Targeted Social Skills Instruction for Secondary Students with Emotional/Behavior Disorders

by

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A dissertation submitted in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

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Drake University
Des Moines, Iowa
2011
Abstract

The purpose of this pre-experimental study was to determine the impact of targeted social skills instruction for 30 secondary students with Emotional/Behavior Disorders. Students participated in six weeks of social skills instruction, four days per week for 40-45 minutes per session. The Social Skills Improvement System rating scale was used pre and posttest to determine student outcomes in the Social Skills subdomain areas of Communication, Cooperation, Assertion, Responsibility, Empathy, and Self-Control. In addition the study also looked at the Problem Behavior subdomain areas of Externalizing, Bullying, Hyperactivity/Inattention, and Internalizing. Results across the group did not show significant levels of improvement in any of the subdomain areas. However, there were significant results when the groups were broken down into various smaller subgroups. Limitations, implications for practice, and implications for future research are also offered.
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Chapter 1

Introduction

This chapter provides an introduction to the problem and purpose of this pre-experimental study. Additional background information will be presented in three major sections, with the first section identifying the research questions, the second section laying the contextual framework, and the third section addressing the significance of the study. Definitions of key terms are also included to help the reader with any technical educational terms.

Statement of the Problem

State governments have been working to set expectations that all students will exit high school with the technical and social skills needed to perform in their chosen field of study. The Common Core Standards, which have been adopted by 38 states, “define the knowledge and skills students should have within their K-12 education careers so that they will graduate high school able to succeed in entry-level, credit-bearing academic college courses and in workforce training programs” (http://www.corestandards.org/about-the-standards). This can be a difficult endeavor for students who have significant gaps in their social skills knowledge, particularly for students whom poor social interactions are one of the main components of their disability.

The United States Department of Education’s 28th Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act of 2006 provides national data on graduation and drop-out rates for students with disabilities. Table 1.1 shows that between 1994 and 2004, across all noted disability areas, students with emotional disturbances had the lowest percentage rates for students graduating with a high school diploma. The population with the second lowest graduation rate was students with mental disabilities.

In addition, Table 1.2 shows the percentage of students who have dropped out of school. Again, students with emotional disturbances are shown to be at the greatest risk. They had the
highest drop-out rate across all noted disability areas despite improvements made within the category over a ten year span.

Table 1.1

**Percentage of students with disabilities who graduated with a regular high school diploma**

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*Note. US Department of Education, Office of Special Education Programs, Data Analysis System (DANS), 2006.*
Table 1.2

Percentage of students with disabilities who dropped out of school

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Note. US Department of Education, Office of Special Education Programs, Data Analysis System (DANS), 2006.

To better understand the risks shown in Tables 1.1 and 1.2 it is crucial to consider the difficulties students with Emotional/Behavior Disorders endure on a day to day basis. The Individual’s with Disabilities Education Act (2004) (IDEA) 34CFR300.8, 4i defines Emotional Disturbance (or Behavior Disorders) as:

- a condition exhibiting one or more of the following characteristics
- over a long period of time and to a marked degree that adversely affects
- a child's educational performance:
a. An inability to learn that cannot be explained by intellectual, sensory, or health factors.
b. An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.
c. Inappropriate types of behavior or feelings under normal circumstances.
d. A general pervasive mood of unhappiness or depression.
e. A tendency to develop physical symptoms or fears associated with personal or school problems. (p. 229)

Johns, Crowley, and Guetzloe (2005) observed classrooms designed for students with Emotional and Behavior Disorders (E/BD) where teachers focused all their attention on academics and not the social needs of the students. They determined that the teaching of social skills was imperative if students were to be prepared for the world of work and the skills that business owners were expecting. Most school aged children at some point have difficulties in their academic career navigating the social maze. Unfortunately, some students with disabilities have additional difficulties with daily social interactions (Battalio & Stephens, 2005; Gresham Sugai, & Horner, 2001; Mathur & Rutherford, 1996; Miller, Lane & Wheby, 2005).

Social interactions are one of the cornerstones of daily living. Imagine the sheer number of human interactions one has in a single day. These interactions vary from sharing a simple “hello,” asking for directions, mediating a dispute with a friend or resolving a misunderstanding with a teacher. Along with the academic demands students must learn and to some extent master, they must also have the ability to navigate the changing social world around them. Students with Emotional/Behavior Disorders, by Federal definition (IDEA) (2004), have demonstrated significant discrepancies from their same aged peers which entitles them to receive special
education supports and services. This discrepancy would have been determined by examining student behavior across various settings as compared to the grade level expectations or norms during the evaluation period. While these supports are implemented to help special education students close the gap in both academic and social learning, the students are starting at a disadvantage and need to work even harder to be successful in navigating the academic and social curriculum.

Additionally, students no longer can solely rely on becoming experts in their chosen career field to be successful. Johns et al. (2005) also found in their conversations with business leaders the main answer given for qualities of effective employees was the ability to get along with others. Furthermore IDEA (2004) requires schools to be planning for a special education student’s life after high school. This transition planning is intended to prepare students for their lives in the areas of living, learning, and working. Federal Code 34CFR300.320, 7b states:

> the IEP must include appropriate measurable postsecondary goals based upon age-appropriate transition assessments related to training, education, employment, and, where appropriate independent living skills; and the transition services, including courses of study, needed to assist the child in reaching those goals. (p. 281)

The working component should address not only the skill sets of the job, but more importantly the social aspects. Appropriate social skills such as, working cooperatively with others, accepting direction or criticism from a manager/boss, and proper hygiene and dress attire are all essential skills in preparing students for future endeavors.

Gumpel (2007) goes on further to say, “there may be no greater predictor of mental health than an individual’s ability to interact with his or her social environment and develop a network of friends, associates, and peers” (p. 351). Mathur and Rutherford (1996) share that the
failure of students to develop social skills leads to interacting with inappropriate behavior responses. These deficits have also been linked to issues such as mental health problems (Lo, Loe & Cartledge, 2002; Mathur & Rutherford, 1996), delinquency (Lo, Loe & Cartledge, 2002; Walker et al., 1996), and rejection by peers (Gresham, Van & Cook, 2006) etc.

**Purpose of the Study**

The purpose of this pre-experimental study was to elaborate on the impact of a targeted social skills instruction program for secondary students with Emotional/Behavior Disorders. Using the Social Skills Improvement System (SSIS), students rated themselves in the area of social skills and problem behaviors. After receiving targeted skill instruction in the identified areas, students then rated themselves again. Scores on the pre and posttests were compared to determine if improved performance had been achieved.

**Research Questions**

Based on Creswell’s (2009) recommendation that using research questions and hypotheses can be redundant, this study utilized only research questions.

1. Does targeted social skills instruction improve the social skill development of secondary students with Emotional/Behavior Disorders within the following subdomains: Communication, Cooperation, Assertion, Responsibility, Empathy, and Self Control?
2. Does targeted social skills instruction improve the problem behavior of secondary students with Emotional/Behavior Disorders within the following subdomains: Externalizing, Bullying, Hyperactivity/Inattention, and Internalizing?

**Contextual Framework**

Bronfenbrenner’s Bioecological model combined with the triangle of support will be presented as foundational support for purposes of this study. Both models help solidify the
critical role that educators play in helping students to develop appropriate social skills to be successful in life.

**Bronfenbrenner’s bioecological model.** The social skill sets that need to be learned by students with Emotional/Behavior Disorders are critical in their development as productive members of society. In the 1970’s, Bronfenbrenner offered the “ecological systems theory” (1979) to explain human development (see Figure 1.1). The underlying premise being that every child exists within a set of structures or systems, and that each of these plays a key role in the child’s development. More recently the theory has been revised into the Bioecological model (Bronfenbrenner, 2005), which takes into account the character/behavior of the individual and how they interact amongst all the systems.

…human beings create the environments that shape the course of human development. Their actions influence the multiple physical and cultural tiers of the ecology that shapes them, and this agency makes humans- for better or for worse- active producers of their own development.

(p. xxvii)

Bronfenbrenner (1979, 2005) identifies the central circle as the “microsystem”. This would encompass the child and their immediate environments including home, school, and the neighborhood in which the child lives. He further defines the microsystem as:

- a pattern of activities, roles, and interpersonal relations experienced
- by a developing person in a given face-to-face setting with particular
- physical and material features and containing other persons with
- distinctive characteristics of temperament, personality, and systems
- of belief. (p. 148)

The Federal (IDEA) (2004) definition of Emotional/Behavior Disorders indicates that these identified students already have difficulty knowing how to interact with others and showing appropriate social skills in a variety of settings. In addition to this, Walker et al. (1996) indicates that many students are inadvertently taught inappropriate behavior responses within their immediate home environments due to “stressed home conditions (e.g., poverty, divorce,
abuse, neglect, unemployment, and substance abuse)” (p. 197). The “mesosystem” accounts for the interactions that take place among the microsystems in the central circle. For example, a teacher contacts a parent in regard to the child’s behavior at school. Once the parent has responded back to the initial contact then an interaction between the two environments has taken place (Merrell, 2008). Students in this study participate in Social Skills classrooms in which their teachers have the opportunity to have frequent, direct contact with parents and/or caregivers. The amount of parental/caregiver support would vary from student to student. Moving another circle out of Bronfenbrenner’s model would place one in the “exosystem” or social context of the environments discussed to this point. The “exosystem” is “defined as a setting that does not itself contain a developing person but in which events occur that affect the setting containing the person” (Bronfenbrenner, p. 46). The “exosystem” broadens the immediate environments of the child to include the community outside his/her own classroom, the extended family that does not live at the child’s home, parent’s workplace, etc. For example, the conditions (stress/environment) in which a parent works can have a significant impact on a child’s development even though they themselves are not directly experiencing the conditions. The furthest circle out would be the “macrosystem” which encompasses the broad cultural context in which all the other systems operate. This refers to the general values, beliefs, laws and customs that we are exposed to throughout our lives. Particular attention should be paid “to the development instigative belief systems, resources, hazards, lifestyles, opportunity structures, life course options, and patterns of social interchange embedded in each system” (Bronfenbrenner, p. 149-150). Bronfenbrenner’s theory lays a strong foundation for connecting the school’s role in shaping behavior and the expectations of the Federal IDEA (2004) transition legislation.

Students need to be directly taught an adaptive, positive pattern of behavior for home, school, and other settings, be given opportunities
to display what they have learned, and receive feedback regarding the
effectiveness of their efforts. In addition, these students need to be
taught how to correctly discriminate the forms of behavior to use and
not use in a variety of social and educational contexts
(Walker et al., 1996, p. 197).

**Triangle of support.** The concepts presented in Figure 1.2, the “Triangle of Support”,
were first developed by Walker and colleagues (1996) though overtime the triangle has taken
many forms. This study will use Merrell’s adaptation (2008). (See Figure 1.2) The model’s
premise indicates that every student can benefit from supports within the school setting but that
each student does not necessarily require the same supports. On the surface a school building
might look as if it runs like a well oiled machine. However, it really is a much more complex
system. Walker and Horner (1996) share that school represents “a complex organization of
people, environments, policies, routines, and procedures that should function as a coordinated
whole” (p. 6).

The “triangle of support” divides the entire school population into three core areas.
Eighty percent of students will fall within the universal support category. Instruction in school
rules, social skills for training in key school areas or a school wide behavior program would fit in
this category. Fifteen percent of the students would need more targeted support in addition to the
supports being offered to all students. Social skills training might be targeted towards particular
groups of students that have been identified by school teams and/or parents. The training
sessions would be more targeted towards their particular needs. Pairing students with mentors
could also be an intervention for targeted support. The top of the triangle then focuses on five
percent of the population who requires more individualized, intensive targeted interventions such
as wrap around or special education services.
The schoolwide systems, the bottom of the triangle, address most of the student needs. Skiba and Peterson (2003) identify these as general expectations and values for both students and faculty. Specific non-academic settings such as hallways, cafeterias, playgrounds or bathrooms have a unique set of expectations which differ from classroom settings. Navigating and understanding the differences is critical for student success. If a child has a question in a classroom setting they may be expected to raise their hand and wait to be acknowledged. If a child has a question in the lunchroom or hallway raising your hand may not be necessary. As stated previously, some students pick up on these social nuances without instruction; others will need help in determining the differences between social settings. In addition, these settings are generally less structured and provide more opportunities for peer interactions, rather than adult-peer interactions, which can be very difficult for some students to navigate. Classroom systems add more intensity to the school structure in that many classrooms have their own set of unique...
rules specific to the content being taught or the preferences of the teacher (Walker & Horner, 1996; Skiba & Peterson, 2003). Additionally, there are individual student systems created for students who exhibit more intensive behaviors.

Students identified as having Emotional/Behavior Disorders are generally going to fall into the top 5-15% identified as high-risk or students at-risk for negative behavioral and emotional outcomes on the “triangle of support.” In many situations students with E/BD find alternate methods for meeting their social needs (Battalio & Stephens, 2005; Mathur, & Rutherford, 1996; Skiba & Peterson, 2003). For example, John may find it much easier to gain another student’s attention by hitting him, throwing something at him or calling him a name versus appropriately saying “excuse me.” Cindy might find it easier to storm out of class rather than put herself in the position to have a social interaction with a teacher or student in which she needs to ask for help or admit that she does not know how to complete an assignment. While these chosen behaviors are effective in either getting the students out of a situation or gaining someone’s attention, they are not acceptable strategies that will help them be successful in most public or private settings.

In order to navigate all the existing systems within society and the school building, every student would benefit from some type of social skills instruction. Reflecting on our own social experiences can bring back memories of difficult situations and times when the wrong choice was made despite the ecological supports we may have had. The “Triangle of Support” also indicates that there are others for whom social interactions are not easy.

The focus for this study was on students whose identified needs have qualified them for Special Education supports and services in the area of behavior. These entitled individuals have Individualized Education Plans (IEPs) in which the school and regional education agency team members have determined the needs, supports and services a student requires to be successful in
school. Further these students have an IEP goal in the area of social skills requiring targeted instruction, and are part of a Social Skills classroom designed to meet their individual academic and social needs.

**Significance of the Study**

This study adds to the existing social skills literature, specifically in relation to the alignment of deficit areas and targeted social skills instruction. Research has shown that once students have been identified as needing social skills instruction, there is usually little attempt at determining which exact skills should be targeted (Gresham et al., 2001; Gresham et al., 2006; Denham, Hatfield, Smethurst, Tan & Tribe, 2006). The lack of alignment makes it difficult to determine student progress (Bullis, Walker & Sprague, 2001).

Determining the impact of targeted social skills instruction can help educators in designing cohesive programming for students with Emotional/Behavior Disorders. This programming will help students gain the critical social skills they need to help navigate the social world and allow them to achieve their goals.

**Definition of Terms**

The field of education has numerous technical terms and acronyms. In order to ensure that a common understanding is held by all, the terms relevant to this study have been defined below.

**Regional education agencies**- Regional service agencies that provide support to school districts in the form of access to psychologists, consultants, social workers, speech language providers, content support, etc.

**Individuals with Disabilities Act (IDEA)**- Federal legislation which designates rules and regulations to ensure that students with disabilities receive a free, appropriate public education.
Individualized Education Plan (IEP)- A written plan developed by a team of individuals that specifies goals, supports and services that is required for every student entitled to special education services.

Emotional/Behavior Disorder- A recognized disability category by the Federal government (IDEA) (2004) characterized by the inability to create and maintain interpersonal relationships, inappropriate behavior under normal circumstances, an inability to learn, a general mood of unhappiness, and a tendency to develop fears associated with personal or school problems.

Social Skills- A set of competencies that (1) facilitate initiating and maintaining positive social relationships, (2) contribute to peer acceptance and friendship development, (3) result in satisfactory school adjustment, and (4) allow individuals to cope with and adapt to the demands of the social environment (Gresham et al., 2006, p. 364).

Social Competence- An individual’s ability to perform social tasks adequately in social situations.

Social Skills Instruction- Instruction comprised of the following components:

1. Review and check the previous day’s work (and reteach, if necessary).
2. Present new content or skills (model demonstration/I do)
3. Provide guided student practice (and check for student understanding-lead/ we do).
4. Provide feedback and correction (and reteach if necessary).
5. Provide independent student practice (test/You do).

Social Skills Acquisition deficit- A social skills deficit in which the student has not had instruction in how to perform a skill.
Social Skills Performance deficit- A social skills deficit in which the student has had instruction yet chooses not to perform the skill. Performance deficits are also usually accompanied by problem behavior.

Social Skills Fluency deficit- A social skills deficit in which the student has had instruction, knows how to perform the skill but does not do so consistently across a variety of settings.

Common Core Standards- A set of K-12 standards in English language arts, and math designed to ensure that all students are prepared for life after high school.
Chapter 2

Review of Literature

The purpose of this chapter is to provide a review of literature related to social skills instruction. The review will explore existing definitions of social skills and social skills instruction, the various theoretical approaches to social skills, issues that present themselves and finally any gaps that appeared in previous studies.

