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The effects of social skills training to improve peer acceptance for students with disabilities

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THE EFFECTS OF SOCIAL SKILLS TRAINING TO IMPROVE PEER ACCEPTANCE FOR STUDENTS WITH DISABILITIES

by
Jennifer L. Knoll

A Thesis
Submitted in partial fulfillment of the requirements of the Masters of Arts Degree of The Graduate School at Rowan University 2002

Approved by ___________________________________________________________________________ Professor

Date Approved __________________________________________________________________________
ABSTRACT

Jennifer L. Knoll

The Effects of Social Skills Training to Improve Peer Acceptance for Students with Disabilities

2002

Dr. Joy F. Xin, Thesis Advisor

Master of Arts in Special Educational Services/Instruction

The current study examined the effects of social skills training and social integration in play activities to facilitate the social competence and peer acceptance of students with multiple disabilities mainstreamed for non-academic subjects. Ten, 3rd and 5th, grade students with disabilities and 60 non-disabled 3rd graders participated in this study. The target students spent more than 65% of their day in a self-contained classroom and were included for non-academic activities such as homeroom, lunch and recess, and related arts.

A multidimensional approach to social skills instruction was provided to students with disabilities in their self-contained classroom. The students with disabilities participated in structured group activities in their respective homerooms with non-disabled peers while their special education teacher directed all of the activities. A baseline condition and an intervention condition were utilized to evaluate the changes in
subjects over time. Pre and post peer rating scales were completed by all of the students. Baseline data were collected using direct observations for three days. The training was implemented on the social skills of sharing, playing, and initiating conversation through 30-minute sessions, followed by structured group activities for 20 minutes. Direct observations were conducted again to collect data of this intervention. Results indicated that although the social skills training increased the social competence of the students with disabilities as evidenced by an increase of the targeted skills, an analysis reported no significant increase in the peer ratings of students with disabilities. However, there was a significant difference between the acceptance of students with disabilities and their non-disabled peers.
MINI-ABSTRACT

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Chapter I

Introduction

Statement of the Problem

Social skills instruction has traditionally been considered as a responsibility of parents (Elksnin & Elksnin, 1998). Educators often expect students to arrive at school with appropriate social skills. However, recent studies indicate that social skills deficits in childhood are the single best predictor of personal adjustment difficulties in adolescence and adulthood (Choi & Heckenlaible-Gotto, 1998; Elksnin & Elksnin, 1998; Prater, Serna, & Nakamura, 1999). According to Goleman (1995), emotional intelligence is more important in predicting life success than IQ because skills such as understanding the feelings of others, regulating one's own emotions, and putting others at ease are essential for success. Social skills deficits contribute to unemployment and also increase the occurrence of violent acts in our society as a result of lacking self control (Elksnin & Elksnin, 1998; Hepler, 1994b). Consequently, increased attention has been given to the development of adequate social skills in children (Choi & Heckenlaible-Gotto, 1998). Although social skills instruction is important for all students, it is vital for students with learning and behavior problems (Elksnin & Elksnin, 1998). Helping children progress socially and emotionally is just as important as academic progress (Richardson, 2000).
Research indicates that students with disabilities often lack necessary social skills and experience difficulty with interpersonal relationships (Ciechalski & Schmidt, 1995). Seventy-five percent of students with learning disabilities manifest social skills deficits (Elksnin & Elksnin, 1998). Odom, McConnell, and McEnvoy (1999) find that participation in positive interactions with socially competent peers is a natural mode through which children acquire social skills. Students with disabilities have varied educational, social, and emotional needs (Ciechalski & Schmidt, 1995; Vaughn, Elbaum, & Schumm, 1998). To meet these needs, many of these students receive part or all of their daily instruction in special education classrooms (Ciechalski & Schmidt, 1995). Teachers and teacher assistants often utilize various technologies to adapt activities and provide assistance to meet their needs (Hobbs, Bruch, & Sanko, 2001). It has been observed that students in self-contained classes are friendly with most of the other students in their self-contained class. Although these students are eager to participate in activities with their typical peers, social skills deficits often make it difficult for them to participate in the mainstream. As a result, the students with disabilities form strong friendships with other students who are functioning within their skill level in an attempt to be accepted (Hepler, 1994b; Cook & Semmel, 1999; Hall & McGregor, 2000). Research shows that most students learn better in general education classes with support (Ciechalski & Schmidt, 1995) and need the opportunity to interact with non-disabled peers to learn and to practice social skills needed to be successful in school, in their communities, and in the workplace (Ciechalski & Schmidt, 1995; Vaughn & Elbaum, 1996).
Educators erroneously assume that combining students with disabilities and their typical peers together in mainstreamed classes will increase social skills as well as academic success (Ciechalski & Schmidt, 1995). Unfortunately, socialization and peer acceptance may not take place automatically. In order for students with disabilities to form positive relationships with peers and teachers, the school efforts must be carefully planned and structured (Ciechalski & Schmidt, 1995). Helping a child become accepted by peers requires changing the child’s behavior as well as increasing peers’ understanding of the behavior and responses to it (Choi & Heckenlaible-Gotto, 1998).

According to Odom, McConnell, and McEvoy (1999), there are three types of strategies to promote positive social interactions. These are environmental arrangement, child specific, and peer-mediated (Odom, McConnell, & McEvoy, 1999). Environmental arrangement is often referred to as structured play and involves the teacher selecting children with disabilities and their non-disabled peers to engage in a play activity. The teacher then introduces the activity and provides prompts as needed. Child specific strategies, also known as direct instruction, refer to interventions that focus specifically on the students with disabilities. Small group lessons are presented and social skills are practiced in small groups with prompts and praise from the teacher. Peer mediated interventions entail teaching socially competent peers the ways of engaging students with disabilities into positive interactions (Odom, McConnell, & McEvoy, 1999). Peer mediated interventions include activities such as cooperative learning, peer tutoring, and peer modeling (Utley, Mortweet, & Greenwood, 1997).

Although all of the strategies are effective, studies suggest that each component combined with others should form one very powerful intervention (Odom, McConnell, &
McEvoy, 1999). According to Odom, McConnell, and McEvoy (1999), teaching strategies to children with disabilities in small groups and providing prompts during structured play will establish a common context for students with and without disabilities. Surveys show that teachers are more likely to exclusively use a general classroom based intervention, such as environmental arrangement, than an individualized intervention, such as peer interaction or direct instruction (Brown, Odom, & Conroy, 2001). Teacher intervention in the form of direct instruction is essential for students with disabilities to engage in peer mediated interventions such as cooperative learning groups (Utley, Mortweet, & Greenwood, 1997; Prater & Bruhl, 1998). Direct instruction can be used in conjunction with peer modeling to prompt more peer interaction (Brown, Odom, & Conroy, 2001). Although children may acquire skills faster in peer groups, teacher directed instruction assists children in maintaining skills at a higher level (Prater, Serna, & Nakamura, 1999). In addition, it is recommended that social skills development be emphasized throughout the day even if it occurs at a specific time in an effort to minimize problems with generalization and transfer of skills (Odom and Peterson, 1990).

**Significance of the Study**

A large number of studies have been conducted on the efficacy of social skills training and have yielded positive results (Odom, McConnell, & McEvoy, 1999; Choi & Heckenlaible-Gotto, 1998; Haagar & Vaughn, 1995). Most of the existing research has been conducted in experimental or special education settings with a therapist delivering instruction in isolated conditions (Choi & Heckenlaible-Gotto, 1998). Tragically, students with disabilities have displayed poor generalization and transfer of social skills learned training (Ciechalski & Schmidt, 1995). Socially competent students can initiate
and maintain positive social interactions, develop friendships, establish collaborative networks, and cope effectively with their social environment (Rutherford, Mathur, & Quinn, 1998). In comparison, the lack of social skills displayed by students with disabilities is a strong predictor of low self esteem, peer rejection, social maladjustment, mental health problems, and delinquency (Rutherford, Mathur, & Quinn, 1998). A multi-dimensional approach to social skills instruction is necessary to address the social and emotional needs of students with disabilities who primarily receive academic instruction in a self-contained special education classroom. Although existing research examines the effectiveness of social skills training on students with disabilities, there is a dearth of information concerning the effectiveness of a combined approach that also utilizes structured play as an intervention for elementary school students. In addition to employing a combined approach to teaching social skills, the current study will incorporate direct behavioral observation in multiple settings in an effort to evaluate the implications of social skills training on the peer acceptance of students with disabilities.

