5-2017

Social Skills Training for Elementary Students with Behavioral Challenges: A review of the Literature

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Social Skills Training for Elementary Students with Behavioral Challenges:
A Review of the Literature

by

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A Starred Paper

Submitted to the Graduate Faculty of

St. Cloud State University

in Partial Fulfillment of the Requirements

for the Degree

Master of Science in

Special Education

May, 2017

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Chapter 1: Introduction

Children with significant behavioral and social skills deficits are at risk for academic

failure and for identification as a special education student with emotional and/or behavioral

disorders (EBD) (Newcomb, Bukowski, & Pattee, 1993; Walker, Ramsey, & Gresham, 2004).

According to Deshler, Ellis, and Lenz (1996), students with poor social skills have limited

opportunities to learn, which negatively affects their self-concept. Children with deficiencies in

social skills are at greater risk for juvenile delinquency and adult psychopathology than socially

competent children (Moffitt, Caspi, Harrington, & Milne, 2002; Newcomb et al., 1993;

Patterson, Reid, & Dishion, 1992).

Given these poor outcomes, the teaching of social skills should be an integral part of

programs for students who experience behavioral challenges (Johns, Crowley, & Guetzloe,

2005). A number of research syntheses and meta-analyses have been published on this topic, but

the results are still not consistent. The purpose of this starred paper was to review the literature

that examines the effectiveness of social skills training for elementary students having behavioral

issues.   In Chapter 1, I summarize briefly the findings of previous meta-analyses on social skills

training, then in Chapter 2, I review recent literature that was not included in these meta-

analyses, and lastly in Chapter 3, I discuss these research findings, future recommendations, and

implications.

Social Skills Training

Cook et al. (2008) defined social skills as "Specific behaviors that an individual exhibit to

perform competently on a social task" (p.132). These skills include all individual's behaviors in

a social setting such as active listening skills, reciprocal communication, and ignoring. Mathur

and Rutherford (1996) described a socially skilled person as one who "is capable of managing

his or her social environment by understanding and responding to social situations effectively"

(p. 21). Gresham, Cook, Crews, and Kern (2004) described that social skills have three domains:

social interaction, prosocial behavior, and social-cognitive skills.

Social skills training (SST) has been the focus of research for several decades. From the

late 1970s and early 1980s, numerous research articles studied the social skills training with

students identified with EBD (Maag, 2006). Rutherford, Quinn, and Mathur (1996) identified

five components of social skills training: (a) selecting or prioritizing critical social skills that

need to be improved; (b) demonstrating, explaining, or modeling these skills; (c) having the child

practice these skills while being coached; (d) providing feedback and reinforcement during

practice; and (e) identifying a variety of social situations in which the skill might be useful.

More simply, social skills training uses direct instruction to teach specific skills through

modeling, role playing, corrective feedback, and practice (Walker et al., 2004). In addition to

teaching specific skills, Gresham, Sugai, and Horner (2001) also indicated the need to remove

competing behaviors and facilitate generalization and maintenance. Cook et al. (2008) described

that most SST programs commonly emphasize the increase of acquisition, performance,

generalization, and/or maintenance of prosocial behaviors and the decrease of antisocial

behaviors.

Meta-analyses

Social skills training is a popular intervention for students with high-incidence

disabilities. Several meta-analyses have been conducted to measure the efficacy of social skills

interventions, and the findings of three meta-analyses are summarized are presented in Table 1.

Table 1

Summary of SST Meta-Analysis Research

META-ANALYSIS	NUMBER OF STUDIES	RESEARCH FINDINGS
Quinn, Kavale, Mathur, Rutherford, & Forness (1999)	35	The only significant impact of the intervention was in the area of anxiety, which produced a mean effect size of .422. All other areas produced small effect sizes. The authors suggested that the poor meta-analysis outcomes could indicate the failure to properly assess group-based interventions, and they recommended long-term study and formative evaluation.
Ang & Hughes (2002)	14	Ten of the studies used treatment and control groups. The overall mean effect size was .30, and 65% of the participants in the treatment group improved, compared to 35% of the control group participants.
Losel & Beelmann (2003)	17	The overall mean effect was .20, and 60% of participants in the treatment group improved, compared to 40% participants in the control group.

The meta-analysis literature conducted prior to 2003 shows mixed outcomes regarding SST efficacy for students identified as EBD (Gresham et al., 2001). In these studies, the authors made specific recommendations regarding future research on this topic. This starred paper explores the findings of social skills research conducted since the publication of these studies to determine if recommendations were implemented and if findings are more consistent.

Research Questions

Two research questions guide the development of this starred paper:

1. What types of social skills instructional models have been implemented with students having behavioral challenges?

2. How effective are social skills interventions implemented with students having behavioral challenges?

Focus of Paper

The quantitative and qualitative research studies reviewed in Chapter 2 were published in the United States between 2000 and 2015. Study participants included students in kindergarten through sixth grade who have behavioral issues. Academic Search Premier and EBSCO were used as the primary database to find relevant journal articles. In addition, PsychINFO were used to search articles.

I critically reviewed research papers, located under the following keywords: *emotional or/and behavioral disorder, social skills, social competence, social skills training, social skills intervention, social skills instruction, social behavior problems, antisocial behaviors,* and *meta-analysis.* Chapter 1 includes the background on the study of social skills, previous research, theoretical factors, and definitions germane to this topic. Chapter 2 reviews current research literature on implemented social skills instructional models and the effectiveness of SST. Chapter 3 discusses the conclusions, recommendations, and implications of research reviewed in Chapter 2.

Importance of the Topic

Deficits in social skills have a negative impact throughout a student's lifespan. Most students with social skill deficiencies require instructional and disciplinary accommodations for them to function in schools (Walker et al., 2004). To improve outcomes for students with behavioral challenges, instruction for improving social skills is necessary. Johns et al. (2005) stated that social skills should be taught in a direct manner just as academic skills are taught. Therefore, schools and teachers must play an important role in delivering evidence-based social skill instruction that will enhance students' social and emotional outcomes.