Defining Social Skills/Social Skill Instruction

As mentioned earlier, the words social skills conjure many images in people’s minds: images ranging from greeting a person to learning the social etiquette necessary to participate in a formal dining situation. The term social skills has been defined many ways in past research. Combs and Slaby (1977) define social skills as “the ability to interact with others in a given social context in specific ways that are societally acceptable or valued and as they sometimes are personally beneficial, mutually beneficial or beneficial primarily to others” (p. 162). Libet and Lewinsohn (1973) defined social skills as “the complex ability both to emit behaviors that are positively and negatively reinforced and not to emit behaviors that are punished or extinguished by others” (p. 304). Lastly, Foster and Richey (1979) identified social skills “as those responses, which within a given situation, prove effective, or in other words, maximize the probability of producing, maintaining, or enhancing positive effects for the interactor” (p. 626).

The difficulty with many of the definitions is that they are very vague in nature and require a number of value judgments to be made in determining what is or is not a social skill or whether it is performed correctly or incorrectly. Terms such as societally acceptable or personally beneficial can carry many different meanings depending on the individual person and their experiences within their social ecologies.
Social Skills versus Social Competence

Additionally, the term social competence often is discussed. It is important to define the difference between the two areas. McFall (1982) characterizes social skills as “the specific abilities that enable a person to perform competently at particular social tasks” (p. 23). Social competence then “is used as a general evaluative term referring to the quality or adequacy of a person’s overall performance in a particular task” (p. 12). Maag (2006) defines social skills as the specific behaviors targeted during social skills instruction whereas social competence refers to the adequacy of a person’s social functioning (Mathur & Rutherford Jr, 1996; Bullis, Walker & Sprague, 2001; Gresham, Sugai, Horner, 2001; Johns, Crowley, & Guetzloe, 2005).

Gresham’s definition of social skills, which takes a social validity approach, is popular in recent literature.

Social skills represent a set of competencies that (1) facilitate initiating and maintaining positive social relationships, (2) contribute to peer acceptance and friendship development, (3) result in satisfactory school adjustment, and (4) allow individuals to cope with and adapt to the demands of the social environment. (Gresham, et al., 2006, p. 364)

It is not enough to only distinguish between social skills and social competence. When an IEP is developed the team must identify each child’s strengths as well as areas of need. In order to develop specially designed instruction which targets the need areas one must proceed a step further to identify the specific skill deficit. Gresham (1986) categorized social skill deficits into four general areas: (a) skill deficits, (b) performance deficits, (c) self-control skill deficits, and (d) self-control performance deficits. Skill deficits, which are most commonly called acquisition deficits in current research, are defined as “can’t do” problems meaning that under the circumstances presented the student can’t perform the skill. For example, a student may attempt
to gain another student’s attention by hitting them on the arm because they have not been taught the skill of saying excuse me. The rationale might be that the student has never been taught the expected skill or has trouble in determining which skill to use in the given situation. Performance deficits are such that the student has learned the skill yet chooses to not utilize the skill in a given situation. These have been characterized then as “won’t do” problems. It is important to assess and determine if the student has the skill set as the methods of intervention will be different for an acquisition and a performance issue. Self-Control skill deficits “describes a child who has not learned a particular social skill because some type of emotional arousal has prevented the acquisition of the skill” (Gresham, 1986, p. 8).

Anxiety and impulsivity would be examples of two emotions that interfere with skill acquisition. Sometimes the anxiety is so great that students become paralyzed or focused on the emotion that they cannot focus their attention on the learning taking place. In other examples the impulsivity of individuals doesn’t give them the time to think and plan ahead and often times results in their being rejected by peers because of their inappropriate responses. Self-Control performance deficits, like anxiety and impulsivity, prevent students from performing the skill because of an emotional arousal response. In this instance the student has the skill in their repertoire but the emotional response still prevents them from being able to perform the skill consistently (Gresham, 1986).

Social Skill Deficits

Recent literature (Gresham, et al., 2001; Heartland Area Education Agency, n.d.; Gumpel, 2007) has collapsed Gresham’s initial categorization to include three deficit areas: acquisition, performance and fluency deficits. Often times performance deficits are also accompanied by problem behaviors (Gresham et al., 2001; Gresham et al., 2006; Heartland Area Education Agency, n.d.). In this case the student has learned that the use of a competing behavior
provides them with a more immediate and gratifying response than when they actually perform the skill. The last deficit type would be considered fluency deficits. In this scenario the student has learned the skill, knows how to perform the skill but does so inconsistently in given situations. This type of deficit stems “from a lack of exposure to sufficient or skilled models of social behavior, insufficient rehearsal or practice of a skill, or low rates or inconsistent delivery of reinforcement of skilled performances” (Gresham, et al., 2001, p. 334). Table 2.1 can help teachers and IEP teams to identify the type of social skills deficit needing to be addressed.

Table 2.1

<table>
<thead>
<tr>
<th>Determining Deficit Models</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has the social skill been taught?</td>
</tr>
<tr>
<td>Acquisition Deficit</td>
</tr>
<tr>
<td>Performance Deficit</td>
</tr>
<tr>
<td>Fluency Deficit</td>
</tr>
</tbody>
</table>

Note. Adapted from “Applying Effective Strategies to Social Skills Assessment and Instruction,” by Heartland Area Education Agency, n. d., p. 4.

Assessing a student’s particular deficit area is critical in the teaching of social skills. The type of deficit should determine how the teacher intervenes and delivers instruction. Focusing instruction on comprehension strategies for a student who has difficulty decoding words would not be appropriate just as spending time instructing a child on a social skill they already know would not be appropriate. Similarly, it would not be necessary to provide students repeated practice (fluency) of skills in multiple settings if they have not yet acquired the skill. Gresham, Sugai and Horner (2001) indicate that the deficit model presented is absolutely critical in linking assessments to interventions for the deficit areas.
Social Skills Instruction

Sugai and Lewis (1996) suggest that social skills instruction be assessed and planned just as any academic area would be. Formative and summative assessment strategies are utilized when teaching math, reading, science, etc. Similarly there needs to be alignment with the assessment and instruction of social skills to better ensure that students are learning the skill sets they need to be successful in life. They describe social skills instruction as having five basic phases: selecting the curriculum, designing the instruction, preparing for the presentation of instruction, presenting the instruction and monitoring student performance, evaluating instructional effectiveness, and modifying instruction. These five elements are based on the following assumptions:

1. Teaching social skills is fundamentally the same as teaching academic skills.
2. A set of effective teaching skills has been identified.
3. Social skills instruction has to be integrated into the overall school and classroom curriculum and cannot be taught in isolation.
4. Social skills instructors must have opportunities to practice and teach social skills.
5. Assessment information is necessary to develop effective instruction in social skills and to evaluate whether social competence has been achieved. (Sugai & Lewis, 1996, p. 8)

Variations of skill instruction can be found across many of the social skills research articles; however, there are general overtones of a direct instruction approach. Sugai and Lewis (1986) refer to this as the model-lead test approach or in other areas it has been referred to as “I do, we do, you do” (Heartland Area Education Agency, p. 6). The specific steps would include: presenting the skill with a demonstration (model), provide opportunities for practice with
teacher/peer support (lead) and then test whether students can perform the skill independently (test). Quinn, Kavale, Mathur, Rutherford, & Forness (1999) further break down the steps as: selecting or prioritizing critical social skills that need to be improved; demonstrating, explaining, or modeling these skills; having the child practice these skills while being coached; providing feedback and reinforcement during practice; and identifying a variety of situations in which the skill might be useful.

In 2006, Gresham, Van, and Cook focused their instruction on modeling, rehearsal, feedback and reinforcement procedures as well as reductive procedures. Feedback was given to allow students to have specific information guiding them throughout their learning process. Reinforcement was added as an incentive to increase the likelihood that students would perform the social skills being taught. In addition reductive procedures were implemented to address any competing behaviors that may exist. This could include strategies such as time out, response cost systems, etc.

Bullock and Fitzimmons-Lovett (1997) believed that social skills instruction should incorporate components of effective instruction:

1. Teach the skill by breaking it up into small steps.
2. Demonstrate and model the skill.
3. Have students practice the skill using role-playing.
4. Provide feedback and reinforcement for practice.
5. Systematically provide a program for generalization of social skills.

As stated earlier it is extremely important to align the social skills instruction with the deficit type. Table 2.2 below was designed to help teachers in their matching of the two components.
Table 2.2

Matching Skill Instruction to Deficit Models

<table>
<thead>
<tr>
<th>Type of Deficit</th>
<th>Intervention</th>
</tr>
</thead>
</table>
| Acquisition     | *Teach the skill(s) using effective instruction guidelines  
|                  | *Reinforcement of skill(s)  
|                  | *Generalization practice in multiple settings  
| Performance     | *Cue or prompt use of skill(s)  
|                  | *Reinforcement of skill(s)  
|                  | *Withhold reinforcement of problem behavior  
| Fluency          | *Practice of skill(s)  
|                  | *Reinforcement of skill(s)  

*Note.* Adapted from “Applying Effective Strategies to Social Skills Assessment and Instruction,” by Heartland Area Education Agency, n.d., p. 6.

Effective instruction should be the next step after aligning the assessment information with the deficit model. Effective instruction for acquisition deficits should include the following steps (Heartland Area Education Agency, n.d.; Sugai & Lewis, 1996; Quinn et al., 1999):

1. Review and check the previous day’s work (and reteach, if necessary).
2. Present new content or skills (model demonstration/I do)
3. Provide guided student practice (and check for student understanding-lead/ we do).
4. Provide feedback and correction (and reteach if necessary).
5. Provide independent student practice (test/You do).
6. Review frequently.

Effective instruction for performance deficits will not change significantly from the above steps. Remember, however, that a performance deficit implies that the student already has knowledge of the skill and has been given instruction at some point. Therefore it would not be necessary to directly target steps one and two above. Performance deficits are categorized by the lack of student’s consistently utilizing the skill. “The primary focus of instruction for this group
is steps 3 through 6 of the key elements of effective instruction, including prompting, reinforcement of appropriate behavior, and withholding reinforcement for displays of inappropriate behavior” (Heartland Area Education Agency, p.7).

Instruction for fluency deficits would entail steps 4 through 6 of the key elements of instruction. This allows the student to receive more feedback, practice and reinforcement to increase their understanding of the skill and how to use it more naturally.

**Theoretical Approaches**

Magg (2006) completed a review of thirteen social skills reviews focused on social skills training for students with Emotional/Behavioral Disorders. Seven reviews included studies that had behavioral, cognitive or cognitive-behavioral strategies as part of the student intervention. The theoretical base of the social skills program can vary thus determining what the intervention looks like. Cook et al. (2008) share that,

- programs based on the principles of social learning theory (Bandura, 1977) place a heavy emphasis on coaching and modeling, whereas those that take an operant learning paradigm (Skinner, 1953) tend to include a heavy dose of positive reinforcement. Cognitive approaches, on the other hand, generally emphasize the teaching of cognitive problem-solving scripts or coping skills that students can rely on when encountering problems in their social environments. (p. 133)

Multiple theories have been hypothesized to impact or explain the concept of behavior. Some theories have stronger scientific support than others. While this section will address a variety of theories, more time will be spent on those that appear most often in the literature.

A belief that can be traced back to Hippocrates centers on there being a biophysical explanation for behavior, the idea that behavior stems from the way our brains develop.
Rosenberg, Wilson, Maheady and Sindelar (2004) state that the major theories that impact a child’s behavior are genetic transmission, brain injury and neurological dysfunction, biochemical abnormalities, and temperament. While research has shown there to be some accuracy in these theories, caution has also been expressed in that the populations are sometimes limited and arguments could be made based on the adequacy of data being studied.

Others have attempted to explain behavior utilizing a psychodynamic approach which emphasizes that an individual’s thoughts and beliefs influence behaviors. This approach can be tied back to Freud and Erickson, two psychologists whose work focused on psychosocial development. Freud’s work centers on the development of the id, ego and superego. Rosenberg et al. (2004) explains Freud’s thinking. Everyone is born with the id intact which essentially holds the keys to activate the development of one’s personality. The ego begins to develop around 6 months of age and the superego begins to form around 5 or 6 years of age. The ego is responsible for developing defense mechanisms to help us cope with all the stresses of conflict and pains associated with moving through the stages of development. Rosenberg et al. (2004) offer a description of the defense mechanisms in Table 2.3.
Table 2.3

*Defense Mechanisms*

<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repression</td>
<td>Forcing unacceptable impulses back into the unconscious.</td>
</tr>
<tr>
<td>Projection</td>
<td>Transferring one’s own feared impulses onto an external agent.</td>
</tr>
<tr>
<td>Displacement</td>
<td>Venting emotions on a substitute object, out of fear for directing them toward the original object.</td>
</tr>
<tr>
<td>Denial</td>
<td>Refusing to acknowledge an anxiety-producing fact or feeling.</td>
</tr>
<tr>
<td>Reaction formation</td>
<td>Expressing or acting out the opposite of one’s unacceptable feelings.</td>
</tr>
<tr>
<td>Rationalization</td>
<td>Offering plausible and socially acceptable reasons for behavior that in fact was motivated by unconscious and unacceptable impulses.</td>
</tr>
<tr>
<td>Regression</td>
<td>Returning mentally to an earlier stage of development in order to avoid conflict at the actual stage of development.</td>
</tr>
<tr>
<td>Sublimation</td>
<td>Redirecting libidinal or aggressive impulses away from unacceptable objects and toward acceptable substitute objects.</td>
</tr>
</tbody>
</table>

*Note.* Adapted from “Abnormal Psychology: Current Perspectives,” by R. Bootzin, and J. Acocella, p.34 Copyright1988 by McGraw-Hill.

Deficiencies in the development of the ego or defense mechanisms could offer an explanation of behavior difficulties. Many of the definitions above match behavior that has both been seen in classrooms and/or from individuals that educators encounter on a daily basis.

Similarly, Erikson’s stages of psychosocial development (see Table 2.4) also describe the development of the ego.
Table 2.4

_Erickson’s stages of psychosocial development_

<table>
<thead>
<tr>
<th>Stages</th>
<th>Description</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Trust vs. Mistrust</td>
<td>Consistency, continuity, and sameness of experience vs. negligence or irregular attention to needs.</td>
<td>Birth-18 mos.</td>
</tr>
<tr>
<td>Autonomy vs. Shame or Doubt</td>
<td>Muscular maturation (e.g., toilet training, locomotion) and assertiveness vs. dependence on caregiver.</td>
<td>18 mos.-3 ½ yrs.</td>
</tr>
<tr>
<td>Initiative vs. Guilt</td>
<td>Development of initiative: increased language, exploration, and curiosity vs. feelings of self-doubt and fear.</td>
<td>3 ½ yrs.-6 ½ yrs.</td>
</tr>
<tr>
<td>Industry vs. Inferiority</td>
<td>Competence and self-confidence about one’s skill vs. sense of inferiority and adequacy.</td>
<td>6 yrs.-12 yrs.</td>
</tr>
<tr>
<td>Identity vs. role Confusion</td>
<td>Creating a healthy identity and connecting to vocational roles vs. role confusion and a lack of a positive identity.</td>
<td>Adolescence</td>
</tr>
<tr>
<td>Intimacy vs. Isolation</td>
<td>Ability to form a stable love relationship vs. fear of commitment.</td>
<td>Early adulthood</td>
</tr>
<tr>
<td>Generativity vs. Stagnation</td>
<td>Desire to produce and guide the next generation vs. self-absorption.</td>
<td>Middle adulthood</td>
</tr>
<tr>
<td>Integrity vs. Despair</td>
<td>Acceptance of one’s life vs. regret for past life and a strong fear of death.</td>
<td>Older adulthood</td>
</tr>
</tbody>
</table>


These stages are social in nature and require the assistance from outside support systems such as parents, teachers, neighbors, etc. The ego then is developed through conflict resolution.
within these stages. Bootzin (1988) states that “if the ego fails to master the crisis, this failure will hamper identity formation and may generate psychological disorders” (p. 41). The difficulty with this model is that it is hard to translate into the classroom setting. Teachers can mediate conflict, help students handle their emotions and learn the rules of the school setting, but one cannot actually see the id, ego or superego. It would be difficult to design an intervention targeted toward changing these internal structures and be able to measure its effectiveness in a valid way.

**Behavioral and Cognitive Models**

The behavioral model is most commonly seen in the special education research. Historically based on the works of Ivan Pavlov, John B. Watson, and B.F. Skinner, the behavioral approach is based on the belief that all behavior, both positive and negative, can be learned and therefore taught. Behaviorists are not necessarily concerned with past events (i.e. thoughts and beliefs) that led to the development of the behavior but rather look at all the environmental conditions in order to help plan for appropriate methods to intervene and shape future behaviors (Rosenberg et al., 2004). “Behavior analysis holds that behavior is shaped by controlling and consequential forces within the environment, which is key to understanding, predicting, and changing behavior” (Merrell, 2008, p.4).