The present investigation has been designed partly following the recommendations of Choi and Heckenlaible-Gotto (1998). In an effort to minimize problems with generalization, the social skills training program will be based in the general education classroom setting with the peer group. All students will benefit from a focus on prosocial behaviors. Although most of the students are only mainstreamed for non-academic areas, interactions with peers are essential. In order to prepare the students with disabilities for an inclusive setting, social skills training will be provided to give the students the cognitive and behavioral skills needed for successful peer interaction (Prater & Bruhl, 1998). In addition to teaching the students with multiple disabilities skills in an
isolated classroom for behavior changes, it is essential to increase their peers’ understanding in order to truly facilitate their acceptance into the mainstream, therefore structured play activities will be organized by the classroom teacher. In this study, it is hypothesized that the social acceptance of students with disabilities will be improved and social skills training in the curriculum will support the interpersonal growth of students with and without disabilities.

Statement of the Purpose

The purposes of this study are: (a) to evaluate the effects of social skills training as a tool for facilitating the peer acceptance of disabled students mainstreamed for non-academic subjects; (b) to examine the effects of including students with multiple disabilities in social integration play activities in the general education classroom; (c) to examine the effects of social skills training as a tool for increasing the social competence of multiply disabled students.

Research Questions

1. Do students with multiple disabilities improve game playing skills after receiving social skills training as compared with their performance prior to social skills instruction?

2. Do students with multiple disabilities improve sharing skills after receiving social skills training as compared with their performance prior to social skills instruction?

3. Do students with multiple disabilities improve spontaneous initiation of conversation with their non-disabled peers after receiving social skills training as compared with their performance prior to social skills instruction?
4. Does peer acceptance of students with disabilities by their non-disabled peers improve after social interaction play activities in the general education classroom as compared with peer acceptance ratings prior to integration activities?
Chapter 2

Literature Review

Students with disabilities often experience deficits in the social domain that effect their relationships with non-disabled peers. Although students have individual needs and abilities, the social functioning of students with disabilities as a group is summarized with attention directed at the implications for peer relationships. Three types of social skills interventions (environmental arrangement, peer-mediated, and child-specific) were proposed by Odom, McConnell, and McEvoy (1999) based on a review of research concerned with social skills. These interventions are summarized on their application to the classroom and effect on peer acceptance and social skill acquisition.

Social Skills of Students with Disabilities

Deficits in the social domain are important to identify because of their potential negative impact on social as well as academic achievement (Kavale & Forness, 1996). According to Sugai and Lewis (1996), social skills are the prerequisite skills for academic achievement, enabling students to benefit from teacher directed instruction, independent study, or cooperative learning. Without prerequisite social skills, students might experience academic and social failure (Sugai & Lewis, 1996). One explanation for the link between social skills and academic performance is that the behavioral repertoires that children bring to social interactions are likely to carry over into classroom learning experiences. Socially compliant and cooperative children are also likely to be cooperative and compliant in the classroom (Parke & Welsh, 1998).
Students with disabilities are at a much greater risk of developing deficits in social behavioral competence than average, nonhandicapped students (Merrell & Merz, 1992). Social competence is a broad term that encompasses the effective use of social skills, absence of maladaptive behaviors, accurate social cognition, and positive relations with others (Haagar & Vaughn, 1995). According to Kavale & Forness (1996), three types of social incompetence or deficits can be identified. These are skill deficits, performance deficits, and self-control deficits. A skill deficit refers to situations where the individual does not have the cognitive or social skills to interact properly. Performance deficits occur when the skill has been acquired but there is a failure to perform it so that social skills cannot be used properly. Self-control deficits refer to situations where the individual displays a significant number of aversive behaviors that interfere with the acquisition and performance of appropriate social skills (Kavale & Forness, 1996).

The notion that individuals with disabilities experience difficulties with social competence is a consistent finding across various age groups and settings (Haagar & Vaughn, 1995). While estimated 10% of all school age children have social skill difficulties significant enough to lead to peer rejection, studies indicate that up to 75% of students with disabilities experience social skills deficits (Sugai & Lewis, 1996). The perceptions of teachers, peers, and students with disabilities themselves have been measured to determine the nature of social skill deficits in students with disabilities (Kavale & Forness, 1996; Haagar & Vaughn, 1995). Teachers perceived the lack of academic competence and less frequent social interaction of disabled students to be most problematic (Kavale & Forness, 1996). Teachers often rate students with disabilities as
having poor interpersonal behavior and exhibiting maladaptive social behaviors in instructional settings (Merrell & Merz, 1992). These children typically exhibit more inappropriate and immature behaviors (Hepler, 1994a). In addition, teachers also differentiate between students with disabilities and their non-disabled peers along the behavior dimensions of hyperactivity, distractibility, and adjustment citing the lack of goal-directed and attending behaviors as important social difficulties (Kavale & Forness, 1996). According to Parke & Welsh (1998), attentional regulation may be a common link in both social and academic competence. Shorter attention spans and the corresponding off task behaviors are problem areas for students with disabilities (Hepler, 1994a). In social situations, children must be able to attend to social cues in order to interpret them and evaluate how to respond appropriately (Parke & Welsh, 1998). Children with poor attentional regulation to social information also display a poor ability to focus in other contexts, including the classroom (Parke & Welsh, 1998). As a result, students with disabilities complete few tasks, independent work, and assignments. Instead, a low level of performance occurs and deficits in following directions are demonstrated (Parke & Welsh, 1998).

Social interaction for students with disabilities is defined most strikingly by their peers through the dimension of rejection followed by limited acceptance (Kavale & Forness, 1996). A number of studies have shown that students with disabilities are likely to be rejected or ignored by their classmates (Tur-Kaspa & Bryan, 1995; Merrell & Merz, 1992). Eight out of 10 students with disabilities appear to be rejected by their peers (Kavale & Forness, 1996). Non-disabled peers perceive students with disabilities as interacting, playing, and empathizing at a lower level (Kavale & Forness, 1996). These
students are often less popular and lack acceptance based on perceptions that they are less competent in non-verbal and verbal communication and are not cooperative (Kavale & Forness, 1996). When students are observed in play situations, students with and without disabilities take part in initiating interactions with peers using verbal or nonverbal communication. Students with disabilities talk less frequently and often engage in the same activities as peers by sharing materials (Hall & McGregor, 2000). Popular children tend to play with high-status children and the rejected children interact with one another (Hepler, 1994b). As a group, students with disabilities have been found to have low social status (Hall & McGregor, 2000; Hepler, 1994a; Kavale & Forness, 1996). Low social status is maintained across time (Tur-Kaspa & Bryan, 1995). Once children obtain rejected status, it is difficult for them to develop positive peer relations because peers tend to exclude them even when they present appropriate social skills (Hepler, 1994a). Peer expectancies of the rejected children may be so ingrained that even substantial behavioral improvements may be unable to alter them (Milich & McAninch, 1992). Loneliness occurs when there is a discrepancy between desired and achieved social interactions (Vaughn & Elbaum, 1996). It is of interest to find that existing research evaluating peer relationships seldomly include observations of interactions. Observing peer interactions may reveal if a relationship reflects a common interest or if one child acts as a caregiver or helper of the other (Hall & McGregor, 2000).

Self assessments of students with disabilities indicate that 70% of students with disabilities rated themselves as possessing social skills deficits that distinguish them from their peers (Kavale & Forness, 1996). The self perceptions of students with disabilities were higher when they compared themselves with those in a special education classroom.
than when they compared themselves with general education peers (Haagar & Vaughn, 1995). Academic competence was the largest perceived difference noted on the self-assessments, closely followed by interpreting non-verbal communication (Kavale & Forness, 1996). Studies indicate that students with disabilities have greater difficulty interpreting social cues and nonverbal behavior of others (Hepler, 1994a). The Profile of Nonverbal Sensitivity (PONS) is the assessment most often used to assess the ability to interpret situations, messages, and feelings surrounding communication (Kavale & Forness, 1996). Students with disabilities are also deficient on measures of social problem solving in which a social conflict is presented (Kavale, Forness, 1996). Poor self-concept and lack of self esteem manifested by students with disabilities may be contributing to social skills deficits (Kavale & Forness, 1996).