Improvement through the social skills training will contribute to overall student development. Students who successfully acquire social skills are generally less rejected or isolated by peers, achieve higher academic performance, and are more likely to graduate (Caprara, Barbaranelli, Pastorelli, Bandura, & Zimbardo, 2000; Chandler, Lubeck, & Fowler, 1992; Hinshaw, 1992). In spite of the importance of social competency, mixed results are reported in past research literature regarding the effectiveness of social skills interventions for students at- risk for behavioral disorders (Forness, 2005; Maag, 2005; Quinn, Kavale, Mathur, Rutherford, & Forness, 1999; Smith & Travis, 2001). For this paper, I reviewed more recent SST literature to determine if more conclusive findings are reported.

Definitions of Terms

Social competence. McFall (1982) stated that social competence is an evaluative term based on judgments that a person has performed a social task competently. This term represents judgments about those behaviors within and across situations over time.

Social validity. Schwartz and Baer (1991) defined "acceptability and viability of the goals, procedures, and outcomes of intervention" (p. 49).

Effect Size. Ang and Hughes (2002) explained, "the basis for meta-analysis is the effect size (ES), which is an estimate of the magnitude of the treatment effect adjusted for sample variability. An effect size is calculated as the difference in means between treatment and control subjects at posttreatment, divided by the standard deviation of the control group" (p. 166).

Chapter 2: Review of the Literature

The purpose of this literature review was to examine the effectiveness of social skills training for elementary students with behavioral challenges. In Chapter 1, the background information and recent meta-analysis studies on SST were introduced. This chapter is organized into two major sections: social skills instructional models, and the effectiveness of the social skills intervention. Ten studies are reviewed in chronological order, beginning with the oldest study.

Social Skills Instructional Models

Johns et al. (2005) stated that social skills should be taught in a direct manner, just as academic skills are taught. Walker et al. (2004) suggested direct instruction to teach specific skills through modeling, role-playing, corrective feedback, and practice. To deliver social skills in a direct manner, professionals in the field have continued to create and expand more effective and applicable intervention programs at school.

Kamp, Tankersley, and Ellis (2000) examined the effects of social skills interventions including peer tutoring and parent support for K-1 students. In this study, participants received two social interventions programs during two years. During the first year, social skills interventions were implemented for a 3- to 4-month period, and included two components: affection activities and social skills instructions. Affection activities were games and songs that incorporated affectionate peer interaction, and occurred 2 to 4 times per week. Social skills instruction consisted of The *Play Time/Social Time: Organizing Your Classroom to Build Interaction Skills* curriculum (Odom & McConnell, 1997), and occurred 1 to 3 times per week.

During the second year, modified social skills scripts were provided to participants. This program used various curricula, and contains prosocial skills lessons in seven areas: 1) playing, 2) giving instructions, 3) sharing, 4) giving and receiving help, 5) complimenting, 6) having conversations, and 7) problem-solving. Each lesson provided a definition of the skill, teacher's lesson in a large group for 10 to 15 minutes, and student practice in a small-group for 10 minutes. During a small-group setting, teachers were requested to provide visual feedback and praise statements to participants.

In addition to social skills interventions, Cohort 1 received peer tutoring interventions during the third year. The peer tutoring interventions consisted of a structure for sustained positive interaction with a peer and for practicing key academic behaviors. It was implemented 2 to 4 times per week. Also, over a 2-year period, families of the participants were provided parent support interventions, which consisted of seven 2-hour formal parent training sessions and four parent-child activity sessions. Parent-child activities were designed to promote positive parent-child interaction.

Lo, Loe, and Cartledge (2002) conducted combined small-group and teacher directed classroom-based social skills instruction for five third- and fourth-grade students at risk for emotional or behavioral disorders in an urban elementary school. Small-group social skills instruction was delivered separately to each group in a pullout session lasting 20 to 25 minutes 3 times a week. Instruction was based on the curriculum *Working Together: Building Children's Social Skills through Folk Literature* (Cartledge & Kleefeld, 1994), which was designed to enhance social skills development and reduce behavior problems for third- to sixth-grade

students. This curriculum consists of scripted lessons, skill posters, an audio of the stories, parent letters, and homework or activity sheets.

After small-group instruction, three teachers delivered classroom-based social skills instruction in their classrooms for 25 to 30 minutes per lesson 3 times a week. This teacher-directed and classroom-based instruction has the purpose of reinforcing students' learning as delivering the same instruction that had been previously taught in the small-group instruction. Participants were provided verbal praise and/or tickets upon occurrence of appropriate behaviors by classroom teachers. This small-group instruction was conducted through the end of the school year.

Lane et al. (2003) evaluated the effects of social skills instruction in a small-group setting for elementary students at risk for antisocial behaviors. This study implemented a combination of modeling and coaching instruction. This program incorporated delivering an explicit instruction of social skills, observing appropriate behaviors, practicing learned behaviors in a controlled setting, and receiving feedback on behaviors. Seven participants were divided into three small groups and received social skills instruction targeting student-specific acquisition deficits as measured by Social Skills Rating System (SSRS). In other words, students' acquisition deficits became the core content of each intervention program.

Based on SSRS results of each student, a comprehensive list of acquisition deficits was generated for each group instruction. Next, corresponding lessons were taken from *Social Skills Intervention Guide: Practical Strategies for Social Skills Training* (Elliott & Gresham, 1991). This program contains 43 social skills that fall under five social behavior domains:

1) cooperation, 2) assertion, 3) responsibility, 4) empathy, and 5) self-control. Each intervention group received explicit instructions which delivered in a role-play format, five stages: tell, show, do, follow through and practice, and generalization. The lessons lasted 30 minutes, twice a week, over a 10-week period.

Miller, Lane, and Wehby (2005) replicated the classroom-based social skills intervention program for seven elementary students whose acquisition deficits were identified by Social Skills Rating System-Teacher Version (SSRS-T). The list of acquisition deficits was used for targeting goals. Then, lesson plans in the social skills intervention program were designed to cover acquisition deficits. The lessons were taken from *Social Skills Intervention Guide: Practical Strategies for Social Skills* (Elliott & Gresham, 1991). It was implemented through five activities: 1) demonstrating, 2) modeling, 3) guiding by feedback, 4) practicing independently, and 5) generalizing.

