

**An Examination of Social Skills Training on Transition-related Social Skills of
Students with Disabilities**

by

Cincystal S. Harris

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Approved by

Caroline Dunn, Chair, Professor of Special Education, Rehabilitation and Counseling

Margaret Shippen, Associate Professor of Special Education, Rehabilitation and
Counseling

Marie Kraska, Mildred Cheshire Fraley Distinguished Professor of Educational
Foundations, Leadership and Technology

Rebecca Curtis, Associate Professor of Special Education, Rehabilitation and Counseling

Abstract

Many students with disabilities lack the skills needed to transition into society as successful, independent adults (Test, Aspel, & Everson, 2006). Emphasis has been placed on transition preparation. Several skills deficits have been identified as reasons for poor outcomes for students with disabilities. One skill identified as being critical to success is the ability to socially interact with others appropriately. Lack of social skills has been linked to academic failure and poor economic and cultural opportunities (Wentzel, 1991). Social skills are vital to the development and overall adjustment of students with and without disabilities.

The purpose of this study was to examine the effectiveness of *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* on transition-related social skills (McGinnis, Sprafkin, Gershaw, & Klein, 2012). Eleven students enrolled in one of two Work-Place Readiness courses at a high school in the Southeastern part of the United States were included in this study. These participants were in grades 10 through 12 and all were identified with a disability. Data were collected from three sources: parents, students, and teachers using *Skillstreaming* checklists that were adapted to address work-related social skills.

Results revealed that teachers and parents did not report an increase in transition-related social skills after participating in the *Skillstreaming* program. However,

participants reported an increase in their transition-related social skills from pre- to post-testing.

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CHAPTER I. INTRODUCTION

Students are faced with a wide range of social situations on a daily basis. Managing challenging social situations requires a repertoire and the utilization of social skills (Spence, 2003). There is no conclusive definition of social skills; however, most commonly, social skills definitions parallel the social-validity definition, which purports that social skills are behaviors that determine important social results for students (Gresham, 1986). Social skills are an essential part of social interactions and can serve as a catalyst for people of all ages to achieve many of their goals. Unfortunately, students with disabilities often have difficulties socially interacting with others. In today's society, learning, playing, and working almost always require some degree of social interaction. Research has linked lack of social skills to poor academic success, peer rejection, delinquent behavior, and unemployment (Kauffman, 2005; Malecki & Elliot, 2002). Therefore, transition services for students with disabilities must consider the area of social skills.

The Individuals with Disabilities Education Improvement Act (IDEIA, 2004) mandates that transition-related services be addressed in students' Individualized Education Program (IEP) by their sixteenth birthday and must take into consideration their needs, strengths, preferences, and interests. A documented best-practice that can be used to assist students in improving their social skills is social skills training (sst). Social skills training is teaching specific behaviors that facilitate positive peer interactions

(Miller, Lane, & Wehby, 2005). Social skills training can improve the post-school outcomes of students with disabilities; therefore, it is important for teachers to strategically and effectively teach social skills to individuals with social skills deficits.

Statement of the Problem

There are a limited number of studies that examine the impact of social skills training on work-related social skills. The focus of this study was the lack of information related to the effectiveness of a social skills program that can be implemented in Work-Place Readiness classes for the transition-related social skills of students in the classes.

Purpose of Study

The purpose of this study was to examine the effectiveness of *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* on transition-related social skills (McGinnis et al., 2012). Research indicates that transition-aged students need appropriate social skills in school, the work-place, and the community in order to be successful. Therefore, this study examined students' transition-related social skills prior to receiving social skills training and after receiving social skills training. The intervention was taught by two certified special education teachers under the direct supervision of the principal investigator.

Research Questions

To examine the effectiveness of the intervention, the following research questions were investigated:

1. To what extent do students who receive social skills instruction from *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* exhibit work-related social skills based on observer (teacher) checklists?

2. To what extent do students who receive social skills instruction from *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* exhibit work-related social skills based on the observer (parent) checklists?
3. To what extent do students who receive social skills instruction from *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* exhibit work-related social skills based on the participant (student) checklists?

Null Hypotheses

The following null hypotheses were tested at the .05 level:

Ho₁: There is no statistically significant difference in student work-related social skills before and after they are taught social skills using *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* as measured by an observer (teacher) checklist.

Ho₂: There is no statistically significant difference in student work-related social skills before and after they are taught social skills using *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* as measured by an observer (parent) checklist.

Ho₃: There is no statistically significant difference in student work-related social skills before and after they are taught social skills using *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* as measured by the students themselves.

Limitations

There are several limitations in this study that may affect the generalization of data. These limitations include functioning level of students, number of participants, time, and instrumentation.

Functioning Level

Skillstreaming was designed for individuals who exhibit aggressive and other problematic behaviors. Students included in the current study were students primarily with intellectual disabilities. Although the *Skillstreaming* curriculum does not indicate a level of student appropriate for the program, it does suggest that cognitive deficits due to intellectual disabilities could result in students not understanding various aspects of the curriculum (McGinnis et al., 2012). Varying ranges of intellectual abilities and/or types of functioning deficits could impact the results of the study, as *Skillstreaming* requires students to be able to identify with a role-play situation and comprehend and memorize steps to maneuver a social situation.

Length of Intervention

The number of weeks for program implementation was shortened due to school being released for the summer. Considering students' functioning level, some students may have benefited from additional time to master a particular social skill. The intervention was scheduled for eight weeks; however, some participants may have benefited from 10 weeks or more of instruction in a limited number of areas, rather than 8 weeks covering 13 skill areas.

Number of Participants

Eleven students were included in this study. While all students in the two Work-Place Readiness classes received social skill training, not all of the students or parents agreed to participate in the study. One student that did agree to be in the study was removed from the study because no pre-test scores were obtained due to the student's excessive absences.

Instrumentation

Multisource assessment (i.e., teacher, parent, and student) was utilized, but multimodal assessment, which is the use of more than one type of assessment, was not utilized in the current study. Adapted forms of the teacher, parent, and student *Skillstreaming* checklists were used for pre- and posttest assessments. The checklists were curriculum-based and depended heavily on perspectives of the parent, teacher, and student. The rating scales on the checklists were subjective: Items were rated on a 5-point scale with ranges from "1"- almost never to "5"- almost always. Multimodal assessment might have detected gains or improvements not reflected on the rating scale results.

Summary of Findings

Participants in this study were 11 students enrolled in one of two Work-Place Readiness courses at a high school in the Southeastern part of the United States. These participants were in grades 10 through 12 and all were identified as having a disability.

Data were collected from three sources - - parents, students, and teachers - - using *Skillstreaming* Checklists that were adapted to address work-related social skills. The checklists were administered prior to the implementation of the program and after the implementation of the program. The results supported hypothesis 1 and 2: There were no statistically significant increases in students' work-related social skills as measured by

teachers and parents. However, hypothesis 3 was rejected in that there was a statistically significant difference between pre-test and post-test scores of the participants:

Participants reported an increase in their transition-related social skills from pre- to post-testing.

Significance of the Study

The purpose of education is to prepare students to be successful, independent members of society. Students with disabilities often lack the skills needed to transition into society as successful, independent adults (Test at el., 2006). With the enactment of IDEIA, emphasis has been placed on transition preparation. Numerous skills deficits have been linked to poor outcomes for students with disabilities. One skill identified as being critical to success is the ability to socially interact with others appropriately. Lack of social skills has been linked to academic failure and poor economic and cultural opportunities (Wentzel, 1991). Social skills are vital to the development and overall adjustment of students with and without disabilities.

Social skills programs have been developed to address social skills deficits that are often exhibited by at-risk students and students identified with a learning disability, an intellectual disability, and /or an emotional disability. Outcomes from this research could provide information about the effectiveness of the *Skillstreaming* social skills program on transition- related social skills in students with disabilities. Results from this study also could provide teachers information about teaching social skills in the classroom. This information can be used to guide teachers in helping students improve their transition-related social skills.

Definition of Terms

Social Skills- Social skills are behaviors that determine important social results for students (Gresham, 1986).

Social Competence- Social Competence is the ability to interact effectively with others.

Social skills training- One or more strategies used for a designated period of time to remediate social problem behaviors exhibited by students with disabilities.

Transition- Transition is a process that facilitates students with disabilities passage from school to post-school.

Transition Planning- Transition planning is a step used to help students with disabilities prepare for life outside of school.

Transition-aged Students- Transition- aged students are special education students who are in the 14 to 21 age range.

Checklist- A checklist was survey used to access how often students used selected social skills.

Multimodal Assessment- Multimodal Assessment means more than one type of assessment is employed (McGinnis et al., 2012).

Multisource Assessment- Multisource Assessment means more than one type of person is asked to complete a checklist (McGinnis et al., 2012).

CHAPTER II. REVIEW OF LITERATURE

A goal of education is to prepare students to be successful, independent members of society. Many students with disabilities lack the skills needed to transition into society as successful, independent adults (Test et al., 2006). As a result, an emphasis has been placed on transition preparation. Several skills deficits have been identified as reasons for poor outcomes for students with disabilities. One skill identified as being critical to success is the ability to socially interact with others appropriately. Lack of social skills has been linked to academic failure and poor economic and cultural opportunities (Wentzel, 1991).

The review of literature examines the issue of social skills training for transition-aged students with disabilities. First, an overview of transition and evidence-based practices will be discussed. An overview of social skills training and students with disabilities will follow. Finally, a review of research on social skills training for transition-aged students will be provided.

An Overview of Transition Planning

Transition in its simplest form is the “passage or travel from one point to another” (Suplicki & Molino, 1997, p.722). Throughout life people experience transitional stages that necessitate adjustment. These stages may be characterized by times of stress, conflict, redefinition, and occasionally dysfunction (Kohler & Field, 2003). In special

education, the idea of transition is specific. Transition, when related to special education, represents the “systematic passage from school to adult life for students with disabilities” (Morningstar & Kleinhammer-Tramill, 1999, p. 1). According to Kohler and Field (2003), in this sense, transition bridges the gap between the security of school and home and the risks and opportunities of adult life.

Precursors to Transition

The presence of economic and educational hardships for individuals with disabilities is not new. Work study programs were developed for youth with disabilities in the 1950s. These programs became the public school’s primary method for preparing individuals with disabilities for post-school employment. The programs allowed individuals with disabilities to work in a structured environment at school. Once individuals had completed their in-school work assignment, they were placed in a specialized job in the community. Although admirable efforts were made to prepare individuals with disabilities for post-school employment, it was not until the 1960’s, during the Kennedy administration, that a marked federal interest and growth in special education, vocational education, vocational rehabilitation, and other programs developed to assist youth and adults with disabilities (Rusch & Phelps, 1987).

One major piece of legislation developed during the 1960s was The Civil Rights Act of 1964. This Act prompted a significant focus on preventing discrimination on the basis of race and national origin in the following areas: education, social services, and other federally funded activities. In the 1970s, this assurance was extended to individuals with disabilities. During the mid 1960s and early 1970s, a significant number of states

mandated that schools provide special education services to school-aged-children with disabilities.

Subsequent to these mandates, in 1975, The Education for All Handicapped Children Act was passed (P.L. 94 - 142). This act ensured that children ranging from the ages of 6 to 17 would receive a free and appropriate public education. The Education for All Handicapped Children Act, however, did not specifically mandate transition services for individuals with disabilities. Although some youth with disabilities did receive transitional services during this time, no legislation mandated that transition services be provided to youth with disabilities. The next section will outline the events and legislation that led to the Individuals with Disabilities Act (IDEA) and the mandate for transition services.

Evolution of Transition

This section will first provide an overview of events that led to the mandate of transition services. Following the overview of events will be a discussion on the Individual with Disabilities Education Act, as well as a discussion on other related education transition legislation. Finally, this section will use Kohler's (1996) model to discuss evidence-based practices deemed beneficial in facilitating transition services.

The idea of providing transition services is not new. For example, transition services for youth with disabilities have been documented as early as the 1930's. During the 1930's, transition services were provided mainly for individuals who were deaf. Starting in the 1940's, transition services were also made available for youth diagnosed with an intellectual disability (Morningstar & Kleinhammer-Tramill, 1999). The 1960's

marked the beginning of educational and vocational models designed to completely address the dimensions of adult adjustment (Morningstar & Kleinhammer-Tramill).

Transitional components such as vocational education, career education, work adjustment, and independent living skills have existed in special education for many years (McAfee & Greenawalt, 2001). According to Halpern (1992), cooperative work-study programs, developed around the 1960's for students with mild disabilities, can be considered a precursor to the present models of transition. Work-study programs were conducted cooperatively between the public schools and local offices of vocational rehabilitation through formal agreements (Morningstar & Kleinhammer-Tramill, 1999). Unfortunately, by the 1970's work-study programs were obsolete due to a "flawed funding mechanism and the "similar benefit" requirement of the 1973 amendments to the Vocational Rehabilitation Act" (Morningstar & Kleinhammer-Tramill, 1999, p. 2). This amendment stipulated that federal rehabilitation funds could not be utilized for services that are the responsibility of another agency (Morningstar & Kleinhammer-Tramill, 1999).

In 1971, the U.S. Commissioner of Education introduced a second model of transition. This model was known as the career education model. The idea of career education was a response to increasingly high dropout rates. Students during the 1970's failed to understand the relevance of what secondary schools were teaching to their future goals. Federal funding helped to establish career education. Career education, when compared to the work-study program, had a more general focus. Originally, career education programs did not include students with disabilities; however, once funding for

,the program began to increase, the career education movement expanded to include students with disabilities (Isaacson & Brown, 1993).

The recognition of the need for improved outcomes for students with disabilities placed the idea of providing transition services at the forefront in the 1980s. Officials became concerned with developing an integrated approach for providing transition services. Since 1983, federal special education policy regarding transition services for students with disabilities has developed considerably (Kohler & Field, 2003).

Special Education Legislation

There are several laws that govern transition services. This section will identify school-related transition legislation and discuss pertinent pieces of the legislation. General education legislation that impacted transition services will also be discussed.

Education for All Handicapped Children. The Education for all Handicapped Children (EAHCA) was first mandated in 1975. This Act provided federal funding to educate eligible students with disabilities. It also established the rights of eligible students with disabilities to a free, appropriate, public education, required schools to develop IEPs, and established procedural safeguards. In 1986, the Education for All Handicapped Children Act was amended. These amendments allowed for financial incentives to educate infants, required Individualized Family Service Plans (IFSP), extended part B of EAHCA to include 3- to- 5 year-olds, and provided discretionary funds for transition.

Individual with Disabilities Education Act (1990). In 1990, the Education for All Handicapped Children Act was amended and re-titled The Individuals with Disabilities Education Act (IDEA) (P.L. 101-476). The 1990 amendment to IDEA included three components related to transition: (1) a definition of transition services, (2)

an age for providing transition services, and (3) a statement to consider the needs and preferences of the student. It was at this time the act was amended to require the inclusion of a transition plan in the individual education programs (IEP) of students with disabilities. Specifically, this act required that students with disabilities who were sixteen years old and older have a statement of needed transition services. Additionally, the legislation stipulated that transition activities be based on the student's individual needs and preferences. The decision to include transition in this legislation was momentous.

According to IDEA (1990) transition services are a

coordinated set of activities for a student, designed within an out-come oriented process that promotes movement from school to post-school activities, including postsecondary education, vocational training, and integrated employment (including supported employment, continuing and adult education, adult services, independent living, or community participation). (IDEA Regulations, 34 C.F.R. 300.18)

IDEA (1997). The Individuals with Disabilities Act was amended in 1997. The 1997 amendment attempted to strengthen the delivery of transition services. Another goal of the 1997 amendment was to change the focus of special education services from being process driven to outcome related. Specifically, IDEA (1997) included related services (e.g., rehabilitation counselor, speech therapist, and occupational therapy) as a possible transition service. It also broadened the definition of special education by including educational opportunities that would prepare students for transition (Test, et al., 2006). According to IDEA (1997) (P.L. 101-476), transition services were “a coordinated set of activities, designed within an outcome oriented process, that promote movement from school to post-school activities” (McAfee & Greenawalt, 2001). The law specified that beginning at the age of 14 all students with an IEP must have a statement of transition service needs. The 1997 amendment also specified that a particular set of transition

activities in areas such as instruction, related services, community experiences, employment and post-school living objectives, and assessment of daily living skills and functional evaluation be included in IEPs. This was the first time that federal policy communicated that a student's instruction should be centered on his or her post-school goals (Kohler & Field, 2003).

IDEA (2004). The 2004 amendment to IDEA made some changes in the terminology used to define transition services. According to IDEA (2004), the term “transition services” means a coordinated set of activities for a child with a disability that:

- (a) Is designed to be within a results-oriented process, that is focused on improving the academic and functional achievement of the child with a disability to facilitate the child's movement from school to post-school activities, including postsecondary education, vocational education, integrated employment (including supported employment); continuing and adult education, adult services, independent living, or community participation;
- (b) Is based on the individual child's needs, taking into account the child's strengths, preferences, and interests; and
- (c) Includes instruction, related services, community experiences, the development of employment and other post-school adult living objectives, and, if appropriate, acquisition of daily living skills and functional vocational evaluation.

In addition to definitional changes, IDEA (2004) specified the purpose of a free appropriate education. According to the 2004 legislation the purpose of a free appropriate education for students is to “prepare them for further education, employment, and

,independent living.” It also eliminated any reference to transition services beginning at the age of fourteen; however, this amendment did not preclude agencies from providing transition services prior to a student’s sixteenth birthday. Furthermore, the law mandated that schools include in the IEP measurable transition goals that address needs and/or interests beyond high school. The inclusion of these goals is achieved by developing goals based on age-appropriate transition assessments and by including a description of services that will be provided. Provisions also were made to provide students with disabilities graduating from high school a summary of their accomplishments and transitional needs.