Bootzin (1988) shares that there are 4 basic assumptions in classic behavioralism:

1. The behavioral model is concerned with the study of responses that one makes to the stimuli in the environment.
2. Behaviorists treat both environmental stimuli and human responses as empirical entities that are observable and measurable. In effect, behaviors and their antecedents and consequences can be formally quantified through measures of magnitude, frequency, or intensity.
3. Behaviorists maintain that human behavior, like natural phenomena, can be predicted and eventually controlled.

4. Learning is the major determinant of behavior and that both normal and abnormal behavior can be explained in terms of learning theory (p. 56-57).

The behavioral model is also commonly seen in classrooms. Assessing the environment for antecedents that trigger behavior provides solid, observable data that teachers and researchers can use to design strong intervention plans in order to change or shape behavior. The structures of these interventions are also tied to measurable units so that it is easy to determine if the intervention has been successful or if phase changes need to be made.

The impact of cognitive development on adolescents also creates additional barriers when discussing social development (Wolfe & Mash, 2006). This is the time in which adolescents learn to think more rationally and hypothetically. They indicate that adolescents begin to understand extended time and can adjust their goals and behaviors based on the timeframe, but processing of the information will depend on their prior knowledge as their thinking is not quite as complex yet. Over time cognitive and behavior theories have been combined to design interventions. “Cognitive behavior modification refers to an analysis of the thinking processes involved in performing a task. Young emotionally handicapped children may be taught to talk to themselves about what they are doing so they can exercise more self-control” (Mercer, Mercer, & Beattie, 1981, p. 318). Classroom instruction would include practice, prompting and feedback. Teachers would not only provide visual models for students but also share their thinking out loud as they process a problem situation.

The last area to be addressed in this section would be social cognitive learning which is based in Bandura’s work in the 70s. Bandura said,

[People] are neither driven by inner forces nor automatically shaped
and controlled by external stimuli. Rather, human functioning is explained in terms of a model of triadic reciprocality in which behavior, cognitive and other personal factors, and environmental events all operate as determinants of each other. (p.18)

Merrell (2008) provides a practical example of triadic reciprocality using the interaction between a parent and their newborn child. The child was born with a difficult temperament (personal factor). Therefore the child sleeps little, cries often and is very demanding (behavioral factors) which creates an environment of constant noise, need for attention and limited sleep that interacts with the personal factors of the parents. This shapes the parents behavior of operating on little sleep, being cranky and irritable and possibly in turn very demanding themselves. If the parents continue to reinforce the behavior by giving in to the demands/crying, etc so that the behavior will just stop, then the personal characteristics of the child will be strengthened and become harder to break overtime. If however, the parents learn to handle the situation in a calm, quiet way, then the child’s personal factors may change causing the behavioral demands to decrease.

Bandura’s work primarily targeted individuals with intense aggressive behaviors. He showed that students who merely witnessed aggressive acts are more likely to exhibit those behaviors themselves. Merrell (2008) summarized that because there were no environmental impacts prior to or directly after the child’s aggressive act, it had to be learned through observation, modeling or imitation of someone else’s behavior. Reinforcement also is key as there has to be some high level of positive reinforcement that perpetuates the aggressive behavior prior to the adults being able to intervene. Figure 2.1 shows a model of triadic reciprocality.
Figure 2.1. Bandura’s triadic reciprocity. Adapted from Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. New Jersey: Prentice Hall, Inc.

All of the pieces in the model work together interactively to impact behavior. However, they might not all have equal impact. At any given time one side might have more influence or impact on the person. This model also links well with the ecological systems that were discussed earlier. This model provides strong assessment information when attempting to design behavior interventions, and it provides a strong argument for generalization. It would be very important to work with all individuals involved with the student to ensure that everyone was in agreement about addressing the student needs or intervention steps.

**Issues with Social Skills Instruction**

One of the issues found in the literature focuses on the differences in interventions highlighted in the triangle of supports, specifically the issue of utilizing universal interventions versus targeted ones. Universal interventions are considered to be at the bottom of the triangle (refer to Figure 1.2) focused on fully addressing the needs of about 80% of the student population. Universal interventions focus on teaching school wide rules and expectations to create a positive learning environment for all (Bullis, Walker, & Sprague, 2001; Merrell, 2008; Walker & Horner, 1996). Direct skill instruction is typically shorter in length and may only be addressed at the beginning of the school year with sporadic booster sessions scattered throughout the year.
Targeted interventions are focused on a particular group of students which may fall in the middle or top section (5-15%) of the triangle of supports. Students have been identified as not responding favorably to the universal supports and are in need of intervention targeted more to their specific learning needs. “These interventions typically emphasize target behaviors that are related to the antisocial behavior pattern in question and are offered, or should be offered, over an extended period of time and in great intensity” (Bullis, et al., 2001). Walker and Horner (1996) would add that the intervention should also include support from parents, teachers and peers.

Unfortunately most commercial social skills packages are designed to address global needs rather than focus on the needs of the more intensive student (Bullis, et al., 2001; Gresham, et al., 2004; Sugai & Lewis, 1996; Quinn et al., 1999). In addition, research also suggests that once students are identified as needing social skills training, little attempt is made to determine which specific skills students need to be taught during those trainings (Gresham et al., 2001; Gresham, et al., 2006; Denham, Hatfield, Smethurst, Tan, & Tribe, 2006). The assumption made by curriculum developers that most students exhibit acquisition deficits, as well as, the mismatch between identified skills and actual training of skills makes the assessment of growth extremely difficult.

Freedman, Rosenthal, Donahoe, Schlundt, and McFall (1978) shared,

Some investigators, for example, have developed content of their skill training programs without first conducting a thorough and systematic analysis of the performance problems addressed by programs. As a result, they had no way of knowing whether their programs actually focused on the most relevant problem situations for their clients or whether the behaviors taught in the programs
represented genuine solutions to these target problems. Furthermore, some investigators have offered skill training without first establishing that their clients actually were deficient in the particular skills being taught. (p. 1448-1449)

A link between assessment and instruction needs to occur in order to identify whether or not a student has made progress towards their goals. Maag’s (2006) review of research led him to conclude that assessment of student deficiencies is rarely conducted, often times because it is “too complex and time-consuming” (p. 11). It is essential for educators to fully examine and identify the needs of the student, determine whether or not those needs are due to an acquisition, performance or fluency deficit and then design the instruction accordingly. The assessment should also align to determine student growth (Gresham et al., 2001; Maag, 2006; Miller et al., 2005; Sugai & Lewis, 1996).

**Summary**

The teaching of social skills is critical for students with Emotional/Behavior Disorders. The very nature of the disability places them at a disadvantage in learning how to navigate the social world around them, and the data shows they are highly at risk for dropping out. Identifying and targeting social skills instruction will allow them a better opportunity to learn the skills necessary to navigate the social world. This instruction will allow students to access a valuable key to attaining success both in school and in life.

The intent of the literature review was to examine the current state of social skills instruction in current research. The review was divided into subheadings which included: social skills versus social competence, social skills deficits, social skills instruction and theoretical approaches. Detailed tables and figures were shared to further highlight the importance of the social needs and the support roles educators’ play in the lives of students with emotional
behavior disorders. Finally, assessment and alignment concerns were addressed as issues that are faced in current research.
Chapter 3

Methodology

Chapter 3 is divided into ten major sections intended to address the methodology of this study. Section one identifies the research questions addressed in this study. Section two focuses on the study’s design, with section three identifying the population sample. Section four addresses the instrumentation and both its reliability and validity. Section five describes the process for data collection while section six addresses the social skills instruction and section seven the analysis of data. Limitations and delimitations are addressed in sections nine and ten.

Research Questions

Based on Creswell’s (2009) recommendation that using research questions and hypotheses can be redundant, this study only utilized research questions.

1. Does targeted social skills instruction improve the social skill development of secondary students with Emotional/Behavior Disorders within the following subdomains: Communication, Cooperation, Assertion, Responsibility, Empathy, and Self Control?

2. Does targeted social skills instruction improve the problem behavior of secondary students with Emotional/Behavior Disorders within the following subdomains: Externalizing, Bullying, Hyperactivity/Inattention, and Internalizing?

Design

This study used a pre-experimental approach with a single group design (Creswell, 2009) to investigate the effects of targeted social skills instruction on students with Emotional/Behavior Disorders at the secondary level. A single group, represented as Group A in Figure 3.1, was the target group for this study. Students completed the Social Skills Improvement System (SSIS) rating scale (01) as a pre-test, participated in targeted social skills interventions (X) and then
completed the same rating scale a second time (02) as a posttest. The single group design was chosen purposefully to ensure that all participants were afforded the opportunity to participate in the targeted social skills instruction, as well as, to protect the confidentiality of all participants. Chapters 1 and 2 presented the critical importance of providing targeted social skills instruction to students with Emotional/Behavior Disorders. For this study it was imperative for the researcher to ensure all students had the opportunity to learn the skills that are so critical to their success in school and in life.

Group A 01 (pre-test) ——— X (Social Skills intervention) ——— 02 (post-test)


**Population, Participants, and Sample**

This study took place in a mid-western suburban district of 9,000-11,000 students. Exact student numbers were not included to ensure confidentiality of the participants. The district provides a continuum of programming to support the 850-950 identified special education students. Included within the continuum are six Social Skills classrooms spanning grades 7th-12th with students in those classrooms ranging in age from 13-18 years old. Students in the Social Skills classroom were chosen purposefully to be part of this study due to their identified social skills needs, which would place them in the high risk categories (top 5-15%) of the “triangle of support.” The Social Skills programming supports only students with the highest level of need according to their Individualized Education Plan (IEP).

Even though the students in this study were considered to be in the highest risk category of the “triangle of supports,” it is important for all special education students to spend as much time in the least restrictive environment as possible. The students in the study received targeted
social skills instruction within the special education setting. Other classes may or may not have been delivered in the special education classroom. This would vary based on each student’s Individualized Education Plan (IEP). Twenty two of the student participants spent time in the general education setting greater than 50% of their day, while eight of the student participants spent time in the general education setting less than 50% of their day.

Participants included 30 students, both male and female, who had both given their assent as well as had parental consent. No student was excluded from the study unless they chose to not give their consent for participation or decided to withdraw from the study along the way. There was an attrition rate of 3 students at the end of the study. The Social Skills and subdomain scales had an \( n = 26 \) while the Problem Behavior Scale and subdomain scales had an \( n = 27 \). There is a discrepancy within the N because one student did not answer all the questions in the Social Skills scale and was not available for clarification.

Sample size is important when determining whether or not conclusions can be generalized to the larger target population. Fraenkel and Wallen (2003) recommend a minimum of 30 participants for experimental studies. However, they also indicate that smaller sample sizes could be defensible if they are tightly controlled.

Nine of the study participants live in two parent households, four of which include a step parent. Fifteen participants live in one parent households, two live in group homes/residential settings and four live with another relative. Looking back to Bronfenbrenner’s bioecological model presented in Chapter 2, this theory is based on the premise that the structures within which a child exists plays a key role in their development. The “microsystem” which is compromised of the student’s immediate environments including home, school, and their neighborhood directly impact a student’s development. “Stressed home conditions (e.g., poverty, divorce, abuse, neglect, unemployment, and substance abuse)” (Walker et. al, p. 197) can attribute to students
being taught inappropriate behavior responses within their home environments. Stress from the “exosystem” comprising the outside communities of the student (e.g. extended family, parent’s workplace, etc) and the “macrosystem” which includes student’s broader cultural all have the potential to impact the classroom environment. Students within this study had varying attendance during the targeted social skills instruction period. Eighteen students missed between 0 and 5 social skills instruction periods, six students missed between 6 and 10 periods, three students missed between 11 and 15 periods, two students missed between 16 and 20 periods and one student missed 26 targeted social skills instruction periods.

A Full Board Human Subjects review was conducted by the Drake University Institutional Review Board (IRB) in November of 2010. Final approval of the study protocol was granted in January 2011. Review documents can be found in Appendix A. The document has been altered to protect the confidentiality of the participants. Confidential information that has been removed has been replaced with asterisks.

**Instrumentation**

Merrell (2001) indicates that there are six primary methods used when assessing the social-emotional domain: “behavioral observation, behavior rating scales, interviewing, self-report instruments, projective-expressive techniques, and sociometric techniques” (p. 4). Each method has its own set of advantages and disadvantages, but all are not necessarily equal in assessing social skills. This study focused on the use of Behavior Rating Scales. Behavior rating scales offer the following advantages:

1. Unlike direct observation, behavior scales are less taxing on the administrator in terms of time and training.

2. Behavior Rating Scales can provide information on low-frequency behaviors that might not be seen in an observation session.
3. Behavior Rating Scales offer an objective assessment that yields more reliable data than unstructured interviews, drawing tests, etc.

4. Behavior Rating Scales can be used to assess students who cannot readily provide information about themselves.

5. Behavior Rating Scales capitalize on observations over a period of time in the natural environment (school or home).

6. Behavior Rating Scales capitalize on judgments and observations of persons who are very familiar with the student. (Merrell, 2001, p. 9)

The Social Skills Improvement System (SSIS) (Elliot & Gresham, 2008) Behavior Rating Scales were used during this study. The SSIS is a multi-rater series of scales that assesses social skills, problem behaviors, and academic competence. The student scale consisted of 75 items divided across two main scales: Social Skills (46 items) and Problem Behaviors (29 items). The Social Skills domain identifies common skills in the following subdomains: “communication, cooperation, assertion, responsibility, empathy, engagement, and self-control” (Gresham, Elliot, Cook, Vance, & Kettler, 2010, p. 159). Similarly, items in the Problem Behavior domain are characterized within the following subdomains: “externalizing, bullying, hyperactivity/inattention, internalizing, and autism spectrum” (Elliot & Gresham, 2008). In both the Social Skills and Problem Behaviors scales the students rated each of the statements on a scale of Not true, Little True, A Lot True, and Very True. These ratings are represented by the numbers 0, 1, 2, and 3 when scoring. In addition students also rate the Social Skills statements as not important, important, or critical. There is no numerical value associated with this second set of ratings.

National norms for the SSIS were established based on a population of 4700 children, ages 3-18 years of age across 36 states (Elliot & Gresham). “Each age group sample was
designed to have equal numbers of males and females and to match the U.S. population with regard to race/ethnicity, socioeconomic status, and geographic region. Special-education program placement was also controlled during data collection” (Elliot & Gresham, p. 48). The student rating scales, ages 13-18, was used for this study. Examples of questions within each domain are shown in Table 3.1.

Table 3.1

*Examples of Social Skills and Problem Behaviors Questions*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Number of questions</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>7</td>
<td>I’m careful when I use things that aren’t mine.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I take turns when I talk with others.</td>
</tr>
<tr>
<td>Cooperation</td>
<td>6</td>
<td>I pay attention when others present their ideas.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I feel bad when others are sad.</td>
</tr>
<tr>
<td>Assertion</td>
<td>7</td>
<td>I ask for information when I need it.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I stand up for others when they are not treated well.</td>
</tr>
<tr>
<td>Responsibility</td>
<td>6</td>
<td>I say “please” when I ask for things.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I look at people when I talk to them.</td>
</tr>
<tr>
<td>Empathy</td>
<td>6</td>
<td>I try to forgive others when they say “sorry.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I get along with other children/adolescents.</td>
</tr>
<tr>
<td>Engagement</td>
<td>7</td>
<td>I ignore others who act up in class.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I do my work without bothering others.</td>
</tr>
</tbody>
</table>
Table 3.1 (Continued)

*Examples of Social Skills and Problem Behaviors Questions*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Number of questions</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Control</td>
<td>7</td>
<td>I stay calm when I am teased.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I try to find a good way to end a disagreement.</td>
</tr>
<tr>
<td>Externalizing</td>
<td>12</td>
<td>I’m afraid of a lot of things.</td>
</tr>
<tr>
<td>Bullying</td>
<td>5</td>
<td>I find it’s hard to focus on what I am doing.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I have temper tantrums.</td>
</tr>
<tr>
<td>Hyperactivity/Inattention</td>
<td>7</td>
<td>I think no one cares about me.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I feel nervous with my classmates.</td>
</tr>
<tr>
<td>Internalizing</td>
<td>7</td>
<td>I think bad things will happen to me.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I feel lonely.</td>
</tr>
</tbody>
</table>

**Reliability of SSIS.** Elliott and Gresham (2008) measured reliability of the SSIS using internal consistency and test-retest procedures. Internal consistency (Fraenkel & Wallen, 2003) looks at the consistency of scores across items within a rating scale. The alpha coefficients for each Social Skills’ subdomain are as follows: Communication $\alpha = .81$, Cooperation $\alpha = .83$, Assertion $\alpha = .75$, Responsibility $\alpha = .80$, Empathy $\alpha = .83$, Engagement $\alpha = .78$, and Self-Control $\alpha = .83$. The alpha coefficients for each Problem Behaviors’ subdomain are: Externalizing $\alpha = .90$, Bullying $\alpha = .82$, Hyperactivity/Inattention $\alpha = .86$, and Internalizing $\alpha = .88$ (Elliot & Gresham, 2008). These high scores would indicate strong internal consistency on the SSIS.
Test-retest reliability (Fraenkel & Wallen, 2003) looks at consistency of scores across time scoring the same individual utilizing the same form. High coefficients are expected if the rating scale information is to be used in decision making. Test-retest coefficients in the Social Skills subdomains are as follows: Communication $\alpha = .69$, Cooperation $\alpha = .72$, Assertion $\alpha = .69$, Responsibility $\alpha = .81$, Empathy $\alpha = .77$, Engagement $\alpha = .59$, and Self-Control $\alpha = .70$. The coefficients for each Problem Behaviors’ subdomain are: Externalizing $\alpha = .81$, Bullying $\alpha = .71$, Hyperactivity/Inattention $\alpha = .77$, and Internalizing $\alpha = .67$ (Elliot & Gresham, 2008).