According to this study, the intervention program was different from previous research in four instructional components. First, the instruction was based on the acquisition deficits of each student. Second, the instruction was delivered with coaching and modeling of desired social behaviors. Lastly, generalization was embedded in lesson plan which integrated a natural classroom environment. Participants were divided into two groups and received matched lessons for 30 minutes, 3 to 4 times a week, over 6-week period, resulting in 24 training sessions and 12 hours of training.

Gresham, Van, and Cook (2006) used classroom-based intervention to evaluate the effectiveness of social skills training. This study describes the difference from previous studies that homogeneous participants were identified by the type of social skills acquisition deficits.

The participants were provided intense social skills instruction which were determined as students' deficits by measuring SSRS. They received intense interventions for 90 minutes, twice a week, over 20-week period, resulting in total 60 hours. These instructions were taken from *Social Skills Intervention Guide: Practical Strategies for Social Skills* (Elliott & Gresham, 1991). The second author of this guidebook delivered the instructions to participants in a small-group class setting.

In this study, four basic instructional variables were provided in social skills training in a small group setting: 1) direct instruction, 2) rehearsal, 3) feedback/reinforcement, and 4) reductive procedures. Direct instruction involves verbal and visual instruction such as modeling and coaching. Rehearsal includes practice of acquired social skills, and then feedback/ reinforcement is designed for enhancement of behaviors. Reductive procedures are conceived for reducing impeditive behaviors. Additionally, the teachers and parents were provided explicit instructions regarding the use of differential reinforcement of other behaviors, monitoring students' progress, discussing treatment integrity data, and suggesting modifications in the interventions.

Daunic, Smith, Brank, & Penfield (2006) attempted classroom-based cognitive-behavioral intervention (CBI) to prevent behavioral issues for elementary students. Cognitive-behavioral intervention has known for effective strategies to reduce antisocial behaviors, which incorporates how to identify socially acceptable behaviors, to develop requisite social skills for problem-solving, and to implement the behaviors through cognitive strategies such as self-talk. Based on cognitive-behavioral intervention, this study developed the social skills problem-solving curriculum, *Tools for Getting Along (TFGA): Teaching Students to Problem Solve.* This

curriculum is designed for increase of problem-solving skills by decision-making process. The TFGA incorporated six steps for problem-solving: 1) recognizing the problem, 2) calming down and thinking, 3) defining the problem, 4) generating solution, 5) selecting strategies, and 6) evaluating the outcome. In addition to 15 problem-solving lessons, this program incorporated five role-play lessons for opportunities to practice acquired skills. Six booster lessons were also developed for repeating behavioral practice.

Hawken, MacLeod, and Rawlings (2007) examined the effects of a targeted intervention in a reduction of problem behaviors, as implementing The Check-in-Check Out (CICO) program. Participants individually checked in with a school staff in the morning during CICO phase and were provided daily report cards which included name, date, schedule, school rule, and earned points. The CICO report cards were carried all day and teachers provided feedback about their behaviors 5 times a day. Participants received points indicating their performance based on a scale from one to three. Hawken, O'Neill, and Macleod (2011) replicated the effects of the CICO program, also called Behavior Education Program (BEP). To evaluate the BEP, 17 participants checked in with paraprofessionals every morning, and they were prompted to identify daily goals. A Daily Progress Report (DPR) was carried for feedback and encouragement of success.

Chency, Stage, Hawken, Mielenz, & Waugh (2009) conducted the Check, Connect, and Expect (CCE), a combination of the Check & Connect (C&C) program and the BEP. The C&C intervention was consisted of daily monitoring and forming positive relationships, and it has demonstrated the positive effects on middle and high school students. The BEP is designed as Tier 2 a targeted intervention. The primary features of CCE intervention came from C&C and

BEP, which included daily check in and out, DPRs from mentors, feedback provided by teachers and/or mentors, and weekly reviewing DPRs with mentors.

In this program, the mentors played an important role. The students daily checked in and out with adult mentors. During the day, the students received behavioral feedback from teachers. At check-out, students and mentors reviewed teachers' feedback on DPRs. The mentors reinforced students when they met their daily goals. If the students did not meet their goals, the mentors delivered problem-solving sessions to the students. The mentors weekly charted and reviewed DPR data with students to reinforce weekly goals.

Ross and Sabey (2015) suggested an approach of blending social skills training and Check in-Check Out system (CICO+SS). The CICO was implemented as the first intervention and the second intervention focused on social skills training, consisting of a short 5-minute lesson and 10-minute practice each day. During the 5-minute lesson, interventionists individually instructed social skills with the greatest deficiency identified by the SSRS. In this lesson, interventionists provided at least three examples and non-examples of each behavior. After practicing together, students practiced independently until they mastered the skill in a controlled setting. Next, during 10-minute practice, students were provided opportunities to practice the acquired skills along with peers and/or adults throughout the school. This activity was mostly implemented at the place where the targeted skill was needed such as recess playground or cafeteria. Lastly, participants practiced the application of the new skills during the rest of the day, after that, students reported their success to the interventionist for additional points when they checked out.

The Effectiveness of the Social Skills
  Intervention

Kamp et al. (2000) examined the effectiveness of social skills interventions for K-1 students who manifested behavioral problems and were deemed to be at risk for more serious behavioral issues. In this 2-year follow-up study conducted in a Head Start program, 22 females and 27 males between the ages of 4 and 7 were randomly assigned to experimental or comparison groups. The experimental group consisted of 12 females and 18 males, and the comparison group consisted of nine females and nine males.

