillstreaming should be maintained. Feedback should center on overt behaviors. Every participant—whether role playing or observing—should be given the opportunity to be involved in the process of feedback.

Specific techniques need to be applied to assist in the transfer of desired social skills (McGinnis & Goldstein, 1990). Although studies have demonstrated that the combination of modeling, role playing, and feedback is an effective strategy for social skills training, the prosocial behaviors that have been learned may not generalize unless certain strategies are used to promote transfer training. One strategy that McGinnis and Goldstein (1990) suggested is a homework assignment, in which students who have role played a skill successfully are asked to exhibit the behaviors in an actual situation. During the beginning of each Skillstreaming session, a block of time should be devoted to children sharing their homework assignments.

Maintenance assignments may be used to promote the use of previously learned skills (McGinnis & Goldstein, 1990). Individual and group techniques may be used to promote the effectiveness of the Skillstreaming training. These techniques that may be used include: self-monitoring, a group reward plan, skill tickets, skill notes, awards, and skill folders. These resources are included in the training manual. The program also

provides a separate Program Forms Booklet that provides record-keeping forms, skill checklists, award certificates, skill step handouts, and other materials.

*Stop & Think.* The *Stop & Think* social skills program uses a behavioral/social learning method and offers a level of training for preschool children (Knoff, 2001). Ten primary and ten advanced social skills are taught at this level and the curriculum focuses on four main skill areas: (a) survival skills (e.g., listening, following directions); (b) interpersonal skills (e.g., asking for help, waiting your turn); (c) problem-solving skills (e.g., apologizing, accepting consequences); and (d) conflict-resolution skills (e.g., dealing with losing, dealing with anger). A “five step language” is used to teach, reinforce, and use any social skill. The five steps are: (a) Stop and Think! (b) Are you going to make a Good Choice or a Bad Choice? (c) What are your Choices or Steps? (d) Just Do It! and (e) Good Job!

The Stop and Think! step is intended to condition children to take time to compose themselves and reflect on how they want to manage the situation (Knoff, 2001). The Good Choice or Bad Choice? step offers children an opportunity to decide on the kind of choice they would like to make. During this step, teachers usually inform the students of the positive or negative outcomes that will likely result from their decision. The What are your Choices or Steps? component prompts students to develop a definite plan or understand different “good choice possibilities” that facilitate their success. Knoff (2001, p. 5) noted that in order for some social skills to be applied successfully, a very specific sequence of steps (i.e., “Step Skills”) are essential for children to learn.

Other social skills have an assortment of good choice possibilities that assist students in their success (i.e., “Choice Skills”).

The Just Do It! step transpires when students use their plan to execute a particular social skill and then assess whether or not it was implemented effectively (Knoff, 2001). It may be necessary for teachers to repeat the skill steps for the preschool children as they follow them. If this step is implemented successfully, students go on to the last step. If a Choice Skill does not work, a teacher should encourage the student to select another good choice option. If a Step Skill is not being implemented successfully, students should review and practice the skill steps. Eventually, students repeat the Stop & Think steps to themselves and perform the skills more independently and routinely.

The Good Job! step encourages children to reinforce themselves for using a social skill and responding to situations effectively (Knoff, 2001). This step is necessary because children need to learn to acknowledge their good choices that have helped them to be successful.

The Stop & Think Program follows five components: (a) teaching the steps of the preferred social skill; (b) modeling the steps and the social skills language; (c) role playing the steps and script with the students; (d) providing performance feedback; and (e) applying the skill (Knoff, 2001).

To teach the steps of the specific social skill, Knoff (2001) suggested that teachers use the “five step language” to tell the students how to perform the behavior. Then, when modeling the specific skill, instructors articulate the steps of a certain social skill while performing it in a simulated situation. After modeling, the students role play the specific

skill being taught while verbalizing the steps and performing the desired behavior. Role plays may be done in groups or in front of the class.