Pretest and posttest alpha coefficients for each Social Skills’ subdomain in this study are as follows: Communication $\alpha = .75/.85$, Cooperation $\alpha = .80/.77$, Assertion $\alpha = .69/.80$, Responsibility $\alpha = .64/.84$, Empathy $\alpha = .83/.81$, Engagement $\alpha = .68/.82$, and Self-Control $\alpha = .77/.85$. It should be noted that the $N$ for the pretest alpha scores ranged from 29-30 for the subdomain areas based on student answers, while the $N$ for the posttest alpha scores ranged from 24-26.

Pretest and posttest alpha coefficients for each Problem Behavior’s subdomain in this study are as follows: Externalizing $\alpha = .79/.85$, Bullying $\alpha = .74/.77$, Hyperactivity/Inattention $\alpha = .66/.71$, and Internalizing $\alpha = .79/.88$. The $N$ for the pretest scores ranged from 29-30 while the posttest $N$ ranged from 25-27.

Validity of SSIS. Validity refers to the extent to which the test measures what it is designed to measure (Fraenkel & Wallen, 2003). Evidence was collected by Elliot and Gresham (2008) across four sources: content, internal structures, relations with other variables, and special-population samples. Content validity (Fraenkel & Wallen, 2003) looks at the extent in which items represent the domain of behaviors defined by each scale. “All standardization items were subjected to a series of analyses including DIF (Differential Item Functioning), factor analysis, item-total correlation, and readability analysis. Only those items that were functionally
relevant and had moderate to strong statistical relationship with their subscale was retained” (Elliot, & Gresham, p. 75). Elliot and Gresham also tested the perceived importance of the content items.

“Internal structure refers to the degree to which the relationships among items, subscales, and composites conform to the constructs on which the inferences are based” (Elliot & Gresham, 2008, p. 76). The intercorrelation between the Social Skills scale and Problem Behaviors scale show coefficients from $r = -.42$ to $.65$. The correlation between the Social Skills scale and Academic Competence for ages 13 to 18 is $r = .53$ and is $r = .44$ for the correlation between the Problem Behaviors scale (Elliot & Gresham, 2008).

**Data Collection**

This study utilized a repeated measures design in that two sets of data were collected from the same sample group (Gravetter & Wallnau, 2009). The advantage of this design is that the same participants are involved in all treatment conditions. “Thus, there is no risk that the participants in one treatment are substantially different from the participants in another” (Gravetter & Wallnau, p. 341).

The researcher mailed each family in the Social Skills classrooms a letter (Appendix B) explaining the opportunity to participate in the study. Included was as an informed consent/assent document (Appendix C) along with an addressed stamped envelope for easy return. The researcher followed up the mail communication with phone calls and emails to parents to answer questions and/or ask for consent to participate. If parents had not already discussed the study with their student, the researcher also met with them in their classrooms to explain the study, answer questions and gain their consent to participate.

Once student assent and parent consent were obtained, students were presented with the Social Skills Improvement System (SSIS) rating scale booklet during a designated social skills
class both pre and post treatment. The SSIS was coded with a pre-identified number to protect student confidentiality. Using a pencil or ball point pen participants read each sentence and answered the statement accordingly. Students with identified testing accommodations within their Individualized Education Plan (IEP) were given access to those supports during the 15-20 minutes it took to complete the rating scale. This included such accommodations as reading the items for them, extended time, and frequent breaks, though most students declined to take advantage of the accommodations.

Participants rated themselves pre-treatment on 46 Social Skills items and 29 Problem Behavior items using the Social Skills Improvement System (SSIS). They then rated themselves again during post-treatment using the same four-point scale of not true, a little true, a lot true, and very true in each of the domain areas. In addition for the Social Skills scale, they also rated the importance of each of the 46 skills to their classroom success using a three-point scale of not important, important, and critical (Elliot & Gresham, 2008). Upon completion of the rating scales the researcher collected and secured the booklets.

The SSIS rating scales were hand scored by the researcher. A sum was identified in each of the subdomain areas for both the Social Skills and Problem Behaviors sections. Sums were adjusted when students left answers blank and were not available to clarify their intent. An “F-index” (Elliot & Gresham, 2008) was also calculated as a method to indicate the impact of students who might be overly negative about their current skill level. A high “F-index” score in the caution or extreme caution ranges indicated that the scale results could be skewed. Tables within the Social Skills Improvement System rating scales manual assisted the researcher to identify raw scores, standard scores, confidence intervals and percentile rank for the participants.

Utilizing tables from the Social Skills Improvement Rating Scales Manual (2008) and students’ raw scores the researcher identified whether each subdomain area was considered
below average, average or above average. Table 3.2 was then used to determine whether student skills were strengths, acquisition deficits, performance deficits or competing problems.

Table 3.2

*Model of Social Behavioral Strengths and Weaknesses*

| Social Skills Strengths                                                                 | • Social skills subscale is above average.  
|                                                                                            | • Items within subscale has a frequency/belief rating of 3 and importance rating of i or c. |
| Social Skills Performance Deficits                                                      | • Social skills subscale is below average.  
|                                                                                            | • Item within subscale has a frequency/belief rating of 1 and importance rating of c. |
| Social Skills Acquisition Deficits                                                      | • Social Skills subscale is below average.  
|                                                                                            | • Item within subscale has a frequency/belief rating of 0 and an importance rating of i or c. |
| Competing Problem Behaviors                                                            | • Problem Behaviors subscale is above average.  
|                                                                                            | • Item within subscale has a frequency/belief rating of 3. |


**Social Skills Instruction (Treatment) Procedures**

Targeted social skills instruction occurred over a six week period of time from April through May, four times per week for at least 40-45 minute sessions. Some students received an extra day of instruction due to the design of the building master schedule. Since the participants spanned a range of grade levels, the training took place within their small groups in each individual setting. Teachers were allowed to use multiple curricula, however the skill steps remained constant across all settings. Acquisition deficit instruction consisted of lessons utilizing the following structure:

1. Review and check the previous day’s work (and reteach, if necessary).

2. Present new content or skills (model demonstration/I do)
3. Provide guided student practice (and check for student understanding-lead/we do).

4. Provide feedback and correction (and reteach if necessary).

5. Provide independent student practice (test/You do).

6. Review frequently.

Utilizing the same structure, performance deficit instruction focused on steps three through six above. A sample lesson plan can be found in Appendix D.

Initial scoring of the Rating Scales helped the researcher determine the skills to be targeted during the Social Skills instruction time. Table 3.3 shows the frequency of deficit skills identified across the various Social Skills subdomain areas. Fourteen of the students rated themselves as not having any social skills deficits at all. Students more frequently identified themselves as needing a high level of support in the Self-Control, Assertion, and Engagement subdomain categories. Engagement was also the highest self identified subdomain for performance deficits. Social skills instruction was then targeted to the areas presented in Table 3.3. Students who rated themselves as not having any skill deficits were still involved in social skills instruction.
Table 3.3

Frequency of Deficits in Social Skills subdomain areas

<table>
<thead>
<tr>
<th>Social Skills Subdomain</th>
<th>Acquisition Deficit</th>
<th>Performance Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Cooperation</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Assertion</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Responsibility</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Empathy</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Engagement</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Self-Control</td>
<td>12</td>
<td>2</td>
</tr>
</tbody>
</table>

Analysis of Data

Data were analyzed using a repeated measures $t$-test (Gravetter & Wallnau, 2009). The repeated measure in this study is the SSIS rating scale administered both pre and post treatment to the identified sample population. The repeated measures design has many advantages. This design “uses the subjects more efficiently because each individual is measured in both of the treatment conditions” (Gravetter & Wallnau, p. 353). This was an advantage since the sample population was small. A second advantage of repeated measures is that it is appropriate for treatment conditions that take place over time. In this case the researcher was able to watch for changes in student behavior during the 6 week treatment period. A third advantage would be that the repeated measures “reduces or eliminates problems caused by individual differences” (Gravetter & Wallnau, p. 353). The same participants completed the SSIS both pre and post treatment which eliminated the issues of matching participants for age, IQ, gender, and personality.
Analysis were conducted using SPSS v.#18 software. The researcher analyzed the scores to determine if “the mean of the pretest is statistically different from the mean of the posttest scores” (Holcomb, p. 125).

Once pre and posttest raw scores for each domain area, including totals of the Social Skills and Problem Behavior scales, were entered into the SPSS software a comparison of means test was conducted. Descriptive statistics were generated for the mean, standard deviation, and the standard error mean.

Further inferential statistics examined the relationship between each pre and posttest score. The paired samples $t$-test was utilized to determine if there were any significant differences between the pre and posttest subdomain scores. Alpha coefficients for each subdomain in the Social Skills and Problem Behaviors scales of the SSIS were presented earlier in the Reliability section.

The threshold of .05 was utilized in this study to determine statistical significance. Fraenkel and Wallen (2003) indicate that it is common for educational research to set statistical significance at the $p < .05$ level. This would indicate that the results are likely to occur by chance less than 5 times out of 100. Results of the data analysis are described in Chapter 4.

Limitations

There were several limitations that impacted this study. One of the major limitations was the length of time in which the study was conducted. Students in the top 5-15% of the “triangle of support” require targeted, intensive social skills instruction. Bullis et al. (2001) found that in order to truly impact students in this population social skills instruction should be “offered over a much longer period of time, should be delivered within key target settings, and may need to be conceptualized in terms of a core intervention coupled with “booster” training over a longer duration” (p. 71). The length of this study was limited to six weeks of targeted instruction at the
end of the school year (April-May). This directly links to another limitation which was the number of participants in the study.

By nature of the continuum of services in the studied district the sample population would always be small in nature. The social skills programs are designed to support only those students with the most intensive special education needs in the area of social skills deficits. This population can also be very transient throughout the year. At the time of the study 30 participants began while only 26 or 27 were able to finish the study. Additional students had given consent to participate but moved prior to the April start date. Other students were moved to alternate settings either by school IEP teams or the state due to outside legal involvement. Students in this age range are also less motivated to be in school especially towards the end of the school year as is evidenced by the number of sessions missed during the intervention period.

Another limitation would be the use of the student rating scale versus utilizing the parent or teacher rating scale or a combination of multiple raters. While behavior rating scales have a number of positive components as discussed in Chapter 3, students’ perceptions of themselves can have a wide range of variability, especially in this age range. Elliot, Malecki, and Demaray (2001) also indicate that a limitation of rating scales “is their insensitivity to small changes in behavior over time” (p. 24). It is also possible that as students worked through their social skills intervention periods that they became more aware of each subdomain area. This new awareness could have impacted their ratings on the posttest in a negative manner if they weren’t necessarily in tune with the subdomain area during the pretest. The small number of participants will impact the ability of the researcher to make wide scale generalizations with the results.

A final limitation would be related to the curriculum. Targeted social skills intervention took place within each school location. The constant amongst all six teachers were the instructional steps linked to each deficit area presented in Chapter 2. However, teachers were
able to use various district curricula to meet the needs of their students. In addition teachers also have varying demeanors, expectations and instructional methods across each classroom. Building schedules also dictated the number of days that social skills instruction could occur. While the time allotted to instruction was consistent the number of days varied in that some students received five days of instruction while others received four.

**Delimitations**

Delimitations refer to the constants that define the boundaries of this study. All participants were members of a Social Skills classroom within their respective buildings. This meant that their identified special education needs were such that their Individualized Education Plan (IEP) team determined that each student required the support of this level of service. In addition those participants also had consent from their parents as well as gave their own assent in order to participate in the study.

The Social Skills Improvement System (SSIS) Rating Scale was also a delimitation. All students who participated in the study rated themselves on the Social Skills and Problem Behaviors rating scale both pre and post social skills instruction treatment.

A final delimitation was the social skills instruction steps. All teachers utilized the following steps based on the identified social skills deficits for each student.

1. Review and check the previous day’s work (and reteach, if necessary).
2. Present new content or skills (model demonstration/I do)
3. Provide guided student practice (and check for student understanding-lead/ we do).
4. Provide feedback and correction (and reteach if necessary).
5. Provide independent student practice (test/You do).
6. Review frequently.
Instruction for acquisition deficits would involve all six of the above steps. However, the primary focus of instruction for performance deficits is steps 3 through 6 above.
Chapter 4

Results

The purpose of this chapter is to share the results of this pre-experimental study. The chapter is divided into two main sections: Descriptive data analysis and Inferential statistic results. Within the second section tables and discussion are presented to describe results of the whole group, the individual buildings, and results based on student attendance during the social skills intervention sessions.

Descriptive Data Analysis

Tables 4.1 and 4.2 provide descriptive data from the Social Skills subdomain rating scale as well as the Social Skills scale. Of the 30 original participants only 26 were present to complete the posttest. One student did not answer enough questions on the post test so his scores were excluded based on protocol provided in the Social Skills Improvement System Rating Scales Manual (2008).

Students answered 46 statements targeted at rating their social skills on a four point scale: not true, little true, a lot true, and very true. In addition students identified whether each skill was not important, important, or critical to their life learning. These ratings were used to identify the target areas for student’s social skills instruction. The hypothesis is that after receiving targeted social skills instruction students would rate themselves higher on scale statements. One would expect to see posttest scores increase from the pretest scores thus increasing the mean of the posttest scores.

The mean (M) shown in table 4.1 is based on the use of the SSIS rating scales’ four point scale, a response of not true scoring a zero, a response of a little true scoring a one, a response of a lot true scoring a two and a response of very true scoring a three. All Social Skills subdomain
areas, with the exception of Engagement, showed an increase in posttest mean scores across the 26 students. The increase in mean scores ranged from .03 (Communication) to 1.27 (Cooperation). However, the Engagement subdomain scaled showed a decrease of -.42 in the posttest scores. This signifies that students varied in their belief that they had gained skills in this area even though Engagement was one of the higher ranked domain areas shown in the targeted skills instruction Table 3.2. The Social Skills subdomain Self-Control had the highest identified acquisition deficits amongst the students based on pretest scores. The mean posttest scores increased across the 26 students by a margin of .12 indicating that some students felt there was some improvement in their skill sets after instruction while others either scored themselves similar or lower than the pretest.

The Standard Error Mean (SEM) (Frankel & Wallen, 2003) signifies the standard error across the student samples in each of the domain areas. For example, taking the SEM into consideration the pretest mean for the communication subdomain scale range is 11.42-12.73 while the posttest range is 11.77-13.08.

Frankel and Wallen (2003) share that the Standard Deviation (SD) shows the variability or spread of the mean scores across each subdomain scale. In cases of a normal distribution 68% of the scores fall within one standard deviation of the total mean; 95% of scores fall within two standard deviations and 99.7% fall within three standard deviations.

Within the Social Skills subdomain areas the SD scores are high ranging from 3.35-4.66 on the pretest and from 3.55-4.86 on the posttest scores. Posttest scores in the Self-Control, Engagement, Responsibility, Assertion, and Cooperation subdomain areas were more variable than the Communication and Empathy subdomain areas.

Table 4.1 also shows an increase of 3.15 between the pre and posttest scores for the Social Skills scale as a whole. However, similar to the subdomain scores the mean scores overlap
when taking $SEM$ into consideration. The ($SD$) represented in Table 4.1 is also quite large indicating that the mean scores are spread out over a large range. Elliot and Gresham (2008) indicate that when developing the SSIS Rating Scales, “the original shape of the distribution was retained, because there is no theoretical rationale or empirical evidence to indicate that social skills, problem behaviors, or academic competence form a normal distribution in the population” (p. 19).