Social status or frequency of selection by peers as a preferred or nonpreferred playmate is an indicator of students' relationships (Hall & McGrgeor, 2000). There has been increased attention focused on reciprocal friendships, peer acceptance, and social status of students with disabilities (Vaughn & Elbaum, 1996). Peer rating scales have been found to be the most valid and reliable index of peer acceptance (Vaughn, Elbaum, & Schumm, 1998). Peer ratings have been found to be a stronger predictor of children's social difficulties and adult adjustment than other variables including scholastic achievement, ability, and self esteem (Hepler, 1994b; Haagar & Vaughn, 1995). A reciprocal friendship exists when two students nominate each other as one of their three most liked classmates (Vaughn & Elbaum, 1996; Vaughn, Elbaum, & Schumm, 1998). One reciprocal friendship may protect against the negative outcomes associated with peer rejection (Vaughn & Elbaum, 1996). Group membership is based on the premise that
people care about what happens to each other. Determined by the group members, outsiders such as teachers can facilitate group membership (Schwartz, 2000). Small groups provide a safe environment where children can learn and practice new skills. Groups also encourage the development of positive interactions across gender and status (Hepler, 1994b). According to Schwartz (2000), there are four general patterns of relationships in inclusive classrooms, each defined by the role of a child with disabilities. These relationships are play/companionship, helpee, helper, and conflictual (Schwartz, 2000). In the play/companionship relationship, children interact while playing or participating in classroom activities. These interactions often occur during unstructured times in the classroom. In the helpee relationship, the child with disabilities receives help from a peer that can be task related or for general assistance. A helper relationship exists when the students with disabilities are the persons providing help. This can be facilitated when older students assist younger children or when peers assist their same age peers. The conflictual relationship arises when students experience conflict with a peer and must be supported in resolving their disagreement (Schwartz, 2000).

Peer acceptance is a primary result of schooling with important consequences for the quality of life of students with disabilities (Cook & Semmel, 1999). Participation in positive interactions with socially competent peers is a natural mode through which children acquire social skills (Odom, McConnell, & McEvoy, 1999). Children learn important social, physical, and cognitive skills in their interactions with peers and these relationships provide important peer support when children are in new or stressful situations (Hepler, 1994a). Positive peer interactions are also related to emotional security and positive involvement with the environment (Hepler, 1994b). Low
acceptance deprives children of opportunities to learn normal, adaptive modes of social conduct and social cognition (Cook & Semmel, 1999). Stable acceptance by peers protects children from early academic difficulties. In comparison, low levels of social acceptance as early as kindergarten are predictive of deficits in social skills, work habits, and lower academic performance (Parke & Welsh, 1998).

The low social functioning and low acceptance by peers of students with disabilities may be attributed to the pull-out model of special services. This model may cause their lack of membership in the classroom and low social status (Vaughn & Elbaum, 1996). Because students with disabilities leave the general education classroom for a part of each day, they tend to be less well known and are often perceived by peers as not belonging to the class (Haagar & Vaughn, 1995). These students tend to be less involved in classroom activities and are less engaged in classroom learning (Haagar & Vaughn, 1995). Research identifies negative effects of education segregation including stigma, stereotyping, discrimination, and alienation (Vaughn & Elbaum, 1996). Vaughn and Elbaum (1996) define social alienation as the extent to which children feel that they are a part of the school community or have positive affiliations with people in the school community. The rationale for inclusion is to increase the peer acceptance and social functioning of students with disabilities (Vaughn & Elbaum, 1996). The potential benefits of inclusion are opportunities for students with disabilities to interact with their non-disabled peers and the development of friendships (Hall & McGregor, 2000). Hall & McGregor (2000) note that while developing friendships is a priority for students with disabilities, it may be more difficult for older children with disabilities to develop and maintain typical friendships with non-disabled peers than for younger disabled children.
Students with disabilities also tend to interact more with adults than their typical peers (Hall & McGregor, 2000). The results of studies provide convincing evidence that mainstreaming itself has not improved the social relations and interactions of disabled children (Hepler, 1994a). The social competence of students with disabilities does not seem to be higher in inclusive than in non-inclusive settings (Vaughn, Elbaum, & Schumm, 1998). While mainstreaming students with mild disabilities was believed to improve their low peer acceptance, inclusion of students with severe disabilities was not believed to increase peer acceptance due to the extreme differences between themselves and non-disabled peers (Cook & Semmel, 1999). According to Cook & Semmel (1999), attraction and peer acceptance is based on recognition of similarity. Research consistently reports that students with mild disabilities are not well accepted when included in the general education classroom; These students often lack obvious indications of a disability and peers hold them to unattainable and undifferentiated expectations (Cook & Semmel, 1999). As a result, when students with mild disabilities exhibit atypical behavior it often leads to peer rejection (Cook & Semmel, 1999). Non-disabled peers are often less accepting and direct negative behaviors towards children with disabilities (Hepler, 1994a). Children with disabilities experience problems in their social interactions with peers including rejection, ridicule, and isolation (Hepler, 1994a). Children with severe disabilities are often more accepted in the classroom by their peers although the primary interaction observed resembles parenting of the students with severe disabilities. Non-disabled peers tend to become over-protective or too helpful, often treating the disabled students as babies (Cook & Semmel, 1999).
Social skills instruction is important for all students but it is a necessity for students with disabilities. It should have equal emphasis with academic instruction in class (Anderson, 2000; Elksnin & Elksnin, 1998). Social skills instruction is defined as “direct and planned instruction designed to teach specific social behavior that, when displayed by the student, results in positive judgments of social competence from peers and adults” (Sugai & Lewis, 1996, 17). According to Anderson (2000), only 37% of students with disabilities identified to need social skills intervention have goals reflecting this need in their Individualized Education Program (IEP). Often social skills instruction is handled in an incidental manner rather than through an organized instructional plan that would be evaluated in the same manner as academic skills (Anderson, 2000).

According to Sugai and Lewis (1996), social skills are behaviors, which in a given situation, predict important social outcomes such as positive peer relations/interactions and favorable adult judgment about the skill. Behavior management problems are in fact social skills problems and should be conceptualized as learning errors (Sugai & Lewis, 1996). Thus, social skills instruction should be carefully planned, implemented, and scaffolded into the curriculum to present a greater opportunity for learning than incidental social skills teaching (Anderson, 2000; Sugai & Lewis, 1996).

Although there are many instructionally sound and complete social skills curricula, an ideal curriculum does not exist (Sugai & Lewis, 1996). Teachers are required to modify or expand the published curricula to meet the individual needs and situation-specific needs of their students (Sugai & Lewis, 1996). Sugai and Lewis (1996) identify the basic instructional skills that teachers need to teach social skills. These are
designing instruction, presenting instruction, arranging opportunities for students to practice, assessing and evaluating student performance, and providing feedback (Sugai & Lewis, 1996). Although the content of instruction varies, the instructional techniques parallel academic instruction (Sugai & Lewis, 1996). Teachers and other personnel should be adequately trained in social skills instruction in order to present a collaborative effort (Anderson, 2000). Teachers should lead the students through the social process in the same way as academic facts, engaging students in overt behavior including verbalizations and written products (Sugai & Lewis, 1996). Planned social skills instruction includes sequences of instruction that are prepared to lead the student systematically toward planned, specific instructional goals (Sugai & Lewis, 1996).

Three types of intervention strategies designed to promote positive social interactions and the acquisition of social skills were proposed by Odom, McConnell, and McEvoy (1999) based on a review of research. These are environmental arrangement, peer mediated, and child specific (Odom, McConnell, & McEvoy, 1999).

*Environmental Arrangement (structured play)*

Environmental arrangement is based on the premise that children naturally acquire social skills through positive interactions with their socially competent peers (Odom, McConnell, & McEvoy, 1999). Children with disabilities are grouped with typically developing children in play groups that are designed to promote positive interactions (Odom, McConnell, & McEvoy, 1999). Environmental arrangement is also referred to as structured play, social integration play activities, or PALS (Play, Arrange, Limit materials, Structure activity groups) groups (Odom, et. al, 1999). Social integration activities provide a systematic context for teachers and peers to support children with
social skills deficits (Brown, Odom, & Conroy, 2001). Engaging in positive peer relationships is not a simple task and requires the knowledge and application of numerous skills that become more complex as children grow older (Hepler, 1994a). Social interactions with peers are more co-equal and require skills different from those needed to interact with adults (McConnell & Odom, 1999). Play is one of the major arenas where children can learn the skills to engage in positive relationships (Hepler, 1994a). Play comes naturally for most children and does not have to be taught (Zanandra, 1998). Hepler (1994a) describes play as “an intricate set of activities” that has the opportunity to become a high adventure. It is important to recognize that although these interactions sound exciting and fun, play interactions are actually very serious preparation for social interactions as adolescents and adults (Helper, 1994a).