Teachers must offer performance feedback while the role plays take place (Knoff, 2001). When students correctly express the social skills steps, exhibit the appropriate social skill, and reflect on their performance, they have the opportunity to receive positive reinforcement. Feedback also transpires when a student does not perform a role play correctly and/or misses a step of a desired skill. This constructive criticism ensures that students only role play the accurate steps of a certain behavior. Finally, teachers must offer several opportunities for children to apply the skill and its steps in order for students to gain mastery and to encourage generalization to different settings and situations. Actual classroom situations may be used to apply the skill. Students need to use the skill that has been learned and taught as much as possible during the day to enhance generalization.

Stop & Think is a component of Project Achieve, an innovative school improvement program, and is an element of the project's "discipline, behavior management, and school safety component" (Knoff, 2001, p. 3). The curriculum package includes a teacher's manual, a Stop & Think book with copies of the teaching steps for each social skill taught, along with Stop & Think posters, cue cards, and stop signs. A Stop & Think training tape for parents is also available.

#### Fostering Generalization

Gresham and Elliott (1993) stated that it is imperative to integrate generalization at the beginning of the social skills program. Generalization is a critical aspect of social

skills intervention programs (DuPaul & Eckert, 1994; Sheridan & Walker, 1999; Stokes & Osnes, 1986). The fundamental goal of social skills training is to have the trained social behaviors occur in other settings and situations and to be maintained over time (Gresham & Elliott, 1993). Often children and teachers spend a sizeable amount of time learning social skills in a restrictive setting where children do show the use of the skills they have learned. However, children do not always generalize these skills to other settings and when interacting with other individuals (Zirpoli & Melloy, 1993). This may be due to the children not being allowed chances to perform newly learned skills in their natural environments. Social skills that are not displayed outside of the treatment setting or are not maintained over time are not useful for the individual (DuPaul & Eckert, 1994).

Most of the social skills interventions that have been used with preschool children have generated positive outcomes during training situations (Chandler, Lubeck, & Fowler, 1992). Unfortunately, generalization has been difficult to obtain in other settings with this age group. Current research lacks a set of best practices to promote generalization of social skills for preschool children.

Mize and Ladd (1990) reported that encouraging a preschooler to use a new skill beyond the training environment is a difficult undertaking, because young learners may suffer from context “welding” and be incapable of generalizing a skill beyond the setting in which it was learned. Children in preschool may need additional support and instructors may have to incorporate additional strategies in order to make connections between the training setting and other environments. The authors offered strategies to

encourage skill generalization in preschoolers. One strategy is to slowly remove the instructor's support and to encourage the learner to practice the skill in real-life settings. Other strategies include increasing the preschool child's self-efficacy and helping the child to self-evaluate the performance.

There have been numerous strategies that have been used to foster generalization of social skills. Stokes and Osnes (1986) highlighted the importance of teaching relevant behaviors and training diversely. Relevant behaviors need to be taught in order to have a behavior occur in an environment without special programming. However, since the relevance of a certain skill depends on the social environment, it is necessary to know what is appropriate in certain environments (Gresham & Elliott, 1993). Every behavior taught in social skills training should be socially valid in order to be relevant.

In order to train diversely, it is necessary to use sufficient stimulus exemplars and sufficient response exemplars (Gresham & Elliott, 1993; Stokes & Osnes, 1986). Using a range of training conditions, settings, and situations is a guideline in fostering generalization by training sufficient stimulus exemplars. In order to provide diverse stimulus exemplars, a child learning social skills should be given several opportunities to practice with others in settings different than the training setting (Gresham & Elliott, 1993; Zipoli & Melloy, 1993). The training of multiple responses is a method to program generalization across similar and different responses. In order to provide varied and sufficient response exemplars, it is necessary to teach the student several ways to react in the same social setting.

Another approach that may be useful in promoting generalization of social skills is the use of entrapment (Zirpoli & Melloy, 1993). In this strategy, children are taught social skills that would be automatically reinforced by others in naturally occurring environments. When children exhibit these skills and are reinforced, the behavior becomes “trapped” in their social repertoire and the probability that it will occur again increases. Zirpoli and Melloy (1993) stated that it is important that the child becomes competent in the skill before it is trapped, because if the skill is not perfected the chances for reinforcement decrease and the desired effect may not occur. The authors stated the importance of training for generalization because otherwise teachers and target children spend valuable time learning skills that will not be generalized or used in natural settings.