The treatment group consisted of Cohort 1 and Cohort 2, and they received social skills interventions over a 2-year period. Cohort 1 began receiving social skills interventions at the first year. Cohort 2 began to be provided the intervention at the beginning of the second year, while Cohort 1 continued with interventions as they had the first year. Interventions were evaluated at the end of the third year. Three measures were used to assess program effectiveness: 1) direct observation of students' classroom behaviors, 2) teacher ratings of students' behaviors and classroom performance, and 3) direct observation of peer interactions using a computerized assessment system.

Data were analyzed using a MANCOVA with repeated measures, which indicated a significant interaction for time by group. In other words, over time the experimental groups demonstrated more gains in compliance behaviors and significant reductions in the rate of aggressions, grabbing, out of seat, and negative verbal statements, compared to the control group. Also, this study notes that no significant difference between two experimental groups, inconsistent and acceptable treatment groups.

The mean of aggressive behaviors in experimental groups were .043 and .067 at pre-treatment, but decreased to .0007 and .003 at final check-up. In comparison group, aggressive behaviors increased from .042 to .086. Out-of-seat behaviors in experimental groups ranged from .047 to .072 at baseline, but presented the lowest rates, ranged .021 and .008, at final report. These behaviors increased from .029 to .088 in comparison group. Negative verbal statements in treatment groups decreased from a range of .042 and .058, to a range of .004 and .009, while comparison group presented an increase over time, from .034 to .111.

The results from the implementation of 2-year follow-up were generally positive with improvement of the rate of aggression, out-of-seat behaviors, negative verbal statements, and compliance behaviors. Peer interaction data also reflected significant differences between experimental and control groups, although the differences did not improve over time. However, teacher ratings indicated no significant differences between the experimental and comparison groups over time. The authors speculated that this may have been due to the rating scale that did not allow precise measurement of behavioral occurrences.

Lo et al. (2002) examined the effects of combined small-group and teacher directed social skills instruction. Five African-American students identified as *target* students who were at risk for Emotional and Behavioral Disorders (EBD) by teachers' nominations, below the 25th percentile of social skills measured by SSRS-T, as well as five students identified as competent peers. Three groups were formed: Group 1 included two target students, one student with EBD, and two competent peers; Group 2 included one target student, one student with EBD, and two competent peers; and Group 3 included one target student, two students with EBD, and one

competent peer. The target groups included all males, but the other two groups were equally represented by gender.

Trained observers used a sixteen-interval recording system to record prosocial behavior (PS) and antisocial behavior (AS) in the students' classrooms and lunchroom. Each interval, students were observed for 10 seconds and recorded immediately. Antisocial behavior included a range of behaviors such as noncompliance, physical or verbal aggression, and other "social rule violations" (Lo et al., 2002, p. 375). The number of antisocial behaviors served as the dependent variable for the five target students in the study over the 15-week duration. A multiple baseline across-subjects design was used to evaluate outcomes in the three conditions: baseline, small-group instruction, and small-group plus classroom instruction.

The results indicated that combined small-group and classroom-based social skills instruction was moderately effective on reducing the antisocial behaviors of students at risk for EBD. The mean scores of combined small-group and classroom based social skills instruction reflected a substantial increase in antisocial behaviors in both classroom and lunchroom settings at end of the study. All participants exhibited a mean decrease in antisocial behavior over baseline, ranging from 1.45 to 5.05 mean decrease in the classroom and 0.99 to 3.65 mean decreases in the lunchroom.

However, all target students did not exhibit a clear decreasing trend of antisocial behaviors over combined small-group and classroom instruction. For example, in the classroom setting, one target student presented an increase of antisocial behaviors from baseline to small-group instruction, but a decrease of AS from baseline to combined small-group and classroom instruction. Additionally, in the lunchroom setting, two target students exhibited a significant

decrease of AS from baseline to small-group instruction, but an increase of AS from small-group instruction to combined instruction.

Lane et al. (2003) examined the effects of social skills instruction in a small-group setting for elementary students who were identified as nonresponsive students after a 4-month schoolwide primary intervention program. Seven participants were consisted of two African American and five Hispanic students, and were identified as nonresponsive students by measuring SSRS.

Trained doctoral students delivered social skills instruction and scored academic engaged time (AET), total disruptive behavior (TDB) in a classroom, and negative social interaction (NSI) on the playground. Academic engaged time (AET) refers to "the amount of time the student participant spends actively engaged in instructional activities" (Lane et al., 2003, p. 237). This includes all activities related to academic learning such as listening to teacher, seeking assistance, and participating in discussion. Negative social interaction (NSI) refers to "behavior that impedes ongoing play activities and includes any incidence of aggression, physical or verbal" (Lane et al., 2003, p. 237). The definition of AET and NSI are adapted from the Systematic Screening for Behavior Disorders (Walker & Severson, 1992). Total disruptive behavior (TDB) refers to "behavior that disturbs the classroom environment and interferes with instructional activities" (Lane et al., 2003, p. 237). This includes noncompliance with teacher, conspicuous behaviors without permission, and making noise.

A multiple-baseline across-intervention-groups design was used to evaluate outcomes in the five conditions: 1) baseline, 2) intervention, 3) post-intervention, 4) follow-up I, and

5) follow-up II. The overall results indicated that social skills instruction in a small-group was effective on reducing total disruptive behaviors and negative social interaction of students while increasing AET. All students presented significant decreases of total disruptive behaviors in a classroom between baseline and intervention phrases, ranging effect sizes from -5.87 to -0.38. However, maintenance patterns at follow-up I and II were varied, fluctuated, and not consistent. In negative social interaction, six students exhibited decreased means rates which mostly lasted until maintenance phases. Six students presented increases in AET between baseline and intervention phrases. Except for one participant, effect sizes ranged from 0.46 to 3.79, indicating strong increases in academic engagement.

Miller et al. (2005) conducted classroom-based social skills intervention program for seven elementary students with high-incidence disabilities. Seven participants, five males and two females, were identified as having significant behavioral difficulties. They had an experience of receiving services in a self-contained classroom because of behavioral issues. Students were divided into two group for intervention in small-group setting. Group I included four students while there were three students in Group II. Once acquisition deficits of each participant were identified by SSRS-T, the lessons were planned, addressing their deficient skills. Trained student teacher delivered social skills instruction for 30 minutes, 3 to 4 times a week, over 6-week period. Every fifth lessons, a review lesson was conducted to promote maintenance of the newly acquired skills.