Environmental arrangement is an individualized peer interaction intervention (Brown, Odom, & Conroy, 2001). The teacher’s responsibilities in social integration are planning, arranging, introducing, and monitoring (Brown, Odom, & Conroy, 2001). According to Brown, Odom, and Conroy (2001), there are four essential components to social integration. The teacher must select children with disabilities and socially competent, responsive peers to engage in a play activity (Odom, McConnell, & McEvoy, 1999). The teacher must include 1-2 students with disabilities and at least 2-3 socially competent peers in each group in order for the activity to be successful and differ from free play time. In addition, the students should be taught to regard social integration activities as part of their daily routine. The activity should be implemented in a defined play area for a brief period of time ranging from five to fifteen minutes. Although it is essential that the space be limited so that students are in close proximity to one another,
the play area can change from day to day with the activity. The teacher must select activities that provide multiple opportunities for positive play experiences and peer interaction (Brown, Odom, & Conroy, 2001). The degree of structure and the nature of the activity significantly affect children’s interactions with peers (Odom, McConnell, & McEvoy, 1999). For the purpose of social integration, the teacher should consider functional activities, constructive activities, sociodramatic play, and games with rules. All of these activities will promote sharing, talking, assisting, and playing. After selecting the activities, the teacher must then introduce play themes and systematically encourage the students with disabilities and their peers to interact socially with prompts and scaffolding. The teacher must withdraw from the activity after introducing and organizing it. His or her new role is to monitor and support the interactions of the students to limit support. The support is only provided by suggesting ideas, commenting on play, assigning roles, or giving a direct prompt when needed (Brown, Odom, & Conroy, 2001; Odom, McConnell, & McEvoy, 1999).

Research findings suggest that teachers should provide part or all of social interventions in a play context or activity (Odom & Peterson, 1990). In a study with preschool children, Odom and Peterson (1990) found that peer verbal interaction in the form of talking occurs most frequently in play situations, but significantly lower during snack time, fine motor activities, and transitions (Odom & Peterson, 1990). Similarly, Zanandra (1998) reported on effective structured play activities with musical hoops, a crab walk relay, and twin races.

Diamond (2001) reviews some of the research conducted on the efficacy of structured play intervention. In a study conducted with two groups of kindergarteners
with children with disabilities enrolled in a special education class but participated in non-academic activities such as lunch and recess. One group of children participated in a program including story time and discussion on children with disabilities, 15 minutes of structured play with children with disabilities, and home reading. This high-contact group had significantly more positive attitudes at the end of the intervention than that of the beginning (Diamond, 2001). A structured play intervention was also implemented during computer activities (Hobbs, Bruch, & Sanko, 2001). In the study, children were seated in groups of 2 to 3, including at least one child with a disability and one without, with an adult in each group. When compared to inclusive play during unstructured activities, it was found that structured play increased the percentage of computer play to 90% (Hobbs, Bruch, & Sanko, 2001). Although the results of this study support the use of structured play interventions, they must be interpreted with caution. By definition, structured play involves limited adult support. In this study, it is difficult to attribute progress to student interactions or adult facilitation.

In summary, data suggests that regular, planned contact between students with disabilities and their non-disabled peers, along with teacher directed activities to promote acceptance, promote the development of positive peer attitudes towards students with disabilities (Diamond, 2001). Brown, Odom, and Conroy (2001) identify three social benefits of the social integration approach. Children with disabilities are able to observe the socially competent play of peers. They participate directly in social interaction with students who have excellent play skills and peer interaction skills. Also, students can establish a positive history of peer interactions (Brown, Odom, & Conroy, 2001).

Compared to peer mediated or teacher directed interventions, social integration activities
affect peer acceptance more positively. Social integration activities promote a positive change in the social status of children with disabilities (Brown, Odom, & Conroy, 2001). Researchers emphasized that the effectiveness of social integration depends on careful teacher planning of activities to enhance positive social integration among children (Brown, Odom, & Conroy, 2001).

Peer Mediated Approach

The peer mediated approach is a classroom based intervention based on the premise that peers are the best teachers of social competence skills for children with disabilities (Odom, et. al, 1999; Maheady, Harper, & Mallette, 2001). Socially competent peers are instructed on ways of engaging children with disabilities in positive and extended social interaction (Odom, et. al, 1999). Peer mediated approach is an affective intervention that attempts to change attitudes and perceptions about individuals with disabilities (Brown, Odom, & Conroy, 2001). The peer initiation strategies are taught in small groups led by the teacher and the teacher may provide prompts for the peers during activities with the children with disabilities (Odom, McConnell, & McEvoy, 1999). Peer teaching roles can be direct, such as tutoring, or indirect, such as modeling or encouraging students with disabilities (Maheady, Harper, & Mallette, 2001).

Peer mediated academic and social programs include class-wide or small group tutoring programs, cooperative learning groups, special class buddies, and play groups (Kamps, Kravits, & Lopez, 1998). Brown, Odom, & Conroy (2001) address that the least intrusive and most normal type of peer interaction intervention should be employed in the classroom. This will require few changes in the classroom routine and few additional resources (Brown, Odom, & Conroy, 2001). According to Brown, Odom, and Conroy
(2001), teachers can utilize incidental teaching to assess the social competence of children with disabilities related to their peers in order to determine the degree of intervention that will need to be implemented. During incidental teaching, the teacher or a student is used as a model and the child is prompted to elaborate on the social behavior. If the teacher determines that the students are not comprehending social situations taught incidentally, a more intensive intervention is warranted (Brown, Odom, & Conroy, 2001).

Peer modeling, peer initiation training, peer monitoring, peer networking, peer tutoring, and group oriented contingencies are the seven components of peer mediated instruction and intervention (Utley, Mortweet, & Greenwood, 1997; Maheady, Harper, & Mallette, 2001). Peer modeling includes a variety of instructional techniques that rely on the physical arrangement of an environment to include a child demonstrating appropriate behavior for a less skilled child to imitate. Some peer modeling interventions are peer-pairing and filmed peer modeling (Utley, Mortweet, & Greenwood, 1997). Peer initiation training requires a teacher to train peers to evoke and maintain a desired social or communicative response from the child with a disability (Odom, McConnell, & McEvoy, 1999; Utley, Mortweet, & Greenwood, 1997). Some of the common behaviors peers are taught to use to facilitate interactions are establishing eye contact, initiating conversation, and offering help. Although peer initiation training is considered a peer mediated instructional strategy, teacher involvement is often intensive (Utley, Mortweet, & Greenwood, 1997).

Peer monitoring procedures refer to token systems. Peers are trained to make point awards, prompt appropriate behavior, and provide corrective feedback. Peer monitoring is then gradually replaced by self-monitoring once children learn how to cope
with their social environment and are able to perform tasks independently. Self-management procedures such as self-recording, self-evaluation, self-reinforcement, self-instruction, and goal setting, will improve both the academic and social behavior of children with disabilities in classrooms (Utley, Mortweet, & Greenbank, 1997). Utley, Mortweet, and Greenbank (1997) indicate the efficacy of peer monitoring with various groups of students including kindergarten as well as fifth grade students. Advantages to peer monitoring include minimizing the disciplinary responsibilities of the teacher and placing students in leadership roles (Utley, Mortweet, & Greenbank, 1997). Cashwell, Skinner, and Smith (2001) examine peer monitoring interventions from a behaviorist perspective. Although punishment programs are usually developed and enforced by the teacher, students take part in implementing these programs through monitoring and reporting classmates’ antisocial behaviors, or tattling. Instead of focusing the students’ and educators’ attention on incidental inappropriate behaviors, the authors propose using peers to monitor and report classmates’ incidental prosocial behaviors. Social behaviors that are shaped, encouraged, or reinforced in natural settings will continue to be reinforced when they are displayed again in natural settings, therefore promoting generalization and maintenance of social skills (Cashwell, Skinner, & Smith, 2001).

Cashwell, Skinner, and Smith (2001) found that students in a second grade classroom were able to monitor and increase the prosocial behaviors of classmates through tallying behaviors on cards taped to their desks. Although the strategy appears effective, the reliability of the data is an area of concern since the rate of behaviors closely matches the reward contingency.
Peer networks are defined as groups of individuals who demonstrate an interest in understanding the individual with disabilities and having an impact on that person’s life (Utley, Mortweet, & Greenbank, 1997). The goal of the network is to promote a positive social environment by creating a support system of friends and socially competent peers. Peer tutoring is a strategy that uses peers as one on one teachers to provide individualized instruction, practice, repetition, and clarification of concepts (Utley, Mortweet, & Greenbank, 1997). Peer tutoring is academically and socially beneficial for tutors as well as other students. Students with disabilities can also function as tutors for other students (Utley, Mortweet, & Greenbank, 1997). Group oriented contingencies are reinforcement programs in which earning the reinforcer is contingent upon the whole class (Utley, Mortweet, & Greenbank, 1997). These different peer mediated components form the foundation of many instructional programs including Class Wide Peer Tutoring (CWPT), Peer-Assisted Learning Strategies (PALS), Reciprocal Peer Tutoring (RPT), buddy skills training programs, and A Cognitive Social Learning Curriculum (Utley, Mortweet, & Greenbank, 1997; Brown, Odom, & Conroy, 2001).