DuPaul and Eckert (1994) performed a study in which they reviewed seven empirical studies that assessed the maintenance and generalization of the effects of existing social skills training curricula. The authors arrived at three conclusions. First, a minimal amount of studies have been performed with commercially available social skills training programs that have either considered or programmed for generalization effects. Secondly, as the period between ending treatment and the follow-up assessment has been brief, it is necessary to perform longer-term follow-up assessment in order to evaluate the stability of treatment effects. Third, treatment effects were most prominent in the studies that used multiple strategies to promote generalization. The least successful strategy to achieve lasting generalization effects is to train the desired behaviors in a setting and merely hope for the skills to be transferred to other settings.

## Critique of Research

Researchers have suggested that peer relations are important during the preschool years (Gresham & Elliott, 1993; McGinnis & Goldstein, 1990; Mize & Ladd, 1990).

Young children may benefit from skill-based interventions and it is important to develop effective methods for this purpose (Mize & Ladd, 1990). However, most research, social skills interventions, and curricular programs that have been conducted and developed thus far have focused on elementary or adolescent children. Because of this, most social skills intervention programs and assessment tools for preschool children are adapted from procedures that have been used with older children and adolescents. Oftentimes, these programs require cognitive and language skills that are beyond the capabilities of preschool students. Therefore, it is unlikely that procedures used for elementary students will be effective with preschool students. Research needs to be conducted and interventions need to be developed that are specifically geared toward preschool children and their developmental levels.

There are weaknesses in the research that specifically addresses generalization of social skills with preschool students. Current research lacks controlled studies in which subject and training variables are held constant while generalization methods are manipulated. The effects of generalization to settings other than the training environment needs further investigation. Empirical research is also needed to identify effective practices to encourage generalization of preschool children's social behavior and to establish if these techniques are adaptable to different children, environments, target behaviors, and behavior change tactics (Chandler et al., 1992).

## CHAPTER 3

### SUMMARY/CONCLUSION

#### Summary of Findings

Children who lack appropriate social skills face a number of negative outcomes. Therefore, interventions focused on strengthening children's peer relations are important to their positive growth and development (Erwin, 1994; Gresham et al., 2001; Michelson et al., 1983). Although most social skill interventions have focused on elementary school children, there are several advantages to teaching social skills at the preschool level.

Numerous definitions have been offered for the term social skills. There are several reasons for the lack of a common definition. The most "heuristic" definition is Gresham's (1986) social validity definition, which defines social skills as behaviors that predict important social outcomes for children and youth. This definition makes the critical distinction between social skills and social competence.

Researchers have attempted to develop common dimensions of social skills for preschoolers. However, it is difficult to determine a set of social skills that are appropriate for preschool students to possess. The review also explored how social skill deficits have been classified. The four types of social skill difficulties are skill deficits, performance deficits, self-control skill deficits, self-control performance deficits, and fluency deficits (Gresham, 1986; Gresham, 2002).

Assessment is an important process to create effective interventions for children. Assessment methods should be valid, reliable, and practical (Elliott, Sheridan, & Gresham, 1989). Various methods have been offered to assess social skills. These

include projective-expressive techniques, self-report instruments, interviews, sociometric techniques, observations, and behavior rating scales (Merrell, 2001). Observations and behavior rating scales have been identified as the most effective methods to assess children's social skills. Two social skills rating scales for preschool children include the Social Skills Rating System (Gresham & Elliott, 1990) and the Preschool and Kindergarten Behavior Scales (Merrell, 1994).

There are four main theoretical approaches to intervention. These include operant, social learning, and cognitive-behavioral interventions. Eclectic interventions, which combine different approaches in intervention, are also highlighted in the research literature. These include curricular programs such as Ladd and Mize's (1983; 1990) cognitive-social learning model, McGinnis and Goldstein's (1990) *Skillstreaming in Early Childhood*, and Knoff's (2001) *Stop & Think* social skills program.