A multiple-baseline design was used to evaluate outcomes in the three conditions: 1) baseline, 2) intervention, 3) post-intervention. Inappropriate Classroom Behavior (ICB), Academic Engaged Time, and Behavioral Points (BP) were collected for this study. ICB

referred to negative verbalizations and aggressive physical acts, not related to instruction. BP referred to daily points from an existing token economy system of student performance. This BP included four goal areas: 1) body control, 2) treating other people with kindness, 3) following directions, and 4) addressing individually targeted goal.

The overall results revealed that classroom-based social skills instruction was effective on reducing inappropriate classroom behaviors and increasing academic engaged time, but showed mixed outcomes. In ICB, Group 1 and Group 2 had negative effect size, -1.65 and -0.87, indicating a decrease in the magnitude of ICB. While group data obviously showed the improvement of ICB, the individual data did not demonstrate a strong decreasing trend. The mean of two participants' ICB increased from 0.67 to 2.17 and from 0.83 to 1.50, respectively between baseline and intervention. Three participants showed increased mean scores of ICB at post-intervention phase compared to initial baseline data.

In AET, group data demonstrated a significant increase between baseline and intervention. Group 1's mean score increased from baseline (M=84.75; SD=5.17) to intervention (M=94.64; SD=2.74). Group 2's mean score increased from baseline (M=86.99; SD=6.70) to intervention (M=92.92; SD=2.52). However, the improvements were not sustained to the postintervention phase. Group 1's mean score at post-intervention phase (M=91.35) were below intervention phase (M=94.64), Group 2's mean score at post-intervention phase (M=83.67) were below even baseline data (M=86.99). The effect size of two groups were 2.50 and 1.29 in academic engaged time.

Behavioral point data showed more mixed and fluctuated outcomes. Only three participants earned higher behavioral points during the intervention phases than those at baseline.

Group 1's mean of BP scores decreased from 93.00 at baseline, to 91.65 at intervention and to 86.42 at post-intervention with a high degree of variability (SD = 5.67). In contrast, Group 2 exhibited increased mean BP scores from 79.62 at baseline to 80.48 at intervention and 82.43 at post-intervention with a high degree of variability (SD= 9.74).

Gresham et al. (2006) delivered classroom-based intervention to evaluate the effectiveness of social skills training. To identify participants, general classroom teachers nominated students based on exhibition of problem behaviors. Teachers completed Critical Events Index (CEI) and SSRS (Walker & Severson, 1992) for nominated students. By two standardized measurement, four students with homogeneous deficits in their social skills were determined.

ABAB design was used for each participant to evaluate outcomes, and data were collected for five sessions: two baselines, two treatment conditions, and follow-up phase. In this study, in addition to norm-referenced rating scales such as SSRS-T and CEI, direct observation was used for assessing Total Disruptive Behavior (TDB), Alone Time (AT), and Negative Social Interaction (NSI). Alone Time was assessed on the playground and referred as "the target student not being within 5 feet of another student, being neither socially involved nor socially engaged, and not participating in game or structured activity with other students" (Gresham et al., 2006, p. 367). TDB refers as behaviors disturbing the classroom learning environment and NSI refers as behaviors impeding ongoing play activities.

In this study, the estimations of each effect size were computed using the Percentage of Nonoverlapping Data points (PND) (Mastropieri & Scruggs, 1985-86). If target behavior is expected to be decreased, the PND is calculated with numbers of treatment data points which are

lower than the baseline data points. The mean of PND for four participants was 76.23%, ranging from 46.15% to 100%, across the TDB, NSI, and AT. Total Social Skills measured by SSRS-T showed a significant increase from a pretest mean of 78.25 to a posttest mean of 101.25, approximately moving from 7th to 50th percentile. Total Problem Behaviors conspicuously decreased from a pretest mean of 124 to a posttest mean of 102.75, moving from 95th to 58th percentile. However, Academic Competence rating on the SSRS-T did not show significantly improved data.

Daunic et al. (2006) attempted classroom-based cognitive-behavioral intervention (CBI) to 165 fourth- and fifth-grade students at risk for behavior problems. The intervention was implemented in a classroom setting alongside typical peers, lasting 20 minutes at a rate of 2 per week. The 165 target students were assigned into three groups such as receiving 20-lesson, receiving 20-lesson plus 20-booster lesson, and control groups. Three groups were assessed three times: 1) prior to fall treatment, 2) after completing the core 20 lessons, 3) at the end of the academic year after completing 20 more booster lessons. This study used hierarchical linear modeling (HLM) for determining the effectiveness of cognitive-behavioral intervention.

The general finding from this study revealed that a cognitive-behavioral curricular intervention was effective to improve students' Knowledge in problem-solving, Reactive Aggression (RA), and Proactive Aggression (PA). The means of Knowledge after core lessons significantly increased from 6.21 to 13.07 in 20-lessons group, while the control group remained without significant changes. The RA mean was 11.65 at pre-treatment, but decreased to 9.43 at post-treatment. The means in PA also decreased from 9.17 to 6.70 after 20-lessons treatment. The results revealed the interventions were significantly effective in RA (t=-3.441, df=26,

p=0.002), and in PA (*t*=-3.490, *df*=26, *p*=0.002). The means of the control group remained

without significant variation in PA and RA.

Although target students improved their knowledge in problem solving and significantly

decreased RA and PA mean scores after treatments, not all of subscales improved after

implementing interventions. In the areas of External, Self-control, and Anger out/suppression/

control subscales, the outcome indicated no or little variation between pre- and post-treatment.

In addition, this study investigated the effectiveness of the addition of booster lessons with HLM

models, by using third assessed data as the outcome variable and the second assessed data as the

covariate. The results revealed the booster lessons were not significantly more effective in RA,

PA, and Knowledge (*t*=-0.036, *df*=23, *p*=0.972).