Cooperative learning is a widely accepted peer mediated intervention that has been shown to promote achievement and learning across the curriculum (Gillies & Ashman, 2000). In the social domain, cooperative learning promotes socialization, improves attitudes towards learning, enhances prosocial attitudes and feelings, and positively affects the social acceptance of children with disabilities by their non-disabled peers (Gillies & Ashman, 2000; Rutherford, Mathur, & Quinn, 1998). Cooperative learning strategies have been shown to strengthen the acquisition and generalization of social skills (Rutherford, Mathur, & Quinn, 1998). Students in cooperative learning
groups have the opportunity to learn across individuals, activities, and situations (Rutherford, Mathur, & Quinn, 1998). According to Goodwin (1999), students with disabilities often need more training in the social skills that promote cooperative learning, such as listening and sharing, in order for cooperative learning strategies to be successful. Some of the cooperative learning activities that are effective for integrating students with disabilities include Think-Pair-Share, Roundtable, Corners, and Graffiti (Goodwin, 1999). The three social communication skills that are relevant for peer interaction are conversational questioning, positive statements to or about others, and positive self-reference (Rutherford, Mathur, & Quinn, 1998). Conversational questions include any questions that are used to elicit information or encourage participation of a fellow group member. For example, a peer may ask, “Can you explain…?” Positive comments include the use of manners, compliments, and praise of other group members. Statements that provide information about personal opinions or positive self-concept are referred to as positive self-reference. At the end of a task, a student might say, “I did a good job.” Gillies and Ashman (2000) report that when children participate in cooperative learning groups, they are consistently more helpful and cooperative with inclusive language to assist understanding. Children with disabilities can benefit from these peer interactions because peers are often more aware than teachers if material is difficult to understand. Consequently, peers tend to focus on the relevant features of problems and give explanations to be easily understood (Gillies & Ashman, 2000). Another advantage of cooperative learning is that students have various opportunities to become familiar with common social problems that they may experience. Through cooperative learning
intervention, they are able to practice specific social skills to deal with problems out of context (Rutherford, Mathur, & Quinn, 1998).

Peer mediated interventions have produced consistent academic and interpersonal benefits (Maheady, Harper, & Mallette, 2001). The benefits of peer mediated approaches to social skills are apparent in children with disabilities as well as their non-disabled peers. Kamps, Kravitz, and Lopez (1998) identify some of the positive responses of peers engaging in direct personal contact with students with disabilities. Peers experience improvement in self-concept, social-cognition, and tolerance of other people that may reduce fear of human differences and develop personal principles, and interpersonal acceptance and friendship (Kamps, Kravitz, & Lopez, 1998).

It is supported that using peer mediated interventions is an efficient and effective classroom intervention (Maheady, Harper, & Mallette, 2001). Peer mediated interventions improve interactions among students, even students and teachers (Brown, Odom, & Conroy, 2001). According to Utley, Mortweet, and Greenbank (1997), peer mediated instruction has several advantages over traditional teacher mediated procedures. Peer-teaching systems create a more learner-friendly instructional environment by establishing a more favorable pupil-teacher ratio within the classroom that increases student on-task time and opportunities for response (Utley, Mortweet, & Greenbank, 1997; Maheady, Harper, & Mallette, 2001). Students with and without disabilities can use discussions, worksheets, written tasks, computer tasks, projects, and peer interactions as contexts for applying their academic and social knowledge (Utley, Mortweet, & Greenbank, 1997). Peer teaching systems also provide additional opportunities for students to receive positive and corrective feedback and enable students to receive more
individualized help and encouragement (Maheady, Harper, & Mallette, 2001). In addition, peer mediated interventions utilize positive peer-group influence and provide powerful contexts for students to work together in cooperative and competitive situations to achieve common goals (Utley, Mortweet, & Greenbank, 1997). Peers are often excited to mediate groups with their disabled peers and both disabled and non-disabled students prefer peer-teaching over traditional teacher-led activities (Kamps, Kravits, & Lopez, 1998; Maheady, Harper, & Mallette, 2001).

In addition, peer mediated activities are regarded as a social intervention (Gillies & Ashman, 2000). Gillies and Ashman (2000) evaluated the effectiveness of structured cooperative peer groups for teaching social studies units with third grade students. The students were taught appropriate behaviors to facilitate participation in small groups such as listening and sharing. Children with disabilities in the structured group displayed more group involvement and less off-task behavior than those in unstructured groups. Although it appears the helping behaviors have facilitated learning and social interactions, the results of this study are inconclusive because the analysis to test for differences was insignificant (Gillies & Ashman, 2000).

Although it is an effective social intervention, there are some concerns associated with the use of peer mediated interventions (Maheady, Harper, & Mallette, 2001). Some peer teaching methods place additional demands on the classroom teacher such as planning, time, and material development (Brown, Odom, & Conroy, 2001). With respect to classroom management, the teacher must plan strategies ahead of time to prevent peer mediated interventions from leading to increased noise levels and minor behavior problems associated with lack of planning (Maheady, Harper, & Mallette,
In addition, Odom and Watts (1991) found that as much as 30-40% of social interactions occurring during peer interventions began with teacher prompted peer social interaction. According to Gillies and Ashman (2000), another drawback to peer mediated interactions is the level of assistance provided by peers. In order for assistance to be effective, the help must be directly related to the student's need, at a verbal level that will assist in understanding, and provided at a time when the student has the opportunity to utilize the information to solve a problem (Gillies & Ashman, 2000).

**Child Specific Approach Using Direct Instruction**

The child specific approach to social skills instruction is often referred to as direct instruction or social skills training. Direct instruction involves explicit social skills training that is intensive and pervasive of other specific strategies (Brown, Odom, & Conroy, 2001). The child specific approach is based on the rationale that social skills may be introduced to children with disabilities through small group lessons and practiced in play groups in which teachers can provide prompts and praise (Odom, McConnell, & McEvoy, 1999). Some children's social skills deficits require more structure and teacher directed interaction than environmental arrangement or peer mediated interventions can provide (Brown, Odom, & Conroy, 2001). Systematic, direct instruction has been shown to improve both the academic and social skills of students with learning disabilities (Prater, Serna, & Nakamura, 1999). According to Hepler (1994b), students enjoy participating in social skills training, are able to make new friends, and feel as though the skills learned are important.

Teacher directed instruction is an approach most often found in commercial social skills training programs. Although the instructional steps in individual programs varies
slightly, social skills training programs are based on a model-lead-test format that incorporates modeling, role-playing, behavioral rehearsal, reinforcement, and feedback (Prater, Serna, & Nakamura, 1999). Elksnin & Elksnin (1998) present an instructional model for delivering social skills instruction. First, the teacher must give the students a clear definition of the social skill. Next, the skill is described by listing the verbal, non-verbal, and cognitive steps involved in performing the skill. The third step involves brainstorming the importance, or rationale, for learning the skill. Then, the teacher assists the students in describing situations in which the skill can be used, keeping in mind that the ultimate goal is for students to use the skills across situations, locations, and people. The fifth step entails teacher modeling and talking out loud to perform the skill followed by guided practice of the skill by students. Finally, the social rules and expectations for using the new skill are addressed (Elksnin & Elksnin, 1998). Social skills training sessions often conclude with a homework assignment that lists the steps to a new skill and requires the students to practice the skill independently and rate their performance (Hepler, 1994b).

ASSET (A Social Skills Program for Adolescents) and Skillstreaming are two widely used social skills training programs (Choi & Heckenlaible-Gotto, 1998; Farmer-Dougan, Viechtbauer, & French, 1999; Prater & Bruhl, 1998). Research results demonstrate the efficacy of using social skills training programs as interventions for teaching social skills (Hepler, 1994b; Prater & Bruhl, 1998). Prater & Bruhl (1998) compared teacher-directed instruction with cooperative learning procedures and found that students taught using the ASSET improved their skill performance during role-play and reported more positive interactions with peers than other sampled students. In
addition, the students receiving social skills training also rated their peers more positively (Prater & Bruhl, 1998). Several other studies have used Skillstreaming to increase social skills and increase peer reinforcement of appropriate behaviors (Farmer-Dougan, Viechtbauer, & French, 1999; Choi & Heckenlaible-Gotto, 1998). Choi and Heckenlaible-Gotto (1998) measured the peer acceptance of first grade students by their peers following the direct instruction in small groups in the classroom using the Skillstreaming curriculum. Peer rating scales documented an increase in the desire to “work with” peers, including students with disabilities. It is interesting to note that although their acceptance into work related activities increased, the desire to “play with” peers did not improve (Choi & Heckenlaible-Gotto, 1998).