Table 4.1

*Descriptive Statistics for Social Skills and Subdomain Scales, ($n = 26$)*

<table>
<thead>
<tr>
<th>Scales</th>
<th>Pretest</th>
<th></th>
<th></th>
<th>Posttest</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M^a$</td>
<td>$SD^b$</td>
<td>$SEM^c$</td>
<td>$M$</td>
<td>$SD$</td>
<td>$SEM$</td>
</tr>
<tr>
<td>Communication$^d$</td>
<td>12.08</td>
<td>3.35</td>
<td>.66</td>
<td>12.42</td>
<td>3.55</td>
<td>.70</td>
</tr>
<tr>
<td>Cooperation$^e$</td>
<td>11.96</td>
<td>3.39</td>
<td>.66</td>
<td>13.23</td>
<td>4.19</td>
<td>.82</td>
</tr>
<tr>
<td>Assertion$^e$</td>
<td>12.00</td>
<td>3.54</td>
<td>.70</td>
<td>12.85</td>
<td>4.41</td>
<td>.86</td>
</tr>
<tr>
<td>Responsibility$^e$</td>
<td>12.50</td>
<td>3.88</td>
<td>.76</td>
<td>13.15</td>
<td>4.56</td>
<td>.89</td>
</tr>
<tr>
<td>Empathy$^d$</td>
<td>11.81</td>
<td>4.14</td>
<td>.81</td>
<td>12.15</td>
<td>3.72</td>
<td>.73</td>
</tr>
<tr>
<td>Engagement$^f$</td>
<td>12.80</td>
<td>4.66</td>
<td>.91</td>
<td>12.38</td>
<td>4.86</td>
<td>.95</td>
</tr>
<tr>
<td>Self-Control$^d$</td>
<td>10.00</td>
<td>3.83</td>
<td>.75</td>
<td>10.12</td>
<td>4.49</td>
<td>.88</td>
</tr>
<tr>
<td>Social Skills$^f$</td>
<td>83.15</td>
<td>22.55</td>
<td>4.42</td>
<td>86.31</td>
<td>25.56</td>
<td>5.01</td>
</tr>
</tbody>
</table>

$^a$ Mean based on total value for each scale.
$^b$ Standard deviation based on total scores for each scale.
$^c$ Standard error mean based on total value for each mean.
$^d$ Scale Min=0, Max=18
$^e$ Scale Min=0, Max=21
$^f$ Scale Min=0, Max=138

In addition, data from the Problem Behaviors rating scales including the subdomain areas of Externalizing, Bullying, Hyperactivity/Inattention and Internalizing are represented below in Table 4.2. There were 27 respondents for the behavior scale. Students answered 29 questions targeted at rating problem behaviors on a scale of 0=not true, 1=little true, 2=a lot true, and 3=very true.
Mean scores on the Problem Behaviors scale decreased in the Bullying \((M = -.22)\) and Internalizing \((M = -.19)\) subdomain areas. However, the mean scores increased in the Externalizing \((M = .96)\) and Hyperactivity/Inattention \((M = .11)\) subdomain areas, as well as, in the overall Problem Behavior total scale score \((M = .48)\). There are 12 statements that fall into the Externalizing subdomain area. Of those twelve statements four out of seven are also found in the Hyperactivity/Inattention subdomain area. The four statements that overlap are “I’m afraid of a lot of things, I swear or use bad words, I get embarrassed easily, and I lie to others” (Behavior Rating Scale booklet, p. 2-3).

Given the \(SEM\) the mean scores across the pre and posttest subdomain areas overlap closely in all areas. The \(SD\) range remains large which indicates a wide variability in scores for the Problem Behavior and subdomain scales as well. For example, three \(SD\) from the pretest Problem Behavior scale mean would range from -15.45-64.57.

Table 4.2

Descriptive Statistics for Problem Behavior and Subdomain Scales \((n=27)\)

<table>
<thead>
<tr>
<th>Scales</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(M^a)</td>
<td>(SD^b)</td>
</tr>
<tr>
<td>Externalizing(^d)</td>
<td>10.48</td>
<td>6.09</td>
</tr>
<tr>
<td>Bullying(^e)</td>
<td>2.67</td>
<td>2.42</td>
</tr>
<tr>
<td>Hyperactivity/Inattention(^f)</td>
<td>7.85</td>
<td>4.20</td>
</tr>
<tr>
<td>Internalizing(^g)</td>
<td>8.37</td>
<td>5.97</td>
</tr>
<tr>
<td>Problem Behavior(^h)</td>
<td>24.56</td>
<td>13.34</td>
</tr>
</tbody>
</table>

\(^a\) Mean based on total value for each scale.

\(^b\) Standard deviation based on total scores for each scale.

\(^c\) Standard error mean based on total value for each mean.

\(^d\) Scale Min=0, Max=36

\(^e\) Scale Min=0, Max=15

\(^f\) Scale Min=0, Max=21

\(^g\) Scale Min=0, Max=30

\(^h\) Scale Min=0, Max=87
Inferential Statistics Results

Using SPSS v. 18 software a paired samples $t$-test was run to determine the significance of the mean difference between the pre and posttest rating scales. The threshold of .05 was utilized in this study to indicate statistical significance. The significance scores in both Tables 4.3 and 4.4 are all higher than the .05 threshold indicating that there was not significant change in student’s rating of their performance after the social skills instruction intervention. The Cooperation subdomain also had the highest increase in mean scores from pre to posttest (1.27).

Table 4.3

*Mean and SE differences, and t-test Results for Social Skills and Subdomain Scales, (n=26)*

<table>
<thead>
<tr>
<th>Scales</th>
<th>Mean Difference</th>
<th>SE Difference</th>
<th>$t$</th>
<th>df</th>
<th>$p$</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean $\bar{X}$</td>
<td>Difference $\bar{X}$</td>
<td>t</td>
<td>df</td>
<td>$p$</td>
<td>Lower</td>
</tr>
<tr>
<td>Communication$^a$</td>
<td>.34</td>
<td>.69</td>
<td>-.50</td>
<td>25</td>
<td>.62</td>
<td>-1.77</td>
</tr>
<tr>
<td>Cooperation$^b$</td>
<td>1.27</td>
<td>.66</td>
<td>-1.92</td>
<td>25</td>
<td>.07</td>
<td>-2.63</td>
</tr>
<tr>
<td>Assertion$^b$</td>
<td>.85</td>
<td>.74</td>
<td>-1.14</td>
<td>25</td>
<td>.27</td>
<td>-2.37</td>
</tr>
<tr>
<td>Responsibility$^b$</td>
<td>.65</td>
<td>.76</td>
<td>-.86</td>
<td>25</td>
<td>.40</td>
<td>-2.21</td>
</tr>
<tr>
<td>Empathy$^a$</td>
<td>.34</td>
<td>.75</td>
<td>-.46</td>
<td>25</td>
<td>.65</td>
<td>-1.90</td>
</tr>
<tr>
<td>Engagement$^b$</td>
<td>-.42</td>
<td>.88</td>
<td>.48</td>
<td>25</td>
<td>.64</td>
<td>-1.39</td>
</tr>
<tr>
<td>Self-Control$^a$</td>
<td>.12</td>
<td>.91</td>
<td>-.13</td>
<td>25</td>
<td>.90</td>
<td>-1.98</td>
</tr>
<tr>
<td>Social Skills$^c$</td>
<td>3.16</td>
<td>4.34</td>
<td>-.73</td>
<td>25</td>
<td>.48</td>
<td>-12.09</td>
</tr>
</tbody>
</table>

$^a$ Scale Min=0, Max=18  
$^b$ Scale Min=0, Max=21  
$^c$ Scale Min=0, Max=138
Given that the results from the study group as a whole were not statistically significant with a $p < .05$ the researcher wanted to determine if there was a significant difference across the scale and subdomain areas at each grade level. Tables 4.5 and 4.6 show data for the junior high settings ($n = 8$ for Social Skills scale and $n = 9$ for the Problem Behaviors scale). It is important to remember that even though the data might show some statistical significance the ($n$) will be much smaller when looking at the students across each grade level and therefore, will not be a good gauge for making large scale assumptions across populations.
### Table 4.5

**Mean and SE differences, and t-test Results for Junior High Social Skills and Subdomain Scales, (n=8)**

<table>
<thead>
<tr>
<th>Scales</th>
<th>Mean Difference</th>
<th>SE Difference</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.13</td>
<td>1.11</td>
<td>.11</td>
<td>7</td>
<td>.91</td>
<td>-2.50  2.75</td>
</tr>
<tr>
<td>Cooperation&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-1.00</td>
<td>.80</td>
<td>-1.25</td>
<td>7</td>
<td>.25</td>
<td>-2.90  .90</td>
</tr>
<tr>
<td>Assertion&lt;sup&gt;b&lt;/sup&gt;</td>
<td>2.63</td>
<td>.73</td>
<td>3.60</td>
<td>7</td>
<td>.10</td>
<td>.90   4.35</td>
</tr>
<tr>
<td>Responsibility&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1.00</td>
<td>.65</td>
<td>1.53</td>
<td>7</td>
<td>.17</td>
<td>- .55  2.55</td>
</tr>
<tr>
<td>Empathy&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.25</td>
<td>.65</td>
<td>-.39</td>
<td>7</td>
<td>.71</td>
<td>-1.78  1.28</td>
</tr>
<tr>
<td>Engagement&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1.13</td>
<td>.85</td>
<td>1.32</td>
<td>7</td>
<td>.23</td>
<td>-.90   3.15</td>
</tr>
<tr>
<td>Self-Control&lt;sup&gt;a&lt;/sup&gt;</td>
<td>2.75</td>
<td>1.35</td>
<td>2.04</td>
<td>7</td>
<td>.20</td>
<td>-4.33  5.93</td>
</tr>
<tr>
<td>Social Skills&lt;sup&gt;c&lt;/sup&gt;</td>
<td>6.38</td>
<td>4.50</td>
<td>1.42</td>
<td>7</td>
<td>.20</td>
<td>-4.27  17.02</td>
</tr>
</tbody>
</table>

<sup>a</sup> Scale Min=0, Max=18  
<sup>b</sup> Scale Min=0, Max=21  
<sup>c</sup> Scale Min=0, Max=138

### Table 4.6

**Mean and SE difference, and t-test Results for Junior High Problem Behavior and Subdomain Scales, (n=9)**

<table>
<thead>
<tr>
<th>Scales</th>
<th>Mean Difference</th>
<th>SE Difference</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Externalizing&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.67</td>
<td>.97</td>
<td>-.69</td>
<td>8</td>
<td>.51</td>
<td>-2.90  1.57</td>
</tr>
<tr>
<td>Bullying&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.00</td>
<td>.55</td>
<td>.00</td>
<td>8</td>
<td>1.00</td>
<td>-1.27  1.27</td>
</tr>
<tr>
<td>Hyperactivity/Inattention&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-.89</td>
<td>.99</td>
<td>-.90</td>
<td>8</td>
<td>.40</td>
<td>-3.18  1.40</td>
</tr>
<tr>
<td>Internalizing&lt;sup&gt;d&lt;/sup&gt;</td>
<td>-.22</td>
<td>1.40</td>
<td>-.16</td>
<td>8</td>
<td>.88</td>
<td>-3.46  3.01</td>
</tr>
<tr>
<td>Problem Behavior&lt;sup&gt;e&lt;/sup&gt;</td>
<td>-.89</td>
<td>2.37</td>
<td>-.38</td>
<td>8</td>
<td>.72</td>
<td>-6.34  4.57</td>
</tr>
</tbody>
</table>

<sup>a</sup> Scale Min=0, Max=36  
<sup>b</sup> Scale Min=0, Max=15  
<sup>c</sup> Scale Min=0, Max=21  
<sup>d</sup> Scale Min=0, Max=30  
<sup>e</sup> Scale Min=0, Max=87
Data for students in the 9th grade setting \((n = 7)\) described in tables 4.7 and 4.8 showed some promising results in that two of the Social Skills subdomain areas indicated statistical significance \((p < .05)\); the areas of Communication (.04) and Assertion (.01). Unlike the students in the junior high setting the mean differences in both subdomain areas showed a decrease, Communication (-3.67) and Assertion (-5.50) indicating that student posttest scores did increase after receiving the targeted social skills instruction.

Table 4.7

*Mean and SE difference, and t-test Results for 9th Grade Social Skills and Subdomain Scales, \((n = 6)\)*

<table>
<thead>
<tr>
<th>Scales</th>
<th>Mean Difference</th>
<th>SE Difference</th>
<th>(t)</th>
<th>(df)</th>
<th>(p)</th>
<th>(95%) Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication(^a)</td>
<td>-3.67</td>
<td>1.36</td>
<td>-2.70</td>
<td>5</td>
<td>*.04</td>
<td>-7.16 to -.18</td>
</tr>
<tr>
<td>Cooperation(^b)</td>
<td>-3.33</td>
<td>1.96</td>
<td>-1.70</td>
<td>5</td>
<td>.15</td>
<td>-8.38 to 1.71</td>
</tr>
<tr>
<td>Assertion(^b)</td>
<td>-5.50</td>
<td>1.36</td>
<td>-4.04</td>
<td>5</td>
<td>*.01</td>
<td>-9.00 to -2.00</td>
</tr>
<tr>
<td>Responsibility(^b)</td>
<td>-4.33</td>
<td>1.86</td>
<td>-2.34</td>
<td>5</td>
<td>.07</td>
<td>-9.10 to .44</td>
</tr>
<tr>
<td>Empathy(^a)</td>
<td>-4.17</td>
<td>2.10</td>
<td>-1.99</td>
<td>5</td>
<td>.11</td>
<td>-9.58 to 1.24</td>
</tr>
<tr>
<td>Engagement(^b)</td>
<td>-4.33</td>
<td>2.36</td>
<td>-1.84</td>
<td>5</td>
<td>.13</td>
<td>-10.40 to 1.74</td>
</tr>
<tr>
<td>Self-Control(^a)</td>
<td>-3.33</td>
<td>2.55</td>
<td>-1.31</td>
<td>5</td>
<td>.25</td>
<td>-9.89 to 3.23</td>
</tr>
<tr>
<td>Social Skills(^c)</td>
<td>-28.67</td>
<td>12.08</td>
<td>-2.37</td>
<td>5</td>
<td>.06</td>
<td>-59.73 to 2.40</td>
</tr>
</tbody>
</table>

\(^a\) Scale Min=0, Max=18  
\(^b\) Scale Min=0, Max=21  
\(^c\) Scale Min=0, Max=138

Students in the high school setting have two options available to them for accessing their education; one being the comprehensive high school setting \((n = 8)\) and the other the alternative school setting \((n = 4)\). Tables 4.9-4.12 show data for students in each of these settings. While students received their targeted instruction within the various settings the discussion for the high school will occur together.
Table 4.8

Mean and SE difference, and t-test results for 9th Grade Problem Behavior and Subdomain Scale, \( n = 6 \)

<table>
<thead>
<tr>
<th>Scales</th>
<th>Mean Difference</th>
<th>SE Difference</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Externalizing(^a)</td>
<td>-3.33</td>
<td>2.39</td>
<td>-1.40</td>
<td>5</td>
<td>.22</td>
<td>-9.48</td>
</tr>
<tr>
<td>Bullying(^b)</td>
<td>-1.17</td>
<td>1.70</td>
<td>-0.69</td>
<td>5</td>
<td>.52</td>
<td>-5.54</td>
</tr>
<tr>
<td>Hyperactivity/Inattention(^c)</td>
<td>-1.33</td>
<td>1.17</td>
<td>-1.14</td>
<td>5</td>
<td>.31</td>
<td>-4.35</td>
</tr>
<tr>
<td>Internalizing(^d)</td>
<td>-1.83</td>
<td>1.64</td>
<td>-1.11</td>
<td>5</td>
<td>.32</td>
<td>-6.05</td>
</tr>
<tr>
<td>Problem Behavior(^e)</td>
<td>-8.00</td>
<td>6.09</td>
<td>-1.31</td>
<td>5</td>
<td>.25</td>
<td>-23.66</td>
</tr>
</tbody>
</table>

\(^{a}\) Scale Min=0, Max=36  
\(^{b}\) Scale Min=0, Max=15  
\(^{c}\) Scale Min=0, Max=21  
\(^{d}\) Scale Min=0, Max=30  
\(^{e}\) Scale Min=0, Max=87

Data for the high school setting, tables 4.9 and 4.10, did not show any statistical significance after receiving the targeted social skills instruction. However, similar to the junior high setting the mean scores for the Engagement subdomain area show an increase of 2.13 indicating that some students rated themselves lower on the posttest scores thus feeling like they did not gain skills in that area. Data for the alternative school setting, tables 4.11 and 4.12, also shows scores that follow this pattern. The subdomain area of Communication showed a significance level of .01, however, the mean scores increased 1.50 at the posttest. Again, student’s ratings indicate that they did not feel they had gained skills in the area of Communication after receiving the targeted social skills instruction.
Table 4.9

*Mean and SE difference, and t-test Results for High School Grade Social Skills and Subdomain Scales, (n = 8)*