General Education Related Legislation

Carl D. Perkins (1984). The Carl D. Perkins Vocational and Applied Technology Education Act (1984) is a federal law. This law stipulates that individuals with a disability be provided vocational education in the least restrictive environment and that officials provide equal access to vocational services including recruitment, enrollment and placement activities. This act has two goals, which include improving the labor skills of the labor force and providing equal opportunities for adults in vocational education.

No Child Left Behind. Until The No Child Left Behind Act was passed in 2001, for approximately twenty plus years, the Individuals with Disabilities Education Act was the main piece of legislation for improving outcomes for students with disabilities (Bassett & Kochhar-Bryant, 2006). The No Child Left Behind Act stipulated that every child regardless of race, disability, family history, or disability status would learn. Like the Individuals with Disabilities Education Act, No Child Left Behind has similar goals of equity and excellence, but No Child Left Behind has dissimilar premises for policy and

practice. No Child Left Behind policies and practices are centered upon homogeneous learning criteria within a standards-based curriculum, while the Individual with Disabilities Education Act is centered upon accommodating individual needs. The No Child Left Behind Act mandates that students with disabilities be integrated into the general education setting and that they participate in high stake testing. These differences in policies and practices have made it increasingly difficult for students with disabilities to receive school-based and community-based employment preparation, which are two types of preparation identified in the literature as evidence-based practices for fostering successful transitions from school to post school activities for students with disabilities (Bassett & Kochhar-Bryant, 2006; Test et al., 2006).

No Child Left Behind was enacted to afford students who are traditionally underserved, equal opportunities to learn from the same curriculum as their counter-parts without a disability or other targeted groups. Specifically, The No Child Left Behind Act imparted several major provisions. Some of these provisions are as follows:

- Instituting accountability for results
- Extending options for parents of children from disadvantaged backgrounds,
- Creating flexibility at the state and local levels and reducing red tape,
- Ensuring that every child can read with the Reading First initiative,
- Strengthening teacher quality,
- Confirming progress,
- Promoting English proficiency (Test et al., 2006, p. 19-20).

The enactment of this law also stimulated the release of recommendations for applying the premises of No Child left Behind to IDEA. Some of these recommendations included the call for improved intra-agency and interagency collaboration and “a call to redefine transition services as a results-oriented process” (Test et al., p. 20). These

recommendations necessitate that teachers are educated about transition from school to adulthood.

Transition Planning

Initially, transition efforts focused solely on employment preparation. As researchers and officials began to understand and recognize the key components of transition, the focal point of transition broadened. Not only are officials now interested in preparing students for adult outcomes, but they are also placing a significant emphasis on academics, career development, extracurricular instruction and activities. Kohler (1996) referred to transition as focused education. Kohler's idea of transition disregards the notion that transition planning is just an additional activity for students with disabilities to complete. Rather, Kohler's conceptualization recognizes transition planning as a fundamental basis of education that guides the development of all educational programs. According to Kohler and Rusch (1996), the idea of transition-focused education symbolizes a move from disability-focused, deficit-driven programs to an education and service-delivery approach centered on abilities, options, and self-determination.

The literature identifies several evidence-based practices that can be implemented to improve post-school outcomes for students with disabilities. Among the practices identified are vocational training, parent involvement, paid work experience in high school, social skills training, interagency collaboration, and community-referenced curricula (Kohler, 1993). Kohler (1996) created the Taxonomy for Transition Programming that synthesized these practices into five categories. These categories are student-focused planning, student development, interagency collaboration, family involvement, and program structure.

Student-focused Planning. Student-focused planning is associated with helping students to enhance self-determination skills by practicing and by applying skills learned. A key factor of student-focused planning is that decisions regarding students' goals are determined based on their personal goals, interests, and visions.

Student Development. Student development focuses on developing life skills, employment skills, and occupational skills through school-based and work-based learning opportunities. A goal of student development is to help students acquire and apply self-determination skills, academic skills, daily living skills, social skills, and occupational skills. These are skills that are beneficial in fostering positive post-school outcomes.

Interagency Collaboration. The interagency collaboration piece is geared toward facilitating the participation of community businesses, organizations, and other agencies associated with aiding in a transition-focused education. Interagency collaboration can be achieved by developing interagency agreements that explicitly articulate the roles and responsibilities of each participating organization.

Family Involvement. Practices included in the family involvement category are related to parental participation in the planning and delivering of transition services. More specifically, this category includes practices in three areas: family training, family involvement, and family empowerment. Family training is designed to help family members to work more successfully with educators and other service providers. The family involvement category highlights roles that will enable family members to be involved in planning and delivering transition education on the individual and community level. Family empowerment approaches include practices for fostering meaningful family participation in transition focused activities (e.g., methods for identifying family needs).

Program structure. The program structure piece examines program elements that are associated with efficient and effective delivery of transition-related instruction and services. Kohler and Field (2003) asserted that schools that have a transition-oriented focus ensure the following: organized community participation in the development of educational opportunities, community-based learning opportunities, methodical inclusion of students in the social life of the school, and increased expectations (Edgar & Polloway, 2004).

In summary, Kohler's model provides consumer-oriented strategies that operationalize the idea of transition services. The five categories included in Kohler's model are linked to positive post-school outcomes for students, are theoretically based, are well documented in the literature, and are socially validated by transition experts. One of the important skill areas in the student development category of Kohler's model is social skills. The next section discusses social skills.

Overview of Social Skills and Social Competence

Social skills are vital to the development and overall adjustment of students with and without disabilities. There is an extensive body of research that suggests many transition-aged students with high incidence disabilities (e.g., learning disabilities, emotional disturbance, mild intellectual disabilities, and other health impairments) have difficulties socially interacting with their peers and adults (Gresham, 1998; Parker & Asher, 1987). Poor social skills can impact peer relationships, school completion, and employment. This section addresses social skills and students with disabilities. It begins by providing an overview of social competence.

Social Competence

Due to the continuous complex changes that occur in society, man is constantly confronted with predicaments he or she must manage. Contingent upon the complex nature of the predicament and the possible consequence of inadequately responding, these predicaments may be minor or major. D’Zurilla and Goldfried (1971) asserted far more important than the complexity of the predicament is the “the effectiveness with which one is capable of handling them,” and that there is a great deal of variability in how social situations are handled (p. 107). The recognition of these individual differences is not a recent phenomenon. Socrates reflected competent individuals are “those who manage well the circumstances which they encounter daily, and who possess a judgment which is accurate in meeting occasions as they arise and rarely miss the expedient course of action” (Ladd, 1999, p. 338). The concept of social competence can also be traced to postulations that were intrinsic in social science theories of the twentieth century (Ladd, 1999). The modern day concept of social competence got its roots from Thorndike.

In 1920, Thorndike developed a concept known as social intelligence. According to Thorndike, social intelligence is “the ability to understand and manage men and women, boys and girls—to act wisely in human relations” (p. 22). Thorndike purported social intelligence was different from mechanical (e.g., managing concrete objects) and abstract intelligence (e.g., managing ideas). Social intelligence requires individuals to process mentally the actions and responses of others to formulate appropriate responses. In essence, social intelligence is the ability to manage people or social situations. According to Ladd (1999), it was not until the 1930s that social scientists began to study the social competence of children. Social scientists examined the social competence of children by conducting empirical investigations of their peer relations (e.g., nature of

children's peer groups, correlation between children's characteristics and their status in peer groups). These investigations continued until the start of World War II. After the outbreak of World War II, peer relations investigations fell dormant for over a decade. Though research efforts were rekindled in the 1960s, the current reputation of the peer relations field derived from investigations that took place in the mid 1970s and intensified in the 1980s. These investigations were fueled by Harlow's (1969) discovery that rhesus monkeys who were reared by their mothers but denied peer interactions failed to acquire essential social skills (Ladd, 1999). Conversely, Harlow (1969) found that when rhesus monkeys were deprived maternal contact, peer contact could compensate for some skills due to maternal deprivation. These results implied that peer relationships had a vital role in establishing interpersonal competence and that skills acquired in this manner affected the individual's long-term adjustment.

What does it mean to be socially competent? Waters and Sroufe (1983) asserted that competence has two general definitional approaches: molar and specific characteristics. Molar definitions conceptualize competence as "an ability to generate and coordinate flexible adaptive responses to demands and to generate and capitalize on opportunities in the environment (i.e., effectiveness)" (p. 1). Defining social competence using specific skills can be problematic because the idea of competence may vary due to the age (e.g., social competence is different for infants than skills for adolescents).

Cavell (1990) asserted the majority of social competence definitions "begin with the central concept of effective functioning within contexts" (p. 121). In other words, social competence is the measure of an individual's ability to respond appropriately in eclectic situations. Cavell's review of the literature suggested that the experimenters'

research goals, epistemological partialities, and practical constraints drive how social competence is operationalized. As a result, Cavell purported that social competence is a multilevel construct. Cavell created a tri-component model of social competence as a means to synthesize and reflect varying research agendas and differing methodologies. This model combines social adjustment, social performance, and social skills into a single hierarchical framework.

Social adjustment, social performance, and social skills represent three levels of social competence. Social adjustment is the pinnacle of the hierarchy. Cavell (1990) defined social adjustment “as the extent to which individuals are currently achieving societally determined, developmentally appropriate goals” (p. 117). Further, Cavell suggested that social adjustment goals are synonymous to statuses obtained by society members. These statuses are value-laden gauges of age-appropriate achievements. Examples of social adjustment indicators include health status, legal status, academic or occupational status, and socioeconomic status. Other measures of social adjustment are social (e.g., peer status), emotional (e.g., self-esteem), familial (e.g., structure, level of cohesion), and relational (e.g., friendship quality). The tri-component model illuminates social adjustment as a separate construct rather than as a product of social functioning.

Social performance is the second tier to the tri-component model. Cavell (1990) defined social performance as “the degree to which an individual’s responses to relevant, primarily social situations meet socially valid criteria” (p. 118). This definition suggested that social performance is independent of its theorized skills and presumed products. Further, the definition implies that strategies for identifying social tasks and task criteria need to be socially valid.

Social skills, the last component, refer to distinct abilities that allow individuals to perform competently in social situations. Social skills enable chronological functioning, which includes stimulus encoding, decision-making, and response enactment. In addition, the social skills construct also extends to include overt behaviors, social cognitive and emotional regulation skills. There is some debate regarding whether processing skills required to meet social demands guarantee effective social performance. Cavell (1990) asserted that social skills deficits should not be considered the only cause of poor performance: “Social skills are a necessary but insufficient determinant of effective social behavior” (p. 118). In other words, having social skills does not always equate to exhibiting socially acceptable behavior. There are some students who have socially appropriate skills in their repertoire, but for various reasons, they choose not to use them. In a later work, Gresham and Elliot (1987) attempted to explain reasons for ineffective social behavior by developing a framework that categorized social competence deficits.

The literature identifies other social competence definitions. Zembar and Blume (2009) defined social competence as “the ability to interact effectively with others” (p. 304). Gresham and Elliot (1987) divided the broad notion of social competence into two subcategories- - adaptive behavior and social skills. Gresham asserted that there are four types of social competence deficits. These deficits include skill deficits, performance deficits, self-control deficits, and self-control performance deficits (Gresham, 1986; Gresham & Elliot, 1987). A skill deficit is either lacking “the necessary social competencies to behave in an adaptive or socially skilled manner” or an individual’s lack of knowledge regarding “a critical step in the performance of a behavioral sequence” (Gresham; Gresham & Elliot, p. 171). A performance deficit is present when an

individual knows how to perform a skill, but is not performing the skill at an optimal level (e.g., makes eye contact but not for an extended duration of time) (Gresham; Gresham & Elliot). Self-control skill deficits are when an individual has not learned a skill due to some type of emotional arousal response (Gresham & Elliot). Lastly, a self-control performance deficit is when an individual has a particular skill in his or her repertoire, but does not perform the skill (Gresham; Gresham & Elliot).

Similarly, Spence (2003) asserted there are several cognitive, emotional, and environmental factors that affect social behaviors and as a result social competence. Cognitive, emotional, and environmental factors that affect social competence include the ability of an individual to monitor the response of others during interpersonal communications and change behaviors accordingly and the ability of individuals to interpret the body language and social cues of an individual as a social interaction occurs. Lack of social perception and social knowledge could result in a misinterpretation of social cues, which lends itself to unsuitable social responses (Spence, 2003).

In summary, there are many definitions of social competence. There is no consensus on the definition of social competence. It is clear, however, that social competence is an important part of initiating and maintaining relationships with others and is vital to students' academic and functional well being.

The following paragraphs discuss barriers that make it difficult for teachers to address social competence in the classroom. Included second in the paragraphs will be a specific strategy that can be used to improve the social functioning of individuals with disabilities. Finally, there will be a discussion on how the lack of social skills impact students with disabilities.

Barriers to Teaching Social Skills

The dynamics of the special education classroom and the role of the special education teacher have changed dramatically since the enactment of The No Child Left Behind Act. Special education teachers are faced with the two major feats: (1) teaching functional skills needed to successfully transition into society and (2) providing academic support to individuals with disabilities (Alwell & Cobb, 2009). Students with learning and/or behavioral deficits are receiving instruction in the general education classroom, in which teachers focus primarily on academics rather than social skills (Fenty, Miller, & Lampi, 2008). Although there are other barriers to teaching social skills, these changes have left little room for students with disabilities to be taught social skills that can be critical to their future success.

Social Impact

The literature identifies several strategies or evidence-based practices that can be implemented to improve post-school outcomes for transition-aged students with disabilities. One practice that has been identified is social skills training (Kolher, 1993). Social interactions are vital to student success inside and outside of the classroom (Schoenfeld, Rutherford, Gable, & Rock, 2008). Lack of social skills has been linked to poor academic success, peer rejection, and employment longevity issues.

Academic. The ability to engage in positive social interactions increases students' chances to learn (Malecki & Elliot, 2002; Wentzel, 1993 as found in Schoenfeld, et al., 2008). McClelland, Morrison & Holmes (2000) asserted that the inability to establish and maintain social interactions puts students at risk for academic failure. One reason for this is social skills encompass a broad range of academic related skills that enable students to

complete work independently, work cooperatively in groups, build and preserve friendships, and respond appropriately to corrective feedback (Gresham et al., 1987).

Peer rejection. Failure to meet social expectations leads to peer rejection (Kauffman, 2005). Peer rejection can occur because of an individual's internalizing behaviors (e.g., shyness, depression, crying episodes, withdrawal) or it can occur because of overt anti-social behaviors (e.g., arguing, shouting, teasing, fighting). These varying types of behaviors may manifest in the classroom in the following ways: refusal to participate in group activities and refusal of accountability for one's actions. The student's refusal or withdrawal frustrates both teachers and students making an effort to include the individual in classroom activities. A consequence of this frustration is students who exhibit the aforementioned behaviors are often rejected and/or neglected by their peers.

Post school success. Poor social skills can affect a student's post school successes. There is evidence that supports the relevance of social skills beyond school. Greenspan and Shoultz (1981) found that interpersonal communication deficit was the primary reason for termination from employment for individuals with an intellectual disability. Research supports that after graduation from school more situations require social competence, rather than academic skill (Forness & Kavale, 1996). To remedy problems associated with social skills deficits, social skills training (SST) programs have been developed. These programs are designed to explicitly teach social skills as a means to promote social development and deter maladaptive behaviors.

Clearly, social skills are important to student success. Lack of social skills can have a negative impact on a student's academics, peer interactions, and post school successes. Social skill

s training is one strategy that has been identified to address social skills deficits in students with disabilities. However, before implementing SST, it is important to pinpoint what social skills are and are not. The literature indicates that there is no conclusive definition for social skills. The next section will examine social skills definitions by comparing and contrasting various definitions used in the literature.

Social Skills Definitions

Many researchers have grappled with the question: What are social skills? As a result, there are several definitions and conceptualizations of social skills in the literature. Many of these definitions overlap; however, a review of definitions substantiates that there is no agreement on the definition of social skills (Gresham, 1986).

Gresham conducted a review of social skills definitions published during the 70's. According to Gresham (1997), the social skills literature published in the 70's identified three types of social skills definitions. These types included the peer acceptance definition, the behavioral definition, and the competence correlates definition. The peer acceptance definition uses popularity to conceptualize social skills, whereas the behavioral definition identifies situations that maximize positive responses and minimize the probability of negative consequences. According to the competence correlates definition, social skills are social behaviors that correlate with social competence. According to Gresham (1986), the peer acceptance definition is problematic because behaviors that result in peer acceptance and popularity are not clearly identifiable.

Gresham asserted that the behavioral definition is more advantageous than the peer acceptance definition because the “antecedents and consequences of a social behavior can be identified, specified, and operationalized for assessment and remedial purposes” (Gresham, 1986, p.7). Though social behaviors are identifiable and operational, the behavioral definition does not ensure that the behaviors identified are socially valid behaviors (Gresham, 1986).

Steadly, Schwartz, Levin, Stephen, and Luke (2008) broadly defined social skills as “components of behavior that help an individual understand and adapt across a variety of social settings” (p.5). This definition focuses more on social adjustment-how one can change his or her behavior to match the current social environment. Other definitions in the literature extend upon the social adjustment conceptualization to add social performance. An example of this extension can be found in Walker’s (1983) definition, which asserts that social skills are a set of competencies that “a) allow an individual to initiate and maintain positive social reactions, b) contribute to peer acceptance and to a satisfactory school adjustment, and c) allow an individual to cope effectively with the larger social environment” (p. 2). This definition incorporates important social components such as initiating and maintaining relationships and coping. The components found in Walker’s definition for social skills are similar to components found in Gresham, Van, and Cook’s (2006) definition.