According to Farmer-Dougan, Viechtbauer, and French (1999), programs that targeted specific skills have greater generalization and maintenance of skills. In an effort to further minimize generalization and maintenance problems, Choi and Heckenlaible-Gotto (1998) recommend using social skills training in the regular education setting with the peer group. Facilitating the peer acceptance of a student with social skills deficits requires changing the child’s behavior and increasing peers’ understanding of the behavior and ways to respond to it (Choi & Heckenlaible-Gotto, 1998). Research supports the notion that all children can benefit from interventions that focus on pro-social behaviors (Choi & Heckenlaible-Gotto, 1998; Hepler, 1994b). The classroom teacher should be responsible for delivering social skills training in order to reinforce the skills taught on a daily basis in the classroom (Choi & Heckenlaible-Gotto, 1998). Although peer instructed groups acquire skills faster, teacher-directed groups maintain their skills at a higher level (Prater, Serna, & Nakamura, 1999).
According to Hepler (1994b), cognitive and behavioral skills are essential for positive social interaction. Social skills training was delivered to several fifth grade classes without singling out any students as having difficulties with classmates (Hepler, 1994b). The four vital cognitive skills identified by Hepler (1994b) for problem solving were identification of a problem, listing alternatives, listing consequences for each alternative, and selecting and implementing the most effective solution. In addition, the behavioral skills of initiating and maintaining conversation, entering an ongoing activity, including others, and responding to negative comments were explicitly taught. Structured opportunities for social interaction brought about attitude changes and children with low social status began to interact with their typical peers following social skills training steps (Hepler, 1994b).

Although social skills training assists children in reframing peer interactions by reducing their behavioral deficits, there are some disadvantages to the direct instruction approach (Farmer, 2000). According to Farmer (2000), the positive effects of social skills training are only likely to be maintained when the child’s social context changes in ways that correspond with the new learned behaviors. The effectiveness of social skills training is limited by the child’s peer associations, social roles, reputations, social goals, and values (Farmer, 2000). Farmer-Dougan, Viechtbauer, and French (1999) highlight that although social skills training programs are effective, teachers need initial training, providing continuous support and reinforcement, in order to facilitate the social success of their students.
Summary

An intensive review of the literature discussed the social skills deficits exhibited by students with disabilities as well as the effects of social functioning on peer acceptance. Social skills programs were summarized and the three general types of interventions were compared.

Different approaches to social skills instruction have facilitated the acquisition of social skills of students with disabilities. Although discussed as distinct interventions, elements of environmental arrangement, peer-mediated intervention, and child specific direct instruction are often combined to create one individualized intervention. For example, direct instruction is often followed up with cooperative performance of the skill on another occasion. The effectiveness of social skills programs varies across student populations with deficits. While peer mediated interventions and direct instruction prompt more peer interaction and skill development, environmental arrangement activities have a greater impact on peer acceptance. Teachers often hesitate to teach social skills systematically and more likely to use general classroom based interventions such as environmental arrangement and group discussion.

Increasing peer acceptance involves changing a child’s behavior as well as increasing peers’ understanding of the behavior and responses to it. Therefore, a multifaceted intervention must be warranted to achieve the desired outcome. Majority of the existing research reviewed was conducted in early childhood settings such as kindergarten and preschool. It is of interest to the current study whether this environmental arrangement can be successful in developing positive peer attitudes in the elementary setting where students are only mainstreamed for non-academic portions of
the school day. Majority of the existing research is conducted in early childhood settings such as kindergarten and preschool. The current study will attempt to use social integration play activities to increase the peer acceptance of third, fourth, and fifth grade students. Presently, there is a dearth of research concerning the effectiveness of group play activities as a means of facilitating the peer acceptance of older elementary school students. The current study will use the Skillstreaming curriculum to instruct students with social skills deficits within the context of the self-contained classroom. A similar peer rating scale will be utilized in an effort to determine the effectiveness of the social skills training with older students to improve the peer acceptance of students with disabilities. Engaging in structured play activities while receiving social skills training via the Skillstreaming curriculum will empower the students to interact with their peers and improve their social status.
Chapter 3

Method

Samples

Students. Ten, 3rd and 5th grade students with disabilities attending an elementary school in a large, K-8 school district in Southern New Jersey participated in the study. These students were selected based on their academic placement and apparent social skills deficits. All of these students receive special services and currently spend more than 65% of their day in a self-contained, special education classroom. All of the students are included for the non-academic portions of the school day including homeroom, lunch and recess, and related arts. A total of 60 non-disabled third graders participated in the study. These students were selected based on their homeroom placement and parental consent (see Appendix A).

Table 3-1: Target Students’ Demographic Information

<table>
<thead>
<tr>
<th>Student</th>
<th>Age</th>
<th>Gender</th>
<th>Classification*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9</td>
<td>M</td>
<td>MD</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>F</td>
<td>MD</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>M</td>
<td>MD</td>
</tr>
<tr>
<td>4</td>
<td>11</td>
<td>M</td>
<td>OI</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>F</td>
<td>MD</td>
</tr>
<tr>
<td>6</td>
<td>8</td>
<td>M</td>
<td>MD</td>
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<tr>
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<td>10</td>
<td>M</td>
<td>AT</td>
</tr>
<tr>
<td>10</td>
<td>9</td>
<td>M</td>
<td>MD</td>
</tr>
</tbody>
</table>

* The classification is based on the student’s eligibility to receive special education services that has been determined by a comprehensive evaluation administered in accordance with New Jersey State Administrative Code (2000).

**Research Design**

A multiple baseline design across students (group H, group L, group T) was used in this study to assess the effects of social skills training for students with disabilities. The students participated in structured group activities in their respective homerooms with nondisabled peers while the researcher (special education teacher) delivered all activities and instruction. A baseline condition and an intervention condition were utilized to evaluate changes in subjects over time. The experiment was conducted over an eight-week period and the social skills training was provided in the self-contained classroom.

**Instructional Materials**

**Social skills training program.** *Skillstreaming the Elementary School Child: New Strategies and Perspectives for Teaching Prosocial Skills* (McGinnis & Goldstein, 1997) was selected for small group direct instruction in the self-contained classroom. This program is based on the assumption that the learner is weak in social skills and the goal is to involve students in active learning through role-playing and practice. The program is based on a psychoeducational model and was first introduced in the 1970’s. The *Skillstreaming* curriculum consists of 60 skills, divided into five skill groups, presented with behavioral steps, discussion notes, modeling situations, and additional applications. The skill steps can be modified to address the needs of the students and teacher. The three essential skills emphasized by this study were initiating a conversation, playing a game, and sharing.

**Structured group activities.** Activities were selected and modified as needed from *Group Activities to Include Students with Special Needs: Developing Social*
Interactive Skills (Wilkins, 2001). The activities in this book were designed to assist students in developing social skills they need to interact appropriately in their social environment. The purpose of the activities is to encourage group members to take advantage of their combined physical and mental capabilities to work together as a team. A different activity was selected for each structured group session.

**Instructional Procedures**

**Social skills training.** Direct instruction on target skills was implemented in the subjects’ self-contained special education classroom three times a week for six weeks with each session lasting approximately 30 minutes. Instruction was delivered by the researcher (special education teacher) and another special education teacher as well as three classroom assistants who were present during instruction to provide redirection and assistance as needed. After one skill was introduced, the students practiced utilizing the learned skill for an entire week. See the instructional procedures in Table 3-2.

Table 3-2: Skillstreaming Instructional Procedures

| Step 1: Define the skill: Discuss skill with student; introduce behavioral steps. |
| Step 2: Model the skill: Teacher models behavioral steps, thinking aloud. |
| Step 3: Establish student skill need: Teacher assists students in brainstorming situations during real life to use this skill. Create list for students to refer to. |
| Step 4: Select role-player: Teacher selects student(s) to role-play skill. |
| Step 5: Set up role-play: Teacher and student verbally set up the situation. |
| Step 6: Conduct role-play: Student(s) act out role-play and teacher provides prompts and refers to steps as needed. |
| Step 7: Provide performance feedback: Teacher first asks performing student(s) how he did and comments. Then asks the other students for feedback using direct questions. |
| Step 8: Assign skill homework. |
| Step 9: Select next role player (all students will have a turn) |
Structured Group Activities. The researcher introduced each structured group activity. After assigning the students to smaller groups when necessary, the researcher then explained the activity and provided modeling. The special education teacher scaffolded each activity with prompts that were eventually withdrawn during the activity. Each structured group activity lasted approximately 20 minutes within the context of the participants’ homeroom. On average, three students with disabilities were included in each homeroom.