Hawken et al. (2007) implemented the Check-in-Check Out (CICO) program, also called

Behavior Education Program (BEP), for a 10-week period. Twelve students were selected by

teachers' nomination, behavior education plan, and number of office discipline referrals (ODRs).

After intervention, nine out of 12 students were observed significantly reduced ODRs per month.

(*t*(11)=1.803, *p*<.05, one-tailed). According to the result of the Behavior Education Plan

Acceptability Questionnaire (Hawken & Horner, 2003), participants improved in behaviors and

academic performance, in addition, this intervention was worth the time and effort and the

implementation is easy at school.

Chency et al. (2009) attempted a 2-year study of the effects of Check, Connect, and

Expect (CCE) program. The 207 participants from first through to third grades were identified

by using the *Systematic Screening for Behavior Disorders* (Walker &Severson, 1992).

Randomly assigned 121 participants received the CCE interventions for 2 years, while 86

participants were in comparison group. After 2-year interventions, 73 out of 121 students successfully graduated from CCE program, but 48 students did not. This study analyzed problem behaviors, social skills, and academic competence in three groups: CCE graduate, CCE non-graduate, comparison.

Compared with the comparison and non-graduate groups, the graduate group significantly improved at the end of the intervention in their problem behaviors and social competence. The graduate group significantly decreased their problem behaviors from 47% to 16%. Non-graduate and comparison groups showed 72% and 60% at pre-intervention and 79% and 52% at post-intervention, resulting in a little or no decrease. In Social Skills by measured the SSRS, the graduate group's results showed statistically significant difference between pre-intervention (M=86.2; SD=12) and post-intervention. (M=93.6; SD=12.9). Non-graduate and comparison groups did not demonstrate any significant increase between pre- and post-intervention.

Hawken et al. (2011) investigated the impact of function of problem behavior on effectiveness of the CICO intervention. The 17 students including 11 males and 6 females were nominated by instructional staffs at two schools. A pretest-posttest quasi-experimental design was used to examine the effects of the BEP on ODRs. After interventions, five of the seven students at School I and eight of the 10 students at School II showed reductions in ODRs. The results showed statistically significant reduced ODRs between pretest and posttest ($t_{(16)}$=1.992, p<.05, one-tailed).

Ross and Sabey (2015) examined the effectiveness of blending social skills training and Check in-Check Out system (CICO+SS). General education teachers and principals nominated

students who were non-responsive to Tier 1, Positive Behavioral Interventions and Supports (PBIS), and were receiving TIER 2, CICO program. Five participants were identified as below the 15th percentile in overall social skills by SSRS. When participants were considered as no increase in positive social engagement or decrease in negative social engagement at basic CICO, the CICO+SS was initiated. During CICO+SS, Interventionists instructed targeted social skills based on their acquisition deficits, identified by SSRS.

A multiple-baseline across students design was used to assess outcomes for four phases: 1) baseline, 2) basic CICO, 3) CICO+SS, and 4) maintenance. To evaluate the effects of the CICO+SS intervention, the data on Positive social engagement and Negative social engagement were collected during lunch recess through direct observation. Positive social engagement referred to "appropriate play or positive communication with peers ranging from neutral to complimentary" (Ross & Sabey, 2015, p. 249). Negative social engagement was defined as "inappropriate play or negative communication with peers" (Ross & Sabey, 2015, p. 249). This included physical behaviors and verbal behaviors which involved with negative feeling. Independent play without peers was reported as neither positive nor negative engagement.

The general results indicated that the implementation of CICO+SS was effective in increasing positive social engagement and decreasing negative social engagement. In baseline, five target students were positively engaged with 42.75% and negatively engaged during 18.80% of intervals overall. Composite peers showed 85% in positive interaction and 0.75% in negative interaction. After basic CICO implementation, one target student responded very positively to the basic CICO intervention, ranging from 60% to 95% of positive interaction. The other four

students showed 38.71% in positive social engagement and 21.64% in negative social engagement.

Except one student who succeeded in the basic CICO intervention, the four non-responsive participants were moved to CICO+SS interventions and observed significant variation. The mean of positive social engagement increased to 70.51% and the mean of negative social engagement decreased to 7.54%. Once all target students demonstrated the improvement, they were moved into the maintenance phase. The mean of five students remained relatively stable, showing 73.83% in positive social engagement and 6.62% in negative social engagement.

Summary

The findings of social skills training studies published between 2000 and 2015 results in modest to moderate effect sizes, presenting generally positive outcomes. Most participants who received the SST treatment decreased negative social behaviors and improved positive social skills. Despite generally positive outcomes of social skills interventions, the individual studies and data presented many limitations and inconsistent outcomes. In this study, 10 studies were located to evaluate the effectiveness of social skills training. Table 2 summarizes the finding of these studies, which are presented in the same chronological order as in the chapter. Conclusions and recommendations are discussed in Chapter 3.