Generalization is a crucial feature of social skills intervention programs (DuPaul & Eckert, 1994; Sheridan & Walker, 1999; Stokes & Osnes, 1986). Encouraging a preschooler to generalize social skills outside of the training setting is particularly difficult (Mize & Ladd, 1990). Numerous strategies have been offered to increase generalization. These include encouraging the child to practice the skill in real-life settings to increase the child's self-efficacy. Other strategies that have been suggested are to train diversely and teach relevant behaviors (Stokes & Osnes, 1986). Entrapment is another strategy that may be useful. It is imperative that instructors do not merely train the child in appropriate behaviors and expect that they will generalize. Strategies focused on generalization need to be implemented.

### Remaining Research Questions

There are numerous research questions that still are unanswered regarding preschool social skills training. Currently, there is a lack of a developmental approach to children's social skills. Specifically, what social skills are appropriate for certain ages? How do males and females differ in their social skills at certain ages and how are social skills affected as children mature and develop? Is the developmental timing of social skills training crucial? What cultural issues and environmental influences arise during social skills training? What type of setting for social skills training with preschool children is most effective—school-based, small classes, or individual training? Is collaboration between teachers and other educators (e.g., school psychologists) an effective way to teach children social skills in the classroom? How can educators involve parents more fully in the social skills training process? What are best practices in the generalization of social skills for preschool children?

Finally, one last research question remains. This question addresses current educators and their opinions on the importance of social skills training with preschool children. Do educators perceive social skills training as effective? Why or why not? What strategies are they currently using to promote social skills? Are educators willing to take on the responsibilities to effectively teach social skills to preschool children?

### Implications for School Psychologists

This review of the literature has documented several negative outcomes that children who lack appropriate social skills face. Research has suggested that social skills are critical to children's social, emotional, and academic growth and development. It is

necessary that school psychologists have knowledge and expertise in the identification, assessment, intervention, and evaluation of treatment outcomes for children with social skills deficits and use this knowledge to educate and collaborate with teachers and parents through training sessions, presentations, inservices, newsletters, and articles. Clearly, recognizing and implementing effective interventions to teach children social skills may be one of the most important tasks of a school psychologist because of the significant impact social skills have on children's lives.

## REFERENCES

- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Caldarella, P., & Merrell, K. W. (1997). Common dimensions of social skills of children and adolescents: A taxonomy of positive behaviors. *School Psychology Review*, 26(2), 264-278.
- Chandler, L. K., Lubeck, R. C., & Fowler, S. A. (1992). Generalization and maintenance of preschool children's social skills: A critical review and analysis. *Journal of Applied Behavior Analysis*, 25(2), 415-428.
- Choi, H. S., & Heckenlaible-Gotto, M. J. (1998). Classroom-based social skills training: Impact on peer acceptance of first-grade students. *Journal of Educational Research*, 91(4), 209-215.
- Cox, R. D., & Schopler, E. (1991). Social skills training for children. In M. Lewis (Ed.), *Child and adolescent psychiatry: A comprehensive textbook* (pp. 903-909). Baltimore: Williams and Wilkins.
- Demaray, M. K., Ruffalo, S. L., Carlson, J., Busse, R. T., Olson, A. E., McManus, S. M., et al. (1995). Social skills assessment: A comparative evaluation of six published rating scales. *School Psychology Review*, 24(4), 648-671.
- DuPaul, G. J., & Eckert, T. L. (1994). The effects of social skills curricula: Now you see them, now you don't. *School Psychology Quarterly*, 9(2), 113-132.
- Elliott, S. N., & Gresham, F. M. (1993). Social skills interventions for children. *Behavior Modification*, 17(3), 287-312.
- Elliott, S. N., Barnard, J., Gresham, F. M. (1989). Preschoolers' social behavior: Teachers' and parents' assessments. *Journal of Psychoeducational Assessment*, 7, 223-234.
- Elliott, S. N., McKeivitt, B. C., & DiPerna, J. C. (2002). Best practices in preschool social skills training. In A. Thomas and J. Grimes (Eds.), *Best practices in school psychology-IV* (pp. 1041-1056). Bethesda, MD: NASP.
- Elliott, S. N., Sheridan, S. M., & Gresham, F. M. (1989). Assessing and treating social skills deficits: A case for the scientist-practitioner. *Journal of School Psychology*, 27, 197-222.
- Erwin, P. G. (1994). Effectiveness of social skills training with children: A meta-analytic study. *Counseling Psychology Quarterly*, 7(3), 305-310.