Gresham, Van, and Cook (2006) defined social skills as “a set of competencies that promote positive social relationships, contribute to peer acceptance and friendship development, lead to satisfactory school adjustment, and allow students to cope with and adapt to the demands of the social environment” (Schoenfeld, et al., 2008).

Gresham (1986) discussed another definition- the social validity definition. This definition emphasizes that given a particular situation, social skills are behaviors that determine important social results for students. Particularly, these behaviors are behaviors that are deemed important by stakeholders (e.g., parents, teachers, peers, and students) and determine an individual's status on socially significant outcomes (Gresham, 1982). Gresham (1982) asserted that socially significant outcomes are outcomes that stakeholders perceive as important, adaptive, and functional. In other words, socially significant outcomes "make a difference in terms of an individual's functioning or adaptation to environmental demands and age-appropriate societal expectations" (p. 333).

Situation and perception are responsible for variations in social skills definitions. This assumption is parallel to premises asserted in the social validity definition. An increasing number of researchers are defining social skills using the social validity conceptualization; however, it is evident that there is not one conclusive definition of social skills. It would seem that the lack of consensus about the definition of social skills would make it difficult to assess an individual's social skills. There are several ways to assess an individual's social skills level. The next section identifies methods that can be used to assess a student's social skills level.

Social Skill Assessments

Equally as important as defining social skills is to be able to assess an individual's social skills. Warnes, Sheridan, Geske, and Warnes (2005) asserted that traditionally, researchers have utilized a variety of methods to assess an individual's social skills. Perhaps the most commonly used method for evaluating social skills is reports from others (e.g., reports and ratings generated from teachers, peers, and/or parents) (Elliott,

Malecki, Demaray, 2001; Warnes et al., 2005). One example of a method used to gather information from others is a rating scale. Rating scales require individuals (e.g., teachers, parents, and/or peers) to report information on specific domains. Rating scales are designed to provide information about an individual's behavior, as well as provide a comparison of his or her behavior to the behavior of a same-aged norm group (Warnes et al., 2005).

A second method used to assess social skills is teacher nomination and rankings. This method requires teachers to generate a list of students who exhibit specific characteristics in descending order. This method provides for a relative comparison of social skills among individuals in a classroom. Nominations and rankings can also be made by an individual's peers. Nominations made by individual's peers are referred to as sociometric assessments. Peer nominations and rankings are conducted in a manner similar to the teacher nomination and ranking process.

A third method used to assess social skills is self-reports. Self-reports generate information regarding a student's subjective perception of his or her social competence. Self-reports require students to disclose their thoughts and opinions regarding their social behaviors and relationships. Additionally, students could be asked how they would respond in a given scenario. Self-reports can provide unique insight into students' perceptions of their own behavior, but the subjective nature of this method does not allow for criterion-related validity; therefore, it is rarely utilized as the sole assessment for determining an individual's level of social competence (Warnes et al., 2005).

A fourth method utilized to assess social skills is direct behavioral observation. Direct behavioral observations require observers to utilize an observational coding

system that defines specific behavioral characteristics to record the behavior of a student over a period of time. In a naturalistic setting, direct behavioral observations can provide information regarding the frequency and range of behavior in a student's repertoire. It can also provide a glimpse at the function of the student's behavior in a natural non-simulated environment (e.g., factors that influence or discourage social behavior).

Each of the aforementioned methods of assessment can provide beneficial information regarding a student's behavior; however, these assessments have the propensity to highlight the intra-individual variables such as the student's knowledge and performance of various social behaviors, rather than the "contextual factors that impact social functioning" (Warnes et al., 2005, p.175). Essentially, these assessments provide information regarding a student's social strengths and deficits; yet fail to account for the validity of various social behaviors in a given environment. Sheridan, Maughan, Hungelmann, and (1999) purported that in order to "maximize generalization to the natural setting, social behaviors must be considered as they interrelate within meaningful social environments" (p. 87). As a result, these researchers asserted that assessments must include the following: (1) an ecological assessment and (2) a child behavior assessment. An ecological assessment examines the social context in which the student is functioning, while the child behavior assessment examines the behavior of the student within those contexts. The primary function of an ecological assessment is to identify socially valid skills and to "assess features within specific social environments including physical characteristics of setting (e.g., place, space, arrangement, equipment), demands of the criterion environment (e.g., rules, behavioral norms), and behavioral contingencies (e.g., rewards and punishers) for certain actions" (p. 87). The social validity of social skills is

established when the results of an assessment contribute to successful interventions that generate meaningful and positive results for the student. In the case of social skills, for this to occur, researchers must identify meaningful skills.

It is crucial that teachers accurately identify social skills deficits that impede the social successes of students with disabilities. Appropriately identifying social skills deficits offers a better opportunity for skill deficits to be specifically addressed. The next section will discuss social skills deficits exhibited by students with disabilities.

Social Skills Deficits

High incidence disabilities are disabilities that account for two-thirds of all students with a disability (Henley, Ramsey, & Algozzine, 2009). Examples of high incidence disabilities include learning disability, intellectual disabilities, attention deficit disorder, and emotional disturbance. A substantial body of evidence suggests students with high incidence disabilities often exhibit maladaptive social behaviors. In general, research indicates individuals with high incidence disabilities are more likely to do the following:

- choose socially unacceptable behaviors in social situations
- have difficulty solving problems
- have difficulty predicting consequences for their social behavior
- have difficulty adjusting to the characteristics of their listeners in discussions or conversations
- have difficulties accomplishing complex social interactions successfully (e.g., persuasion, negotiation, resisting peer pressure, giving/accepting criticism)
- be rejected or isolated by their classmates and peers
- be objects of negative and non-supportive statements, criticisms, warnings and negative nonverbal reactions from teachers
- have difficulties adapting to new social situations
- be judged negatively by adults after informal observation
- receive less affection from parents and siblings
- have less tolerance for frustration and failure
- use oral language that is less mature, meaningful or concise

- have difficulty interpreting or inferring the language of others (Lavoie, 1994).

Learning Disabilities

Research substantiates that a significant number of students with a learning disability have social skills deficits (Brown, Hedinger, & Mieling, 1995). When compared with their peers without a disability, individuals with LD typically are less popular among their peers, exhibit more disruptive and aggressive behaviors, and have difficulty problem solving (Agaliotis & Kalyva, 2006). According to Bryan and Sherman (1980), individuals with a learning disability make fewer face-to-face contacts and smile less than individuals without a disability.

Mild Intellectual Disabilities

Students with mild intellectual disabilities may have difficulties interacting socially. These difficulties in part are due to the cognitive characteristics of students with mild intellectual disabilities. For instance, a student with low cognitive development and delayed language skills may exhibit difficulty understanding the content of verbal interactions, as well as understanding expectations (e.g., knowing when to listen and knowing how to respond) when verbally interacting with others. These students also have attention and memory deficits that may cause them to have difficulty attending to important aspects of the conversation, maintaining attention over a period of time, and retaining certain aspects of their observations in their short-term memory (Rosenberg, Westling, & McLeskey, 2008). These difficulties affect students socially because they often lead to lower social status among peers, alienation, and poor self-concept.

Emotional Disabilities

Students with emotional disabilities also exhibit social skills deficits. These students have difficulty relating socially to their peers, teachers, and parents. Students identified as EBD also have difficulty problem solving, accepting feedback, and exercising self-control (Rosenberg et al., 2008). Difficulties in these areas has made it more challenging for students identified as EBD to make friends and adapt to the social demands of school and home.

Social skills programs have been developed to address social skills deficits that are often exhibited by students identified with a learning disability, an intellectual disability, and an emotional disability. The next section will discuss social skills program components that have been identified in the literature as successful methods for remedying social skill deficits.

Social skills Training

Just as researchers have grappled with the definition of social skills, they have also grappled with the question: How do you remediate social skills deficits? The literature purports that social skills instruction is an effective method to use to remediate social skills deficits. Social skills instruction is teaching specific behaviors that facilitate positive peer interactions (Miller et al., 2005). Several programs have been developed to teach social skills. Steedly et al., (2008) asserted that quality intervention programs incorporate the following components:

- Focus on learning strategies that address the social and emotional
- Allow opportunities for students to practice the newly taught skill
- Alter instructional strategies based on social skill deficit

- Design intervention to the individual needs of the student.

Effective social skills programs have a series of steps (Steadly et al., 2008).

Perhaps one of the most pertinent steps is identifying the student's area of deficit.

Identifying areas of deficit helps the instructor to target the student's individual areas of need. By identifying social skills deficits specific to an individual, teachers are able to ascertain whether an intervention would improve an individual's social skills deficits or have no effect on improving deficits (Steadly et al., 2008).

Several strategies have been identified as key components to successful social skills training (Gresham, 1998). Some of these strategies include coaching, modeling, and cognitive-behavior intervention (Miller et al., 2005). Of the components identified, Gresham (1998) asserted that modeling is the most critical component.

Coaching. Coaching, described as a "behavior-change" mechanism, necessitates a child's comprehension of language and verbal concepts (Gresham, 1982, pg. 132). Specifically, coaching utilizes verbal instructions, rather than visual displays of appropriate behaviors. Coaching involves three components: (1) expressing rules and/or standards, (2) practicing behavior, and (3) providing feedback and discussions. Coaching social skills allows the instructor to integrate a series of skills and show the effect it has on other students. For example, the instructor can give overt verbal instruction integrating all the steps needed to appropriately ask questions during class. Utilizing the three aforementioned coaching components, Oden and Asher (1977) conducted a study that examined the effects of coaching on increasing peer acceptance among socially isolated third and fourth grade students. Students were selected based on results from a sociometric evaluation. Students who participated in this study (1) received instruction

from an adult regarding making friends, (2) participated in games with peers to practice skills taught, and (3) participated in after-play review. Results from this study indicated that coaching is effective in increasing peer acceptance in play situations for students who are socially isolated, but might not be generalized to a work situation.

Modeling. Modeling occurs when children are exposed to socially acceptable behaviors and are asked to emulate the behaviors observed (Gresham, 1982). Modeling provides visual instructions, whereas coaching provides verbal instructions. By modeling appropriate behaviors, students are given an opportunity to observe and practice socially acceptable behaviors in a setting that minimizes anxieties of failure and social rejection (Miller, et al., 2005). Research substantiates that modeling teacher preferred behaviors has had a significant impact on students who exhibit behavioral and/or emotional difficulties. Additionally, data show that modeling appropriate social behaviors can increase the probability for generalization across academic settings (Ya-Yu Lo, Loe, & Cartledge, 2002).

Coaching and modeling are two strategies that can be effectively used to teach social skills. These strategies are effective because instructors are able to provide explicit verbal instructions or visual instructions; however, coaching and modeling are not the only strategies that have been identified as effective methods for teaching social skills. Research substantiates cognitive behavioral interventions and meta-cognitive interventions as effective strategies to teach social skills.

Cognitive behavioral interventions. Utilizing cognitive behavioral interventions is another strategy that can be implemented to teach social skills. Cognitive behavioral interventions (CBI) are strategies utilized to alter overt behaviors by teaching individuals

methods that can be used to understand and modify thoughts and behaviors (Riccomini, Bost, Katsiyannis, & Zhang, 2005). Some interventions categorized as CBI's include problem solving, self-control, anger management, and self-instruction. CBI's can help students identify difficult circumstances that have resulted in inappropriate behaviors, as well as identify and implement appropriate behaviors to address these circumstances. CBI's also teach students to use inner-speech to help during difficult social interactions. Specifically, CBI's offer students a sequence of steps to help them evaluate their performance, develop alternative behaviors, and ascertain the most appropriate response to the given circumstance.

There are two components of CBI's. These components are cognitive and behavioral. The cognitive component provides an "internal road-map" for students to adjust their behaviors. Teachers explicitly teach students methods that encourage self-regulation, increase positive responses, and decrease inappropriate responses. These methods are meant to guide students' thinking by providing tools that will allow them to methodically think through situations and produce appropriate social responses (e.g., when communicating face-to-face with others, look them in the eyes instead of at your feet). Cognitive components of CBI are explicitly teaching problem solving strategies, situational self-awareness, self-instruction, and communication skills. Problem-solving is noted as the most frequently used CBI. Riccomini et al., (2005) identified seven generic components of problem solving:

1. Recognize of the problem- Students are provided instruction and given an opportunity to practice identifying problem situations through role-playing, examining case studies, and utilizing real life examples.

2. Define and articulate specifics of the problem- Students are given opportunities to practice articulating the problem including individuals involved, location of the problem, and details of the incidence.
3. Develop procedure process for solving the problem- Students are explicitly taught the problem-solving process using modeling. Retention of the problem-solving process is achieved through the implementation of repeated guided practice and an opportunity for independent practice. The guided and independent practices can be achieved using the following approaches: role-playing, group discussion activities, and self-monitoring.
4. Generate alternative strategies to approach the problem- Students are taught to generate alternative approaches to addressing a problem by using the probe questions (e.g., “What are your possible options?”). Formulating alternative approaches to addressing a situation is perhaps the most crucial component of problem solving.
5. Evaluate the consequence of each generated alternative- Students are asked to identify the most realistic alternative and evaluate its consequences.
6. Decide on a course of action and try it- Students are instructed to determine a course of action and to implement their selected course of action. Students are given an opportunity to rehearse their course of action and implement the solution. Consequences are discussed after the implementation of the selected course of action.

7. Evaluate the effectiveness of the selected alternative- Students are given opportunity to determine whether their selected course of action is appropriate to address the situation.

The behavior component of CBI includes a rewards system. This system is used to reinforce students for utilizing socially appropriate behaviors and for using the problem-solving process. Rewards can be in the form of verbal and/or nonverbal praises (e.g., “good job”) and/or in the form of tangible goods (e.g., receiving candy or tokens for achieving target behaviors).

In the following section, several studies that employed the methods described above will be examined. These studies will be evaluated to assess the effect various SST programs have had on improving social skills deficits in students who are at-risk or who have a disability.

Review of Social Skills Training Research

This section examines single subject, experimental, and meta-analytic research on the efficacy of social skills training in students with disabilities. Studies for this section were selected based on the following criteria: (a) the research had to include transition age students who were at-risk or had high incidence disabilities, (b) the research had to use SST as an intervention, and (c) the research had to focus on change in behavior as a dependent variable. These studies range from 1977 to 2008.

Single Subject

Single subject research studies have been employed to evaluate the efficacy of social skills training in students with disabilities. This section will examine the methodology used to conduct each study, as well as the type and combination of

interventions used to remediate social skills deficits. Furthermore, this section will examine the impact of social skills training on various disability categories.

Gresham et al., (2006) conducted a single subject study using an ABAB design to evaluate the effect of social skills training on students with behavioral acquisition deficits. Students with behavioral acquisition deficits were referred to as students who did not have the necessary social skills to interact with other students or who did not know a critical step in achieving social success. The study also evaluated the effects of a high-intensity versus low-intensity social skills intervention (e.g., 60 hours of SST vs. 30 hours of SST) and the effects of differential reinforcement on other behaviors (e.g., providing reinforcement when the target behavior does not occur for a specific amount of time) in the classroom on factors such as maintenance and generalization. Social skills deficits were divided into three categories: disruptive behaviors, alone time, and negative interactions. Disruptive behaviors were operationally defined as “a class of behaviors that disturb the classroom ecology and interferes with instruction” (p. 367). Examples of these behaviors included “being out of seat without permission, not complying with teacher’s instructions after 10 seconds, making inaudible noises that disrupt class, yelling, cursing, and taking others’ property” (p. 367). Alone time was determined by using duration recording in 23, 15-minute observation sessions. Specifically, alone time was defined according to the definition found in Systemic Screening for Behavior Disorders (SSBD) (Walker & Severson, 1990), which defines alone time as a student being more than five feet away from another student, not socially involved nor socially engaged, and not participating in activities with other students. The SSBD was also used to define negative social interactions. Negative social interactions were assessed by utilizing duration

recording during 23, 15-minute observations. These behaviors were defined as biting, hitting, pinching, cursing, or threatening other students verbally or physically. Subjects for this study were selected among students between the ages of 6 and 8 who were at-risk for being diagnosed as having an emotional or a behavioral disorder.

Selecting subjects for this study occurred in three stages. In the first stage, teachers were solicited to identify 10 students who exhibited social skills problems. Teachers rank ordered the 10 students based on the severity of their behavioral difficulties (e.g., one being the most severe and ten being the least severe). To select these students, teachers utilized the following definition:

Some kids often start fights or arguments with other kids. They may hit, kick, pinch, swear, or are aggressive toward other kids. They may also say mean or nasty things to hurt others' feelings. They may show signs of hyperactivity, impulsivity, inattention, defiance, and/or noncompliance toward others in class or at recess (p.372).

The second stage of the selection process required teachers to respond to two measures of social skills and problem behaviors: the Social Skills Rating System and the Critical Events Index.

Competing problem behaviors identified in this study included interrupts conversation of others, disturbs ongoing activities, argues with others, gets angry easily, talks back to adults when corrected, has temper tantrums, acts impulsively, fidgets/moves excessively, is easily distracted, fights with others, threatens or bullies others, and doesn't listen to what others say (Gresham et al., 2006).

Students received 60 hours of social skills training in a small group. Specific skill acquisition deficits were selected based on the Social Skills Rating Scale-Teacher. Social skills instruction consisted of coaching, modeling, and behavioral rehearsal. Instructional

variables used in this study included direct instruction, rehearsal, feedback/reinforcement, and reductive procedures.