Table 2

Summary of Chapter 2 Studies

AUTHORS	STUDY DESIGN	PARTICIPANTS	PROCEDURE	FINDINGS
Kamp, Tankersley, & Ellis (2000)	Experimental Design	22 females and 27 males between the ages of 4 and 7; 31 in the experimental group and 18 in the comparison group	49 participants were randomly assigned to either the experimental group or comparison group and participated in social skills intervention for 2 years.	The group treated with social skills intervention over the 2-year follow-up period generally showed positive and improvement noted for several behaviors.
Lo, Loe, & Cartledge (2002)	A multiple-baseline across-subjects design	Four boys and one girl aged 9 to 10 years, who were identified as at risk for E/BD by teachers' nomination and rating on SSRS-T	Five target students received small-group and classroom-based social skills instruction along with E/BD and competent peers for 15 weeks. Observations were conducted in both classrooms and lunchroom.	The results of the study indicated moderate reductions in antisocial behaviors, ranging from 1.45 to 5.05 mean decrease in the classroom and 0.99 to 3.64 mean decrease in the lunchroom.
Lane et al. (2003)	A multiple-baseline across-intervention-groups design	Seven participants including 5 males and 2 females, who were identified by their teachers as at risk for antisocial behavior according to SRSS	Participants received social skills instruction in a small-group setting, and were provided in 30-minute sessions, two times a week, and over 10 weeks.	After interventions, five participants decreased total disruptive behaviors and negative social interactions, and accompanied by increases in academic engaged time.
Miller, Lane, & Wehby (2005)	A multiple-baseline across two groups of students	5 males and 2 females with high-incidence disabilities and significant behavioral difficulties, ages 6 to 10.	Students participated in 12 hours of social skills training. Outcome measures included direct observation of inappropriate classroom behavior and academic engaged time.	After interventions, inappropriate classroom behaviors were decreased and academic engaged time was increased for majority of the participants. However, the changes were not evident and the result was mixed.
Daunic et al. (2006)	Experimental Design	165 4th and 5th graders at risk for behavior problems	Participants were randomly divided three groups: treatment, boosters, and control. Students participated in the TFGA curriculum in 15 lessons for 5-8 weeks.	The results revealed significant positive treatment effects on knowledge of problem-solving concepts and teacher rating of aggression. The outcomes differed across teachers or classroom, but teacher ratings of social validity were generally positive.

Table 2 (continued)

AUTHORS	STUDY DESIGN	PARTICIPANTS	PROCEDURE	FINDINGS
Gresham, Van, & Cook (2006)	ABAB design	Four students identified being at risk for developing emotional and behavioral disorders ages 6-8	Participants received 60 hours of intense social skills training and classroom-based interventions using the techniques found in the SSIG over 20 weeks, 3 hours a week.	After intervention, participants showed overall decreases n Alone Time. For Total Problem Behaviors, the students moved from a pretest mean of 124 to a posttest mean of 102.75. Two months after terminating of SST, these effects maintained similarly.
Hawken, MacLeod, & Rawlings (2007)	Multiple-baseline design across groups of students	10 males and 2 females who were nominated by instructional staff to receive additional behavior support	12 participants were placed into one of four groups to receive the Behavior Education Program (BEP). Each group separately received daily intervention and the time of implementation was designed differently for each group.	After intervention, a total number of office discipline referrals (ODRs) was significantly decreased. The social validity measured by BEP Acceptability Questionnaire rating was high, over 4 on the 6-point scale.
Chency et al. (2009)	Experimental Design	207 participants from 1st to 5th grade who were nominated by teachers based on the SSBD	Randomly assigned 121 participants daily received Check, Connect, and Expect (CCE) intervention for 2 years. 73 out of 121 students graduated from the program; 86 comparison students did not.	Only graduated students who received the intervention showed statistically significant change over time. Neither comparison group nor non-graduate students who received the interventions increased social skills scale.
Hawken, O'Neill, & Macleod (2011)	Pretest-posttest quasi-experimental design	17 students including 11 males and 6 females, who were nominated by instructional staff and received at least two ODRs	Participants participated in the BEP program during a school year.	12 out of 17 students showed statistically significant pre-to-post reduction in ODRs.
Ross & Sabey (2015)	Multiple baseline across students design	Five students, ages 7 to 11, who scored below the 15th percentile in overall social skills	Participants who were non-responsive to Tier 1 PBIS and Tier 2 received both Check-in Check-out and social skills intervention, approximately 15 minutes each day.	4 of 5 participants showed increased positive social engagement and decreased negative social engagement. School staff rated the program as effective and efficient.

Chapter 3: Conclusions and Recommendations

The purpose of this research paper is to evaluate the effectiveness of social skills intervention on elementary students with behavioral challenges. Chapter 1 provides background information on the topic, and Chapter 2 presents a review of the research literature. In Chapter 3, I discuss findings, recommendations, and implications from research findings.

Conclusions

I reviewed 10 studies that examined the effects of social skills training for elementary students with behavioral challenges. The result of implementing these social skills interventions appeared to be generally positive outcomes. Most participants who received the Social Skills Training (SST) decreased disruptive or antisocial behaviors and improved positive social competence. Despite moderate effectiveness of SST, the individual studies presented many limitations and mixed results.

Many studies demonstrated that delivering direct and classroom-based SST in a small-group setting was moderately successful on improving social skills. Kamp et al. (2000) demonstrated the effects of direct social skill instructions in reducing negative behaviors. Over time, two treatment groups significantly improved in diminishing aggressive behaviors, while comparison group remained consistent. Lo et al. (2002) examined a combined small-group and classroom-based SST, which contributed to decreasing antisocial behaviors. Two studies delivered direct SST programs based on the general social skills curriculum, which was designed to enhance social skills development and reduce behavior problems for elementary students.

More researchers continued the direct and classroom-based SST in a small-group setting, but began to provide targeted instructions, focusing on student-specific acquisition of deficit

skills. Lane et al. (2003) identified participants' social skills before implementation by measuring Social Skills Rating System (SSRS). Students' acquisition deficits in social skills became the core content of the SST interventions. In addition, Miller, Lane, and Wehby (2005) used the list of acquisition deficits for lesson plans and provided SST programs in a small-group setting. More intensively, Gresham et al. (2006) identified homogeneous participants on the type of social skills acquisition deficits and provided intense instructions based on the separated groups' specific deficits.

These classroom-based social skills interventions demonstrated that targeting acquisition deficits was more influential than previous, non-targeted instruction. However, the follow-up or post-intervention data did not present all students' maintaining the acquired skills, although participants exhibited significant improvement after interventions. Lane et al. (2003) pointed out the post-intervention data was varied and fluctuated. Miller et al. (2005) found three out of seven participants' inappropriate classroom behavior regressed compared to baseline data at post-intervention evaluations. Generally, the results of follow-up studies of classroom-based social skills interventions were more inconsistent and less effective than the outcomes of intervention period.