- Evans, S. W., Axelrod, J. L., & Sapia, J. L. (2000). Effective school-based mental-health interventions: Advancing the social skills training paradigm. *Journal of School Health, 70*(5), 191-194. Retrieved October 31, 2002, from Infotrac database.
- Fantuzzo, J., Manz, P. H., & McDermott, P. (1998). Preschool version of the social skills rating system: An empirical analysis of its use with low-income children. *Journal of School Psychology, 36*(2), 199-214.
- Goodwin, M. (1999). Cooperative learning skills: What skills to teach and how to teach them. *Intervention in School and Clinic, 35*(1), 29-33.
- Gresham, F. M. (1986). Conceptual issues in the assessment of social competence in children. In P. Strain, M. Guralnick, & H. Walker (Eds.), *Children's social behavior: Development, assessment, and modification* (pp. 143-173). Orlando, FL: Academic.
- Gresham, F. M. (1988). Social skills: Conceptual and applied aspects of assessment, training, and social validation. In J. Witt, S. Elliott, & F. Gresham (Eds.), *Handbook of behavioral therapy in education* (pp. 523-546). New York: Plenum.
- Gresham, F. M. (1998). Social skills training with children: Social learning and applied behavioral analytic approaches. In T. Watson & F. Gresham (Eds.), *Handbook of child behavioral therapy* (pp. 475-497). New York: Plenum.
- Gresham, F. M. (2002). Best practices in social skills training. In A. Thomas and J. Grimes (Eds.), *Best practices in school psychology-IV* (pp. 1041-1056). Bethesda, MD: NASP.
- Gresham, F. M., & Elliott, S. N. (1990). *Social Skills Rating System*. Circle Pines, MN: American Guidance Service, Inc.
- Gresham, F. M., & Elliott, S. N. (1993). Social skills intervention guide: Systematic approaches to social skills training. *Special Services in the Schools, 8*(1), 137-158.
- Gresham, F. M., Sugai, G., & Horner, R. H. (2001). Interpreting outcomes of social skills training for students with high-incidence disabilities. *Exceptional Children, 67*(3), 331-344.
- Hops, H. & Greenwood, C. R. (1988). Social skills deficits. In E. Mash & L. Terdal (Eds.), *Behavioral assessment of childhood disorders* (pp. 263-314). New York: Guilford.
- Jentsch, C. E., & Merrell, K. W. (1996). An investigation of the construct validity of the

preschool and kindergarten behavior scales. *Diagnostique*, 21(2), 1-15.

Johnson, D. W., Johnson, R. T., & Holubec, E. J. (1988). *Cooperation in the classroom* (Rev. ed.). Edina, MN: Interaction.

Jones, R. N., Sheridan, S. M., & Binns, W. R. (1993). Schoolwide social skills training: Providing preventative services to students at-risk. *School Psychology Quarterly*, 8(1), 57-80.

Knoff, H. M. (2001). *Overview of the stop & think social skills process*. Retrieved May 20, 2002, from University of South Florida, Institute for School Reform, Integrated Services, and Child Mental Health and Educational Policy Web site: <http://www.coedu.usf.edu/projectachieve/TechnicalAssistancePapers/TechnicalAsstPapers.htm>

Kupersmidt, J., Coie, J., & Dodge, K. (1990). The role of peer relationships in the development of a disorder. In S. Asher & J. Coie (Eds.), *Peer rejection in childhood* (pp. 274-308). New York: Cambridge University.

Ladd, G. W., & Mize, J. (1983). A cognitive-social learning model of social skills training. *Psychological Review*, 90, 127-157.

Ladd, G. W., & Price, J. M. (1987). Predicting children's social and school adjustment following the transition from preschool to kindergarten. *Child Development*, 58, 1168-1189.

Luthar, S. S. (1991). Vulnerability and resilience: A study of high-risk adolescents. *Child Development*, 62, 600-616.