Results from this study showed that students receiving intense social skills training demonstrated large decreases in competing behaviors and marked improvement on social validation assessments. These results suggested that high intensity social skills training produces better results than low intensity social skills training. Students who received twice as much training than had been documented in the literature demonstrated higher effect sizes ($M = 76.23\%$ versus 62.00% respectively).

Berler, Gross, and Drabman (1982) utilized a multiple baseline analysis to examine if SST would improve socially unskilled students (1) role-play performance, (2) occurrence of verbal and play interactions in an authentic play environment, and (3) peer acceptance. In particular, they examined assertive behavior (e.g., eye contact, appropriate verbal content in the event of unfair criticism, initiating social interactions, paying compliments, and suggesting alternate behavior). Subjects selected to participate in this study included six boys. These boys ranged in age from 8 years and two months to 10 years and ten months. Results from this study showed that socially inept students identified with a learning disability can be taught to respond correctly to role-playing situations. Participants in this study attended a school in Jackson, Mississippi for students with learning disabilities. Students were selected based on results from a peer sociometric rating scale and teacher referrals. Three teachers administered a roster and a rating sociometric questionnaire to their class. Students were administered the roster and rating sociometric questionnaire a total of six times in a three-week period. Students used an eleven point scale to evaluate their peers on three questions concerning the extent to

which they would prefer to engage in work and play with peers in their class. Two students from each of the three classes were selected based on the following criteria: (1) as determined by the six administrations of the questionnaire student must have received the lowest mean rating from all of his or her classmates and (2) must have been identified by the teacher as having poor peer relations. One student from each of the three classrooms was randomly selected to be in the experimental group, while the remaining three students were assigned to the control group.

Social skills training for the experimental group was evaluated using a multiple baseline design across two categories: (a) eye contact and (b) appropriate verbal responses when responding to unfair criticism, initiating social interactions, giving compliments, and requesting new behavior. The final component that was evaluated was duration of speech, which served as an untrained outcome measure. Target behaviors were determined based on the results from students' baseline assessments. Students received training two to three times a week for a total of five weeks. Each training session lasted for approximately thirty minutes. After each training session, students were individually video taped while completing a twelve scene role-play test. The scenes were used throughout the training sessions to teach target behaviors. Mastery of target behaviors was assessed using objective ratings of the students' performance.

Prior to the training, students in the experimental and control groups were given a baseline assessment which consisted of three administrations of the 20-item role-play test. Specifically, the baseline assessment was made up of twelve trained and eight untrained scenes. Social skills training began after the administration of the baseline assessment. Students were trained using the following methods: coaching, modeling, and

providing feedback. Students assigned to the experimental group received group training. The group consisted of two adult leaders (teacher and first experimenter) and the experimental subjects. At the beginning of each training session, one of the group leaders described the target behavior and provided a rationale for its relevance to positive peer relations. Following the explanation of the rationale, group leaders presented one of twelve training scenes. After the presentation of the prompt, students practiced presenting the prompt and responding to the prompt. During this time group leaders coached the students, modeled appropriate responses, and provided feedback and/or positive reinforcement (e.g., praise). Students were also encouraged to provide feedback to one another. This methodology was applied to all the remaining scenes that were taught. When training took place for appropriate verbal content, students were required to provide multiple responses to minimize the probability that students would learn to mimic one response. Students were also video taped during each training phase. Video footage was shown to the students immediately and was followed by feedback and additional practice.

Four training procedures were used to facilitate generalization. These procedures included using two trainers to increase the diversity of stimulus conditions, providing trainings in groups to allow students' peers to serve as stimuli familiar to the training session and the natural environment as means to increase generalization across settings, allowing five to ten minutes at the end of each session to practice responses to scenes that were spontaneously created by the students, and providing verbal and written directions to classroom teachers and requesting they provide daily feedback to the experimental group regarding general peer relations.

Results from the study showed that the mean for eye contact increased from .03 to .75 during training. Similar results were found when examining appropriate verbal content. The mean for appropriate verbal content increased from .18 to .63. Based on results on the posttest, performance levels were maintained from two to four days after training sessions. Although speech duration was not directly targeted during training sessions, the behavior demonstrated a slight, gradual increase. When untrained role-playing scenes were used to examine generalization, data showed a moderate degree of generalization for making eye contact and for using appropriate verbal content. However, when generalization was assessed in the free play setting, no relationship between social behaviors in the natural environment and the intervention were noted.

Bornstein, Bellack, and Hersen (1977), conducted a multiple baseline analysis to evaluate the effectiveness of providing social skills instruction, feedback, behavior rehearsal, and modeling to unassertive children between the ages of 8 and 11. Teachers recommended twelve students, characterized as excessively cooperative, passive, unassertive and shy; however, only four met the criteria. The students selected for this study were deficient in at least three verbal and nonverbal target behaviors (e.g., poor eye contact, inaudible responses, short speech duration, and inability to make requests). The participants identified in this study included Jane, Tom, Mary, and Alice. The first participant, Jane, was as an 8-year-old female third grader, who had trouble relating to her peers. The second participant, Tom, was an 8-year-old male in the third grade, who had difficulty responding to interpersonal situations. The third participant, Mary, was a 10-year-old female sixth grader, who had difficulty standing up for her rights. Lastly, Alice was an 11-year-old female fifth grader, who had difficulty refusing unreasonable

requests, volunteering in class, and expressing hostility when appropriate. Baseline data for this study were generated using results from three administrations of the Behavioral Assertiveness Test for Children. Specifically, the participant sat in the videotape studio with a male and female role-model, while the therapist provided instruction over a speaker in a control room.

Participants were asked to respond realistically to situations from the Behavioral Assertiveness Test for Children. Results from the assessment indicated that three of the participants, Jane, Alice, and Mary, demonstrated difficulty in making eye contact, speaking loudly, and requesting new behaviors. Tom had difficulty with eye contact, duration of speech and requests for new behavior. After the baseline data were collected, subjects received three weeks of social skills training. This training took place in a videotaped studio and was comprised of three 15-to- 30 minutes sessions a week. Training during the first week for all participants focused on increasing eye contact. The second week of training focused on loudness of speech for Mary, Jane, and Alice and on speech duration for Tom. The last week of training was geared toward increasing the number of requests and on maintaining loudness of speech for Mary, Jane, and Alice. Nine scenes from the Behavioral Assertiveness Test for Children were used for training and to assess generalization. Six scenes were used to train the participants during the three week training period, while the remaining three scenes were used to assess generalization from trained to untrained. Generalization scenes mirrored training scenes in content (e.g., gender of respondent, location of interaction). Scenes were randomly selected throughout the assessment and training phases of the study. Specific social skills instruction described in this study included the following:

- (a) presentation of one scene from the Behavioral Assertiveness Test for Children, the model's delivery of a prompt, and the participants response
- (b) feedback to participants by the therapist regarding target behaviors
- (c) discussions regarding feedback takes
- (d) role-model modeled responses
- (e) instruction regarding target behaviors, and the participant response
- (f) rehearsal extensions for a scene until the therapist feels that the scene has been mastered
- (g) training consisted of new interpersonal situation

Upon the completion of training for all three target behaviors, follow-up assessments began. The follow-up program included a probe assessment at two and four-week intervals after treatment.

Data from the multiple-baseline analysis suggested that social skills training yielded considerable improvement for all four participants in the areas of behavior and overall assertiveness. More specifically, the treatment was effective in enhancing performance in verbal and nonverbal components of assertiveness (e.g., eye contact, loudness of speech, speech duration, and request for new behavior) across all participants. It is noted in this study that generally changes occurred most often when training was directed at a specified behavior. Follow-ups also showed that all participants were able to generalize the skills learned during training sessions to untreated scenes for over a one-month post-treatment period; however, because this study used role-play with adults in situations closely related to those utilized in the training scene, there is no evidence that suggests participants will be able to generalize behaviors to the natural environment.

Clement-Heist & Siegel (1992) used a multiple-baseline design to examine 4 high school seniors' (i.e., Randy, Jackie, Donna, and Joan) ability to generalize 12 behaviors to a real work setting. All four students were identified as having a learning disability. The study took place at the California State Automobile Association (CSAA), where the students worked four half-days. Each student was assigned to different departments with varied job tasks that ranged from filing to basic computer work. Baseline data was collected at the job site and vocational social skills training took place in the 'Employment Skills Workshop.' Students received 2 ½ hours of training every Friday for an entire semester in three specific areas: ordering job duties, conversing with others, and giving instructions. Two consecutive weeks of training were provided for each targeted area. Each session began with a discussion of the skill that was being learned. The discussion segment of the session included a rationale for using the skill, an opportunity for students to reflect on when they could use the skill, and a general definition. Following the discussion segment, the teacher modeled the social behavior two ways: flawed and correct. Students rated the role-play performance and discussed the scores they gave and why. Students were also given an opportunity to role-play given situations. Students in the audience provided feedback by rating each other's performance. In the event that students were unable to show the targeted behavior in the probe setting within the 2-week time frame, he or she progressed to phase II where training was provided in the main area of the break room of the work place and in the student's department. This type of training is referred to as in situ training which means training in the actual, criterion situation. Phase II sessions included a review discussion segment, four role-plays and feedback, and an opportunity to identify coworkers to whom

he or she could practice. If generalization still did not occur, students were provided with two separate sessions in the break room that lasted 10 to 20 minutes. A student's failure to generalize a behavior after the break room training session resulted in one to three sessions in the student's department.

Results from this study showed that all students improved from pretest to posttest. Randy's pretest median score was 57; however after the intervention his median posttest score was a 73. Jackie pretest median score was 48, while her posttest median score was 65. Joan had similar gains with a pretest median score of 49 and a posttest median score of 67. Whereas Donna had minimal gains with a pretest median score of 70 and a posttest median score of 78.

The studies discussed in this section yielded similar results: Social skill training is an effective strategy to remedy social skills deficits. One significant similarity noted in the preceding studies includes the use of multiple interventions. According to Gresham (1982) narrative research suggests that social skills interventions that employ a combination of modeling and coaching with reinforcement for desired behaviors have more of an impact. Another commonality among the aforementioned studies is that researchers found that although there were marked improvements in participants' behavior after SST took place, participants were not able to generalize skills learned to the natural environment. Generalization to the natural environment is important because many of the skills being taught during SSTs are important to achieving academic success as well as success beyond high school graduation (Alwell & Cobb, 2007).

Experimental Design

Cumming, Higgins, Pierce, Miller, Boone, and Tandy (2008) examined the effectiveness of teacher-led social skills instruction and the effectiveness of the combination of teacher-led social skills instruction and the integration of technology-based social skills instruction using a pre-test, post-test design. This study was conducted on twenty-five middle school students diagnosed with an emotional disability. Instructors taught the following: listening, following directions, dealing with angry individuals, and asking permission. Instructors also used a combination of teacher-led instruction and technology-based social skills instruction to teach self-control, fight circumvention, peer pressure adjustment, and focus.

Specifically, social skills instruction for this study was provided in a specialized classroom and by one of three special education teachers. Traditional social skills training sessions consisted of five fifty-minute sessions per week for 4 weeks. Each week students were taught a new skill. Instruction was based on a program referred to as Skillstreaming the Adolescent Program (Goldstein & McGinnis, 1997). After four weeks of the traditional social skills training, subjects received four more weeks of training using a combination of traditional social skills training and technology-based training program. Results from the study suggested that there was a significant increase in student knowledge of social skills from pretest ($M = 4.04$, $SD = 3.69$) to posttest ($M = 12.2$, $SD = 4.76$) using the traditional intervention. There was also statistically significant increases in student knowledge of social skills from pretest ($M = 3.80$, $SD = 3.59$) to posttest ($M = 12.88$, $SD = 4.52$) using a combined intervention. Both interventions yielded statistically significant results.

McIntosh, Vaughn, and Bennerson (1995) conducted a study to examine how two mnemonic devices, FAST (Vaughn, McIntosh, & Spencer-Rowe, 1991) and SLAM (McIntosh et al., 1995), would impact peer acceptance among three students with a learning disability. The students included in the study ranged from the ages of ten to twelve years, six months.

The FAST strategy, which was a mnemonic device designed to enhance interpersonal problem-solving, consists of four parts. Each letter represents an action for the student to remember and utilize. In the FAST strategy “F” meant freeze and think. At this level students were expected to identify the problem. The letter “A” stood for alternatives. Once students identified the problem, level two required that students think of ways to solve the problem. The third level, letter “S,” was solution. At this stage, students evaluated which options would yield the safest and best results. The last stage, which was represented by the letter “T,” stood for “try it.” During this stage, students determined how they could implement the solution, and they evaluated the outcomes of the decisions made.

The SLAM strategy was another four part mnemonic device used in this study. This mnemonic device was designed to help students be receptive to negative feedback and comments by others. In SLAM the “S” meant stop. At this level students were supposed to stop whatever they were doing. The second level, represented by the letter “L,” required students to look to make eye contact with the person speaking to them. During the third stage, which was represented by the letter “A,” students were required to ask questions to the person speaking to them as a means to clarify what is being stated.

The final stage was represented by the letter “M,” for make. During this stage, students were asked to make an appropriate response to the person providing the feedback.

The researchers in this study identified that there were three important components of social skills training. These components addressed skills training, informant status, and significant interactions.

This study was conducted in two general education classrooms. One classroom was used to implement the intervention while the other classroom was used as a test control. Both classrooms included students with learning disabilities, who spent two hours in the resource room on a daily basis. Three students were selected from each classroom for a total of six students. There were three dimensions to the intervention. The first dimension consisted of teaching the students the FAST and SLAM strategy. The second dimension consisted of allowing the students with disabilities to provide information to others. The last dimension consisted of arranging significant interactions between the students who demonstrated social deficits and socially favored classmates.

To measure the effects of the mnemonic intervention, research collected pretest and posttest data using three different assessments. These assessments included the Adapted Social Skills Rating Scale for Teachers (Vaughn & Hogan, 1990), a student rating scale, and teacher and student interviews. Results from this study showed that the students with learning disabilities who participated in the intervention classroom increased or maintained their positive peer ratings from the pre to posttest. However, those students with learning disabilities placed in the control group demonstrated a decrease in the positive peer ratings from pre to posttest. Results from the teacher rating scale indicated that there were no significant differences between the intervention and

control classrooms; however, results did indicate that all of the students increased in teacher ratings or maintained the same rating across data points.

In another study, Corkum, Corbin, and Pike (2010) examined if the program *Working Together: Building Children's Social Skills Through Folk Literature* would be effective in improving the social skills of individuals with ADHD. Sixteen subjects were selected to participate in this study- - ten males and six females. These individuals ranged from 97 months to 141 months in age. Teachers were asked to nominate students with ADHD who also had social deficits. Students could not be elected if they had other diagnoses that manifested social difficulties.

To determine the participants' present level of function, parents, teachers, and participants were asked to complete rating scales. The following assessments were administered to determine the participants' present level of functioning: Conners' Parent and Teacher Rating Scales-Revised: Short Form (CTRS-R-S) for ADHD (Conners, 1997); Kaufman Brief Intelligence Test (K-BIT) for intelligence (Kaufman & Kaufman, 1990); Social Skills Rating System (SSRS) for social skills (Gresham & Elliot, 1990); and Children Communication Checklist (CCC) for communication (Bishop, 1998). The program was implemented for a total of weeks. Sessions were conducted for one hour on a weekly basis. Training sessions took place during the regular school day in a natural setting. Based on results from CCC and SSRS researchers selected 10 social skills to be addressed during this study. Skills selected were: (1) making conversation, (2) introducing yourself, (3) making positive statements, (4) speaking assertively, (5) using courtesy words, (6) asking for help, (7) offering and giving help, (8) giving and accepting criticism, (9) joining a play activity, and (10) negotiating conflict. These skills were

taught using direct instruction. Participants practiced the newly taught skills by participating in role play and skill activities. Researchers also implemented a generalization component that involved parents and teachers. Parents and teachers were given a “way to go slip” at the end of each session to reward students for performing skills taught during each session.

A pre-test/post-test design was used to examine the effectiveness of the social skills program *Working Together* on students with ADHD. Results from this study indicated that the *Working Together: Building Children’s Social Skills Through Folk Literature* program was effective for increasing the social skills of individuals diagnosed with ADHD. Specifically, results showed that both parents and teachers reported the participants social skills higher on posttreatment [parents: $M = 92.42$, $t(11) = -2.37$, $p = .04$; teachers: $M = 86.50$, $t(15) = -2.11$, $p = .05$] compared to pretreatment [parents: $M = 83.67$; teachers: $M = 81.37$]. The study also substantiated that social skills training could be feasibly conducted in the natural setting.

Seevers and Blank (2008) examined the effects of social skills training on eight students with intellectual disabilities and other health impairments. Researchers in this study hypothesized that utilizing instructional strategies to teach social skills would improve students with disabilities’ social relationships and interactions.

A pretest/posttest design was used to conduct this study. Teachers-researchers were given the Social Skills Rating System (SSRS) to complete three times during the study-beginning, middle, and end. Results from the first administration of the rating scale were used to determine intervention topics. Instruction focused on skills that were identified as acquisition or performance deficits. Students were divided into two groups.

Each group met for approximately 30 to 40 minutes a week for eight consecutive weeks. New social skills were introduced at each session with a fifteen minute review of the skill that was taught from the previous week. Eight social skills were taught to each participant using the Boys and Girls Town Model (Flanagan, 2005), which uses role play. The teacher-researcher rated each participant either needs more instruction or mastery after the role play. A midterm SSRS was completed by the teacher-researcher at the end of 4 weeks. During the last four weeks, participants attended a play group. At the end of four weeks, teacher-researchers completed a third SSRS (posttest).