<table>
<thead>
<tr>
<th>Scales</th>
<th>Mean Difference</th>
<th>SE Difference</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Communication&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.75</td>
<td>1.29</td>
<td>.58</td>
<td>7</td>
<td>.58</td>
<td>-2.31</td>
</tr>
<tr>
<td>Cooperation&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-.13</td>
<td>1.11</td>
<td>-.11</td>
<td>7</td>
<td>.91</td>
<td>-2.75</td>
</tr>
<tr>
<td>Assertion&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-.88</td>
<td>.61</td>
<td>-1.4</td>
<td>7</td>
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<td>.18</td>
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</tr>
<tr>
<td>Empathy&lt;sup&gt;a&lt;/sup&gt;</td>
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<td>1.00</td>
<td>1.76</td>
<td>7</td>
<td>.12</td>
<td>-6.0</td>
</tr>
<tr>
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<td>7</td>
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<td>-.10</td>
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<td>4.59</td>
<td>.81</td>
<td>7</td>
<td>.44</td>
<td>-7.10</td>
</tr>
</tbody>
</table>

<sup>a</sup> Scale Min=0, Max=18  
<sup>b</sup> Scale Min=0, Max=21  
<sup>c</sup> Scale Min=0, Max=138

Table 4.10

*Mean and SE difference, and t-test Results for High School Problem Behavior and Subdomain Scales, (n = 8)*

<table>
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<tr>
<th>Scales</th>
<th>Mean Difference</th>
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<th>p</th>
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</thead>
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<td></td>
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<td>Lower</td>
</tr>
<tr>
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<td>1.06</td>
<td>1.17</td>
<td>7</td>
<td>.28</td>
<td>-1.27</td>
</tr>
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<td>Hyperactivity/</td>
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<td>1.78</td>
<td>.77</td>
<td>7</td>
<td>.47</td>
<td>-2.84</td>
</tr>
<tr>
<td>Inattention&lt;sup&gt;c&lt;/sup&gt;</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internalizing&lt;sup&gt;d&lt;/sup&gt;</td>
<td>2.50</td>
<td>2.73</td>
<td>.92</td>
<td>7</td>
<td>.39</td>
<td>-3.94</td>
</tr>
<tr>
<td>Problem Behavior&lt;sup&gt;e&lt;/sup&gt;</td>
<td>5.50</td>
<td>6.34</td>
<td>.87</td>
<td>7</td>
<td>.42</td>
<td>-9.50</td>
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<sup>a</sup> Scale Min=0, Max=36  
<sup>b</sup> Scale Min=0, Max=15  
<sup>c</sup> Scale Min=0, Max=21  
<sup>d</sup> Scale Min=0, Max=30  
<sup>e</sup> Scale Min=0, Max=87
Table 4.11

Mean and SE difference, and t-test Results for Alternative School Social Skills and Subdomain Scales, (n = 4)

<table>
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<th>p</th>
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<td>Communication</td>
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<td>5.20</td>
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<td>.58 2.42</td>
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<tr>
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<td>1.47</td>
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<td>3</td>
<td>.55</td>
<td>-5.68 3.68</td>
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<tr>
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<td>- .75</td>
<td>1.44</td>
<td>-.52</td>
<td>3</td>
<td>.64</td>
<td>-5.32 3.82</td>
</tr>
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<td>1.55</td>
<td>-.16</td>
<td>3</td>
<td>.88</td>
<td>-5.18 4.68</td>
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<td>.55</td>
<td>-3.68 5.68</td>
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<td>3</td>
<td>.25</td>
<td>-3.40 8.90</td>
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<td>-.74</td>
<td>3</td>
<td>.51</td>
<td>-5.31 3.31</td>
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<td>Social Skills</td>
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<td>5.81</td>
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<td>3</td>
<td>.72</td>
<td>-16.23 20.73</td>
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</table>

*p < .05

Scale Min=0, Max=18
Scale Min=0, Max=21
Scale Min=0, Max=138

Table 4.12

Mean and SE difference, and t-test Results for Alternative School Problem Behavior and Subdomain Scales, (n = 4)

<table>
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<th>df</th>
<th>p</th>
<th>95% Confidence Interval</th>
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</thead>
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<td>-5.01 5.51</td>
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<tr>
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<td>1.57</td>
<td>3</td>
<td>.22</td>
<td>-.77 2.27</td>
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<tr>
<td>Hyperactivity/Inattention</td>
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<td>.96</td>
<td>.52</td>
<td>3</td>
<td>.64</td>
<td>-2.55 3.55</td>
</tr>
<tr>
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<td>1.19</td>
<td>-.42</td>
<td>3</td>
<td>.70</td>
<td>-4.29 3.29</td>
</tr>
<tr>
<td>Problem Behavior</td>
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<td>2.50</td>
<td>-.10</td>
<td>3</td>
<td>.93</td>
<td>-8.19 7.69</td>
</tr>
</tbody>
</table>

Scale Min=0, Max=16
Scale Min=0, Max=15
Scale Min=0, Max=21
Scale Min=0, Max=30
Scale Min=0, Max=30
Scale Min=0, Max=87
Multiple data sources were used in Chapter 3 to describe the student participants. Information about percentage of time in the least restrictive environment, make-up of parental supports in the participants lives and attendance were all shared to gain further insight into the studied population. Targeted social skills instruction was a key piece of this study and therefore, the researcher determined it would be important to look at results broken up by attendance bands as well. Tables 4.13-4.18 show inferential data broken up by students who missed 0-5 instructional sessions, 6-10 instructional sessions, and 16-20 instructional sessions. There were two students who missed 11-15 instructional sessions and one student who missed more than 20 instructional sessions. However, the t-test data could not be computed in either of these instances due to the “sum of the caseweights being less than or equal to 1” (SPSS printout).

Table 4.13

<table>
<thead>
<tr>
<th>Scales</th>
<th>Mean Difference</th>
<th>SE Difference</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>95% Confidence Interval</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<tr>
<td>Communication</td>
<td>-.29</td>
<td>.79</td>
<td>-.37</td>
<td>16</td>
<td>.72</td>
<td>-1.98</td>
</tr>
<tr>
<td>Cooperation</td>
<td>-.88</td>
<td>.69</td>
<td>-1.29</td>
<td>16</td>
<td>.22</td>
<td>-2.34</td>
</tr>
<tr>
<td>Assertion</td>
<td>.12</td>
<td>.66</td>
<td>.18</td>
<td>16</td>
<td>.86</td>
<td>-1.29</td>
</tr>
<tr>
<td>Responsibility</td>
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<td>.72</td>
<td>.08</td>
<td>16</td>
<td>.94</td>
<td>-1.48</td>
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<tr>
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<td>.60</td>
<td>1.18</td>
<td>16</td>
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<td>-.56</td>
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<td>Engagement</td>
<td>1.12</td>
<td>.70</td>
<td>1.59</td>
<td>16</td>
<td>.13</td>
<td>-.37</td>
</tr>
<tr>
<td>Self-Control</td>
<td>-.18</td>
<td>.93</td>
<td>-1.19</td>
<td>16</td>
<td>.85</td>
<td>-2.14</td>
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<tr>
<td>Social Skills</td>
<td>7.76</td>
<td>7.26</td>
<td>1.07</td>
<td>16</td>
<td>.30</td>
<td>-7.63</td>
</tr>
</tbody>
</table>

*a Scale Min=0, Max=18
*b Scale Min=0, Max=21
*c Scale Min=0, Max=138
Tables 4.13 and 4.14 present inferential data for seventeen students who participated in the majority of the targeted social skills instruction. One student did not provide enough data so only sixteen scores were provided for the Social Skills and subdomain areas. Students showed increased posttest scores in the Social Skills subdomains of Communication (.29), Cooperation (.88), and Self-Control (.18). However, the increases were not statistically significant.

Table 4.14

*Problem Behavior Mean and SE differences, and t-test results for students missing 0-5 instructional sessions (n = 18)*

<table>
<thead>
<tr>
<th>Scales</th>
<th>Mean Difference</th>
<th>SE Difference</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Externalizing&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.56</td>
<td>1.27</td>
<td>.44</td>
<td>17</td>
<td>.67</td>
<td>-2.12 3.23</td>
</tr>
<tr>
<td>Bullying&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1.11</td>
<td>.56</td>
<td>1.99</td>
<td>17</td>
<td>.06</td>
<td>-.07 2.29</td>
</tr>
<tr>
<td>Hyperactivity/Inattention&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.67</td>
<td>.94</td>
<td>.71</td>
<td>17</td>
<td>.49</td>
<td>-1.31 2.64</td>
</tr>
<tr>
<td>Internalizing&lt;sup&gt;d&lt;/sup&gt;</td>
<td>2.06</td>
<td>1.30</td>
<td>1.59</td>
<td>17</td>
<td>.13</td>
<td>-.68 4.79</td>
</tr>
<tr>
<td>Problem Behavior&lt;sup&gt;e&lt;/sup&gt;</td>
<td>4.39</td>
<td>3.14</td>
<td>1.40</td>
<td>17</td>
<td>.18</td>
<td>-2.23 11.00</td>
</tr>
</tbody>
</table>

<sup>a</sup>Scale Min=0, Max=36  
<sup>b</sup>Scale Min=0, Max=15  
<sup>c</sup>Scale Min=0, Max=21  
<sup>d</sup>Scale Min=0, Max=30  
<sup>e</sup>Scale Min=0, Max=87

Student scores in the Problem Behavior and subdomain scales all decreased from pre to posttest scores in Table 4.14 which means that students felt that they had gained skills after the targeted instruction period. The subdomain area of Internalizing showed the greatest decrease in posttest scores (2.06) with Bullying showing a decrease of 1.11. Despite the decrease in scores, none of them were considered statistically significant.

Tables 4.15 and 4.16 present data for students who missed between 6 and 10 instructional sessions. The Social Skills subdomain area of Cooperation showed an increase (2.00) between
pre and posttest scores that were considered statistically significant ($p = .02$). It should be noted that $N = 5$ for this group so it will be difficult to make generalizations to the larger population.

Table 4.15

*Social Skills Mean and SE differences, and t-test results for students missing 6-10 instructional sessions, (n = 5)*

<table>
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<th>Scales</th>
<th>Mean Difference</th>
<th>SE Difference</th>
<th>$t$</th>
<th>df</th>
<th>$p$</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
<tr>
<td>Communication$^a$</td>
<td>.80</td>
<td>1.24</td>
<td>.65</td>
<td>4</td>
<td>.55</td>
<td>-2.65</td>
</tr>
<tr>
<td>Cooperation$^b$</td>
<td>-2.00</td>
<td>.55</td>
<td>-3.66</td>
<td>4</td>
<td>.02*</td>
<td>-3.52</td>
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<tr>
<td>Assertion$^b$</td>
<td>-.60</td>
<td>2.23</td>
<td>-.27</td>
<td>4</td>
<td>.80</td>
<td>-6.78</td>
</tr>
<tr>
<td>Responsibility$^b$</td>
<td>-.40</td>
<td>1.81</td>
<td>-.22</td>
<td>4</td>
<td>.84</td>
<td>-5.41</td>
</tr>
<tr>
<td>Empathy$^a$</td>
<td>-1.60</td>
<td>2.50</td>
<td>-.64</td>
<td>4</td>
<td>.56</td>
<td>-8.55</td>
</tr>
<tr>
<td>Engagement$^b$</td>
<td>.40</td>
<td>1.94</td>
<td>.21</td>
<td>4</td>
<td>.85</td>
<td>-4.98</td>
</tr>
<tr>
<td>Self-Control$^a$</td>
<td>2.60</td>
<td>1.86</td>
<td>1.40</td>
<td>4</td>
<td>.24</td>
<td>-2.56</td>
</tr>
<tr>
<td>Social Skills$^c$</td>
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<td>10.84</td>
<td>-.07</td>
<td>4</td>
<td>.95</td>
<td>-30.89</td>
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</table>

*Note. $^a p < .05$
$^b$ Scale Min=0, Max=21
$^c$ Scale Min=0, Max=138

It should be noted that in Table 4.16 the Problem Behavior Scales and all the subdomain scales showed an increase from pre to posttest scores. These scales should have the opposite result. After the targeted instruction there should have been a decrease in the posttests scores.
Table 4.16

Problem Behavior Mean and SE differences, and t-test results for students missing 6-10 instructional sessions (n = 5)

<table>
<thead>
<tr>
<th>Scales</th>
<th>Mean Difference</th>
<th>SE Difference</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>95% Confidence Interval</th>
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<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Externalizing&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-2.00</td>
<td>1.55</td>
<td>-1.29</td>
<td>4</td>
<td>.27</td>
<td>-6.30</td>
</tr>
<tr>
<td>Bullying&lt;sup&gt;b&lt;/sup&gt;</td>
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<td>.86</td>
<td>-.93</td>
<td>4</td>
<td>.41</td>
<td>-3.19</td>
</tr>
<tr>
<td>Hyperactivity/Inattention&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-1.40</td>
<td>1.69</td>
<td>-.83</td>
<td>4</td>
<td>.45</td>
<td>-6.10</td>
</tr>
<tr>
<td>Internalizing&lt;sup&gt;d&lt;/sup&gt;</td>
<td>-3.20</td>
<td>1.46</td>
<td>-2.19</td>
<td>4</td>
<td>.09</td>
<td>-7.26</td>
</tr>
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<td>4.21</td>
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<td>4</td>
<td>.14</td>
<td>-19.49</td>
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<sup>a</sup>Scale Min=0, Max=36  
<sup>b</sup>Scale Min=0, Max=15  
<sup>c</sup>Scale Min=0, Max=21  
<sup>d</sup>Scale Min=0, Max=30  
<sup>e</sup>Scale Min=0, Max=87

Similar to the other results, Tables 4.17 and 4.18 do not show any statistically significant results in either the Social Skills or Problem Behavior scales nor their respective subdomain areas. Also, similar to Table 4.16 all the posttest scores for the behavior subdomain increased rather than decreased after the targeted social skills instruction. However, students in this attendance band missed between 16 and 20 of the instructional sessions.
Table 4.17

Social Skills Mean and SE differences, and t-test results for students missing 16-20 instructional sessions, (n = 2)

<table>
<thead>
<tr>
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<th>Mean Difference</th>
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<th>df</th>
<th>p</th>
<th>95% Confidence Interval</th>
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<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Communication&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-4.00</td>
<td>6.00</td>
<td>-.67</td>
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<td>.63</td>
<td>-80.24</td>
</tr>
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<td>7.50</td>
<td>-.60</td>
<td>1</td>
<td>.66</td>
<td>-99.80</td>
</tr>
<tr>
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<td>1</td>
<td>.33</td>
<td>-57.82</td>
</tr>
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<td>5.50</td>
<td>-1.36</td>
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<td>.40</td>
<td>-77.38</td>
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<td>5.00</td>
<td>-1.20</td>
<td>1</td>
<td>.44</td>
<td>-69.53</td>
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<td>11.00</td>
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<td>1</td>
<td>.78</td>
<td>-143.77</td>
</tr>
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<td>7.00</td>
<td>-1.00</td>
<td>1</td>
<td>.50</td>
<td>-95.94</td>
</tr>
<tr>
<td>Social Skills&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-40.00</td>
<td>46.00</td>
<td>-.87</td>
<td>1</td>
<td>.54</td>
<td>-624.5</td>
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</table>

<sup>a</sup>Scale Min=0, Max=18
<sup>b</sup>Scale Min=0, Max=21
<sup>c</sup>Scale Min=0, Max=138

Table 4.18

Problem Behavior Mean and SE differences, and t-test results for students missing 16-20 instructional sessions (n = 2)

<table>
<thead>
<tr>
<th>Scales</th>
<th>Mean Difference</th>
<th>SE Difference</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Externalizing&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-5.50</td>
<td>5.50</td>
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<td>1</td>
<td>.50</td>
<td>-75.38</td>
</tr>
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<td>4.00</td>
<td>-1.00</td>
<td>1</td>
<td>.50</td>
<td>-54.82</td>
</tr>
<tr>
<td>Hyperactivity/Inattention&lt;sup&gt;c&lt;/sup&gt;</td>
<td>-.50</td>
<td>3.50</td>
<td>-.14</td>
<td>1</td>
<td>.91</td>
<td>-44.97</td>
</tr>
<tr>
<td>Internalizing&lt;sup&gt;d&lt;/sup&gt;</td>
<td>-3.50</td>
<td>1.50</td>
<td>-2.33</td>
<td>1</td>
<td>.26</td>
<td>-22.56</td>
</tr>
<tr>
<td>Problem Behavior&lt;sup&gt;e&lt;/sup&gt;</td>
<td>-12.00</td>
<td>12.00</td>
<td>-1.00</td>
<td>1</td>
<td>.50</td>
<td>-164.47</td>
</tr>
</tbody>
</table>

<sup>a</sup>Scale Min=0, Max=36
<sup>b</sup>Scale Min=0, Max=15
<sup>c</sup>Scale Min=0, Max=21
<sup>d</sup>Scale Min=0, Max=30
<sup>e</sup>Scale Min=0, Max=87
Results across the whole sample population were not statistically significant. However, the 9th grade \((n = 6)\) showed promise in their results. The Social Skills subdomain areas of Assertion \((p = .01)\) and Communication \((p = .04)\) did show statistical significance indicating that students felt that their performance improved after the social skills intervention period.