Malik, N. M., & Furman, W. (1993). Practitioner review: Problems in children's peer relations: What can the clinician do? *Journal of Child Psychology and Psychiatry*, 34(8), 1303-1326.

McFall, R. M. (1982). A review and reformulation of the concept of social skills. *Behavioral Assessment*, 4, 1-33.

McGinnis, E., & Goldstein, A. P. (1990). *Skillstreaming in early childhood*. Champaign, IL: Research.

Merrell, K. W. (1994). *Preschool and Kindergarten Behavioral Scales*. Austin, TX: Pro-Ed.

Merrell, K. W. (1999). *Behavioral, social, and emotional assessment of children and adolescents*. Mahwah, NJ: Erlbaum.

- Merrell, K. W. (2001). Assessment of children's social skills: Recent developments, best practices, and new directions. *Exceptionality, 9*(1&2), 3-18.
- Merrell, K. W., & Gimpel, G. A. (1998). *Social skills of children and adolescents: Conceptualization, assessment, treatment*. Mahwah, NJ: Erlbaum.
- Michelson, L., Sugai, D. P., Wood, R. P., & Kazdin, A. E. (1983). *Social skills assessment and training with children: An empirically based handbook*. New York: Plenum.
- Mize, J. (1995). Coaching preschool children in social skills: A cognitive-social learning curriculum. In G. Cartledge & J. Milburn (Eds.), *Teaching social skills to children and youth* (pp. 237-261). Boston: Allyn and Bacon.
- Mize, J., & Ladd, G. W. (1990). A cognitive-social learning approach to social skill training with low-status preschool children. *Developmental Psychology, 26*(3), 388-397.
- Ogilvy, C. M. (1994). Social skills training with children and adolescents: A review of the evidence on effectiveness. *Educational Psychology, 14*(1), 73-84.
- Parker, J., & Asher, S. (1987). Peer relations and later personal adjustment: Are low-accepted children at-risk? *Psychological Bulletin, 102*, 357-389.
- Schneider, B. H., & Byrne, B. M. (1985). Children's social skills training: A meta-analysis. In B. Schneider, K. Rubin, & J. Ledingham (Eds.), *Children's peer relations: Issues in assessment and intervention* (pp. 175-192). New York: Springer-Verlag.
- Sheridan, S. M., Hungelmann, A., & Maughan, D. P. (1999). A contextualized framework for social skills assessment, intervention, and generalization. *School Psychology Review, 28*(1), 84-103.
- Sheridan, S. M., & Walker, D. (1999). Social skills in context: Considerations for assessment, intervention, and generalization. In C. Reynolds & T. Gutkin (Eds.), *Handbook of school psychology* (pp. 686-708). New York: Wiley.
- Stokes, T. F., & Baer, D. M. (1977). An implicit technology of generalization. *Journal of Applied Behavior Analysis, 10*, 349-367.
- Stokes, T. F., & Osnes, P. G. (1986). Programming the generalization of children's

social behavior. In P. Strain, M. Guralnick, & H. Walker (Eds.), *Children's social behavior: Development, assessment, and modification* (pp. 407-443). Orlando, FL: Academic.

Sugai, G., & Lewis, T. J. (1998). Preferred and promising practices for social skills instruction. In E. Meyen, G. Vergason, & R. Whelan (Eds.), *Educating students with mild disabilities: Strategies and methods* (pp. 137-162). Denver, CO: Love.

Swetnam, L., Peterson, C. R., & Clark, H. B. (1983). Social skills development in young children: Preventive and therapeutic approaches. In C. LeCroy (Ed.), *Social skills training for children and youth* (pp. 5-27). New York: Haworth.

Walker, H. M., Schwarz, I. E., Nippold, M. A., Irvin, L. K., & Noell, J. W. (1994). Social skills in school-aged children and youth: Issues and best practices in assessment and intervention. *Topics in Language Disorders, 14*(3), 70-82.

Yarrow, M. R., Scott, P. M., & Waxler, C. Z. (1973). Learning concern for others. *Developmental Psychology, 8*, 240-260.

Zirpoli, T. J., & McHoy, K. J. (1993). *Behavior management: Applications for teachers and parents*. New York: Macmillan.