Results from this study showed that there was a main effect from assessment session 1 to assessment session 2, $(1,7) = 531.764, p < .05$. Session 2 ($M = 92.75, SD = 9.192$) increased from Session 1 ($M = 87.00, SD = 8.652$). There was also an increase from assessment session 2 ($M = 92.75$) to assessment session 3 ($M = 101.88, SD = 6.896$). A comparison of pre-surveys and post-surveys indicated that teacher-researchers saw statistically significant ($p < .05$) social gains from students receiving social skills instruction.

Schnitzer, Andries, and Lebeer (2007) designed a study to determine the type of intervention program that could effectively change cognitive and socio-emotional behavior. The study was carried out in two primary schools in Belgium. Forty-eight students took part in the study. Students in this study ranged between the ages of 11 and 13 years. Students were divided into two groups of 24. One group served as the experimental group, while the other group served as the control group. Researchers implemented the intervention for a total of seven weeks. During the seven week period,

14 sessions were conducted in the classroom twice a week for one hour. The intervention program was Feuerstein's Instrumental Enrichment (FIE).

Feuerstein's program was constructed to improve cognitive functions essential for academic learning and for social learning. The program included 14 instruments and a teacher's manual. Sessions were carried out utilizing the following structure:

familiarization of objective through the use of games, problem situations, and/or examination of worksheets; allowing group work and independent work; identifying cognitive principles through group dialogue; relating cognitive principles to academic and social fields; and summarizing. Three instruments were used in this study: (1) Orientation in Space, (2) Organization of Dots, and (3) Comparison. The instrument, Orientation in Space, helps students to forgo their own perspective to adopt another perspective. Organization of Dots helps students to focus on data, retain and process information, think hypothetically, and communicate effectively. Comparison helps students to recognize similarities and differences between situations. From the three instruments selected 14 worksheets were selected.

A pre-test/posttest design was used to determine the intervention's effectiveness. A pretest was administered one week prior to the beginning of the study, and a posttest was administered one week following the end of the study. Results showed that the program increased students' ability to think hypothetically (Intervention - pretest: 0.50, SD = .83; posttest: 1.29, SD = 1.16; Control- pretest: .79, SD = 1.41, posttest: 1.71, SD = 1.08). Additionally, results showed that the intervention increased student's ability to understand complex humor (Intervention- pretest: 6.67, SD = 1.61; posttest: 7.42, SD = 2.36; Control- pretest: 5.96, SD = 1.30; posttest: 5.63, SD = 1.64). Results also indicated

a positive tendency on the cognitive function ‘perception of emotion’ (Intervention- pretest: 5.54; SD = 1.35; posttest: 7.29, SD = 1.16; Control- pretest: 5.33, SD = 1.34; posttest: 6.38, SD = 1.64).

In 1977, Oden and Asher conducted a study to evaluate the effects of using coaching to improve isolated children’s peer acceptance. Subjects in this study were selected based on a sociometric measure. Individuals selected to participate in this study were provided coaching in social skills. Three components were included in the coaching method: (1) individuals received verbal instruction in social skills, (2) individuals were given an opportunity to practice the new skill, and (3) individuals participated in a “post-play” review session with the coach. Post-play review sessions consisted of discussion about social skills that can be utilized to make games fun. Specific social skills discussed included participating in a game, cooperating (e.g., taking turns, sharing), communicating (e.g., responding and listening to others), and validating or supporting (e.g., being attentive to and/or helping others).

This study employed three experimental conditions to ascertain the effects of coaching: (1) coaching, (2) peer pairing, and (3) control. There were 11 isolated subjects included in each condition, 5 females and 6 males. During the coaching condition, subjects were given verbal instructions from the experimenter. After being coached by the experimenter over the course of four weeks, subjects were paired with 6 different peers to play games in the classroom. After the play session subjects were given an opportunity to review the session and the social skills previously addressed with the coach.

Subjects who were included in the peer pairing condition were paired with a peer partner and were given an opportunity to play the same games used in the coaching condition. However, students in the peer pairing condition did not receive any coaching.

Subjects included in the control condition did not receive coaching nor did they play the same games that were played in the other two conditions. In this condition, isolated students and popular students were taken out of the class by the experimenter to examine the prestige effects.

Results from a correlational analysis showed that the coaching group yielded significantly higher results on the play sociometric rating than the peer-pairing condition and the control condition. Children who received coaching also received higher but insignificant gains in friendship nominations. A one-year follow-up assessment substantiated continuous gains on the play sociometric rating for children who received coaching.

Gresham and Nagle (1980) conducted a similar study to compare two different intervention strategies: coaching and modeling. These researchers selected 40 socially-isolated third and fourth graders to participate in the study. Of the 40 students selected, 18 were boys and 20 were girls. The students were selected from pervasively middle-class schools located in Columbia, South Carolina.

This study employed four treatment conditions: coaching, modeling, mixed abbreviated modeling and coaching (MAMC), and a control group. Children in the modeling group were shown a series of videos. These videos were shown for a total of six sessions over a three-week period. Sessions were held in dyads or triads. For each session, subjects had a different peer partner. The first and second modeling sessions

illustrated third and fourth graders engaging in the following social skills: cooperation (e.g., scenes of children sharing toys, taking turns, and working collaboratively), communication (e.g., scenes of children talking to their peers, making statements about games, asking questions, and listening and responding to others), participation (e.g., scenes of children getting involved in activities), and validation/support (e.g., scenes of kids attending to other children).

The third and the fourth sessions illustrated friendship-making sequences. These sequences included skills such as greeting, asking for information, extending inclusion, and effective leave taking. The beginning of the modeling film shows a child contemplating and deciding to pursue admission into a group activity. Further, this sequence shows the child's inner debate, which includes (a) desiring to initiate social interactions, (b) fearing negative consequence, (c) debating self (d) making the decision to initiate an interaction, (e) approaching peers, (f) greeting peers, and (g) asking permission to join the group. Modeling sessions were conducted for approximately twenty minutes, narrated by a female voice, and depicted in dyads, triads, and small groups. Specifically, skills such as greeting, asking for, and giving information were modeled during the third sessions, while skills such as extending inclusion and effective leave taking were modeled during the fourth session.

During the fifth and sixth sessions, modeling sessions showed children initiating and receiving positive social interactions, as well as children receiving negative peer interaction. Positive interactions modeled in the film included "affection and personal acceptance in a group, attention and approval, making reinforcing comments to other children, and physical affection" (p. 721). Negative interactions modeled in the film

included “noncompliance with others’ requests, group disruption, verbal and physical aggression, and uncooperativeness in playing games” (p. 721).

Subjects who were in the coaching condition received verbal instruction identical to the instruction provided to subjects in the modeling condition. The coaching instruction was divided into three parts (a) instruction regarding rules and standards for behavior, (b) rehearsal with the coach and a peer partner, and (c) feedback and suggestions on performance. Researchers conducted six coaching sessions over a three-week period. These sessions ran concurrent with the modeling condition. Subjects were coached in dyads or triads consisting of the same gender as in the modeling condition.

During the first two coaching sessions the following concepts were coached: participation, cooperation, communication, and validation. Specifically, in session one, participation and cooperation were taught. Participants were asked to give an explanation of what they thought participation and cooperation meant and to provide non-examples of participation and cooperation. Coaches asked participants to provide multiple non-examples, after which the coaches provided feedback as well as additional non-examples and clarification. At the end of the session, coaches recapitulated the session with target participants by offering feedback on appropriate and inappropriate conduct. Furthermore, coaches required participants to rehearse and role-play with one another the concepts discussed during the session. This procedure was conducted for all four concepts that were coached.

Results from this study suggested coaching and modeling are equivalent methods for teaching social skills. The abbreviated method of coaching and modeling did not have increased effects of social skills training on isolated individuals. Data indicated that from

pre-test [coaching: M= 2.75; modeling: M= 2.96; abbreviated method: M= 2.66] to follow-up, [coaching: M= 3.18; modeling; M= 3.32; abbreviated method M= 3.42] coaching, modeling, and the abbreviated method were equally effective in increasing the peer acceptance of isolated individuals as measured by a sociometric rating scale. Observations of the means for positive peer interaction showed that the treatment groups had more positive peer interactions from pre-test [modeling : M= .70; coaching: M= 1.00; abbreviated method: M=1.00]to post-test [modeling: M= 1.80; coaching: M= 3.10; abbreviated method M= 2.70] than the control group from pre-test (M= 1.00) to post-test (M= .90).

Meredith, Saxon, Doleys, and Kyzer (1980) conducted a study to evaluate the impact of a social skills assessment and training model on individuals with a mild intellectual disability. Twenty participants with mild intellectual disabilities from the Center for Developmental and Learning Disorders were selected to participate in this study. Participants were selected randomly from the population at the center. The sample consisted of 10 males and 10 females, but was later reduced, due to attrition, to eight males and eight females. These individuals were randomly assigned to one of two groups: the treatment group or the no treatment group. The treatment group received twelve, 1 ½ hour sessions. These sessions consisted of the following treatment procedures: (1) behavioral rehearsal, (2) peer modeling and group-leader modeling, (3) videotape feedback, (4) prompts and instructions, (5) verbal reinforcement, and (6) response shaping. Behaviors were controlled by implementing a token system.

The statistical method used in this study was analyses of variance. The study consisted of a treatment condition, a time condition, a gender condition, and a social

situation condition. The goal of each training session was to identify and modify social deficits. Sessions primarily involved talking with peers, modeling, videotaping as a means to identify the subject's strengths and weaknesses, and verbally reinforcing participates. The "no treatment" group did not receive any treatment exposure; behaviors of individuals in the treatment group were managed using the token system only.

Results from this study suggested that individuals in the treatment group had an increase in the positive social skills behavior, attention to interpersonal transactions, and degree of empathy when compared to the no-treatment group. In addition, social skill training was effective in minimizing negative social skills behaviors when compared to the no-treatment group. A limitation to this study is that there was no measure to determine if these skills could be generalized across stimulus situations. This study focused mainly on initiating and maintaining conversation rather than being assertive and cooperative.

Meta-analyses

Meta-analyses have been conducted to examine the efficacy of social skills training. This section will discuss results from meta-analyses and results from reviews of meta-analyses. Specifically, this segment of the paper will examine the effectiveness of social skills training on the basis of disability categories (e.g., learning disability and emotional/behavioral disorder), theoretical frameworks, and generalization.

Several meta-analyses studies have been conducted to evaluate the effectiveness of social skills training. One such study by McIntosh, Vaughn, and Zaragoza (1991) examined 22 studies that reported the effects of social skills instruction on students identified as having a learning disability. Participants in each study consisted of students

from ages five to nineteen years of age and were in grades ranging from one through twelve. This study evaluated students with LD placed in a self-contained class and students mainstreamed into regular education classroom. The number of studies examined was equally divided among school levels (e.g., elementary, middle, and high school). Results from this study indicated that interventions were not as effective at the middle school level compared to at the high school level where interventions were effective. Results also indicated interventions are employed more often with males, rather than females. Data substantiated that students who were involved in a resource program, where part of their day is spent in the general education classroom, achieved greater social intervention effect than students involved in a resource program and did not spend part of their day in general education classes. Interventions employed for a longer duration of time yielded better effects. Specifically, studies that lasted from four to twenty-five weeks yielded the best results. Fourteen of the studies reported positive effects from the implementation of social skills training.

Generalization was also examined in this study. According to the researchers, fourteen studies were conducted in either a controlled setting or in a natural setting. Studies conducted in a controlled setting determined generalization by later measuring or observing intervention effects in a natural environment. Results indicated that ten studies conducted in a controlled environment reported positive intervention results, but behavior changes did not generalize to the natural environment.

The effectiveness of social skills training has also been examined for students with Emotional Disturbance Disorder (EDD). Mathur, Kavale, Quinn, Forness, and Rutherford (1998) conducted a quantitative synthesis of single-subject research to

evaluate the effectiveness of social skills training on individuals with EBD. The researchers examined 64 single-subject studies. Each of these studies met the following criteria: students identified as having some behavior and/or emotional problem, studies used components of social skills instructional methods, studies used a valid single subject research design, and studies measured a change in behavior. This study included 283 subjects. Seventy-two percent of these subjects were male. The average age for individuals included in this study was 9.78 years. The average IQ for individuals in this study was 87. Instead of using visual inspection to analyze data collected, researchers used a nonparametric approach to analyze data. The nonparametric approach treatment effectiveness was measured by determining the percentage of non-overlapping data (PND) baseline and various intervention phases. This was one of two quantitative approaches that have been suggested to generate a more accurate analysis of data. After employing the nonparametric approach, researchers found that social skills training was only mildly effective (PND 62%). When examining differences in effectiveness among sub-groups within the sample, results indicated that individuals identified as delinquent benefited most from social skills training with a PND of 76%. A PND of 76% is indicative of moderate effectiveness. Results from this study also substantiated that social skills training at the elementary and secondary levels was more effective than at the preschool level. The largest PND was at the secondary level. Data from this study suggested that social skills training at the secondary level has the most pronounced effect (PND 66), although it was a mild effect (Mathur et al., 1998). The mean PND for students identified as delinquent was 12% higher than students identified with an emotional disturbance disorder and 22% higher than students identified with autism. The

significant differences in percentages could be attributed to age. Students identified as delinquent were substantially older than students identified as having EBD.

Another group of researchers conducted a study to explore results of meta-analyses that examined group experimental or quasi-experimental designs to evaluate the effectiveness of social skills training (Cook, Gresham, Kern, Barreras, Thornton, & Crews, 2008). The purpose of the analysis was to examine whether social skills training is a viable intervention for individuals diagnosed with emotional or behavioral disturbance (EBD). For the purposes of this study, social skills training was characterized as any meta-analysis that combined studies on the basis of the following: behavior, cognition, and/or social interventions intended to teach social skills or to remediate social deficits. Single-subject experimental designs were not included in this review.

To identify meta-analyses that aligned with the targeted description, researchers conducted a search of the following data-bases: the Educational Resource Information Center, Psychological Abstracts, and Medline. After identifying all meta-analyses written on social skills training in general, researchers further narrowed the study by identifying those studies that included secondary-aged (e.g., students eleven years old or older) participants who were diagnosed as EBD or were at-risk for being diagnosed with EBD. Five meta-analyses were identified based on the previously mentioned criteria.

Effect sizes from this study were analyzed by converting effect sizes from five of the meta-analyses into a common metric, the Pearson product –moment correlation (r). When examining whether social skills training is an effective intervention for secondary students with EBD, results showed an overall mean effect size of $r = .32$, which represents a medium effect for SST. A medium effect size indicates that the effect is large

enough for social consumers to recognize the effect in everyday life; therefore, it was inferred that SST is effective in generating recognizable differences in the social competency of secondary students with EBD. In addition, results from this review analyzed the external validity of SST for secondary students with EBD. Results suggested that SST was an effective intervention for students who are at-risk for or who have been diagnosed with EBD. Data showed the overall effect size to be $r = .32$, which suggested that 66 percent of adolescents receiving SST improved compared to 34 percent of control groups not receiving SST. According to these results, it can be inferred that SST would likely be an effective intervention for secondary-age students with EBD beyond those included in these meta-analyses.

Lastly, researchers in this study conducted an analysis to determine which theoretical approaches (e.g., Behavioral, Social Learning, Cognitive, or Cognitive Behavioral) to SST are more effective. Results from the analysis substantiated that SST rooted in an operant learning framework yielded higher effect sizes ($r = .52$) than those generated by SSTs with a social or social-cognitive orientation ($r < .35$); however, researchers found that SSTs programs that implemented social learning strategies such as modeling and/or coaching yielded higher effect sizes for students in the mid- to late adolescent years ($r = .46$). Based on these findings, it can be inferred that the approach used to design a SST program could possibly affect the social skills training results for secondary students.

Beelmann, Pfungsten, and Losel (1994) conducted a meta-analysis to review the effects of social competence training (SCT) on individuals ranging from the ages of 3 to 15-years-old. The study focused on students diagnosed with an internalizing or

externalizing syndrome, learning disability, or intellectual disabilities. Forty-nine studies were selected based on the following criteria: (1) training programs were designed for 3- to -15 year old children, (2) studies utilized an experimental or a quasi-experimental design with a minimum of one control group, (3) assessment results were quantifiable measures of social competence, and (4) studies were published in journals printed in English between 1981 and 1990. Researchers conducting this study defined social competence training as “behavioral and/or cognitive interventions that were explicitly and fairly exclusively directed toward training and /or modifying motor, cognitive, and/or affective components of social behavior in children” (p. 261).

Results from this meta-analysis indicated that social competence training is an effective intervention in the short term. However, social competence training produced low effect sizes. Significant effect sizes were reported only when specific goal criteria (e.g., social-cognitive skills) were evaluated. There was less of an effect on broad constructs such as social adjustment. Lastly, this meta-analysis showed that the long term effects of social competence training were weak.

In summary, results from meta-analyses show low effect sizes for social skills interventions (Forness & Kavale, 1996), while results from single-subject and group studies show poor results for generalization. Low effect sizes have been attributed to several factors such as differences in calculating effect sizes, the differences in the types of social skills difficulties (e.g., social skills acquisition difficulties, social skills performance difficulties, and social skills fluency difficulties), and/or failure to report the fidelity of implementation (Vaughn, Sinagub, & Kim, 2004). Low effect sizes and poor

generalization have also been attributed to the contextual environment of the social skills intervention.