The research questions for this study focused on whether or not secondary students with Emotional/Behavior Disorders improved in their social skills in the various Social Skills and Problem Behaviors subdomain areas. Within the Social Skills subdomains of Communication \((.34)\), Cooperation \((1.27)\), Assertion \((.85)\), Responsibility \((.65)\), Empathy \((.34)\), Engagement \((- .43)\), and Self-Control \((.12)\) there was improvement in all mean scores with the exception of Engagement. However, none of the changes were considered statistically significant. The Problem Solving subdomain areas of Externalizing \((.96)\), Bullying \((- .23)\), Hyperactivity/Inattention \((.10)\), and Internalizing \((- .19)\) also did not show any statistically significant changes from pre to posttest mean scores.

However, when looking at data within the attendance bands the Social Skills subdomain area of Cooperation did show statistically significant changes \((p = .02)\) for students who missed 6-10 instructional sessions. It should be noted that the \(n\) for this group was 5 students so it would be difficult to make widespread generalizations with this data. Additionally when looking at data by grade level the 9th grade students showed significant growth in the Social Skills subdomain areas of Communication \((p = .04)\) and Assertion \((p = .01)\).
Chapter 5

Findings, Conclusions, And Implications

This chapter is divided into 5 sections and will tie the multiple parts of the study together. Included will be a summary of the study, a recap of the findings presented in Chapter 4, conclusions reached based on the findings, implications for practice, implications for future research and a final summary.

Summary of the Study

State governments along with the Individuals with Disabilities Act (2004) (IDEA) have set expectations for students with special education needs to achieve at high levels and to be prepared for life after high school. The United States Department of Education’s 28th Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act of 2006 shares that students with emotional disturbances had the lowest percentage rates for students graduating with a high school diploma (Table 1.1). Table 1.2 further shows that students with emotional disturbances are also at the greatest risk for dropping out of school. Students with Emotional/Behavior Disorders frequently experience great difficulties in interacting socially with peers and teachers and have learned inappropriate ways of coping in the world, which can make it extremely challenging for them to meet goals set by themselves, their families, the school and the government.

Recent studies in this area (Bullis, Walker & Sprague, 2001; Sugai, 2007; Walker et. al, 1996) indicate that all students benefit from supports within the school setting but that those supports will vary depending on student need. Students with high needs in the area of social skills as identified by their Individualized Education Plan (IEP) fall into the top 5-15% of the “triangle of support” (Walker et al., 1996) indicating a need for more intensive skill building
instruction. However, there has been little attempt at determining which skills should be targeted for such instruction (Gresham et al., 2001; Gresham et. al, 2006; Denham, Hatfield, Smethurst, Tan & Tribe, 2006). Not having the preassessment aligned with the skill instruction then makes it very difficult to determine whether students have or have not made progress (Bullis, Walker & Sprague, 2001), which became the common thread among the research questions examined in this study.

This pre-experimental study was designed to determine whether targeted social skills instruction increased the skills of students with Emotional/Behavior Disorders at the secondary level. Using Gresham and Elliots’ Social Skills Improvement System (SSIS), students rated themselves in the areas of social skills and problem behaviors. Specific attention was focused on their performance on the Social Skills subdomain areas of Communication, Cooperation, Assertion, Empathy, Engagement, and Self-Control. In addition, there was a focus on the Problem Behavior subdomain areas of Externalizing, Bullying, Hyperactivity/Inattention, and Internalizing.

The participants consisted of 30 students, both male and female, from secondary social skills classrooms in a mid-western suburban district. Students participating in the study had given their consent as well as had written consent from their parents. The 30 students were purposefully chosen based on their identified social skills needs and placement in a Social Skills classroom. Of the 30 students, 26 completed the Social Skills scales pre and posttest while 27 completed the Problem Behavior scales pre and posttest.

Findings

Bronfenbrenner’s (2005) Biological systems theory, as discussed in Chapter 2, indicates that a student’s system of support has a critical impact on their ability to interact across a variety of settings. Depending on the supports within each of these systems, Walker et al. (1996)
indicates that students are often unintentionally taught inappropriate behaviors in response to home stresses such as poverty, divorce, etc. The Federal definition of Emotional Disturbances stresses yet again the difficulties that these students face on a daily basis.

This study utilized the Social Skills Improvement System (SSIS) to identify student deficit areas based on their rating scale answers. Acquisition deficits are characterized as “can’t do” problems. The students have either not had exposure to learning the skill or have had some introduction but not enough to know when and where to use the skill. Performance deficits are characterized as “won’t do” problems. Students have had instruction in the skill areas but they choose to not use the skill. Instead, there is a competing problem behavior that is easier for them to either access what they want or to get away from something. Previous research (Heartland Area Education Agency, n.d.; Sugai & Lewis, 1996; Quinn et al., 1999) indicates that effective instruction is the next essential step after determining deficit models.

After receiving 6 weeks of targeted social skills instruction students were asked to rate themselves again on the SSIS. When running the paired samples t-test to compare the means there was not a statistical difference ($p < .05$) present in either the Social Skills or Problem Behavior scales, or either of their respective subdomain areas. The closest level of significance ($p = .07$) was shown in the Social Skills subdomain of Cooperation. This subdomain area also had the highest increase in mean scores from pre to posttest (1.27).

Participants in this study were representative of the top 5-15% of the Triangle of Support. Students were identified by their school Individualized Education Plan (IEP) team as needing extra support in the area of social skills instruction. It is likely that after receiving 6 weeks of targeted instruction that students have more of an awareness of their deficit areas. They may not have had an understanding previously of how inappropriate their chosen behaviors had been. This new awareness could have caused them to rate themselves much more stringently on the
posttest rating scale. This could explain why mean scores in the Social Skills subdomain of Engagement decreased (-.43) instead of increased. Similarly, it could explain why the Problem Behaviors subdomain areas of Externalizing, and Hyperactivity/Inattention increased at .96 and .10 respectively.

Data for students in the 9th grade setting (n = 6) showed 2 areas of significance within the Communication (-3.67, p = .04) and Assertion (-5.50, p = .01) Social Skills subdomain areas. Assertion was the second highest skill deficit identified across the 30 participants and unlike the junior high scores, more 9th grade students rated themselves as having gained skills on the posttest. It should be noted that there were no significant scores found in any of the Problem Behaviors subdomains across any of the tests run.

Another area of significance was presented in the attendance band analysis. Students who missed between six and ten instructional sessions (n = 5) showed an increase in posttest scores for the Social Skills subdomain area of Cooperation (p = .02). There were no other areas of significance across the attendance band analysis.

Conclusions

Data from the repeated measures t-test indicated that there were no areas of statistical significance across any of the Social Skills or Problem Behaviors subdomain areas even though there was some improvement in mean scores from pre to posttest. Yet, there were some promising results in the smaller subgroup areas with statistical significance identified in the Social Skills subdomain areas of Communication (p = .04) and Assertion (p = .01) in the 9th grade setting (n = 6).

While the results do not show statistical significance (p < .05) this study was important in that it added to the body of social skills research. As discussed in Chapters 1 and 2 Social Skills are extremely critical for all students to have in their repertoire. The inability for students with
Emotional/Behavior Disorders to create and sustain interpersonal relationships places them at a disadvantage right from the start. Bronfenbrenner’s (2005) bioecological model further supports the idea that the various systems to which a student belongs makes a huge impact on that student’s social development. In many cases, students with Emotional/Behavior Disorders do not have the role model support needed across all systems to help build or remediate social skills which again makes the road to successfully learning and using social skills effectively even more difficult.

In addition the current research suggests that while there is strong support for tiers of intervention within school setting for student deficit areas, there is little research that shows an attempt to match particular social skill instruction with a student’s identified deficit needs (Denham, Hatfield, Smethurst, Tan, & Tribe, 2006; Gresham et al., 2001). Maag’s (2006) review of research found similar results in that the assessment of student deficits is not often conducted because it is “too complex and time-consuming” (p.11). However, if progress is to be made in the skills of students with Emotional/Behavior Disorders educators must determine the deficit area and then match the instruction in order to give them the skill sets that are so crucial to their success in school and in life. This study identified student deficit areas, categorized them as either acquisition or performance deficits and then delivered social skills instruction to target the deficit areas.

Implications for Practice

There were slivers of brightness within this study despite the overall finding that the targeted social skills instruction did not deliver statistical significance. Regardless, the study was necessary to help fill a gap in the existing literature and to help determine next steps. Districts will continue to serve students with social skills deficits on their continuum of services. State and Federal expectations for both academic and social growth for all students continues to be a high
priority for school personnel. The study results have implications for this district and others struggling with the same questions as they move forward with trying to meet expectations.

In this study student deficit areas were identified through the use of the Social Skills Improvement Systems (SSIS) student Rating Scale. While many students within the current study had a Functional Behavioral Assessment (FBA) as part of their Individualized Education Plan (IEP), the study did not take into consideration whether or not the FBA was aligned with the identified deficit areas. It would be beneficial in future practice for educators to ensure that there is a tight match between the FBA and identified skill deficits. As will be discussed in the implications for future research, this tight match would also ensure that there are both reinforcement and reduction plans built into the student’s programming. The addition of these two components would add powerful information to the skills training in order to make the newly learned social skills more immediate throughout the student’s day.

Another implication to consider is related to the actual instructional materials. As discussed in Chapter 2, most commercial social skills programs are designed to address the first tier of students in the “triangle of support” as opposed to those who need more focused instruction. In this study, all classrooms followed the same social skills steps when addressing either acquisition (all steps) or performance deficits (steps 3-6).

1. Review and check the previous day’s work (and reteach, if necessary).
2. Present new content or skills (model demonstration/I do)
3. Provide guided student practice (and check for student understanding-lead/ we do).
4. Provide feedback and correction (and reteach if necessary).
5. Provide independent student practice (test/You do).
6. Review frequently.
However, each classroom teacher had a wide variety of social skills curricula to choose from when addressing those needs. Each teacher chose very different routes based on their student population, identified target areas and personal preferences. Further training in the six steps presented in this study would help to ensure that there is consistency amongst the teachers while still maintaining the ability to individualize for the targeted social skills needs. It would be a good use of professional development time to work on creating an integrity checklist to help teachers in ensuring that the critical social skills steps are being followed during the targeted instruction period. Integrity to any new program is essential when learning something new. In addition checklists or other recording mechanisms for students could be created to utilize so they too can ensure that they are being mindful when learning and practicing their newly learned skills.

Many educational institutions are incorporating essential questions into their daily curricula. The essential questions would be the main ideas that a student should walk away from each particular class or unit knowing and understanding. The researcher observed some students portraying almost a sense of pride when filling out the Problem Behavior scale. Indicating a high score on some of the statements almost signified a badge of honor for some students. In addition some students may feel that their inability to control their impulses causes them to exhibit such behaviors. Students may not have taken ownership of their behavior or had enough instruction for them to believe they have the power to change their own behavior. Creating essential questions that align with targeted social skills instruction would help provide students an anchor or rationale for why they are learning such key skills. It would help reinforce for students the importance of choosing the appropriate positive skills for specific situations. It could also be a tool to help with the generalization of skills across various settings. Further staff development
time could be allotted to looking at the Core Curriculum, creating essential questions and then aligning student’s targeted skills with those essential questions.

**Implications for Research**

It is essential that research be continued in the area of social skills instruction, particularly as it pertains to students with Emotional/Behavior Disorders. Consistent with the recent research, future studies should continue to identify student deficit areas and to classify them based on the acquisition and performance categories. The need for targeted instruction is crucial if schools hope to design interventions for students to meet their needs and to see growth. Future studies should explore the option of utilizing the parent and teacher rating scales in addition or in place of the student rating scale. The additional information will enable the teachers to access a wider perspective of the student’s skills across the school day, thus tightening the focus on the targeted skills. Additionally, the other perspectives may even out the rater bias by the student. Throughout the pre and posttest sessions, the researcher witnessed moments where some students were almost boastful about the problem behaviors they were exhibiting. It was almost as if they were wearing them as a badge of honor and did not see them as barriers to their success. Given the age of the students and the social skills deficits, it is also probable that the students did not at the beginning have a good idea of what the appropriate skills were in a given situation. The targeted instruction may have opened their eyes to the enormity of their deficit and to new ways of accessing what they needed more appropriately, therefore causing them to answer more accurately or critically on the posttest rating scale. The addition of the parent and/or teacher rating scales would provide a balance to the student’s perceptions of themselves.

A further extension to the addition of parents and/or teachers to the rating scale process would be to add a home component to the study. Both Bandura’s (1986) model of Triadic
Reciprocity and Bronfenbrenner’s Bioecological (2005) model discussed in Chapter 2 highlight the importance of the community/environment that surrounds an individual. Providing training to parents at specific points throughout the study would help reinforce the skills students were learning within the school day, would help students to generalize the skills to other settings, and could help to create a stronger support environment for the long term.

Future research also needs to take into consideration the amount of targeted instruction over time. Eighteen to twenty-four hours of targeted instruction over a 6 week period of time is not enough. In addition the current study took place at the end of the school year. It is difficult for all students to maintain focus as the end of the school year approaches. This is particularly true for students who happen to struggle and for those that have particularly strong influences in their exo and macrosystems. Future studies should lengthen the instruction period to 9 weeks or even the entire school year. Lengthening the amount of targeted instruction would give a better picture of the student’s progress over a greater amount of time. It would also allow for adjustments to be made based on progress during that intervention period. Extending the intervention period, as well as starting earlier in the school year, would help address the issues of attendance and interest in school.

Current research (Gresham, Sugai & Horner, 2001; Gresham, Van & Cook, 2006) suggests that the student’s initial problem behaviors, competing behaviors, will interfere with the acquisition of new skills. The behaviors students have exhibited have served them well for a number of years in either gaining access to something that they want or in escaping something they do not want. These competing behaviors have become part of the student’s repertoire and in many cases are instinctive. The newly taught skills will require intense reinforcement in order to make them more appealing to the student. In addition reduction methods should be utilized to help reduce the competing behaviors. The competing behavior component was not specifically
addressed in this current study. It would be logical when continuing this research to explore how to combine these reinforcement and reduction procedures with the identification of skill deficits and targeted social skills instruction into a tight social skills intervention program.

**Summary**

The purpose of this pre-experimental study was to elaborate on the impact of targeted social skills instruction for secondary students with Emotional/Behavior Disorders. Using the Social Skills Improvement System (SSIS), students rated themselves in the area of social skills and problem behaviors. After receiving targeted skill instruction in the identified areas, students then rated themselves again. Scores on the pre and posttests were compared using a repeated measures $t$-test to determine if improved performance had been achieved.

When running the paired samples $t$-test to compare the means there was not a statistical difference ($p < .05$) present in the Social Skills or Problem Behavior scales, or either of their respective subdomain areas. The closest level of significance (.07) was shown in the Social Skills subdomain of Cooperation. This subdomain area also had the highest increase in mean scores from pre to posttest (1.27).

Given the initial results, the researcher wanted to determine if statistical significance could be found in the subdomain areas within the individual grade level settings. It is important to remember when looking at this data that the $n$ scores are quite low which would prevent the researcher from making large scale comparisons. Data for the junior high setting ($n = 9$) appeared to show one subdomain area, Assertion, that was significant with a score of .01. However, the mean scores showed an increase of 2.63 between the pre and posttest scores. One would anticipate that the mean score would be a negative number for the ratings to show a gain in skill sets. An increase indicates that not enough students rated themselves as having stronger skills in this area after the social skills instruction.
Data for students in the 9th grade setting (n = 6) showed 2 areas of significance within the Communication (-3.67, p = .04) and Assertion (-5.50, p = .01) Social Skills subdomain areas. Assertion was the second highest skill deficit identified across the 30 participants and unlike the Junior High scores, more 9th grade students rated themselves as having gained skills on the posttest.

The data across the high school and the alternative school did not show any statistical significance in any subdomain area. The Engagement subdomain area was the closest in the high school group of reaching significance with a score of p = .09. However, similar to the junior high setting the mean scores actually showed an increase of 2.13 from the pre to posttest scores. Data for the alternative school also showed an increase of .150 in posttest scores for the Communication subdomain area, even though there was a significance rating of p = .01. It should be noted that there were no significant scores found in any of the Problem Behaviors subdomains across any of the tests run.

While the results do not show high levels of significance (p < .05) this study was important in that it added to the body of social skills research. The inability for students with Emotional/Behavior Disorders to create and sustain interpersonal relationships places makes it even more difficult for them to gain necessary social skills to participate in various life activities. In many cases, students with Emotional/Behavior Disorders do not have the role model support needed to help build or remediate social skills which again makes the road to successfully learning and using social skills effectively even more difficult.

In addition, the current research suggests that while there is strong support for tiers of intervention within school setting for student deficit areas, there is little research that shows an attempt to match particular social skill instruction with a student’s identified deficit needs (Denham, Hatfield, Smethurst, Tan, & Tribe, 2006; Gresham et al., 2001). However, if progress
is to be made in the skills of students with Emotional/Behavior disorders educators must
determine the deficit area and then match the instruction in order to give them the skill sets that
are so crucial to their success in school and in life. This study identified student deficit areas,
categorized them as either acquisition or performance deficits and then delivered social skills
instruction to target the deficit areas.
References


Heartland Area Education Agency. (n. d.). *Applying effective strategies to social skills assessment and instruction.* Johnston, IA.