Dependent Variables

Observation. Interval recording was used to directly observe the prosocial target behaviors of the students with disabilities. During the baseline, students were observed 3 times a week for 2 consecutive weeks during a 10-minute period. The observers coded the target behaviors using the letters “S” for sharing, “P” for playing, and “I” for initiating conversation. The students were observed in three settings for social interaction: homeroom, lunch/recess, and gym (see Appendix B for interval recording form).

Homeroom- All students report to homeroom immediately upon arrival at school. Homeroom lasts for approximately fifteen minutes, during which time morning work is completed, attendance is taken, and lunch count is made.

Lunch/recess- During lunch students have assigned lunch tables according to homeroom assignment. Students have the choice of purchasing lunch or bringing lunch from home. Upon completing lunch, students are sent outside for recess, if weather permitting. Lunch aides as well as classroom aides are present during lunch and recess. Lunch lasts for approximately 25 minutes and 18 minutes are provided for recess.
Gym- Each homeroom class has a designated gym time once a week. The physical education teacher provides instruction in various recreational and aerobic activities. It lasts for approximately 50 minutes.

**Prosocial target behaviors:**

Sharing- Defined as using the same materials with someone else without arguing or physically harming the other person.

Playing a Game- Defined as following the established rules and taking turns with another person during a fun activity.

Initiating a Conversation- Defined as starting to talk to another person in a friendly way at an appropriate time and place

**Survey.** A sociometric measures was used to evaluate the students’ social desirability in a work context (“Work With”) and a play context (“Play With”). All participating students rated each of his or her classmates on a scale from 1 (not at all) to 4 (very much) to show how much they would like to work or play with each person. A separate survey was administered for each context. A description and an image of a face accompanied each rating number at the top of each page (see Appendix C for peer rating scales). The names of the students were listed in alphabetic order by first name. At the conclusion of each scale, the student was prompted to circle the names of the three people he would like to work with and play with respectively. The scales were anonymous and were administered in small groups to assure confidentiality. In addition, the examiner read the name and choices for each student. A mean score that represents his or her overall standing in the classroom reflects the student’s social desirability or peer acceptance.
Reliability

**Instrument Reliability.** Reliability data of the survey was obtained through a test-retest procedure. Peer rating scales reportedly have test-retest coefficients ranging from .81-.95 for 3rd through 6th grade students (Vaughn & Elbaum, 1996). Positive peer nominations also have a favorable reliability coefficient of .84 (Vaughn & Elbaum, 1996). Peer rating scales have high content validity and the sociometric nominations used also promote high predictive validity.

**Interobserver Reliability.** Two observers were present at the same time during each observation period. Both observers observed target students and indicated on the interval recording form whether or not the students were displaying the target behaviors. Interobserver reliability was established by dividing the number of agreement intervals by the sum of agreements plus disagreements and then multiplying by 100 to establish a percent of reliability. A interobserver reliability of at least 60% would constitute a reliable assessment.

**Setting**

The special education teacher will implement social skills training in the self-contained special education classroom. There were 10 students in the classroom and 3 full-time classroom aides to assist in implementation. The class followed a general education curriculum that was modified as needed to address the individual needs of the students.
Chapter 4

Results

Observation

The results of the observation showed that the students with multiple disabilities improved the target prosocial skills of playing a game, sharing, and initiating a conversation after receiving social skills training. Figure 4-1 illustrates the improvement made in demonstrating prosocial skills across groups.

Figure 4-1: Pre and Post Prosocial Skills Observations Across Groups

![Graphs showing improvement in prosocial skills across groups](image-url)
Figure 4-2 compares each prosocial skill across groups of students (H, L, T). The trends on the graph show an increase of student prosocial skills when they received instruction.

Figure 4-2: Sharing
Initiating

Group H

Group L

Group T

Playing

Group H

Group L

Group T
Reliability

Two observers were present in each of the twelve observation periods. Interobserver reliability was calculated by the formula \( \frac{\text{agreements} + \text{agreements} + \text{disagreements}}{100} \) to reach 91%, 89%, and 83% respectively for the identified behaviors of sharing, initiating conversation, and playing a game.

Peer Rating

Results of the peer rating scales showed that only one homeroom groups experienced an increase on peer acceptance in work situations as a result of social skills instruction, and each of the three groups had increased peer acceptance on the play scale. Table 4-1 compares the pre and post peer rating scores of the students with disabilities.

Table 4-1

<table>
<thead>
<tr>
<th>Group</th>
<th>Work</th>
<th>Play</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td>H</td>
<td>1.93</td>
<td>2.12</td>
</tr>
<tr>
<td>L</td>
<td>2.26</td>
<td>2.17</td>
</tr>
<tr>
<td>T</td>
<td>2.26</td>
<td>2.19</td>
</tr>
</tbody>
</table>

The peer rating scales also showed that the special education students received lower peer ratings than their nondisabled, regular education peers on both the work and play scale. Table 4-2 compares the means and standard deviations of the peer acceptance scores of the students with disabilities to those of their nondisabled peers.

Table 4-2: Means and Standard Deviations on Peer Acceptance Scales

<table>
<thead>
<tr>
<th>Group</th>
<th>Work Scale</th>
<th>Play Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>Special Ed</td>
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43
An ANOVA analysis was used to examine the difference between the two groups of students on peer acceptance in play situations. The analysis yielded a significant effect for the difference between the peer acceptance ratings of students with disabilities and their non-disabled peers. It reported, $F(1,136)=19.60, p=.000$ ($p<.05$). The analysis yielded no significance on the measure of time. Table 4-3 presents the analysis.

Table 4-3: ANOVA analysis on peer acceptance during play situations

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<th>F</th>
<th>P</th>
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An ANOVA analysis was used to examine the difference between the two groups of students on peer acceptance in work situations. The analysis yielded a significant effect for the difference between the peer acceptance ratings of students with disabilities and their non-disabled peers. It reported, $F(1,136)=9.81, p=.002$ ($p<.05$). The analysis yielded no significance on the measure of time. Table 4-4 presents the analysis.

Table 4-4: ANOVA analysis on peer acceptance in work situations

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Chapter 5

Discussion

The purpose of the present study was to examine the effects of social skills training and social integration in play activities to facilitate the peer acceptance and social competence of students with multiple disabilities mainstreamed for non-academic subjects. The findings are limited by the subjectivity of the peer rating scale as well as the time allotted for completing the intervention. The intervention was implemented in the middle of the school year after the students had already acclimated themselves to their relative homerooms. Further, observations in the natural environment may not have been a reliable measure due to the effect of teacher presence during traditionally unstructured time. Given these limitations, the results indicate that the students with disabilities varied somewhat in their rate of peer acceptance across groups, but were all accepted significantly less than their non-disabled peers even after social skills training and social integration in play activities.

The first research question on the performance of game playing skills by students with disabilities indicated that game playing skills increased for all groups following social skills instruction as reported by two observers using an interval recording instrument. Such results indicate that using social skills training to increase students’ knowledge of game rules and procedures increases their skills to interact with other students. It may be that students with disabilities need direct instruction to learn skills of social interaction that other children seem to acquire incidentally.
The second research question on the application of sharing skills by students with disabilities showed that sharing skills increased for all groups following social skills instruction. These results imply that using social skills training to facilitate students’ competency to use the same materials as someone else without arguing or physically harming the other person increases their ability to interact with other students. It seems evident that students with disabilities need explicit instruction and sequential steps to engage in activities that regular students apparently learn from indirectly observing the interactions around them.

The third research question on the initiation of conversation with non-disabled peers illustrated that while initiating conversation increased significantly for one of the homerooms, the other homeroom groups demonstrated minimal growth. Such results suggest that although the use of social skills training can be effective to increase some students’ ability to initiate friendly conversation at an appropriate time and place, other students may need more support in this area as well as direct instruction on related skills. The lack of substantial growth in this skill may indicate that while the students’ have the ability to initiate conversation, they may not have the desire to engage in conversation with their non-disabled peers.

The fourth research question on the peer acceptance of students with disabilities by their non-disabled peers following social integration in play activities showed that peer acceptance did not significantly increase following structured play activities as evidenced by the peer ratings. The results illustrate that even though students with disabilities increase their appropriate social skills, their non-disabled peers have already formed negative opinions on them. These group results were surprising considering the
fact that most of the disabled students' individual ratings increased. The low acceptance of the students with disabilities may be attributed to the peer perception that the students do not belong to the classroom as a result of their self-contained placement. This finding is consistent with the studies by Vaughn and Elbaum (1996) and Haagan and Vaughn (1995).