As SST programs become more varied and segmented, multimodal SST programs have been introduced and implemented. Daunic et al. (2006) attempted social skills intervention based on cognitive-behavioral intervention (CBI), a research-based approach to teach positive behaviors with cognitive strategies. The CBI incorporates how to identify socially acceptable behaviors, to develop requisite social skills for problem-solving, and to implement the behaviors through cognitive strategies. The results showed that the CBI was significantly effective in

improving students' knowledge in problem-solving and in decreasing reactive aggression and proactive aggression.

Chency et al. (2009) introduced the Check, Connect, and Expect (CCE), a combination of the Check In, Check Out (CICO) and C&C to improve students' social skills and to decrease their problem behaviors. However, in this study, 40% of participants did not present any positive outcomes despite 2-year implementation. Ross and Sabey (2015) examined an approach of blending social skills training and Check in-Check Out system (CICO+SS), adding social skills instructions into CICO system. All target students demonstrated strong improvements and maintained positive social engagements. In sum, the results of a combined approach of SSR generally showed effective in improving students' social skills, but they did not present always positive outcomes for all participants.

Recommendations for Future Research

In the reviewed studies, various interventionists delivered the SST lessons, such as paraprofessionals, classroom teachers, researchers, or student teachers. Their differences in training hours, relationship with participants, and professionalism may have affected the results. Daunic et al. (2006) were concerned that teachers' characteristics may affect the outcomes. In addition, Lo et al. (2002) discussed the classroom management skills of individual teachers that may lead to the difference in data. Future studies need to design research to minimize an influence of the implementers' pedagogical variations.

Daunic et al. (2006) stated that the efficacy becomes more powerful when intervention includes family, peer, and community components. The combined SST programs attempted to incorporate peer and/or parent interaction. For example, the CICO program began to include

parents' feedback on daily progress reports and to reflect individual daily goals. Ross and Sabey (2015) expanded peer and adult interaction in the CICO+SS program. After each lesson, participants were provided 10-minute practice time in a controlled setting and given opportunities to exercise the acquired skills, along with peers and/or adults throughout the school day until check-out.

Kamp et al. (2000) added peer tutoring interventions to sustain positive interaction and parental integration to promote positive parent-child interaction. This study discussed a lack of documentation in the effect of the parent component, even though parental interaction was considered as critical component for success. However, it is difficult to develop a design to evaluate the unique effects of isolated components of SST, because the SST contained many components (Gresham et al., 2006). Regardless of documentation, the comprehensive intervention including interaction with peers and/or adults may well be more effective, since social skills programs incorporate and require all interactions alongside peers and adults.

Quinn et al. (1999) suggested that the inconsistent outcomes could indicate the failure to properly assess group-based interventions. Additionally, the authors recommended a long-term study and a formative evaluation. Kamp et al. (2000) suggested the need for larger sample sizes in future studies. Also, most maintenance studies were conducted immediately after an intervention or within a year. Ross and Sabey (2015) pointed out the necessity for more data in long-term maintenance.

A longer research period did not always present more positive outcomes in direct proportion to the shorter research period. In a 2-year follow-up study, the social skills of the group receiving a 2-year treatment presented no significant differences compared to another

group receiving a 1-year treatment (Kamp et al., 2000). Also, Chency et al. (2009) revealed that 40% of the participants were not responsive to the 2-year intervention. The authors also stated that the participants should be considered for an intensive program. Gresham et al. (2006) demonstrated the positive effect of intense instruction, such as lasting 90 minutes, twice a week, over 20 periods, and focusing on targeting goals in a homogeneous small-group setting. However, it is difficult to verify the long-term effects and intensiveness because of the lack of follow-up and intensive program data. More future studies need to work on the effects of SST based on level of intensiveness of the program, in addition to longitudinal implementations.

Since Gresham (1998) addressed the intervention related to students' specific deficits, many studies have focused on targeting goals determined as students' social skills acquisition deficits. In addition, many researchers have paid more attention on generalization and maintenance through follow-up studies. Recently, more various, segmented SST programs have been introduced and implemented. To evaluate the efficacy of each social skills intervention, future researchers need to systematically construct a methodological framework based on these recommendations.

Implications for Current Practice

As a special education teacher, I see that many students with poor social skills are struggling at school. Due to the lack in social skills, the students have difficulties in socializing with peers in appropriate way and therefore use unsuitable strategies when interacting with others. The students easily vent their anger on their peers and/or school staffs and negatively behave at school. Additionally, the students are provided limited learning opportunities because

of their misbehaviors in general classroom. Their loss in learning and socializing makes them frustrated and discouraged, which hamper students' development.

School staffs also complain about the difficulties of dealing with the students at risk for emotional and/or behavioral disorder (EBD). Unless the students are identified as EBD, their behaviors are addressed based on Tier 2 behavioral and/or social intervention program, rather than receiving special education service. Student Assistance Team (SAT), including behavior specialists, administrator, and general classroom teachers, needs to spend their time on devising and implementing students' intervention plan. Administrators should be aware of the students' office referral and disciplines. The part of school budget is spent in hiring extra support staffs for students' behavior management. If the Tier 2 intervention fails in improving students' social development, the SAT team processes next step.

The students who are not responsive to Tier 2 behavioral and/or social intervention are eventually referred to special education. Many school staffs, such as school psychologists, social workers, general classroom teachers, and special education teachers, evaluate the referred students and determine the needs for special education service. During this process, special education teachers are usually required to do additional work for the students' initial evaluation. In addition, a considerable amount of special education budget is spent for this process. Therefore, I believe that the success of Tier 2 intervention has a close relation to special education and will prevent a waste of both human resources and school budget. With effective social skills interventions, many students with behavioral challenging will less likely be identified as EBD.

Summary

Social skills training is an intervention to increase social competence. However, the effectiveness of SST has continued to be questioned. Although targeted SST instruction based on individual acquisition deficits and multimodal interventions have demonstrated significant improvement, the individual data and follow-up outcomes are not consistent. The recommendations from previous research were still not addressed, such as maintenance follow-up. Future researchers need to understand the importance of the effective strategies to improve social skills and scrupulously make efforts to formulate a research plan.

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