Individuals with Disabilities Education Act of 2004, 34 CFR 300 et seq. (Matthew Bender & Company 2006).


Appendixes
Appendix A

Institutional Review Board Documents

IRB Number #2011-11015

Drake University Institutional Review Board
2507 University Avenue, Des Moines, IA 50311 Phone: 515-271-3472
Email: irb@drake.edu

Application for

Full Board Review

1. Contact and Study Information

Date of report: 11-23-10

All study personnel must complete the mandatory Drake University Human Subjects Research Education Program prior to approval of this study. For all personnel listed, please indicate whether or not this requirement has been met by checking yes or no under “IRB Trained?” below. Copies of certificates should be included with the application. If you have any questions regarding education requirements, please call the Institutional Review Board at 271-3472.

Study Title: Targeted Social Skills Instruction for Students with Emotional/Behavior Disorders

Principal Investigator: Angela Calhoun
Phone: 515-360-4519 E-mail: calhouna@wdmcs.org

Department and School: Education Department-Drake University

Person Responsible for Regulatory Documents: Dr. Michael Couvillon
Phone: 515-271-4690 E-mail: michael.couvillon@drake.edu

All other study personnel* (all persons must have received their certificate of completion of Human Subject Training prior to involvement in this research project; persons who may do a procedure that is standard of care will not require training. When listing a person who does not require training include your rationale as why this is the case (include his/her role in parenthesis after his/her name). All persons involved in the consent process must be trained.)

Yes No

Yes No

Yes No

Yes No
<table>
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<tr>
<th>Additional study personnel (see last page of application)</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

All Personnel who are not Drake University personnel must provide a curriculum vitae and certificate of human participants training if certified outside of Drake University, with this application.

2. **Conflict of Interest Statement**

Can the results of the study provide a potential financial gain to you, a member of your family, or any of the co-investigators that may give the appearance of a potential conflict of interest?

*If YES, provide a copy of your completed conflict of interest statement to the IRB, and include a provision in the informed consent document notifying potential subjects of your conflict of interest.*
3. **Project Sites**—This project is being conducted at the following Drake sites or Drake-affiliated sites:

- [x] Drake University
- [ ] Other (please specify): *************** School District

If the study is being done at a non-Drake affiliated site which does not have IRB oversight, an agreement between that site and the Drake IRB must be completed prior to starting the project.

4. **Special Considerations**

Please identify any of the following that will be involved in the project as research subjects:

- [x] Minors (<18 years if age)
- [ ] Females of child bearing potential
- [ ] Pregnant women, fetuses, or neonates
- [ ] Members of Native American tribes
- [ ] Mentally disabled persons
- [ ] Economically or educationally disadvantaged persons
- [x] Other vulnerable population (identify): Special Education students

Will the research involve genetic testing?  
- [ ] Yes  
- [x] No

5. **How many subjects will be enrolled:**

- [x] Multi-center projects: How many subjects will be enrolled at this site? 30-45 total students possible across *** sites in the district. There are *** sites but a total of 6 Social Skills classrooms. One building houses *** Social Skills classrooms. Currently the enrollment in each classroom is as follows: **********

- [ ] Single center projects: How many subjects will be enrolled at this site? _____

Please give a brief explanation of how you chose this number of subjects to meet your objectives address if this number will allow for statistical determination of the significance of your results.

Students were purposefully chosen based on their special education needs in the area of social skills deficits. These students are all being served in the Social Skills (Behavior Disorders) programs grades 7-12. All students in these classrooms will be invited to participate in the study. Data will only be included for the students who give their consent.

Are you enrolling both males and females?  
- [x] Yes  
- [ ] No

If not, please explain:
Risk Category (to be provided by the PI)—Identify the perceived risk to human subjects expected to participate in the research project, including your rationale for the level of risk identified.

a. Research involving adults (check perceived risk)
   - Low
   - Moderate
   - High

   **Rationale:**

b. Research involving minors < 18 years of age (check perceived risk)
   - X Minimal Risk
   - Greater than minimal risk, but presents the prospect of direct benefit to individual subjects
   - Greater than minimal risk and no prospect of direct benefit to individual subjects, but likely to yield generalizable knowledge about the subject’s disorder/condition

   **Rationale:**

6. Data Storage and Confidentiality—Please state where study data and records will be stored, both during study and when the study has been completed, to ensure subject confidentiality.

   To ensure confidentiality to the extent permitted by law, the following measures will be taken:
   1. The researcher will place a number code on the pre/post-tests instead of the student name.
   2. The student’s name and matching number will be kept with the researcher’s material in a locked filing cabinet within her home. The Social Skills teacher will know each student’s number in order to align the targeted social skills instruction.
   3. All data collected from the pre/post-tests will be kept in a locked filing cabinet within the researcher’s home.
   4. All data analysis will be kept on a thumb drive that will be stored in a locked filing cabinet within the researcher’s home.
   5. All data sets will be kept until May 2015 at which time the data will be destroyed.

   If the results are published, student identity will remain confidential.

7. Consent/Assent Process—Please briefly describe your consent/assent process.

   The researcher will mail the parent letter and consent/assent form to each Social Skills parent. Once parent consent has been received the researcher will set a time to visit every social skills classroom. During this time the researcher will present and explain the consent/assent form and answer any questions the students may have. The researcher will collect all forms at the end of the discussion.

   A copy of the signed form will be mailed to the student’s home. The researcher will keep the original forms along with a cover letter to the students’ parents.
8. **Recruitment Process**—Please briefly describe your recruitment process, including compensation.

Participants will not have any costs from participating in this study. There will not be any compensation for participating in this study.

Student participation in this study is completely voluntary and they may refuse to participate or leave the study at any time. If students/parents decide to not participate in the study or leave the study early, it will not result in any penalty. Students can skip any questions that they do not wish to answer on the pre/post-tests.

9. **Safety Monitoring**

Is there a Data Safety Monitoring Board (DSMB) □ Yes ■ No

* If YES, provide a brief description, to include the following: a) how often the DSMB meets, b) the material reviewed by the DSMB, c) how often summary reports are issued, and d) the procedures for transmitting DSMB summary reports to the IRB.

* If NO, provide a brief description of how the safety of subjects enrolled in of this project will be monitored and who will be responsible for defining when a protocol/consent modification is needed for the safety of subjects enrolled.

10. **Submission Requirements**

Submit a copy of the following electronically to the IRB ([irb@drake.edu](mailto:irb@drake.edu)). Please note that if you do not have an electronic signature, hard copies of the signature page will need to be sent via campus mail to the IRB:

□ Completed Application for Full Board Review

□ Protocol or study design

□ Informed consent document (See consent checklist to assure all elements of consent are included)

□ Assent document(s), if minors less than 18 years of age are involved

□ Parental consent document, if minors less than 19 years of age are involved

□ Genetic consent document (Primary Genetic, Secondary Genetic and/or Storage)

□ HIPAA Authorization if the project involves protected health information (PHI)

□ Questionnaires/surveys

□ Interview questions

□ Diary cards

□ Other (explain): Rating Scales-Social Skills Improvement System
Submit one copy (electronically and/or hard copy) of each of the following, as applicable:

☐ Investigator’s brochure or device manual (for pharmaceutical agents or devices)
☐ Signed 1572 form or Investigator Agreement (for pharmaceutical agents or devices)
☐ Advertising materials, if any
☐ If the research project being submitted has been previously reviewed by a local IRB other than the Drake IRB, a copy of the approval or disapproval letter from that IRB
☐ Any other documents that will be given to research subjects

11. Principal Investigator’s Assurance

The following signature certifies that the principal investigator (PI) understands and accepts the following obligations to protect the rights of research subjects. It is the PI’s responsibility to:

a. Ensure that the submitted protocol provides a complete description of the proposed research (contains adequate information regarding subjects’ rights and welfare and ensures that all applicable laws and regulations will be followed).

b. Ensure that the consent/assent documents meet all requirements set forth by applicable federal regulations (DHHS, FDA) and Drake University IRB policies.

c. Educate all involved project personnel as to the research responsibilities associated with the project and the process of informed consent/assent in accordance with all applicable federal and Drake University guidelines.

d. Ensure that, throughout the course of the study, all research personnel involved in the project conform to the applicable federal regulations and Drake University IRB policies when conducting the research.

e. Ensure that all valid informed consent/assent documents are obtained from the subjects prior to the subjects’ involvement in the study.

f. Ensure that only personnel identified as investigators in the IRB-approved protocol obtain informed consent from the potential subjects.

g. Secure all research-related records on file and acknowledge that the IRB may review these records at any time.

h. Promptly inform the IRB (and any other applicable agency) of any adverse events associated with the research project as soon as the adverse event is made known.

i. Promptly report any proposed changes to the research project (e.g., amendments, modifications, updates) to the IRB. Changes will not be initiated until such changes have been reviewed and approved by the IRB, except to eliminate immediate hazards to subjects.

j. Inform the IRB immediately of any information that may negatively influence the risk/benefit ratio of subjects enrolled in the study.
k. One month before the approval period expires, submit either a termination or continuation form to the IRB.

I understand that failure to comply with applicable federal regulations and Drake University IRB policies and procedures could result in suspension or termination of the research project.

__________________________________________  __________________________
Signature of Principal Investigator               Date

12. All Other Study Personnel

________________________                         IRB Trained?  Yes  No
________________________                         □  Yes  □  No
________________________                         □  Yes  □  No
________________________                         □  Yes  □  No
________________________                         □  Yes  □  No
________________________                         □  Yes  □  No
________________________                         □  Yes  □  No
________________________                         □  Yes  □  No
________________________                         □  Yes  □  No
________________________                         □  Yes  □  No
________________________                         □  Yes  □  No
Parents,

Social Skills instruction is an important component of your child’s school programming. Over the last year your child’s teacher has been participating in staff development training sessions on ways to improve their ability to identify social skill needs for our students. In addition, they have been learning new ways to target their social skills instruction to better support each student on their caseload.

Attached you will find an Informed Consent/Assent document that explains a research opportunity for our school district. Given your child’s age, your permission is also needed for them to participate in this study. The researcher, Angela Calhoun, Director of Special Education for the West Des Moines schools will meet with the Social Skills classrooms to explain the project to your child once your consent has been received. They will also be asked to give their consent. The attached document explains all the procedures.

The information gathered from this study will help myself and our Social Skills teachers learn how we can better design instruction for students with social skills needs. It will help to inform our daily practice and could potentially change how we design our social skills courses. It could also provide the district and the Social Skills teachers with a new tool to help determine student’s social skills needs.

Please feel free to ask any questions you might have. I can be reached at calhouna@wdmcs.org or 515-633-5072.

Thank you,

Angela Calhoun
West Des Moines Director of Special Education
Appendix C

Informed Consent/Assent Documents

INFORMED CONSENT/ASSENT DOCUMENT

Title of Study: Targeted Social Skills Instruction

Investigators: The study is being conducted by Angela Calhoun, doctoral student in the Education Program at Drake University. This study will be completed under the guidance of Dr. Michael Couvillon, Assistant Professor of Programs in Special Education at Drake University.

This is a research study. Please take your time in deciding if you would like to participate. Please feel free to ask questions at any time.

INTRODUCTION

The purpose of this study is to learn more about the social skills needs you have in your school environment. The information will help guide your Social Skills teacher(s) in better targeting their instruction to help support you in school and as you work towards graduation and life after school. You are being invited to participate in this study because you are part of a Social Skills classroom.

DESCRIPTION OF PROCEDURES

If you agree to participate, you will be asked to

1. Complete a written 15-20 minute pre-test in which you will identify answers to questions about how you interact with your teachers and other classmates at school. An example of some of the questions would be “I ask for information when I need it,” “I pay attention when others present their ideas,” and “I try to forgive others when they say sorry”.

2. Participate in daily social skills instruction with your teacher and other classmates. (All students will participate in social skills instruction as it is part of your daily school schedule. However, your pre/post-test information will only be included in the study if you choose to participate by signing this form.)

3. Complete a written 15-20 minute post-test in which you will identify answers to questions about how you interact with your teachers and other classmates at school. An example of some of the questions would be “I ask for information when I need it,” “I pay attention when others present their ideas,” and “I try to forgive others when they say sorry”.

You will see Angela Calhoun, the individual responsible for collecting the survey information, at least twice throughout the research project. However, she may attend other social skills instructional times as well.
Your participation will last for six weeks which includes taking the pre-test, participating in social skills class and then taking the post-test.

**RISKS**

You will not be asked to tell any confidential information about yourself during this study. Each survey will have a number at the top. Only your social skills teacher and the researcher will know which number is yours. While completing the pre and post test, you can tell the researcher that you feel uncomfortable, do not care to answer a certain question or that you wish to stop answering the questions. All records of the tests will be destroyed in May 2012.

**BENEFITS**

The benefit to participating in this study is that it can inform your teachers on how to best support your social skills needs. Your participation could provide your teacher with another tool to help target your social skills needs.

**ALTERNATIVES TO PARTICIPATION**

You may choose to not participate in this research study and that decision will not result in any penalty. If you choose not to participate your Social Skills teacher will have other methods available to him/her in order to target your skills instruction.

**COSTS AND COMPENSATION**

You will not have any costs from participating in this study. You will not receive any pay, rewards or extra privileges for participating in this study.

**PARTICIPANT RIGHTS**

Your participation in this study is completely voluntary and you may refuse to participate or leave the study at any time. Refusal to participate means that your data will not be included in the study. You will still need to participate in social skills instruction as it is part of your daily schedule. If you decide to not participate in the study or leave the study early, it will not result in any penalty. You can skip any questions that you do not wish to answer on the pre/post-test.

**CONFIDENTIALITY**

For confidentiality all surveys will have a number at the top so that your name is not on the forms. Only the Social Skills teacher and the researcher will know which survey is yours. Your identity will not be included in any reports in which the study may be published.
Organizations that may inspect and/or copy your research records for quality assurance and data analysis includes the researcher, the study sponsor, the Drake Institutional Review Board or its designees and the National Institute of Health (NIH) Office of Extramural Research.

To ensure confidentiality to the extent permitted by law, the following measures will be taken:
1. The researcher will place a number on each survey instead of the student name.
2. The student’s name and matching number will be kept with the researcher’s material in a locked filing cabinet within her home. The Social Skills teacher will know each student’s number in order to align the targeted social skills instruction.
3. All data collected from the surveys will be kept in a locked filing cabinet within the researcher’s home.
4. All data analysis will be kept on a thumb drive that will be stored in a locked filing cabinet within the researcher’s home.
5. All data sets will be kept until May 2012 at which time the data will be destroyed.

If the results are published, your identity will remain confidential.

QUESTIONS OR PROBLEMS
You are encouraged to ask questions at any time during this study.

- For further information about the study contact Angela Calhoun at 633-5072. Questions can also be referred to Dr. Michael Couvillon, Assistant Professor of Special Education Programming at Drake University at 271-4690.
- If you have any questions about the rights of research subjects or to discuss questions or concerns about a research study, please contact the IRB Administrator, (515)271-3472 or irb@drake.edu

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PARTICIPANT SIGNATURE
Your signature indicates that you voluntarily agree to participate in this study, that the study has been explained to you, that you have been given the time to read the document, and that your questions have been satisfactorily answered. You will receive a copy of the written informed consent prior to your participation in the study.

Participant’s Name (printed) __________________________________________

(Participant’s Signature) ___________________________ (Date) 

(Signature of Parent/Guardian or Legally Authorized Representative) ________________________ (Date)
Appendix D
Sample Lesson Plan

**Objective:** Students will be able to: Identify ways in which emotions arise and are sustained. Describe positive and negative effects of emotions. Recognize emotions in themselves.

**Present new skill:** Emotions are one of the primary indicators of what matters to us and of how we experience life. Today we will learn about the “Emotional Me”. You are going to take a quiz not for a grade but to see what you know about emotions. (Give quiz 2.2.1 and discuss results).

**Instructional Sequence:**

**Model (I do)-** Show photo of an emotion. Model the emotion and tell “What physical sensations do you get when you feel ________? What behaviors tell you that you are feeling ________?

**Lead (We do)-** Continue the modeling section with other emotions but having the students participate. (Angry, Sad, Afraid, Surprised, Happy, Disgusted, Contempt). Discuss families of emotions with Handout 2.2.2

**Test (You do)-** As the lesson progresses fade teacher guidance as the students take the lead on the discussion and modeling. Have students identify a situation in which they felt the emotion, the intensity of the emotion and how they knew they were feeling that particular emotion. Use those situations to role-play the events. Teacher will provide feedback and guidance as necessary.

**Generalization-** Throughout the next few days the teacher will ask students to check their emotions and record on chart. The teacher will also lead students through an emotions check at random points throughout the day.