The preceding studies focused on intervention studies. These studies were divided into three sections. The first section examined single-subject studies, while the second section investigated results from group studies. The final section focused on results and reviews from meta-analyses. A review of these varied research methods indicates that there are three factors that effect the success of a treatment program: (1) training technique, (2) duration of training, and (3) location of training. The results from these studies indicated that social skills training had an impact on social behavior in the training setting, but students had difficulty generalizing the skills learned. A review of methodologies indicated that the most effective training programs were multimodal, consisting of more than one training technique (e.g., modeling and coaching component), and had longer durations (e.g., 4 to 25 weeks).

Conclusion

Many social skills intervention studies have focused on improving isolated, discrete social skills without taking into consideration the social environment in which the skill would need to occur. Teaching social skills in an isolated setting may not be instrumental in remediating the social skills deficits of individuals with disabilities on a long term basis. To remediate the social skills deficits of individuals with disabilities requires a comprehensive intervention that takes into consideration the social environment. Furthermore, because the social skills deficits of individuals with disabilities persist for extended periods of time and are typically resistant to change, the intensity and duration of social skills trainings must be increased.

Following an extensive review of the issues of social skills training, perhaps a social skills program designed to identify the student's behavioral needs, consider the social environment, and provide intense training should be used to teach social skills to students with disabilities. It is likely that using a program with the three aforementioned components could improve students' social skills and increase the effect size of SST.

CHAPTER III. METHODS

Studies show that social skills training can improve the social skills of individuals with disabilities (Meredith et al., 1990; Corkum et al., 2010). However, there are a limited number of studies that examine the impact of social skills training on work-related social skills. Research indicates that transition-aged students need appropriate social skills in the school, the work-place, and the community. The purpose of this study was to examine the effectiveness of *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* (McGinnis et al., 2012) on transition-related social skills. The *Skillstreaming* program was adapted to assess and address 13 work-related social skills over the course of eight weeks.

This chapter details the research design used to conduct the study, procedures for selecting research participants, and information regarding the *Skillstreaming* program and how it was adapted for this study. Lastly, information regarding measurement methods and data analysis are provided.

Research Design and Method

A pre-test/post-test design with the *Skillstreaming the Adolescent* curriculum as the intervention treatment was used to determine if the *Skillstreaming* program had a significant effect on the work-related social skills of students with disabilities. The independent variable was social skills training. The dependent variable was the difference

between pre-test and the post-test scores (e.g., Leader/Staff Checklist, the Parent Checklist, and the Participant Checklist). The data derived from the pre-test and the post-test were analyzed using the Wilcoxon Signed Rank Test. Three tests were conducted: one for pre- and posttests for teachers, one for parents, and one for participants.

Sample Selection

The sample was selected from two Work-Place Readiness classes at a high school located in the central region of Georgia, a Southeastern state in the United States. Participants were 11 students enrolled in a Work-Place Readiness course. These students were in grades 10 to 12 and had been identified as having a disability. Students from the two Work-Place Readiness classes were chosen for inclusion in the eight-week study. Fifteen students were eligible for participation. Consent/assent forms were provided to all the students in the two Work-Place Readiness classes (e.g., 15 students). Twelve students returned consent/assent forms giving permission to the principal investigator to use data collected during the implementation of the *Skillstreaming* program. This school system has approximately 12, 136 students. The system has 21 schools, 3 of which are high schools. Table 1 shows information about the selected system and school in the following areas: demographic make-up, percentage of students receiving free and reduced lunch, and percentage of students receiving special services under the IDEIA.

Table 1 *Demographics for the Participating High School*

Characteristics	System	School
Population	12, 136	1,399
High School Population (9-12)	3,422 (28%)	1,399
African Americans	4,733 (39%)	546 (39%)
Caucasians	6311 (52%)	741 (53%)
Other	1092 (9%)	112 (8%)
Free and reduced lunch	7524 (62%)	700 (50%)
Students with Disabilities	980 (8.1%)	84 (6%)

The two self-contained classes were selected because students in these classes participate in Work-Place Readiness as part of their Individualized Education Program (IEP). Students assigned to the work-readiness class participate in community-based work placements to help develop transitional skills related to employment. Community-based work placements can range from setting tables to completing clerical tasks.

This study used pre-assigned groups in that the participants were high school students attending their zoned school and their previously assigned academic/elective classes. Participants who were eligible to participate in this study met the following three criteria:

- 1. Work-Place Readiness** – Participants were identified if they participated in Work-Place Readiness, a transition-related class designed to help students transition into adulthood.

2. **Disability** - All participants selected received special education services under the Individuals with Disabilities Education Improvement Act (IDEIA, 2004) in one or more of the following disability categories: learning disability, mild intellectual disability, other health impairment, emotional behavior disorder, autism spectrum disorder, visual impairment, and/or hearing impairment.
3. **Grade** - Participants were high school students in grades 10 through 12. The IDEIA requires transition services to be addressed no later than the age of 16.

Table 2 shows number of students by grade level and disability.

Table 2
Participant Selection based on Criteria (N= 11)

<i>Grade</i>	<i>10th</i>	<i>11th</i>	<i>12th</i>	<i>Total</i>
<i>Disability Categories</i>				
ID		1	4	5(45%)
OHI	1	1	1	3(27%)
AU	1	1	1	3(27%)

ID = Intellectual Disability, OHI= Other Health Impairment, and AU= Autism

Intervention

Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills is a manualized program designed to teach social skills to adolescents. *Skillstreaming* was one of the first social skills training programs; it has been in circulation for 30 years and is currently in its third edition. The third edition of this program incorporates research-based strategies to teach social skills. This program is administered in a group setting with skills being taught based on a length of time (e.g., daily or weekly) or based on a student's ability to learn the skill. It is suggested by the program's authors that two sessions a week is optimal. Skillstreaming sessions are designed to last a class period, which is 45 to 50 minutes. The program is not scripted, and there is no set order for introducing skills. The program is divided into two parts: Part I -- Skillstreaming Program Content and Implementation, and Part II, Skills Outlines and Homework Reports. Table 3 displays chapter titles and sections included in Part I of the program.

Table 3 Skillstreaming Program Content and Implementation

Chapters	Sections			
Chapter 1: Effective skillstreaming Arrangements	Group leader selection and preparation	Participant selection and grouping, preparation and motivation	Support staff and Program Coordinator Roles	Skillstreaming Group Mechanics
Chapter 2: Skillstreaming Teaching Procedures	Core Teaching Procedures	Steps in the Skillstreaming Session		
Chapter 3: Sample Skillstreaming Session	Introduction to Skillstreaming	Skill Instruction		
Chapter 4: Refining Skill Use	Cognitive-Behavioral Strategies	Factors in Successful Skill Use	Skill Shifting, Combinations, Adaption, and Development	
Chapter 5: Enhancing Skill Generalization	Transfer-Enhancing Procedures	Maintenance-Enhancing Procedures		
Chapter 6: Managing Behavioral Concerns	Group Member Resistance	Three Levels of Intervention		
Chapter 7: Building Positive Relationships with Parents	Parenting and Youth Aggression	Parent Involvement in Skillstreaming	Levels of Parent Involvement	
Chapter 8: Skillstreaming in the School Context	Violence Prevention	Integration in the Curriculum	Inclusion	Multi-Tiered Systems of Supports

Part II of the program provides the actual *Skillstreaming* curriculum. There are 50 skills included in this program. These skills are divided into 6 groups which include (1) Beginning Social Skills, (2) Advanced Social Skills, (3) Skills for Dealing with Feelings, (4) Skill Alternatives to Aggression, (5) Skills for Dealing with Stress, and (6) Planning skills. Each group has 6 to 12 skills to be taught. Two homework assignments and skill outlines are provided for each skill. The skill outline provides behavioral steps for the skill, notes that further explain steps to the group leader, situation suggestions for role-playing/modeling, and skill supporting activities. Table 4 displays the organization of the *Skillstreaming* curriculum.

Table 4 Skillstreaming Curriculum

Curriculum Groups	Group 1: Beginning Social Skills	Group 2: Advanced Social Skills	Group 3: Skills for Dealing with Feelings	Group 4: Skill Alternatives to Aggression	Group 5: Skills for Dealing with Stress	Group 6: Planning Skills
Skills within each Group	Listening	Asking for Help	Knowing Your Feeling	Asking Permission	Making a Complaint	Deciding on Something to do
	Starting a Conversation	Joining in	Expressing Your Feelings	Sharing Something	Answering a Complaint	Deciding What Caused a Problem
	Having a Conversation	Giving Instructions	Understanding the Feelings of Others	Helping Others	Being a Good Sport	Setting a Goal
	Asking a Question	Following Instructions	Dealing with Someone Else's Anger	Negotiating	Dealing with Embarrassment	Deciding on Your Abilities
	Saying Thank You	Apologizing	Expressing Affection	Using Self-Control	Dealing with Being Left Out	Gathering Information
	Introducing Yourself	Convincing Others	Dealing with Fear	Standing Up for Your Rights	Standing Up for Friend	Arranging Problems by Importance
	Introducing Other People		Rewarding yourself	Responding to Teasing	Responding to Persuasion	Making a decision
	Giving a Compliment			Avoiding Trouble with Others	Responding to Failure	Concentrating on a Task
			Keeping Out of Fights	Dealing with Accusations		
				Getting Ready for Difficult Conversation		
				Dealing with Group Pressure		

There are several components to a *Skillstreaming* session. A typical session involves the following: (1) defining the skill, (2) modeling the skill, (3) establishing participants' skill need, (4) selecting first role-player, (5) setting up the role-play, (6) conducting the role-play, (7) providing performance feedback, (8) selecting second role-player, and (9) assigning homework. *Defining the Skill* serves as the opening activity in which the group briefly discusses the skills to be taught. *Modeling the Skill* is the second step. During this step the group leader models the behavior being taught. The third step, *Establishing Participant Skill Needs*, consists of having students discuss when, where, and with whom the skill modeled by the group leader would be utilized. Step four, *Select the First Role-Player*, requires the group leader to select an individual from the group to role-play during the session. Step five, *Set Up the Role-play*, requires the group leader to create a real-life situation described by the selected role-player. Step six, *Conduct Role Play*, requires the main actor to follow the behavioral steps outlined and for the observers to identify the behavioral steps. Step seven, *Provide Performance Feedback*, requires the group leader to provide information on how well the role-players followed or departed from the behavioral steps. Step eight, *Select the next Role-Player*, requires the group leader to select a student to serve as the main actor. Step nine, *Homework*, requires the group leader to instruct students to complete a two part homework assignment by applying social skills learned during class to real-life situations outside of the classroom. Due to students' functioning level, teachers modified step nine by having students complete homework assignments in class under their direction, rather than independently outside of the classroom.

Bremer and Smith (2004) identified several social skills that transition-aged youth need. Among the skills identified were social skills needed for the work environment, which include (1) giving and responding to instruction, (2) greeting customers, and (3) responding to criticism. The principal investigator adapted the *Skillstreaming* checklist and curriculum to address work-related transition skills identified by Bremer and Smith. The following groups from the *Skillstreaming* curriculum were used to measure and teach work-related transition skills: Curriculum Group I: Beginning Social Skills; Curriculum Group II: Advanced Social Skills; and Curriculum Group III: Dealing with Feelings. Table 5 details specific skills from each group that address work-related transition skills.

Table 5 Adapted Curriculum

Curriculum Groups	Group 1: Beginning Social Skills	Group 2: Advanced Social Skills	Group 3: Skills for Dealing with Feelings
Skills within each Group	Listening (1) Starting a Conversation (2) Having a Conversation (3) Asking a Question (4) Saying Thank You (5) Introducing Yourself (6) Introducing Other People (7)	Giving Instructions (11) Following Instructions (12)	Knowing Your Feeling (15) Expressing Your Feelings (16) Understanding the Feelings of Others (17) Dealing with Someone Else's Anger (18)

Note: Item number in parenthesis.

Dependent Measures

Evaluator Checklists

The *Leader/Staff Checklist*, the *Participant Checklist*, and the *Parent Checklist* were used as the pretest and posttest to determine the effectiveness of *Skillstreaming* on students' transition-related social skills. This checklist was developed by McGinnis et al., (2012) to evaluate the effectiveness of the social skill program, *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills*. In its original form, the checklist contained the 50 Skillstreaming skills. The checklist serves as a screening and selection

device. All three checklists are a frequency-of- response format: The evaluator circles a number that is associated with the frequency to which the participant exhibits the skill. Frequency of exhibiting a skill may range from almost never to almost always. Responses are coded as follows: 5 = almost always, 4 = often, 3 = sometimes, 2 = seldom, and 1 = almost never.

Questions included on the original checklist are related to skills listed under each of the six groups included in Part II of the program. Because this study addressed only three groups of skills included in the curriculum, Group I: Beginning Social Skills; Group II: Advanced Social Skills; and Group III: Dealing with Feelings, the principal investigator adapted the parent, participant, and observer checklist questions to reflect only those skills that were taught during the intervention. Thirteen skills were selected for data collection. The skills represented three groups of skills as displayed in Table 5. The possible range of scores for Group 1 (Beginning Social Skills) is 35 to 7, with 35 indicating almost always for each of the seven items in Group 1. The possible range of scores for Group 2 (Advanced Social Skills) is 10 to 2, with 10 indicating almost always for each of the two items in Group 2. The possible range of scores for Group 3 is 20 to 4, with 20 indicating almost always for each of the four items in Group 3. The total summative score on the 13 selected items range from 65 to 13, indicating almost always (65) for each of the items to almost never (13) for each of the items.

Teacher Training

Two special education teachers conducted social skills training twice a week for a total of eight weeks. One of the special education teachers is a white female, while the other special education teacher is an African American female. Both teachers conducting the social skills training have over ten years of teaching experience and hold an advanced degree in special education. The principal investigator trained both teachers/instructors using a sample lesson out of the *Skillstreaming* manual. Instructors were also provided with an information packet that detailed the teaching steps to be followed. The principal investigator reviewed the packet with both teachers, providing explicit examples for each teaching step. The principal investigator explained (a) skills being assessed, (b) frequency and duration of the intervention, and (c) distribution of consent form and informational flyer. After providing general information and reviewing the packet, teachers/instructors watched a YouTube video of *Skillstreaming* being implemented. The principal investigator answered questions or concerns relative to the study. Teachers expressed concern about the complexity of the program versus their students' functioning level and they asked questions about how often skills training could be conducted.

Data Management

The principal investigator provided the special education teachers with an informational flyer detailing the research project and an informed consent form requesting to use pre- and post-measures to evaluate the effectiveness of the program. Special education teachers gave the consent form, the informational flyer, and the parent checklist to the students to give to their parents. Students were instructed to return the consent forms and the checklists to their teacher. Prior to sending home the informational

flyer, the special education teachers provided a brief overview of the program being implemented to the students. All students in the Work-Place Readiness classes (n=15) participated in the social skills training program, although data were collected and analyzed only for those students who returned a signed informed consent form authorizing the use of the data (n= 11).

The principal investigator provided the special education teachers with copies of observer (teacher) checklists to complete on each of their students. The special education teachers completed the observer (teacher) checklist the same day it was given. The principal investigator collected the observer (teacher) checklist. Special education teachers administered the participant (student) checklist during their Work-Place Readiness class. Special education teachers were instructed to read the participant (student) checklist aloud, as some students had disabilities that could impair their reading ability.

The principal investigator collected checklists that were given to three groups of raters: observer (teacher), observer (parent), and participant (student). Each student participant was assigned a code number. The code number assigned to each student was written on their corresponding pre-tests and their corresponding posttests followed by a dash and the letters S (student), O (observer), or P (parent). Two days after the implementation of the last lesson, the teacher/ instructor administered the posttest to students in their class. The principal investigator provided the teacher/instructor with a checklist to complete and a checklist to be sent home by students for parents to complete. Students were instructed to return the checklist to their teacher/instructor. The principal

investigator collected the checklists from the teacher/instructor, entered data on Excel spreadsheet, and analyzed the results using SPSS.

Treatment Integrity

To measure treatment integrity, the principal investigator conducted two observations of the implementation of the *Skillstreaming* program for each teacher. The principal investigator used the Observer's Checklist provided in the *Skillstreaming* program to measure treatment integrity. The Observer's Checklist is divided into nine teaching steps: (1) defining the skill, (2) modeling the skill, (3) establishing participants skill need, (4) selecting first role-player, (5) setting up the role-play, (6) conducting the role-play, (7) providing performance feedback, (8) selecting second role-player, and (9) assigning homework. The checklist allowed the investigator to note whether the special education teachers (group leaders) completed the teaching procedure with one of three levels of proficiency: low level of competence (score 1), medium proficiency (score 2), or high level of skill (score 3). There were four score ranges in which teachers/instructors could score: 59 points or below (intervention needed), 60 to 74 (monitoring of instruction needed), 75 to 83 (consultation available), and 84 to 93 (mastery of intervention). Formal observations were conducted two weeks into the program and four weeks into the program. The principal investigator conducted two formal observations for each teacher on the following lessons: *Introducing Yourself and Starting a Conversation*. Both teachers/instructors scored in the 75 to 83 range in their delivery of the lesson. Although teachers scored in an acceptable range, observations showed that overall they demonstrated low to medium proficiency in the following areas: providing performance feedback and establishing student skill need. Observations also showed that due to the

students' level of functioning teachers were assigning homework to be completed during class rather than at home. Consequently, informal observations and conversations regarding the implementation of the program occurred periodically throughout the rest of the implementation of the program.

Teacher Interview

To identify components of the program that teachers assessed to be beneficial or not beneficial to their students, the principal investigator conducted a phone interview with the teachers who taught the *Skillstreaming* program (n= 2). Six open-ended interview questions relative to the implementation of the program were asked and recorded on a Word document.