The present study yielded some unexpected results as well. The peer ratings received by the students with disabilities indicate that non-disabled peers are more accepting of students with physical impairments as compared to students with cognitive disabilities. These results support the previous research indicating that peers often assume a care giver role when interacting with students with disabilities (Cook & Semmel, 1999). Upon analyzing the peer ratings, it was interesting to discover that some students included in regular education classes to receive in-class support services have ranked lower than the disabled students placed in the self-contained classroom. The peer ratings assigned by the students with disabilities indicate that many of the students did not have the desire to work or play with their non-disabled peers. Instead, the students reserved the highest rankings for their self-contained classmates. These unexpected results indicate that the students with disabilities may in fact be more comfortable interacting with disabled peers rather than the non-disabled.

The results obtained during this study have several implications for social skills training and peer acceptance. The results imply a strong need for restructuring the mainstreaming/inclusion practice in our schools. The current study supports prior research stating that inclusion for social reasons alone is unsuccessful. Inclusion of students solely for social integration when they were not capable of achieving academic
goals accentuates their differences and contributes to alienation as opposed to socialization (Austin, 2001). When students with disabilities are included in classes with their non-disabled peers, supports must be provided by means of social skills instruction, peer tutoring, and structuring of the environment to facilitate the participation of students with disabilities in the mainstream. In addition, the poor display of social skills exhibited by all students as observed by the two observers implies that there is a need for schools to emphasize social skills instruction in the curriculum as an area of importance for all students, especially those with disabilities. The present study demonstrates that all students can benefit from social skills instruction and structured play activities that highlight commonalities among children as opposed to differences.

When comparing the current study with existing studies, similarities and differences are apparent. While the instrument used to determine peer acceptance in the present study is similar to the rating scales utilized in existing studies (Vaughn & Elbaum, 1996; Odom, McConnell, & McEvoy, 1999; Choi & Heckenlaible-Gotto, 1998); the population surveyed is unique. The existing research relating social skills to peer acceptance has been conducted with learning disabled populations, most of which participate in inclusive settings (Vaughn & Elbaum, 1996; Choi & Heckenlaible-Gotto, 1998). Whereas the current study targets students classified as multiply disabled who spend more than 65% of their day in a self-contained classroom. In addition, the structured play intervention utilized in the present study has traditionally been applied in early childhood settings (Odom, McConnell, & McEvoy, 1999). The present study followed the recommendation of Prater and Bruhl (1998) and examined the results of social skills training provided in self-contained classes as a means to prepare students for
inclusion. The results support existing research documenting the low acceptance of
students with disabilities compared to their non-disabled peers (Vaughn & Elbaum, 1996;
Haagar & Vaughn, 1995; Cook & Semmel, 1999). In fact, the significantly lower rates
obtained using peer rating scales confirms that students with disabilities are rejected by
their peers (Hepler, 1994A). The lack of a significant increase in peer acceptance after
the social skills instruction and structured play activities supports the contention that,
although interventions are effective in changing the behavior of target children, the
interventions fail to improve social status because the other children continue to perceive
the students as undesirable (Cook & Semmel, 1999; Milich & McAninch, 1992).

The present study has several limitations in the area of measurement. With
respect to reliability and validity, the use of peer rating scales as the sole measure of peer
acceptance may not have provided an accurate representation. It appears as though the
instrumentation may have increased the students’ awareness of their peers and served to
make them more critical of each other. While students were asked to rate all of their
peers, research has shown gender bias against opposite-sex peers in children’s
sociometric ratings (Choi & Heckenlaible-Gotto, 1998), therefore limiting the validity of
the peer rating scale. In addition, it must be noted that social desirability appears to be
situational and is impacted by many factors beyond social skills. It is interesting to note
that the peer ratings of the non-disabled students were not consistent across the pre and
posttest measures. Missing data resulting from student absence as well as incomplete
surveys may have negatively impacted the reliability of the data obtained from the peer
rating scales. Although the interval recording instrumentation produced reliable data as
confirmed by interobserver agreement, observation in the students’ natural environment
may also have some problems. Observation data may have been impacted by the effect that teachers were present at traditionally unstructured, loosely supervised times of the day. The presence of teachers in the cafeteria and at recess commands a great deal of student attention and as a result that may impact students’ behavioral change during the observations. In addition, it must also be noted that both observers were familiar with the targeted students, therefore limiting the objectivity of the instrument.

A statistical limitation of the current study was the size of the sample. The sample size was smaller than initially expected due to student absence, standardized testing, and the difficulty of coordinating schedules between the special education teacher and regular education classes. Several limitations pertained to internal and external validity. The lack of acceptance of students with disabilities by their non-disabled peers cannot be explained by a causal relationship alone considering the fact that in two of the participating groups, several regular education students received lower peer ratings than those of the special education students. With respect to generalizability, the results of the study may be limited considering the students displayed the targeted skills in the same peer context as they were taught. It is difficult to ascertain whether the students would exhibit the same prosocial skills in different situations and with different peers.

Overall, the results of the current study support research to suggest that social skills instruction is an effective intervention for teaching students with disabilities to interact with their peers (Farmer-Dougan, Viechtbauer, & French, 1999; Odom, McConnell, McEvoy, 1999; Prater & Bruhl, 1998). Unfortunately, the results indicate that although students with disabilities exhibit prosocial skills, their non-disabled peers still reject them. This indicates the need to restructure the school curriculum to provide
social skills instruction as a routine to all students so that an interaction among students with and without disabilities can be encouraged. Future studies are also needed with a larger sample size to validate the results. All students need social skills instruction in school.
References


Appendix A
Parent Letter for Son or Daughter to Participate

Dear Parent or Guardian,

I would like to ask your permission for your son or daughter to participate in a study that will explore the peer acceptance of students with disabilities. This research project is called, "Effects of Social Skills Training to Improve Peer Acceptance for Students with Disabilities." I will be evaluating the manner in which students interact with each other and form friendships.

What is involved? For the purpose of this study, specific students have not been identified. All participating students will be completing two simple questionnaires indicating their desire to “work with” or “play with” other students in their homeroom class. The students will then participate in short, structured group activities that are teacher-directed and focus on cooperation. Examples of group activities include completing an illustration, finding their way out of a maze, or playing a game. These activities will occur once a week for a maximum of twenty minutes. Instructional time will not be interrupted, as these activities will correspond to health and physical education requirements and social interaction. At the conclusion of the study, participating students will be completing the same questionnaires.

Potential Benefits and Concerns. As previously mentioned, these activities will not interfere with classroom instruction or focus attention on specific students. This study is designed to improve the social interactions and acceptance of all students. A potential benefit of this study is that students will learn to get along with each other and accept their differences.

Participation is voluntary. Your son or daughter’s participation in this study is completely voluntary. Your child will not be penalized if you do not wish for him or her to participate. The students may choose not to participate at any time. Your child’s school has approved this project.

Information is confidential. All of the information gathered in this study will be held as confidential as legally possible. Only the researchers will see the questionnaire. Your child’s name will not be used in reporting information and completion of the questionnaire is anonymous.

Questions? I would greatly appreciate it if you would return the form on the back of this page whether or not you would like your child to participate, so I know this information has reached you. Upon receiving your signed form, I will send you a copy to keep for your records. If you have any questions, please feel free to contact me at (xxx-xxx-xxxx) or you may e-mail me at Knollj@xxxxx.k12.nj.us. I would be happy to answer any questions that you may have concerning this research. The Institutional Review Board at Rowan University (856-256-4000) can also answer questions about the rights of participants in research.

Thank you in advance for your consideration.

Sincerely,

Jennifer Knoll
3rd grade teacher, graduate student
Department of Special Education, Rowan University
Please check the appropriate boxes and send this form back to school with your son or daughter.

☐ I have read and understand the permission letter and give my child permission to participate in this study.

☐ I would like more information before giving consent for my child to participate in this study.
   The best time to reach me is ________________________.
   Call me at ________________________________.

☐ I do not wish for my child to participate in this study.

Parent’s or Guardian’s
Signature/Date: ______________________________

Child’s Name: ______________________________
Interval Recording Form

Date: __________________________

Activity: __________________________

Starting time: __________________________

S= Sharing  
P= Playing a Game  
I= Initiating a task

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Date: ____________________
Activity: ____________________
Starting time: ____________________

S= Sharing
P= Playing a Game
I= Initiating a task
Peer Rating Scale: Play

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Peer Rating Scale: Work

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