Data Analysis

A pre-test/post-test design with the *Skillstreaming the Adolescent* curriculum as the intervention treatment was used to determine if the *Skillstreaming* program had a significant effect on the work-related social skills of students with disabilities. The independent variable was social skills training. The dependent variable was the difference between pre-test and the post-test scores (e.g., Leader/Staff Checklist, the Parent Checklist, and the Participant Checklist). The data derived from the pre-test and the post-test were analyzed using a nonparametric Wilcoxon Signed Ranks Test. The Wilcoxon Test is the nonparametric counterpart to the parametric *t-test* for paired-samples. The Wilcoxon test is preferred when sample sizes are small and data may not be normally distributed (Kraska-Miller, in press).

Research Questions

The following research questions were developed for this study:

1. To what extent do students who receive social skills instruction from *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* exhibit work-related social skills based on an observer (teacher) checklist?
2. To what extent do students who receive social skills instruction from *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* exhibit work-related social skills based on a observer (parent) checklist?
3. To what extent do students who receive social skills instruction from *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* exhibit work-related social skills based on the participant (student) checklist?

Null Hypotheses

The purpose of this study was to evaluate the effectiveness of *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* (McGinnis et al., 2012) on the transition-related social skills of high schools students with disabilities from the perspective of the teacher, parent, and student obtained before and after the implementation of the curriculum intervention. The following null hypotheses were tested at the .05 level and were used to answer the aforementioned research questions:

Ho₁: There is no statistically significant difference in student work-related social skills before and after they are taught social skills using *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* as measured by an observer (teacher) checklist.

Ho₂: There is no statistically significant difference in student work-related social skills before and after they are taught social skills using *Skillstreaming the*

Adolescent: A Guide for Teaching Prosocial Skills as measured by an observer (parent) checklist.

Ho₃: There is no statistically significant difference in student work-related social skills before and after they are taught social skills using *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* as measured by the students themselves.

This chapter provided information about methodology used to complete the study. First, procedures for determining study participants were discussed. A description of the *Skillstreaming* program was provided, as well as steps for conducting the study. Chapter 4 presents the results of the analysis and responses obtained during teacher interviews.

CHAPTER IV. RESULTS

Results from the data analysis are discussed in this chapter. Participants' demographic information is discussed and illustrated in a chart. Next, pre-test and post-test scores from the *Skillstreaming* program are evaluated to determine their impact on the transition-related skills of students with disabilities. The Wilcoxon Signed Rank Test, which is a nonparametric alternative to the paired-samples *t-test*, was used to assess the differences between pre-test and post-test scores. Using information from the Wilcoxon Signed Rank Test, each research question is presented and followed by an explanation of the results.

Participants in this study were 11 high school students with disabilities, from two self-contained classes in a District in the Southeastern part of the United States. The district includes thirteen elementary schools, three middle schools, and three secondary level schools. The study included four (36.3%) females and seven (63.6%) males. Of the 11 participants, two (18.1%) were in the 10th grade, three (27.2%) in the 11th grade, and six (54.5%) in the 12th grade. Three (27.2%) of the participants were African American, seven (63.3%) were Caucasian, and one (9%) was Asian. There are 13 disability categories identified under the IDEIA. Participants in this study were representative of 3 of the 13 categories: Autism (AU) three (27.2%), Mental Retardation (MR) five (45.4%), and Other Health Impairment (OHI) three (27.2%).

Each of the classes was demographically diverse. Class I included five students with an IQ score that ranged from 56 to 70. Of those five students, four (80%) were male and one (20%) was female. Three (60%) students were Caucasian and two (40%) were African American. Two (40%) of the students were identified as OHI, two (40%) as ID, and one (20%) was identified as having autism under the IDEIA. Participants from Class II were 6 students, whose IQ score ranged from 40 to 55. Of those six students three (50%) were male and three (50%) were female. Four (66%) of the students were Caucasian, one (16.6%) was Asian, and one (16.6%) was African American. Three (50%) of the students in this class were identified as ID, two (33.3%) as having autism, and one (16.6%) as OHI.

Each participant in the study was administered a pre-test prior to the implementation of the *Skillstreaming* program and a post-test after the implementation of the program intervention to examine the differences between pre-test and post-test scores. Table 6 shows students' demographic information. Table 7 reports pre- and posttest scores for Class I and Class II.

Table 6 *Demographic Information for all students*

<i>Characteristics</i>	N (%)
Gender	
Female	4 (36.3%)
Male	7 (63.6%)
Grade	
10 th grade	2 (18.1%)
11 th grade	3 (27.2%)
12 th grade	6 (54.5%)
Ethnicity	
African-American	3 (27.2%)
Caucasian	7 (63.6%)
Asian	1 (9%)
Disability	
Autism	3 (27.2%)
Intellectual Disability	5 (45.4%)
Other Health Impairment	3 (27.2%)

Table 7 *Pre-test and Post-test Scores by class (N=11)*

Observer Class I	Pre-test	Post-test
Teacher	41	36
	33	30
	37	35
	46	46
	60	41
Parent	35	39
	35	32
	41	38
	41	39
	48	14
Student	35	42
	59	58
	38	40
	51	52
	48	48

Note: Scores include Beginning Social skills, Advance Social Skills, & Dealing with Feelings

Observer Class II	Pre-test	Post-test
Teacher	34	36
	32	30
	33	35
	45	45
	32	47
	15	18
Parent	46	47
	48	54
	39	36
	45	43
	50	44
Student	35	46
	47	49
	39	48
	43	49
	63	61
	52	55
	36	35

Note: Scores include Beginning Social skills, Advance Social Skills, & Dealing with Feelings

Purpose of Study

The purpose of this study was to test the differences between pre-test and post-test scores. The Wilcoxon Signed Ranks Test was used to examine the difference in pre and posttest scores on the *Skillstreaming* program on transition- related skills of high school students with disabilities by evaluating ratings from three groups of raters: teachers, parents, and students for each participant. The independent variable was the *Skillstreaming* program. Each of the three groups of raters was asked to complete a curriculum-based checklist at the beginning and the end of the study. Results of the analysis are presented for each research question and corresponding null hypothesis.

Research Question 1

The first research question was stated as follows: To what extent do students who receive social skills instruction from *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* exhibit work-related social skills based on an observer (teacher) checklist?

The following null hypothesis was formulated to test the first research question:
Ho₁: There is no statistically significant difference in student work-related social skills before and after they are taught social skills using *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* as measured by an observer (teacher) checklist.

The teacher observer checklist results were not statistically significant at the .05 level. Of the 11 cases, six cases revealed a negative mean rank of 5.83, while 4 revealed a positive rank with a mean rank of 5.00 and one case had no change from the pre- and

posttests. The sum of the ranks for the negative and positive ranks was 35.00 and 20.00 respectively.

Table 8 *Teachers Pre- and Posttest Results*

Students (N= 11)		
	Z	P
	- .78	.44
Negative Ranks	M	W
	5.83	35.00
Positive Ranks	5.00	20 .00

M = Mean Rank, W = Sum, P = significance level, and Z= Z- score

Research Question 2

The second research question was stated as follows: To what extent do students who receive social skills instruction from *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* exhibit work-related social skills based on a parent checklist?

The following null hypothesis was formulated to test the second research question: Ho₂: There is no statistically significant difference in student work-related social skills before and after they are taught social skills using *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* as measured by the parent checklist.

Parent checklist results did not yield statistically significant differences at the .05 level. Of the 11 cases, seven cases revealed a negative mean rank of 5.64, and four cases revealed a positive mean rank of 6.63. The sum of the ranks for the negative and positive ranks was 39.50 and 26.50 respectively.

Table 9 Parent Pre- and Posttest Results

Students (N= 11)		
	Z	P
	-0.580	.56
Negative Ranks	M	W
	5.64	39.50
Positive Ranks	6.63	26.50

M = Mean Rank, W = Sum, P = significance level, and Z= Z- score

Research Question 3

The third research question was stated as follows: To what extent do students who receive social skills instruction from *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* exhibit work-related social skills based on the participant (student) checklist?

The following null hypothesis was formulated to test the third research question: Ho₃: There is no statistically significant difference in student work-related social skills before and after they are taught social skills using *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* as measured by the students themselves.

Student checklist results are statistically significant at the .05 level. Of the 11 cases, only 3 cases revealed a negative rank with a mean rank of 3.00, whereas 8 cases showed a positive mean rank of 7.13. The sum of the ranks for the negative and positive ranks was 9.00 and 57.00 respectively.

Table 10 *Student Pre- and Posttest Results*

Students (N= 11)		
	Z	P
	-2.14	.03
Negative Ranks	M	W
	3.00	9.00
Positive Ranks	7.13	57.00

M = Mean Rank, W = Sum, P = significance level, and Z= Z- score

Teacher Interview

The principal investigator conducted a phone interview with the teachers who taught the *Skillstreaming* program (n= 2). Interview questions were asked and recorded on a Word document. The purpose of the interview was to identify components of the program that teachers assessed to be beneficial or not beneficial to their students.

Interview questions included six open-ended questions relative to the implementation of the program. Feedback from the interview is represented in Table 11.

Table 11 *Teacher Feedback about Skillstreaming Program*

<i>Questions</i>	<i>Teacher 1</i>	<i>Teacher 2</i>
1. Did you find the program to be beneficial to your students?	Yes	Yes
2. What part of the program did you find to be most effective?	The way the students responded. It showed me how weak they were in other areas.	Role-playing the skill helped them to understand the skill that we were supposed to be doing.
3. What part of the program did you find to be least effective?	Homework, some students would not have the support they needed from home to complete assignments.	Listing the steps on the board because students could not read the steps
4. What would you change about the program?	Setting up program based on time or number of weeks. Include video clip of other students modeling the skill concept. Students rating themselves.	Nothing
5. Do you think the skills taught were important to your students' transition into the work place?	Yes	Yes
6. Would you implement the program again?	Yes	Yes, the other teacher and I discussed combining classes, lower functioning students combined with higher functioning students to see how they would handle a situation. Some scenarios were not real to my students.

Summary

This chapter provided results from the study, participants' demographic information, pre- and posttest scores of three groups of observers, and feedback from teachers. The Wilcoxon Signed Rank Test was used to ascertain whether or not a difference existed between the pre- and posttest scores. The results from the parent and teacher checklists were not statistically significant at the .05 level; however, results from the student checklist were statistically significant ($p = .03$). Students reported an increase in their transition-related social skills.

CHAPTER V. DISCUSSION

This final chapter begins by providing an overview on social skills and the purpose of the study. Next, results will be discussed, followed by limitations and implications of the research.

Overview and Purpose

Overview

Some students with disabilities lack the skills needed to transition into society as successful, independent adults (Test, et al., 2006). Various skills deficits have been linked to poor outcomes for students with disabilities. One skill identified as being critical to success is the ability to appropriately interact socially with others. Lack of social skills has been linked to academic failure and poor economic and cultural opportunities (Wentzel, 1991). Social skills are vital to the development and overall adjustment of students with and without disabilities.

The literature identified several evidence-based practices that could be implemented to improve post-school outcomes for students with disabilities. One such evidence-based practice was social skills training. Social skills are critical to all students as they transition from one school to another and/or from school to work. Social skills programs have been developed to address social skills deficits that are often exhibited by at-risk students and students identified with a learning disability, an intellectual disability, and /or an emotional disability.

There are a limited number of studies that examine the impact of social skills training on work-related social skills. The focus of this study was to examine the effectiveness of a social skills program that can be implemented in Work-Place Readiness classes on the transition- related social skills of students in the classes.

Outcomes from this research provide information about the effectiveness of the *Skillstreaming* program on transition- related social skills in students with disabilities in the Work-Place Readiness class. Results from this study also provide teachers information about teaching social skills in the classroom. This information can be used to guide teachers helping students improve their transition-related social skills.

Purpose

The purpose of this study was to examine the effect of the *Skillstreaming* program on transition- related skills of high school students with disabilities by evaluating responses from three groups of responders: teachers, parents, and students. To examine the effectiveness of the intervention, the following research questions were investigated:

1. To what extent do students who receive social skills instruction from *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* exhibit work-related social skills based on an observer (teacher) checklist?
2. To what extent do students who receive social skills instruction from *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* exhibit work-related social skills based on a observer (parent) checklist?
3. To what extent do students who receive social skills instruction from *Skillstreaming the Adolescent: A Guide for Teaching Prosocial Skills* exhibit work-related social skills based on the participant (student) checklist?

To address the aforementioned questions, 11 high school students were included in this study. The students were diagnosed with at least one of the 13 disabilities outlined in the IDEIA and were enrolled in a Work-Place Readiness class. The participants, parents of the participants, and a teacher of the participants were asked to complete a curriculum-based social skills checklist before and after the implementation of the intervention. The checklists were adapted to address three groups of skills included in the *Skillstreaming* curriculum, Group I: Beginning Social Skills; Group II: Advanced Social Skills; and Group III: Dealing with Feelings. The intervention was administered by two special education teachers who taught Work-Place Readiness. Lessons were taught twice a week for 45 minutes per lesson for a total of 8 weeks. After each lesson, students completed their homework in class under the direction of the teacher.

A pre-test/post-test design with the *Skillstreaming the Adolescent* curriculum as the intervention was used to evaluate whether the *Skillstreaming* program made a significant difference on the work-related social skills of students with disabilities based on three responders: teachers, parents, and students. The instruments used to measure the effectiveness of the *Skillstreaming* program were three, 13-question Likert-type checklists designed for participants, teachers, and parents. The checklists evaluated the frequency at which participants exhibited 13 social skills.

Discussion of Findings

Three null hypotheses were tested using the Wilcoxon Signed Ranks Test. The results supported the first and second hypotheses: There was no statistically significant difference in student's work-related social skills as measured by observer (teacher) and

there was no statistically significant difference in students' work-related social skills as measured by observer (parents). However, the third hypothesis was rejected; there was a statistically significant difference between pre- test and post-test scores as measured by participants (students) themselves: Participants reported an increase in their transition-related social skills from pre- to posttesting.

Research Question 1 and 2 - Parent & Teacher Rating

The results related to questions one and two were somewhat unexpected. Previous research studies have shown that social skills interventions have had an impact on social behavior (Seevers & Blank, 2008). For question one, the Wilcoxon Signed Ranks Test indicated that there was no significant difference in students' transition-related social skills from the pre- to posttest based on teacher raters. However, four cases had a positive mean rank of 5.00 from the pre- and posttest scores. These results indicated the teachers perceived improvement for four students in transition-related social skills. However, teacher ratings for six cases yielded a negative mean rank of 5.83. This means that for these six students, their posttest scores were lower than their pretest scores. For question two, the Wilcoxon Signed Ranks Test indicated that there was no significant difference in students' transition-related social skills from pre-to post-test based on parent raters. However, four cases revealed a positive mean rank of 6.63 from the pre- and posttests. These results indicated the parent perceived improvement for four students in transition-related social skills. However, parent ratings for seven cases yielded a negative mean rank of 5.64. This means that for these seven students, their posttest scores were lower than their pretest scores.

There are several possibilities and/or explanations for results yielded for questions one and two of the current study. These explanations include, but are not limited to, instrumentation, rater perception, and functioning deficits.

Instrumentation. Instrumentation could have impacted results in this study. An adapted form of the teacher and parent *Skillstreaming* checklist was administered prior to (pre-test) and after (post-test) the implementation of the intervention. Although the pre-test and post-test were identical, teachers rated 6 students and parents rated 7 students at post-testing lower than at pre-testing. The checklist did not include explanations and/or examples of behaviors that constitute a rating of one through five. Negative ratings from teachers could be attributed to them teaching the skill and gaining a better understanding of what constitutes rating the frequency of behavior one, two, three, four, or five on the checklist. Negative ratings from parents could be attributed to the lack of knowledge of what constitutes rating behaviors at a certain frequency level. A second issue related to instrumentation was whether the checklists were designed to evaluate the outcomes of a treatment/intervention. According to Hughes and Sullivan (1988), two levels of evaluation are needed to ascertain the impact of the intervention on improving social skills. The two levels of evaluation are referred to as *specifying measures* and *impact measures*. *Specifying measures* (i.e., social cognitive test) evaluate whether target behaviors have changed as a result of the intervention, whereas *impact measures* (i.e., teacher or parent rating scales) evaluate whether the intervention influenced social outcomes. In the current study, an *impact measure* was used to evaluate the effectiveness of the intervention, which according to Hughes and Sullivan (1988), alone does not accurately assess whether target behaviors changed as a result of the intervention.

Rater perception. A second explanation for questions one and two results could be rater perception. Rater observations were based on raters' own perceptions, rather than objective measures; therefore, rater bias may have contributed to the results. According to Renk and Phares (2004), reports show that ratings among various raters correlate modestly because of the following: (1) different experiences with behaviors exhibited by the child and (2) different rater interpretation of same behaviors. Renk and Phares found that inter-rater reliability of social skills exhibited by adolescents were low to moderate and suggest that multi-source assessment provides more accurate information about students' social skills than a single rater.

Functioning level. A third explanation for questions one and two results could be functioning level. *Skillstreaming* is a cognitive-based approach. Students included in the current study were primarily students with intellectual disabilities. Griffiths (1994) suggested that it is difficult for students with intellectual disabilities to learn appropriate social behaviors because of their inability to understand symbolic representations and cause and effect relationships. The *Skillstreaming* curriculum, which requires students to identify with role-play situations, does not indicate a level of student appropriate for the program, but it does suggest that cognitive deficits due to intellectual disabilities and autism could result in students not understanding various aspects of the curriculum (McGinnis et al., 2012). A second issue related to functioning level was students' ability to complete homework. Skill homework was the generalization component of this program. It required students to complete a two-part homework assignment by applying social skills learned during class to real-life situations outside of the classroom. However, due to the functioning level of the students in the current study, skill homework was

completed during class with the teacher rather than in a setting outside of the classroom. Consequently, there were limited opportunities for students to practice skills outside of the training sessions. Modifying the homework requirements could have impacted students' ability to generalize skills to real-life situations. A third issue related to functioning level was skill mastery. After students successfully role-played a given skill, the next step of the curriculum is to practice the behavior by completing homework in a natural setting. The curriculum suggests that when most students have shown the ability to role-play a skill and successfully complete homework outside of the classroom then the group can move to another skill. However, in the current study, teachers taught the skills and allowed students to role-play, but did not require students to demonstrate proficiency outside the classroom. Therefore, students were introduced to new skills without fully establishing their proficiency in utilizing previously taught skills. Due to the functioning level of the students in the current study, more opportunities for practice should have been afforded before students were allowed to advance to another skill.

Research Question 3

For question three, the Wilcoxon Signed Ranks Test showed a significant difference in students' transition-related social skills from pre- to post-test based on student raters. Eight of 11 cases showed a positive mean rank of 7.13. These results indicated that eight students reported an increase in their transition-related social skills based on participant (student) ratings. Only three cases had a negative mean rank, whereas six cases had a negative mean rank as measured by teacher observers and seven cases had a negative mean rank as measured by parent observers. The differences in observer ratings supported Warnes et al. (2005) notion that having students self-report

provides unique insight into students' perception of their own behavior. According to McGinnis et al. (2012), it is important to assess each student's perspective of themselves because teaching skills in which students have identified deficits has proven to be a successful motivational strategy.

These results could be attributed to the checklist being based on raters' own perceptions, rather than objective measures: Students' perception of their use of work-related social skills may be due to them receiving social skills instruction. Another explanation could be attributed to the opportunity for students to practice outside of their classroom setting. Spence (2003) suggested that involving others outside of the training session reinforces students' efforts to use the skills learned during training. Practice outside of training environment promotes generalization of skills to real-life situations.

Although the results from teachers and parents were not statistically significant, informal discussions with teachers indicated that *Skillstreaming* had an impact on students' work-related social skills. Teachers and paraprofessionals commented on situations in which students utilized skills taught during social skill training. For an example, it was reported that one of the students who participated in the program introduced a member of his/her IEP team for the first time during an IEP team meeting. In addition, a parent reported that his/her child approached and introduced himself/herself to people at their church for the first time. These informal discussions support the literature suggesting that social skills training can be an effective strategy in remediating social skills deficits in students with disabilities (Cartledge & Milburn, 1978).

Limitations

There are several limitations in this study. These limitations include functioning level, length of intervention, number of participants, instrumentation, teaching to mastery, and treatment fidelity.

Functioning Level

Skillstreaming was designed for individuals who exhibit aggressive and other problematic behaviors. Students included in the current study were students primarily with intellectual disabilities. Although the *Skillstreaming* curriculum does not indicate a level of student appropriate for the program, it does suggest that cognitive deficits due to intellectual disabilities could result in students not understanding various aspects of the curriculum (McGinnis et al., 2012). Varying ranges of intellectual abilities and/or types of functioning deficits could impact the results of the study, as *Skillstreaming* requires students to be able to identify with a role-play situation and comprehend and memorize steps to maneuver a social situation.

Length of Intervention

The number of weeks for program implementation was shortened due to school being released for the summer. Considering students' functioning deficits, some students may have benefited from additional time to master a particular social skill. Some participants may have benefited from 10 weeks or more of instruction in a fewer number of skill area, rather than eight weeks covering 13 skill areas.

Number of Participants

Eleven students were included in this study. While all students in the two Work-Place Readiness classes received social skill training, not all of the students or parents

agreed to participate in the study. One student that did agree to be in the study was removed from the study because no pre-test scores were obtained due to the student's excessive absences.

Instrumentation

Multisource assessment (i.e., teacher, parent, and student) was utilized, but multimodal assessment, which is the use of more than one type of assessment, was not utilized in the current study. According to Hughes and Sullivan (1988), two levels of evaluation are needed to ascertain the impact of the intervention on improving social skills. Adapted forms of the teacher, parent, and student *Skillstreaming* checklists were used for pre- and posttest assessments. The checklists were curriculum based and depended heavily on perspectives of the parent, teacher, and student. The accuracy scales on the checklists were subjective: Items were rated on a 5-point scale with ranges from "1"- almost never to "5"- almost always. Results showed that parent and teacher social skills ratings for students were lower than students' ratings for themselves. According to McGinnis et al. (2012), it is not uncommon for parents and teachers to report more skill deficits for students than the students report for themselves.

Teaching to Mastery

The curriculum suggests that when most students have shown the ability to role-play a skill and successfully complete homework outside of the classroom then the group can move to another skill. However, in the current study, teachers taught the skills and allowed students to role-play, but did not require students to demonstrate proficiency outside the classroom. Therefore, students were introduced to new skills without fully establishing their proficiency in utilizing previously taught skills.

Treatment Fidelity

To measure treatment integrity, the principal investigator conducted two observations per teacher on the implementation of the *Skillstreaming* program. Both teachers scored in the 75 to 83 range (consultation available). Although teachers scored in an acceptable range, observations showed that overall they demonstrated low to medium proficiency in the following areas: providing performance feedback and establishing student skill need. Teachers' lack of proficiency in conducting various parts of the program could have contributed to the outcomes in this study.

Though there are limitations to this study, the study does provide a basis for future research. This study supports a design by which future research can be modeled. The next section will discuss implications of this study.

Recommendations for Future Research

Results from this study suggest that the *Skillstreaming* program as implemented in this study does not increase work-related social skills of students with disabilities based on observer (teacher) and parent checklists. These results implicated that further research is needed to identify programs and strategies that could impact work-related social skills of students with intellectual disabilities and autism. Since this study assessed the impact of *Skillstreaming* on work-related social skills based on an observer checklist, future researchers may consider using an instrument that objectively measures students' ability to perform a social skill. The researcher might also consider assessing students in role-play situations to ascertain whether or not the student has been acquired the skill.

Future researchers may consider progressing students from one skill to another as suggested by the program, but develop a protocol that allows teachers to rate how well

students utilize a particular skill in a role-play situation. Consideration should also be given to adapting more role-plays and examples.

Beelman et al. (1994) concluded that students with mild intellectual disabilities benefited the least from social skills training. This study represented three of 13 disability categories: ID, OHI, and AU. Further research should be conducted to examine the impact of the *Skillstreaming* curriculum as it relates to other disability categories. The exploratory nature of this study supports that additional research is needed, in which more students are included, students' functioning deficits are different, and teachers are trained to criterion.

Summary

The participants in this study were 11 students enrolled in one of two Work-Place Readiness courses. These participants were in grades 10 to 12 and all were diagnosed with a disability.

Data were collected from three sources: parents, students, and teachers using *Skillstreaming* Checklists that were adapted to address work-related social skills. The checklists were administered prior to the implementation of the program and after the implementation of the program. The results support the first and second hypotheses: There was no statistically significant difference in students' work-related social skills as measured by teachers and parents. However, the third hypothesis was rejected in that there was a statistically significant difference between pre-test and post-test scores of the participants: Participants reported an increase in their transition-related social skills from pre-to post-testing.

Although, results of this study were not statistically significant based on teacher and parent ratings, instruction in high school social skills have been found to be predictor of positive post school outcomes (Alwell & Cobb, 2007). As such, there is a need to continue to explore effective strategies and programs for teaching social skills to the range of students with disabilities in order to improve students' post-school outcomes.

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Appendix 1

Leader/ Staff Checklist

LEADER/STAFF CHECKLIST

Student _____ Class/age _____

Leader/staff _____ Date _____

INSTRUCTIONS: Listed below are a number of skills that youth are more or less proficient in using. This checklist will help you evaluate how well each youth uses the various skills. For each youth, rate his or her use of each skill, based on your observations of the youth's behavior in various situations.

- Circle 1 if the youth is almost never good at using the skill.
- Circle 2 if the youth is seldom good at using the skill.
- Circle 3 if the youth is sometimes good at using the skill.
- Circle 4 if the youth is often good at using the skill.
- Circle 5 if the youth is almost always good at using the skill.

Please rate the youth on all skills listed. If you know of a situation in which the youth has particular difficulty using the skill well, please note it briefly in the space marked "Problem situation."

	almost never	seldom	sometimes	often	almost always
1. Listening: Does the youth pay attention to someone who is talking and make an effort to understand what is being said? Problem situation:	1	2	3	4	5
2. Starting a Conversation: Does the youth talk to others about light topics and then lead into more serious topics? Problem situation:	1	2	3	4	5
3. Having a Conversation: Does the youth talk to others about things of interest to both of them? Problem situation:	1	2	3	4	5
4. Asking a Question: Does the youth decide what information is needed and ask the right person for that information? Problem situation:	1	2	3	4	5
5. Saying Thank You: Does the youth let others know that he/she is grateful for favors, etc.? Problem situation:	1	2	3	4	5

almost never
seldom
sometimes
often
almost always

- | | |
|---|------------------|
| <p>6. Introducing Yourself: Does the youth become acquainted with new people on his/her own initiative?</p> <p>Problem situation:</p> | <p>1 2 3 4 5</p> |
| <p>7. Introducing Other People: Does the youth help others become acquainted with one another?</p> <p>Problem situation:</p> | <p>1 2 3 4 5</p> |
| <p>8. Giving Instructions: Does the youth clearly explain to others how they are to do a specific task?</p> <p>Problem situation:</p> | <p>1 2 3 4 5</p> |
| <p>9. Following Instructions: Does the youth pay attention to instructions, give his/her reactions, and carry the instructions out adequately?</p> <p>Problem situation:</p> | <p>1 2 3 4 5</p> |
| <p>10. Knowing Your Feelings: Does the youth try to recognize which emotions he/she has at different times?</p> <p>Problem situation:</p> | <p>1 2 3 4 5</p> |
| <p>11. Expressing Your Feelings: Does the youth let others know which emotions he/she is feeling?</p> <p>Problem situation:</p> | <p>1 2 3 4 5</p> |
| <p>12. Understanding the Feelings of Others: Does the youth try to figure out what other people are feeling?</p> <p>Problem situation:</p> | <p>1 2 3 4 5</p> |
| <p>13. Dealing with Someone Else's Anger: Does the youth try to understand other people's angry feelings?</p> <p>Problem situation:</p> | <p>1 2 3 4 5</p> |

Leader/Staff Checklist (page 2 of 2)

Adapted by: Cincystal Harris
October 2012

Appendix 2
Parent Checklist

PARENT CHECKLIST

Name _____ Date _____

Child's name _____ Birth date _____

INSTRUCTIONS: Based on your observations in various situations, rate your child's use of the following skills.

- Circle 1 if your child is almost never good at using the skill.
- Circle 2 if your child is seldom good at using the skill.
- Circle 3 if your child is sometimes good at using the skill.
- Circle 4 if your child is often good at using the skill.
- Circle 5 if your child is almost always good at using the skill.

- | | <i>almost never</i> | <i>seldom</i> | <i>sometimes</i> | <i>often</i> | <i>almost always</i> |
|--|---------------------|---------------|------------------|--------------|----------------------|
| | 1 | 2 | 3 | 4 | 5 |
| 1. Listening: Does your child listen when you or others talk to him/her?
Comments: | | | | | |
| 2. Starting a Conversation: Does your child begin conversations with other people?
Comments: | | | | | |
| 3. Having a Conversation: Does your child talk to others about things of interest to both of them?
Comments: | | | | | |
| 4. Asking a Question: Does your child know how and when to ask questions of another person?
Comments: | | | | | |
| 5. Saying Thank You: Does your child let others know that he/she is grateful for favors, etc.?
Comments: | | | | | |
| 6. Introducing Yourself: Does your child become acquainted with new people on his/her own?
Comments: | | | | | |



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Adapted by: Cincryl Harris
October 2012.

almost never
 seldom
 sometimes
 often
 almost always

- | | |
|---|------------------|
| <p>7. Introducing Other People: Does your child help others become acquainted with one another?</p> <p>Comments:</p> | <p>1 2 3 4 5</p> |
| <p>8. Giving Instructions: Does your child clearly explain to others how and why they should do something?</p> <p>Comments:</p> | <p>1 2 3 4 5</p> |
| <p>9. Following Instructions: Does your child carry out instructions from others quickly and correctly?</p> <p>Comments:</p> | <p>1 2 3 4 5</p> |
| <p>10. Knowing Your Feelings: Does your child recognize which emotions he/she has at different times?</p> <p>Comments:</p> | <p>1 2 3 4 5</p> |
| <p>11. Expressing Your Feelings: Does your child let others know which emotions he/she is feeling?</p> <p>Comments:</p> | <p>1 2 3 4 5</p> |
| <p>12. Understanding the Feelings of Others: Does your child understand what other people are feeling?</p> <p>Comments:</p> | <p>1 2 3 4 5</p> |
| <p>13. Dealing with Someone Else's Anger: Does your child try to understand someone else's anger without getting angry himself/herself?</p> <p>Comments:</p> | <p>1 2 3 4 5</p> |

Appendix 3
Participant Checklist

PARTICIPANT CHECKLIST

Name _____ Date _____

INSTRUCTIONS: Each of the questions will ask you about how well you do something. Next to each question is a number.

- Circle number 1 if you almost never do what the question asks.
- Circle number 2 if you seldom do it.
- Circle number 3 if you sometimes do it.
- Circle number 4 if you do it often.
- Circle number 5 if you almost always do it.

There are no right or wrong answers to these questions. Answer the way you really feel about each question.

	<i>almost never</i>	<i>seldom</i>	<i>sometimes</i>	<i>often</i>	<i>almost always</i>
1. Do I listen to someone who is talking to me?	1	2	3	4	5
2. Do I start conversations with other people?	1	2	3	4	5
3. Do I talk with other people about things that interest both of us?	1	2	3	4	5
4. Do I ask questions when I need or want to know something?	1	2	3	4	5
5. Do I say thank you when someone does something for me?	1	2	3	4	5
6. Do I introduce myself to new people?	1	2	3	4	5
7. Do I introduce people who haven't met before to each other?	1	2	3	4	5
8. Do I clearly explain to others how and why they should do something?	1	2	3	4	5
9. Do I carry out instructions from other people quickly and correctly?	1	2	3	4	5
10. Do I recognize the feelings I have at different times?	1	2	3	4	5
11. Do I let others know what I am feeling and do it in a good way?	1	2	3	4	5
12. Do I understand what other people are feeling?	1	2	3	4	5
13. Do I try to understand and not get angry when someone else is angry?	1	2	3	4	5



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Adapted by: Cincystal Harris
October 2012

Appendix 4
Observer Checklist

OBSERVER'S CHECKLIST

INSTRUCTIONS: A highly skilled observer may complete this observation checklist as the Skillstreaming group is taking place. The observer will note whether leader(s) completed each procedure with a low level of competence (score 1), medium proficiency (score 2), or a high level of skill (score 3). At the conclusion of the observation, the observer may provide leader(s) with recommendations for specific steps needing improvement.

Group leader(s) _____ Observers _____

Date of group _____ Time of group _____

	Proficiency Level		
	1	2	3
Step 1: Define the skill			
1. The skill to be taught was defined and the group understood its meaning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Skill steps were presented and discussed (via poster or skill cards).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>(For all sessions after the first)</i>			
3. Group members' skill homework was discussed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Appropriate reinforcement was provided for group members who completed homework.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Step 2: Model the skill			
5. Two examples of the skill were modeled.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Each skill step was identified as the modeling unfolded.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Modeling displays were relevant to group members' real-life circumstances.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Group members were directed to watch for the steps being modeled.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. The model was friendly and helpful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. A coping model was presented if indicated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. The model used self-talk to illustrate the steps and thinking about skill performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. The modeling display depicted positive outcomes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. The model was rewarded for skill performance (following the skill steps).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Step 3: Establish student skill need			
14. Each group member's need for skill use was defined (when, where, and with whom) and listed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Step 4: Select the first role-player			
15. The main actor was selected for role-play (e.g., "Who would like to go first?")	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Proficiency Level		
	1	2	3
Step 5: Set up the role-play			
16. Main actor selected a coactor who reminded him/her most of the real-life person with whom he/she has the skill need.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
17. Main actor described the physical setting, events preceding the problem, mood/manner of the person, and any other relevant information.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Step 6: Conduct the role-play			
18. Group members were assigned specific step(s) to observe.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
19. Main actor was instructed to follow the behavioral steps.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
20. Main actor was reminded to "think aloud."	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
21. Coactor was reminded to stay in the role of the other person.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
22. Group leader assisted the main actor as needed (pointed to skill steps, coached).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Step 7: Provide performance feedback			
23. Coactor was asked to provide feedback (e.g., how he/she felt, how well the main actor enacted the steps).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
24. Group members were asked if the main actor followed each step.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
25. Leaders provided appropriate feedback (praise, approval, encouragement), identifying specific aspects of the main actor's performance.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
26. Reinforcement in an amount consistent with the quality of role-play was provided.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
27. Main actor was invited to give comments.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Step 8: Select the next role-player			
28. Volunteer participant asked to act as the main actor in the next role-play. Repeated Steps 5 through 7.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
29. All group members were given a chance to role-play, or plans were made to role-play for those who did not have a chance.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Step 9: Assign skill homework			
30. Skill homework was assigned to each main actor.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
31. Assistance was provided as needed in identifying the day, place, with whom the skill will be used, and so forth.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

TOTAL _____

59 points or below	Group leader intervention needed.
60–74 points	Continued monitoring of instruction necessary.
75–83 points	Consultation with master leader available.
84–93 points	Mastery of intervention demonstrated.

Comments:

Recommendations for improvement: