## **Rowan University**

# **Rowan Digital Works**

Theses and Dissertations

5-2-2017

An exploratory investigation of the effects of power-solving, a social problem solving method, on students with communication impairments

Kylie Christine Pringle Rowan University

Follow this and additional works at: https://rdw.rowan.edu/etd



Part of the Special Education and Teaching Commons

### **Recommended Citation**

Pringle, Kylie Christine, "An exploratory investigation of the effects of power-solving, a social problem solving method, on students with communication impairments" (2017). Theses and Dissertations. 2395. https://rdw.rowan.edu/etd/2395

This Thesis is brought to you for free and open access by Rowan Digital Works. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Rowan Digital Works. For more information, please contact graduateresearch@rowan.edu.



## AN EXPLORATORY INVESTIGATION OF THE EFFECTS OF POWER-SOLVING, A SOCIAL PROBLEM SOLVING METHOD, ON STUDENTS WITH COMMUNICATION IMPAIRMENTS

by

Kylie Christine Pringle

## A Thesis

Submitted to the
Department of Interdisciplinary and Inclusive Education
College of Education
In partial fulfillment of the requirement
For the degree of
Master of Arts in Special Education
at
Rowan University
April 26, 2017

Thesis Chair: S. Jay Kuder, Ed.D.





## Acknowledgment

I would like to express my appreciation and gratitude to Dr. S. Jay Kuder for his guidance and help throughout this entire process. The skills and knowledge that I have gained will help me to facilitate and encourage students to attain success in school, activities, and relationships as they attempt to find their place in the world.



### **Abstract**

Kylie Christine Pringle
AN EXPLORATORY INVESTIGATION OF THE EFFECTS OF POWER-SOLVING,
A SOCIAL PROBLEM SOLVING METHOD, ON STUDENTS WITH
COMMUNICATION IMPAIRMENTS
2016-2017
S. Jay Kuder, Ed.D.
Master of Arts in Special Education

The purpose of this investigation was to examine students with communication impairments ability to learn problem solving skills, using the POWER-Solving method, and the effect on positive social interactions. The results indicated that all 10 participants increased positive social interactions with their peers through teacher observations and pre and post rating scales. In addition, increases in the students' emotional vocabulary, as well as their ability to identify feelings were found. It seems that the POWER-Solving method would be beneficial in increasing positive social interactions of students with communication impairments. Future studies may focus on maintenance of their problem solving skills and independence in the application of skills for generalization.



# **Table of Contents**

Abstractiv
List of Figuresvii
List of Tablesviii
Chapter 1: Research Problem1
Chapter 2: Literature Review
Social Cognition6
Social Problem Solving
Chapter 3: Methodology
Method
Procedure
Chapter 4: Results
Group Results27
Chapter 5: Discussion
Limitations
Practical Implications
Future Studies
Conclusion40
References
Appendix A: POWER-Solving Scorecard Book 1
Appendix B: POWER-Solving Scorecard Book 2
Appendix C: POWER-Solving Scorecard Book 3
Appendix D: POWER-Solving Scorecard Book 450

A 1' E DOWED C 1 ' D 4' C 1	_
Appendix E: POWER-Solving Rating Scale	`
rippendix B. r o w Bit borving reading beare	$\sim$



# **List of Figures**

Figure	Page
Figure 1. Results for POWER-Solving Steps Book 1	28
Figure 2. Results for Social Conversations Book 2	29
Figure 3. Results for Developing Friendships Book 3	30
Figure 4. Results for Anger Management Book 4	31

# **List of Tables**

Table	Page
Table 1. Distribution of Demographic Characteristics	17
Table 2. Results of the Teacher POWER-Solving Rating Scale	32
Table 3. Results of the Parent POWER-Solving Rating Scale	33



## Chapter 1

## **Research Problem**

Throughout daily lives, human beings are faced with social problems that require problem solving skills in order to navigate their way through these situations successfully. Many individuals effectively handle each scenario that arises with ease and use these skills with a natural automaticity, while others may struggle each step of the way and need direct instruction. For individuals with communication impairments, solving social problems may be extremely challenging and may hinder their attempts to engage in social interactions with others. Typical social problems when communicating with others may seem overwhelming to these individuals because they lack a strong problem solving process. The ability to successfully engage in social interactions may also be compromised due to the difficulty they have comprehending words properly, expressing oneself, and listening to others. Because of these weaknesses, students with communication impairments may not solve problems quickly and effectively. Instead they may choose solutions that are ineffective and that lead to negative consequences. This lack of an effective problem solving process may also lead to difficulty in making friends and maintaining friendships.

Problem solving and communication skills are important in The Common Core Standards and statewide initiations. As part of daily classroom routines, teachers are utilizing partner work, turn and talk, and group work strategies to increase student interaction, engagement, and problem solving opportunities. Effective collaboration is essential in today's classroom and communication is at the heart of being an effective



collaborator. Likewise, today's work world requires individuals to be skilled at collaborating, verbalizing one's ideas, interpreting and commenting on other's ideas, problem solving, and presenting information.

Students with communication impairments may face challenges communicating effectively with their teachers and peers, expressing and sharing ideas during class discussions, understanding the ideas of others, making presentations (Evans, M.A., 1987), and participating in activities (Brinton, Fujiki, & Higbee, 1998). It is found that such a difficulty have a profound effect on the student's academic and social experience at school (Bruck, 1996; Rourke, 1989). Often times these students struggle more than others to handle typical conflicts. Without problem solving skills, individuals with communication impairments flounder in many social situations, which may lead to feelings of frustration, insecurity, and embarrassment (Nelson, Brenner, and Rogers-Adkinson, 2003). Increased levels of frustration may also affect a student's behavior, causing him/her to act out in class and throughout the school day. A student's insecurity may also lead to social withdrawal (Nelson, Brenner, and Rogers-Adkinson, 2003).

The ability to problem solve in social situations with confidence is fundamental. When approaching a problem, one needs to have a reliable process to use in order to be successful in solving that problem. In this study, students with communication impairments were taught to learn problem solving skills, and their social interactions were examined to evaluate their learning outcomes. Students in a 4th and 5th grade self-contained program were taught the POWER-Solving method in an attempt to increase their communication skills and enhance their ability to interact with peers and teachers in social situations. The method is comprised of five steps using the acronym POWER,



#### which stands for:

- Put the problem into words
- Observe and measure your feelings
- Work out your goal
- Explore possible solutions
- Review your plan

The research question was: Does teaching 4th and 5th grade students with communication impairments to problem solve using the POWER-Solving method increase their positive social interactions?

Through this study, the effects of the POWER-Solving method on the positive social interactions of students with Communication Impairments were examined. The POWER-Solving method will provide students with the tools that they need to solve every day social problems. Teaching students to problem solve and navigate their way through all types of social situations is a way to increase positive social interactions. In turn, students will feel confident in social situations and be more willing to take risks both socially and academically, enhancing both their academic and social experience at school.

In summary, many individuals with communication impairments lack the process necessary to solve social problems. They may experience difficulty making and keeping friends, feeling confident in social situations, controlling their emotions when problems arise, and choosing effective solutions to solve social problems. The POWER-Solving method could be a strategy to provide a reliable process for these individuals when facing social problems.



## Chapter 2

#### Literature Review

Many individuals with communication impairments experience difficulty making and keeping friends, feeling confident in social situations, controlling their emotions when problems arise, and choosing effective solutions to solve social problems (Bryan, Burstein, & Ergul, 2004). The characteristics of children with language and communication disorders affect multiple aspects of their lives including academic performance, social interaction, cognitive functioning, and behavior (Kuder, 2013). In a school setting, children with communication impairments may be reluctant to contribute to discussions, fail to follow directions, have difficulty finding the right word for things and have difficulty organizing ideas (Evans, M.A., 1987). During social interactions, children with communication impairments may be reluctant to interact with other children, be excluded or rejected by other children, have difficulty carrying on a conversation, or problems negotiating rules for games. Deficits in cognitive functioning, in children with communication impairments, may lead to difficulty organizing information for recall, slow responding, and inattentiveness (McDonough, 1989; Rosenthal & Simeonsson, 1991). All of these characteristics combined may cause increased negative behaviors including high levels of frustration, frequent arguments, fighting with peers, and withdrawing from interaction (Nelson, Benner, Rogers-Adkinson, 2003).

The complications that children with communication impairments experience have a profound effect on their academic and social experience at school. Negative social experiences such as with peer rejection or exclusion, may lead to feelings of frustration,



insecurity, and embarrassment. Increased levels of frustration may also affect a student's behavior, causing them to act out in class and throughout the school day. A student's insecurity may also lead to fights and arguments with peers or even worse, social withdrawal. Clinical observations reveal that the failure to communicate thoughts and needs, as well as misinterpretations of messages, often lead to confusion, aggression, and social withdrawal in children with language impairments (Prizant, B. M., Audet, L. R., Burke, G. M., Hummel, L.J., Maher, S.R., & Theadore, G., 1990).

The area of communication known as social discourse plays a big role in successful social interactions. Social discourse is the domain of development that represents a complex integration of language skills, cognition, social processes, and social problem-solving (Dennis and Barnes, 1990). Research indicates that children with learning disabilities exhibit a range of deficits in the expression and interpretation of social discourse (Mathinos, 1991). A study conducted in 1998 by Vallance, Cummings, and Humphries, examined the influence of social discourse and social skills on problem behavior in children with language learning disabilities. They found that social discourse skills were more deficient for children with LLD compared to a control group of children without LLD. In addition, children with LLD were rated as exhibiting significantly less social competence and more problem behaviors than children without LLD (Vallance, Cummings, and Humphries, 1998). The findings of their study, along with many other researchers' findings, support theories that show that the primary processing deficits that characterize learning disabilities not only lead to learning failure, but also negatively affect broader social and behavioral domains (Bruck, 1996; Rourke, 1989). Furthermore, since relationships with others are regulated through communication, individuals with



language learning disabilities may have added difficulties finding success in social situations. The effectiveness and success of social interactions depend on one's ability to monitor the linguistic, physical, non-verbal and cognitive context (Prizant and Weatherby, 1990).

## **Social Cognition**

Researchers have also found a strong relationship between social cognitive deficits and children's externalizing behaviors and problems with peers (Denham, SA, Caverly S, Schmidt M, Blair K, DeMulder E, Caal S, et al, 2002). In particular, these studies have focused on social-cognitive processes, including skills related to emotion understanding, perspective taking, and social problem solving. One study conducted by Fenning, Baker, and Juvonen examined similarities and differences in dynamics related to the emergence of social cognition and competence in children with and without developmental delays. Researchers in this study examined associations between observed parent-child emotion discourse, children's independent social problem solving, and parent and teacher report of children's social skills outcomes. They found that typically developing children generally displayed more adaptive functioning than did children with delays across domains (Fenning, Baker, and Juvonen, 2011). However, both groups generated a comparable number of novel problem solving strategies, which highlights a potential strength in need of further research for children with delays. Fenning, Baker, and Juvonen found that typically developing children produced better quality solutions. They found that this may be due to the fact that children with delays may have enacted strategies without fully engaging in the response-decision process, possibly as a result of difficulty weighing alternative solutions. Findings suggest that children with delays may



be doubly disadvantaged, with difficulties generating prosocial strategies compounded by a tendency to produce a greater number of maladaptive solutions (Fenning, Baker, and Juvonen, 2011).

Children's social adjustment relates to their ability to get along with their peers and engage in prosocial behavior. Children strive to be accepted by their peers and when children are rejected in social situations, or disliked by their peer group they may engage in aggressive behaviors or withdraw from social situations. This negative reaction to social situations may lead to social maladjustment and future adjustment issues (Parker & Asher, 1987). In order to generate possible interventions to promote positive social experiences we need to examine the cognitive processes involved in how children think, what they think, and how they choose to act in social situations. Social information processing models have increasingly been used as frameworks for understanding children's social cognition and the on-line processing that causes behavioral responses when a child is engaged in social interaction (Fenning, Baker, and Juvonen, 2011).

One model developed by Crick and Dodge (1994) proposed that children come to a situation with a set of biologically limited capabilities and a database of memories of past experiences. Then a multitude of cues are received as input. The cues are then processed and a behavioral response is made. The steps of the model include (1) encoding of external and internal cues, (2) interpretation and mental representation of those cues, (3) clarification or selection of a goal, (4) response access or construction, (5) response decision, and (6) behavioral enactment. Theoretically, during steps 1 and 2, encoding and interpretation of social cues, children selectively attend to particular situational and internal cues, and interpret them.



Many different interpretational processes may be used by individuals based on information stored in memory, such as, social schemata, scripts, and social knowledge. During step 3, it is hypothesized that a desired outcome or goal is selected by the child. It is proposed that in step 4 children access possible responses to the situation from information stored in memory. Next, during step 5, it is thought that children evaluate possible responses and choose the one that will lead them to their desired outcome. Outcome expectations, self-efficacy, and response evaluation all play an important role in this evaluation process. Then at step 6, the child acts utilizing the chosen response. These steps are repeated continuously as social interactions continue and happen in real time. In addition, it is assumed that these steps frequently occur outside of conscious awareness. Researchers have found that children and adolescents have deficits at multiple stages of the SIP model which impact their development of appropriate peer interactions and the demonstration of aggressive behaviors (Lansford, Malone, Dodge, Crozier, Pettit, & Bates, 2006). Particular attention has been devoted to the study of early steps involving cue encoding and interpretation, and to the later step of response generation (Fenning, Baker, and Juvonen, 2011). Research in this area has embraced a deficit perspective that highlights the role of hostile attributions of intent and limited or aggressive social problem solving in the emergence of children's aggressive behavior and poor peer status from preschool age through adolescence (Crick & Dodge, 1994). To combat this deficit, several interventions have been created based on the Crick and Dodge's (1994) model of social information Processing. One example is Tools for Getting Along (TFGA), a cognitive-behavioral intervention that focuses on learning, rehearing, reviewing, and practicing cumulative steps in a problem-solving sequence. The cumulative steps parallel



Crick and Dodge's model. Research has shown that TFGA had positive effects on knowledge of social problem solving, lowered risk of proactive aggression, and increased positive approaches problem-solving (Daunic, Smith, Garvan, Barber, Becker, Peters, Taylor, Van Loan, Li, & Naranjo, 2012).

Children with communication impairments often experience problems effectively executing basic social communication tasks. Difficulties can be observed when entering ongoing social interactions (Liiva & Cleave, 2005), negotiating with peers (Brinton, Fujiki, & McKee, 1998), participating in cooperative groups (Brinton, Fujiki, & Higbee, 1998), dealing with conflicts (Timler, 2008), and formulating cohesive narratives to retell past events (Swanson, Fay, Mills, and Hood, 2005). Subsequently, children with communication impairments often experience a wide variety of negative social outcomes, including high levels of withdrawal (Redmond & Rice, 1998), few friends (Fujiki, Brinton, Hart, & Fitzgerald, 1999), low self-esteem (Jerome, Fujiki, Brinton, & James, 2002), and high rates of victimization (Conti-Ramsden & Botting, 2004). In addition, evidence has been found that links early maladaptive behaviors with later life difficulties that include delinquency, substance abuse, and school dropout (Giancola & Tarter, 1999).

Besides specific academic skills, students with communication disorders require interventions that address social and behavioral skills. To benefit from academic instruction, children with communication disorders must be proficient in social and behavioral regulation skills (Thatcher, Fletcher, and Decker, 2008). Social and behavioral skills, such as following the classroom routine, managing time, and interacting with peers, play an important role in school success (Thatcher, Fletcher, and Decker, 2008). The cognitive-behavioral intervention approach can potentially prevent or ameliorate



emotional and behavioral difficulties by increasing adaptive self-statements and strengthening emotional and behavioral self-regulation (Robinson, Smith, & Miller, 2002). One intervention, Coping Power, an intensive small-group CBI that addresses risk factors associated with conduct disorder and focuses on goal setting, anger management, perspective taking, and problem solving, has been shown to enhance school functioning as rated by teachers and reduce students' self-reported substance abuse and other negative behaviors (Lochman & Wells, 2004) when compared to a high-risk control group.

Another intervention found to have positive results is Promoting Alternative Thinking Strategies, which promotes the development of feeling identification, impulse control, stress reduction, self-awareness, and social problem solving (Smith, Graber, and Daunic, 2009). Implementing interventions using this strategy revealed improvements in peer-rated aggression and disruptive behavior, as well as in observer ratings of the classroom atmosphere (Smith et al, 2009).

Several studies have recently been conducted evaluating potential strategies to facilitate the social and behavioral regulation skills of children with communication disorders. Many of these studies use child-specific approaches that rely on adults to provide skill instruction, prompting, and reinforcement (McConnell, S. R., Missal, K. N., Silberglitt, B., & McEvoy, M. A., 2002). Skills instruction generally involves the teaching of a specific skill, modeling by the adult, and coaching the child through a predetermined series of steps. In addition, many evidence-based intervention studies incorporate four fundamental strategies as techniques for social communication skills training (Thiemann & Goldstein, 2004). The four strategies involve instruction, rehearsal, feedback and reinforcement, and skill maintenance and generalization. During



instruction, children are provided with information about social communication behaviors. Target behaviors are taught through verbal instruction and modeling. Retention of each social communication skill and effective behavioral performance of that skill are promoted through rehearsal, or repeated practice. Feedback and reinforcement provide the learner with information about their social communication skill performance. Once a child demonstrates the ability to perform a skill with support, the focus of training then shifts toward the independent performance of that skill (Chapman, Denning, & Jamison, 2008). Child-specific approaches may be easy for adults to implement and for children to understand, however children may become too dependent on the teacher/parent. Since the ultimate goal is to help children with communication impairments independently initiate social communication skills that will result in successful interactions with peers, it is imperative that they generalize the social communication skills learned to any situation that arises. However, when cognitively based interventions that promote successful emotional and behavioral development are implemented class wide, students with emerging destructive or maladaptive behaviors are able to observe and be supported by the problem-solving strategies of socially appropriate peers (Walker, Colvin, & Ramsey, 1995). Smith et al., (2009) state that having class-wide discussions about social situations provide opportunities for students to consider multiple interpretations of environmental social stimuli, constructive interpersonal interactions, and socially adaptive response selections in emotionally charged situations. Class-wide discussions provide opportunities for students who have difficulty constructing appropriate social responses to benefit from the exposure to the perceptions, goals, and choices of more socially competent peers. For example, Tools for Getting Along (TFGA)



is a cognitively based intervention that has been taught class-wide and is designed to prevent and improve emotional and behavioral problems by teaching students to use social problem solving in emotionally-charged situations (Daunic, Smith, Brank, & Penfield, 2006).

## **Social Problem Solving**

Poor social relationships are related to classroom adjustment, academic performance, and school failure (Anderson, Christenson & Sinclair, 2004). Although this may be apparent in most schools, many educators find themselves unprepared to develop and implement interventions to eliminate the difficulties that at-risk students face (Fairbanks, Sugai, Guardino, & Lathrop, 2007). Cheney, Lynass, Flower, Waugh, Iwaszuk, Mielenz, and Hawken (2010) present an example of an intervention that has been effective at producing positive social outcomes for students who are at risk of developing emotional or behavioral disabilities. The authors studied the effects of a positive behavior support model known as The Check, Connect, and Expect (CCE) program. The CEC program comprises of several critical structures and strategies that include (a) the coach implementing the program; (b) daily positive interactions among the coach, students, and teachers; (c) supervision and monitoring of students' social performance; (d) social skill instruction; (e) positive reinforcement for students meeting daily and weekly goals; and (f) involvement of parents through daily home notes. The approach was evaluated in 18 urban schools with a diverse population of students, over a two year period. Results show that this type of intervention can reduce problematic student behavior, reduce referral rates to special education, and enhance student's social behavior (Cheney et al., 2010).



Researchers have also demonstrated that cognitive-behavioral intervention strategies such as, social problem-solving, provided in the school setting can help ameliorate the developmental risk for emotional and behavioral difficulties (Daunic, Smith, Garvan, Barber, Becker, Peters, Taylor, Van Loan, Li, & Naranjo, 2011). Selbst and Gordon (2012) suggest a cognitive-behavioral approach that focuses on teaching a social problem-solving model that children and adolescents may apply independently. With this model, the focus shifts from teaching a specific behavioral skill to teaching a social problem solving model that will serve as a "toolbox" for the child to use in any situation. The suggested model uses the acronym POWER to aid in the learning of the five steps of POWER-Solving.

- Put the problem into words
- Observe and measure your feelings
- Work out your goal
- Explore possible solutions
- Review your plan

Putting the problem into words helps children who have trouble finding words to identify the problem by providing direct instruction. Children are taught to utilize the sentence frame "I was... and then..." During the observing and measuring step, children develop a feelings vocabulary and are taught how to measure the intensity of their feelings. This step is especially important for children who struggle with identifying their feelings and verbalizing their emotions. In the next step, children are taught to work out a goal. Here they identify the goal and the level of motivation to reach the chosen goal. The fourth step, exploring possible solutions, teaches the child to brainstorm possible



solutions to solve the problem and evaluate whether the solution is safe, fair, and effective. Becoming fluent in completing this step is extremely beneficial for children who often generate and enact with ineffective solutions that lead to negative social experiences. During the final step, children review the plan that they used to find an effective solution and plan to use the skill the next time the situation occurs. In addition, children then get to reward themselves for successfully figuring out how to solve their problem.

The shift in focus from teaching a specific behavioral skill to teaching a social problem solving model may benefit children with communication impairments who repeatedly experience negative social interactions. If this method effectively increases the positive social interactions that children with communication impairments experience, it may change their whole academic and social experience at school. Research shows that students who participate in social and emotional learning programs have grade point averages that are 11 percent higher than their peers (Zins, Weissberg, Wang, & Walberg, 2004), score higher on standardized tests (Payton, Weissberg, Durlak, Dymnicki, Taylor, Schellinger, & Pachan, 2008), and are less likely to engage in high-risk behaviors that interfere with learning, such as violence and drug and alcohol use (Hawkins, Graham, Maguin, Abbott, Hill, & Catalano, 1997).

Communication is crucial for success in the school environment and within society. Further research studies need to be conducted to enhance our understanding of children with communication disorders as they attempt to navigate through social situations with peers, teachers, and family members. Continuing to find new and improved ways of enhancing social communication skills and social experiences of



children with communication disorders, in social and academic situations, is essential.



## Chapter 3

## Methodology

This study was conducted with 4th and 5th grade students in a special education program. Within this program, seven of the ten students qualify for special education services under the category of Communication Impaired. The location of this study was a small sized elementary school in South Jersey. The students participating in this study are currently placed in a self-contained classroom with less than 40% of the day in a general education setting. This means that the students are instructed in literacy, math, social studies, and science within the self-contained classroom. However, each day they attend special area classes, as well as lunch and recess with the general education 5th grade classes. In addition, they are part of an inclusion 5th grade enrichment class once a week. Table 1 includes the demographic information about the study participants.



Table 1

Distribution of Demographic Characteristics

60 40 60 40
40 60
60
40
20
30
50
40
30
20
10

Student 1 is a ten year old African American male. He qualifies for special education under the category of Communication Impaired due to standard scores achieved on the CELF-4. He presently receives speech services once a week. He has been learning how to organize his thoughts so he is better able to form written and verbal descriptive sentences. He has been improving his vocabulary by learning multiple meaning words, synonyms, antonyms, nouns, verbs and adjectives to help build his



overall receptive and expressive language skills. He has also been able to follow 2-3 step directions to complete tasks assigned with minimal repetition and verbal prompting needed. Providing examples and repeating the information presented benefits student 1. Student 1 appears to enjoy learning new information. He is continuing to build his overall language skills. He is strong in spelling and phonemic awareness. He has great fluency when reading; however he struggles with comprehension, as well as incorporating information read into written and verbal answers to questions asked.

Student 2 is a ten year old African American male. This student qualifies for special education under the category of Multiply Disabled, due to a Specific Learning Disability in Reading and Writing and a Communication Impairment. He attends speech once a week. He struggles with expressive language skills and has difficulty when describing situations and answering questions. He has been improving in his overall language comprehension skills by answering "wh" questions as stories are read to him. Providing examples and repeating the information presented benefits Student 2. Student 2 needs some redirection to stay on topic and on task to complete the assigned activities. He is trying to read and spell more words, with moderate verbal prompts given. Student 2 is curious and does appear to enjoy learning new information.

Student 3 is an eleven year old Hispanic female. She qualifies for special education under the category of Multiply Disabled. Her communication impairment and her cognitive impairment both negatively impact her throughout the school day. She was retained in first grade. Student 3 is presently in a self-contained special education program and receives speech and language services to address the deficits in her language development once a week and works with the ESL teacher for 40 minutes each day. She



is a very soft-spoken sweet girl who wants to do well and please her teachers. She is very polite, respectful, and gets along well with her peers. Although Spanish is the primary language spoken in the home, she does not like to speak Spanish, and prefers speaking English, especially with her sister. On the CELF-5, she received an overall Core Language score of 73, which is in the poor range with a Receptive language score of 72 and an Expressive language score of 73, which are also both considered to be in the poor range. She received a standard score of 81, which is in the below average range on the ROWPVT-4 and a standard score of 72 on the EOWPVT-4 which is also considered to be in the poor range. Articulation, fluency, voice, and hearing were informally assessed and considered to be within functional limits at this time. She is struggling in the areas of decoding, comprehension, and letter blending. She has a difficult time retaining information and does better when she is working in a small group or one-to-one.

Student 4 is a nine year old African American male. He qualifies for special education under the category of Communication Impaired based on significant delays in the communication domain. He receives speech services once a week. To help improve his ability to produce written and verbal descriptive sentences he is focusing on organizing his thoughts. He has been improving his vocabulary by learning multiple meaning words, synonyms, antonyms, nouns, verbs and adjectives to help build his overall receptive and expressive language skills. He has been improving in his overall language comprehension skills by answering "wh" questions pertaining to short stories presented. He needs maximum verbal prompting and repetition to successfully answer "wh" questions and to be able to follow 2-3 step directions. He often looks confused when the questions or directions are given. Student 4 has difficulty with his working



memory. He has difficulty recalling information learned from one week to the next. He struggles with his reading decoding skills as well as his reading comprehension skills.

Student 5 is a ten year old African American male. He qualifies for special education under the category of Specific Learning Disability based on a specific learning disability in Reading. He has a great personality and when he is calm, he interacts nicely with his peers and classmates. He genuinely wants to please his teachers; however he struggles greatly to follow classroom rules and procedures without needing prompting or redirection. He also has a hard time in less structured environments (sitting on the rug for whole group lesson, working independently for long periods of time). He often has negative interactions with his peers when walking in the hallway, during special area classes, lunch, and recess. It is difficult for student 5 to keep control of his body in regards to others personal space. He becomes easily distracted by what is going on around him and focuses on what others are doing instead of on the task at hand.

Student 6 is a ten year old Hispanic male. He is eligible for special education and related services under the classification of Communication Impaired based on significant delays in his communication/language development. He presently receives speech once a week. At times he is not focused and misses the directions. He is slow to complete any task, needs support, and often needs the directions repeated before he is able to begin. He benefits from small group instruction. His participation has improved, but he does tend to sit back when the opportunity presents. His fluency when reading is affected by the fact that he doesn't always use strategies when he comes to an unknown word. He may guess, or he mumbles and it is unclear whether he knows it. He has difficulties with comprehension as well. He needs to be encouraged to stop periodically to check into



what is happening. Providing examples and repeating the information presented benefits Student 6. He is trying to read and spell more words, with minimal verbal prompts given. Small group instruction is where he gets the most benefits and is able to learn at his level and pace.

Student 7 is a nine year old African American female. She is eligible for special education and related services under the classification of OHI (Other Health Impaired) based upon her diagnosis of ADHD combined type ODD. She presently receives speech services once a week. She requires verbal prompting and redirection to stay on task and follow the direction that has been given. Student 7 frequently has difficulty interacting with her peers. She struggles when working in partners and in group settings. She often gets lost in whole group settings. Student 7 often loses focus and shuts when in the whole group is together, and then struggles when we break into smaller groups for the assignments. During these times she often becomes agitated and begins to act out.

Student 8 is a nine year old Caucasian Female. She is eligible for Special Education and Related Services under the classification of Multiply Disabled, due to a Communication Impairment, a Specific Learning Disability in spoken language, and a severe deficit in Adaptive Behavior skills. She presently receives speech once a week. Since the beginning of the year she has demonstrated improved social behaviors and has learned to express her needs before becoming frustrated and acting inappropriately. She appears to have much more confidence in herself as she will try more difficult tasks. She often appears to be listening, as she demonstrates appropriate listening behaviors, such as eye contact and head nodding but was unable to begin the task without several opportunities to have the directions restated and clarified. Providing examples and



repeating the information presented benefits Student 8. She is trying to read and spell more words, with minimal verbal prompts given. Her word retrieval skills have significantly improved when she is given attributes about words, she can guess the word being described. She does require moderate verbal prompting to not use "silly" speech and more appropriate body awareness. She is continuing to build her overall language skills.

Student 9 is a ten year old biracial female. She is eligible for special education and related services under the classification of SLD (Specific Learning Disability). She often becomes easily frustrated and cries when faced with tasks that she perceives as difficult. She struggles to complete assignments independently, often asking for help before even giving it a try. She has strong fluency; however her decoding skills are at a much higher level than her comprehension.

Education and Related Services under the classification of Communication Impaired based on significant delays in the communication domain. He presently receives speech services once a week. He is often reluctant to accept help and will lash out by yelling, crying, refusing to do work, and becoming disrespectful to his peers and teacher. When calm, he is able to complete tasks with minimal prompting and redirection. Student 10 excels when a task or assignment has an art component. He has been learning how to organize his thoughts so he is better able to form written and verbal descriptive sentences. He has been improving his vocabulary by learning multiple meaning words, synonyms, antonyms, nouns, verbs and adjectives to help build his overall receptive and expressive language skills. He has also been able to follow 2-3 step directions to complete tasks



assigned with minimal repetition and verbal prompting needed.

### Method

This research study was conducted using a group research design. Multiple assessment methods were utilized to collect student data. The first of these methods was observation. All observations were recorded using POWER-Solving Scorecards. Each scorecard evaluates a specific skill taught in the POWER-Solving curriculum. Students were rated using N/A = no opportunity, 0 = did not independently display skill on the first opportunity (prompting / coaching subsequently provided), or 1 = independently displayed skill on the first opportunity (no prompting) (see Appendix A-D for the POWER-Solving scorecards). Observations took place within our self-contained special education classroom, during special area classes, during enrichment (where our class pushes into a 5th grade general education classroom), and also during the student's lunch and recess periods. Observations were conducted by the teacher once a week for an entire 40 minute period. During enrichment, special area classes, and lunch/recess, students have the opportunity to interact socially with their typical peers. Observations were conducted at the beginning, before the intervention and then again following the completion of the intervention, as well as, after each new social skill that was taught using the POWER-Solving curriculum.

The second method of assessment was a pre-intervention and post-intervention rating scale (POWER-Solving Rating Scale) that was completed by each subject's parent and the teacher. Within the rating scale, parents and teachers were asked to rate various aspects of the child's social behavior using a scale of 0-4 (0 being never and 4 being almost always). In addition, parents and teachers were asked to rate how important that



skill is to them using a scale of 0-2 (0 being not important and 2 being very important) (see Appendix E for the full version of the POWER-Solving Rating Scale). This assessment was given before the intervention was implemented and then again after the implementation of the intervention.

The POWER-Solving curriculum (Selbst and Gordon, 2012) consists of four student workbooks. In the first book, students are taught the five step POWER-Solving method.

- Put the problem into words
- Observe and measure your feelings
- Work out your goal
- Explore possible solutions
- Review your plan

The second book focuses on the social problem-solving skill area of social conversations. Specific areas that are addressed are starting a conversation appropriately with a peer, maintaining a reciprocal conversation with a peer, changing conversation topics appropriately, ending a conversation appropriately, and using POWER-Solving steps during a social situation. The third book concentrates on the social problem-solving skill of developing friendships. Students are taught how to play a game appropriately, (including: deciding what to play, sharing, taking turns, showing good sportsmanship, talking during the game, and ending the game appropriately), ask for help when needed, give a compliment to someone, and accept others who are different from them. Then in the fourth book the social problem-solving skill area of anger management is addressed. In this book students learn to identify triggers that contribute to making them angry, use



strategies to stay calm, accept when things do not go their way, practice remaining calm if teased or bullied, and to use the POWER-Solving steps in situations where anger triggers are found.

#### Procedure

Prior to any instruction using the POWER-Solving curriculum, each of the subject's parent and the teacher completed the POWER-Solving rating scale. In addition, the teacher observed the students using the POWER-Solving Scorecards to obtain baseline data. Once baseline data was collected the POWER-Solving intervention was initiated. The POWER-Solving curriculum was taught over a four week period, one week per book. Students participated in one lesson a day. The lesson was taught during the class's daily morning meeting. Students were introduced to the topic of the day using the 3-D method of learning- Discuss, Demonstrate, Do. During the discuss stage, students talked together about what they were learning. In the demonstrate stage, students were shown how the skill is done. Lastly, in the do stage, students did the same thing that they watched in the demonstration. Students practiced these skills through role playing and other behavioral rehearsal activities. These activities are crucial in promoting skill acquisition, performance, generalization, and fluency. In addition to teaching the students the daily lessons, the teacher and the teaching assistant also provided coaching to help students successfully use the POWER-Solving method in real time situations. Coaching consisted of prompting the students to use specific social skills that were taught or to use the POWER-Solving method when they encountered a social problem.

In order to promote generalization, students were given opportunities to practice the acquired skills throughout the day. These opportunities were provided through group



and partner work activities in the classroom, interactions during special area classes, interactions during lunch and recess, and during free time periods, where they worked on building friendships. In addition, POWER-Up activities were sent home after each lesson. POWER-Up activities include parent handouts which provide information about the skill that was learned and how to practice that skill at home.

The outcomes of this study were evaluated using the data collected from each of the subject's parent and teacher POWER-Solving Rating Scales, and the POWER-Solving scorecards used during teacher observation.



## Chapter 4

#### **Results**

In this group study, the effects of teaching students with communication impairments to problem solve in order to increase positive social interactions was examined. Students in a 4th and 5th grade self-contained classroom were taught the POWER-Solving method in an attempt to increase their communication skills and enhance their ability to interact in social situations. The research question examined in this study was: Does teaching 4th and 5th grade students with communication impairments to problem solve using the POWER-Solving method increase positive social interactions?

Prior to any instruction using the POWER-Solving curriculum, parents and teachers completed the POWER-Solving rating scale. In addition, the teacher observed the students using the POWER-Solving Scorecards to obtain baseline data. Once baseline data was collected the POWER-Solving intervention was initiated. The POWER-Solving curriculum was taught over a four week period, one week per book. Students participated in one lesson a day. The lesson was taught during the class's daily morning meeting. The results of this study are derived from the data collected from the parent and teacher POWER-Solving Rating Scales and the POWER-Solving scorecards.

## **Group Results**

Figure 1 illustrates the results for the number of social skills observed during both pre-intervention and post-intervention data collection periods for the implementation of the POWER-Solving method Book 1 intervention. During the Pre-Intervention



observations, the students did not display any of the target behaviors taught in the POWER-Solving method of social problem-solving. During the Post-Intervention observations, the students displayed an overall increase in the targeted social skills. The largest increase was observed in the self-contained classroom setting, followed by recess and special area classes. A slightly smaller increase was observed during lunch. The smallest increase was observed while in the general education enrichment setting.

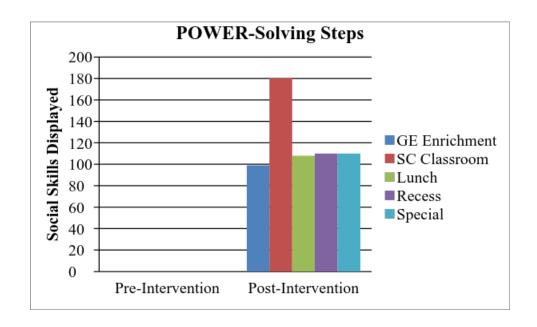


Figure 1. Results for POWER-Solving Steps Book 1

Figure 2 illustrates the results for the number of social skills observed during both pre-intervention and post-intervention data collection periods for the implementation of the Social Conversations Book 2 intervention. During the Pre-Intervention observations,



the students displayed a low amount of the target social skills taught in the Book 2 curriculum. During the Post-Intervention observations, the students displayed an overall increase in the targeted social skills. The largest increase was observed in the self-contained classroom setting. An equivalent increase was observed during lunch, and special area classes. A slightly smaller increase was observed during recess and the smallest increase was observed during the general education enrichment setting.

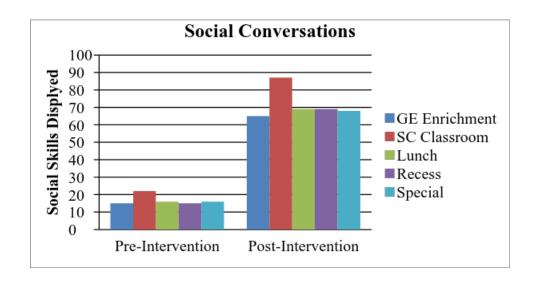


Figure 2. Results for Social Conversations Book 2

Figure 3 illustrates the results for the number of social skills observed during both pre-intervention and post-intervention data collection periods for the implementation of the Developing Friendships Book 3 intervention. Throughout this phase of the research study, students displayed an overall increase in the targeted social skills. The largest



increase was observed while in the self-contained classroom setting, followed by recess.

A slightly smaller increase was observed during general education enrichment. The smallest increase was observed during both lunch and special area classes.

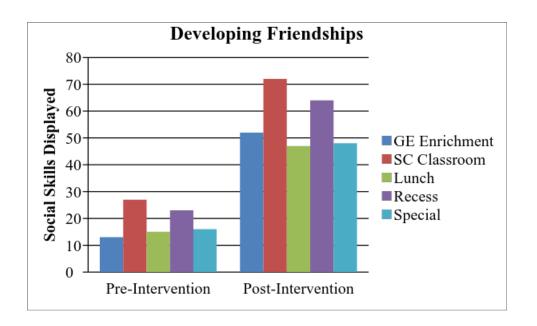


Figure 3. Results for Developing Friendships Book 3

Figure 4 illustrates the results for the number of social skills observed during both pre-intervention and post-intervention data collection periods for the implementation of the Anger Management Book 4 intervention. Throughout this phase of the research study, students displayed an overall increase in the targeted social skills. The largest increase was observed during the self-contained classroom setting, followed by lunch and recess. A slightly smaller increase was observed during special area classes. The smallest



increase was observed during the general education enrichment setting.

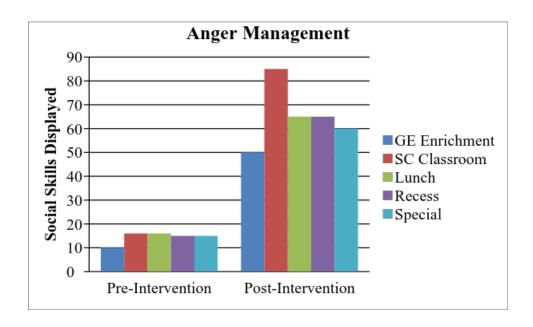


Figure 4. Results for Anger Management Book 4

In addition to the results derived during teacher observations, parent and teacher rating scales were used to show overall growth of targeted social skills displayed throughout the entirety of the implementation period. POWER-Solving Rating Scales were completed by both the student's parent and the teacher prior to any instruction using the POWER-Solving curriculum. Table 2 shows the results of the teacher completed POWER-Solving Rating Scales. Based on the teacher's ratings, the students showed a 260.7% increase in "POWER-Solving" Steps, a 137.5% increase in the application of "POWER-Solving" steps to social situations, and a total increase of 175%.



Table 2

Results of the Teacher POWER-Solving Rating Scale

Social/Problem-Solving Skill	PRE-INTERVENTION	POST-
Subscale	How often is the skill displayed?	INTERVENTION  How often is the skill displayed?
"POWER-Solving" Steps	84	303
Application of "POWER- Solving" Steps to Social Situations	192	456
Total of Subscales	276	759

Table 3 illustrates the results of the parent completed POWER-Solving Rating Scales. Based on the parent's ratings, the students showed a 39% increase in "POWER-Solving" Steps, a 34.7% increase in the application of "POWER-Solving" steps to social situations, and a total increase of 36.7%.



Table 3

Results of the Parent POWER-Solving Rating Scale

Social/Problem-Solving Skill Subscale	PRE-INTERVENTION  How often is the skill displayed?	POST- INTERVENTION  How often is the skill displayed?
"POWER-Solving" Steps	156	217
Application of "POWER- Solving" Steps to Social Situations	190	256
Total of Subscales	346	473



#### Chapter 5

#### **Discussion**

This study examined the effects of teaching students with communication impairments to problem solve in order to increase positive social interactions. Ten 4th and 5th grade students in a small sized elementary school in South Jersey were taught the POWER-Solving method of social problem solving. Seven of the ten students in the program qualify for special education services under the category of Communication Impaired.

Teaching students the POWER-Solving method and implementing the POWER-Solving curriculum had a significant impact on the number of positive social interactions the students engaged in. Teacher observations showed a significant increase while in the self-contained classroom, the general education enrichment setting, lunch, recess, and special area classes for all students. Students had opportunities to utilize the strategies taught in the POWER-Solving curriculum throughout the day in various locations. However, the largest increase in positive social interactions was observed in the self-contained classroom setting. It is important to note that the self-contained classroom setting is a small group environment where the students feel confident and comfortable taking both academic and social risks. This is also the location where lessons involving the use of the POWER-Solving method were taught and where the most opportunities to practice the skills with the support of their POWER-Solving coach were provided.

Student engagement during the POWER-Solving lessons was noticeably greater than



during their typical curriculum. They seemed to truly enjoy working through real life situations, recognizing their anger triggers, and practicing calming strategies. As students became more familiar with the steps of the method, they were also more willing to share current social problems that they were experiencing instead of relying on the sample social problem situations that were provided during lessons.

In addition to the increase in positive interactions, the teacher also observed an increase in the student's' emotional vocabulary, as well as with the students' ability to identify feelings. Having a structure for which to express their social problems enabled them to become more fluid with their expressive language ability, when discussing situations. Nelson, Brenner, Rogers-Adkinson (2003) found that combined characteristics of individuals with communication impairments may cause increased negative behaviors including high levels of frustration, frequent arguments, fighting with peers, and withdrawing from interactions. The POWER-Solving method provided the tools that the individuals in this study needed to identify triggers to their negative behaviors, identify their emotions, examine possible solutions, and create a plan to respond more positively during social interactions.

The positive impact of the POWER-Solving intervention was also seen in the teacher and parent surveys. Results of both teacher and parent surveys indicated that students increased their ability to use the "POWER-Solving" steps and increased the application of "POWER-Solving" steps to social situations. Although the increases were less for the parent surveys compared to the teacher surveys, the results show that the individuals in this study generalized the skills learned through the intervention to their home environment, to some degree. It is possible that the differences in the results were

due to a difference in opportunities and expectations for social interactions while in the home compared to opportunities and expectations while in school. In addition, the differences may also be due to a difference in coaching and prompting while in the home environment. Although parents were provided with POWER-Up activities, which are parent handouts that provide information about the skill that was learned and how to practice that skill at home, it is possible that they were not completed with fidelity. Providing parents with additional training in the use of the POWER-Solving method might help to increase generalization of the skills taught to other environments outside of school.

Walker, Colvin, and Ramsey (1995) found that when cognitively based interventions that promote successful emotional and behavioral development are implemented class wide, students with emerging destructive or maladaptive behaviors are able to observe and be supported by the problem-solving strategies of socially appropriate peers. In addition, Smith, Grabe, and Daunic (2009) state that having class-wide discussions about social situations, provide opportunities for students to consider multiple interpretations of environmental stimuli, constructive interpersonal interactions, and socially adaptive response selections in emotionally charged situations. Class-wide discussions provide opportunities for students who have difficulty constructing appropriate social responses to benefit from the exposure to the perceptions, goals, and choices of more socially competent peers. Daunic, Smith, Brank, & Penfield (2006) designed a cognitively based intervention called Tools for Getting Along (TFGA) that prevent and improve emotional and behavioral problems by teaching students to use social problem solving class wide. Similar to this, the POWER-Solving intervention has



also shown to prevent and improve emotional and behavioral problems through class-wide teaching. The self-contained classroom setting was where the largest increase in positive social interactions occurred. This increase in positive social interactions may be correlated with being in the same location as where the majority of the teaching and discussions about social situations occur. In addition, a sense of confidence and comfort with the POWER-Solving method was created through these discussions and practice situations. Students became comfortable with practicing the steps of the method through role playing scenarios, and practice situations. Through class discussions and repetition with the strategy, students developed automaticity with the steps. All students were able to independently and successfully complete the steps in the POWER-Solving method using mock situations.

Although many of the students began to display the social skills they learned independently, most still required prompting by coaches to apply the POWER-Solving strategies in real-time situations. However, when prompted students were able to complete the steps of the POWER-Solving method and were able to successfully problem solve in social situations. Ultimately, the goal is to help children with communication impairments independently initiate social communication skills that will result in successful interactions with peers. In order for this to happen, it is imperative that they generalize the social communication skills learned to any situation that arises.

#### Limitations

During the study, all participants displayed increases in positive social interactions. However, many of them still required the support of the coach's prompting.



In order to increase independence with the skills learned during the implementation of the POWER-Solving intervention continuous practice is necessary. Due to the short amount of time in which this study was conducted, it is unclear whether the increase in positive interactions will be maintained over time.

In addition, the sample size of the study was limited to ten 4th and 5th grade students in a small sized elementary school in South Jersey. Because of this, the outcomes of this study cannot be generalized to the larger population. In order to determine an effect size, a much larger sample would be required. This sample was also limited to special education students in a self-contained program from a district which experiences a high level of poverty and a low level of parent involvement. This sample did not include special education students from various socioeconomic backgrounds.

#### **Practical Implications**

Evidence has been found that links early maladaptive behaviors with later life difficulties that include delinquency, substance abuse, and school dropout (Giancola & Tarter, 1999). Interventions such as POWER-Solving can be used to decrease early maladaptive behaviors and prevent these negative effects from happening later in life.

Research shows that students who participate in social and emotional learning programs have grade point averages that are 11 percent higher than their peers (Zins, Weissberg, Wang, & Walberg, 2004), score higher on standardized tests (Payton, Weissberg, Durlak, Dymnicki, Taylor, Schellinger, & Pachan, 2008), and are less likely to engage in high-risk behaviors that interfere with learning, such as violence and drug and alcohol use (Hawkins, Graham, Maguin, Abbott, Hill, & Catalano, 1997). One



intervention, Coping Power, an intensive small-group CBI that addresses risk factors associated with conduct disorder and focuses on goal setting, anger management, perspective taking, and problem solving, has been shown to enhance school functioning as rated by teachers and reduce students' self-reported substance abuse and other negative behaviors (Lochman & Wells, 2004) when compared to a high-risk control group. Another intervention found to have positive results is Promoting Alternative Thinking Strategies, which promotes the development of feeling identification, impulse control, stress reduction, self-awareness, and social problem solving (Smith, Graber, and Daunic, 2009). Implementing interventions using this strategy revealed improvements in peerrated aggression and disruptive behavior, as well as in observer ratings of the classroom atmosphere (Smith et al, 2009). Cheney, Lynass, Flower, Waugh, Iwaszuk, Mielenz, and Hawken (2010) present an example of an intervention that has been effective at producing positive social outcomes for students who are at risk of developing emotional or behavioral disabilities. The authors studied the effects of a positive behavior support model known as The Check, Connect, and Expect (CCE) program. The CEC program comprises of several critical structures and strategies that include (a) the coach implementing the program; (b) daily positive interactions among the coach, students, and teachers; (c) supervision and monitoring of students' social performance; (d) social skill instruction; (e) positive reinforcement for students meeting daily and weekly goals; and (f) involvement of parents through daily home notes. The approach was evaluated in 18 urban schools with a diverse population of students, over a two year period. Results show that this type of intervention can reduce problematic student behavior, reduce referral rates to special education, and enhance student's social behavior (Cheney et al., 2010).



#### **Future Studies**

Communication is crucial for success in the school environment and within society. Further research studies need to be conducted to enhance our understanding of children with communication disorders as they attempt to navigate through social situations with peers, teachers, and family members. Continuing to find new and improved ways of enhancing social communication skills and social experiences of children with communication disorders, in social and academic situations, is essential. Future studies should focus on ways to maintain the use of the social problem solving skills learned over time, with the goal of complete independence in the application of skills. In addition, ways to increase generalization to all social interactions in which individuals engage should also be examined.

#### Conclusion

This study sought to answer the question: Does teaching 4th and 5th grade students with communication impairments to problem solve using the POWER-Solving method increase positive social interactions? The data illustrated that for all ten of the participants in this study, the POWER-Solving method of social problem solving did increase positive social interactions. The results of this study were determined through teacher observation, using POWER-Solving Scorecards and a pre-intervention and post-intervention rating scale (POWER-Solving Rating Scale) that was completed by each subject's parents and the teacher. Teacher observations showed a significant increase while in the self-contained classroom, the general education enrichment setting, lunch,



recess, and special area classes for all students. In addition to the increase in positive interactions, the teacher also observed an increase in the students' emotional vocabulary, as well as with the students' ability to identify feelings. The positive impact of the POWER-Solving intervention was also seen in the teacher and parent surveys. The teacher survey reflected a 260.7% increase in the ability to use the "POWER-Solving" Steps, and a 137.5% increase in the application of "POWER-Solving" steps to social situations. The parent surveys reflected an increase of 39% in "POWER-Solving" Steps, and a 34.7% increase in the application of "POWER-Solving" steps to social situations. It would stand to reason that the POWER-Solving method would be beneficial in increasing positive social interactions in future studies. Future studies should focus on ways to maintain the use of the social problem solving skills learned over time, with the goal of complete independence in the application of skills. In addition, ways to increase generalization to all social interactions in which individuals engage should also be examined.



#### References

- Anderson, A. R., Christenson, S. L., & Sinclair, M. F. (2004). Check & connect: The importance of relationships for promoting school engagement. *Journal of School Psychology*, 42, 95-113.
- Brinton, B., Fujiki, M., & Higbee, L. (1998). Participating in cooperative learning activities by children with specific language impairments. *Journal of Speech, Language, and Hearing Research*, 41, 1195-1206.
- Brinton, B., Fujiki, M., & McKee, L. (1998). The negotiation skills of children with specific language impairment. *Journal of Speech, Language, and Hearing Research*, 41, 927-940.
- Bruck, M. (1986). Social and emotional adjustment of learning disabled children: A review of the issues. In S.J. Ceci (Ed.), Handbook of cognitive, social, and neuropsychological aspects of learning disabilities. Hillsdale, NJ:Erlbaum.
- Bryan, T., Burstein, K., & Ergul, C. (2004). The social-emotional side of learning disabilities: A science-based presentation of the state of the art. *Learning Disability Quarterly*, 27, 45–51.
- Cheney, D., Lynass, L., Flower, A., Waugh, M., Iwaszuk, W., Mielenz, C., & Hawken, L. (2010). The check, connect, and expect program: A targeted, tier 2 intervention in the schoolwide positive behavior support model. *Preventing School Failure*, 54, 152-158.
- Conti-Ramsden, G. & Botting, N. (2004). Social difficulties and victimization in children with SLI at 11 years of age. *Journal of Speech, Language, and Hearing Research*, 47, 145-161.
- Crick, N.R., & Dodge, K.A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin*, 115, 74-101.
- Daunic, A. P., Smith, S. W., Brank, E. M., & Penfield, R. D. (2006). Classroom based cognitive-behavioral intervention to prevent aggression: Efficacy and social validity. *Journal of School Psychology*, 44, 123-139.
- Daunic, A. P., Smith, S. W., Garvan, C. W., Barber, B. R., Becker, M. K., Peters, C. D., Taylor, G. G., Van Loan, C. L., Li, W., & Naranjo, A. H. (2011). Reducing developmental risk for emotional/behavioral problems: A randomized controlled trial examining the Tools for Getting Along curriculum. *Journal of School Psychology*, *50*, 149-166.



- Denham, S.A., Caverly, S., Schmidt, M., Blair, K., DeMulder, E., Caal, S., et al (2002). Preschool understanding of emotions: Contributions to classroom anger and aggression. *Journal of Child Psychology and Psychiatry*, 43, 901-916.
- Dennis, M., & Barnes, M. A. (1990). Knowing the meaning, getting the point, bridging the gap, and carrying the message: Aspects of discourse following closed head injury in childhood and adolescence. *Brain and Language*, 39,428-446.
- Evans, M.A. (1987). Discourse characteristics of reticent children. *Applied psycholinguistics*, 8, 171-184.
- Fairbanks, S., Sugai, G., Guardino, D., & Lathrop, M. (2007). Response to intervention: Examining classroom behavior support in second grade. *Exceptional Children*, 73, 288-310.
- Fenning, R. M., Baker, B.L., & Juvonen, J. (2011). Emotion discourse, social cognition, and social skills, in children with and without developmental delays. *Child Development*, 82, 717-731.
- Fujiki, M., Brinton, B., Hart, C.H., & Fitzgerald, A. (1999). Peer acceptance and friendship in children with specific language impairment. *Topics in Language Disorders*, 19, 34-48.
- Giancola, P., & Tarter, R. (1999). Executive Cognitive Functioning and risk for substance abuse. *Psychological Science*, *10*, 203-205.
- Hawkins, J. D., Graham, J. W., Maguin, E., Abbott, R., Hill, K. G., & Catalano, R. F. (1997). Exploring the effects of age of alcohol use initiation and psychosocial risk factors on subsequent alcohol misuse. Journal of Studies on Alcohol 58(3), 280–290.
- Jerome, A., Fujiki, M., Brinton, B., & James, S. (2002). Self-esteem in children with specific language impairments. *Journal of Speech, Language, and Hearing Research*, 45, 700-714.
- Kuder, S. Jay (2013). Teaching students with Language and communication disabilities. New York: Pearson.
- Lansford, J. E., Malone, P. S., Dodge, K. A, Crozier, J. C., Pettit, G. S., & Bates, J. E. (2006). A 12-year prospective study of patterns of social information processing problems and externalizing behaviors. *Journal of Abnormal Child Psychology*, 34, 709-718.
- Liiva, C. A., & Cleave, P. L. (2005). Roles of initiation and responsiveness in access and participation for children with specific language impairment. *Journal of Speech, Language, and Hearing Research, 48,* 868-883.



- Lochman, J. E., & Wells, K.C. (2004). The Coping Power program for preadolescent aggressive boys and their parents: Outcome effects at one-year follow-up. *Journal of Consulting and Clinical Psychology*, 72, 571-578.
- Mathinos, D. A. (1991). Conversational engagement of children with learning disabilities. *Journal of Learning Disabilities*, 24, 439-446.
- McConnell, S. R., Missal, K. N., Silberglitt, B., & McEvoy, M. A. (2002). Promoting social development in preschool classrooms. In M. E. Shinn, H. E. Walker, & G. Stoner, (Eds.), Interventions for academic and behavior problems II: Preventive and remedial approaches (501-536). Bethesda, MD: National Association of School Psychologists.
- McDonough, J. M. (1989). Analysis of the expressive language characteristics of emotionally handicapped students in social interactions. *Behavioral Disorders*, *14*, 127-149.
- Nelson, J. R., Benner, J. R., & Rogers-Adkinson, D. (2003). An investigation of the characteristics of K-12 students with comorbid emotional disturbance and significant language deficits served in public school settings. *Behavioral Disorders*, 29, 25-33.
- Parker, J., & Asher, S. R. (1987). Peer Acceptance and later personal adjustment: Are low-accepted children at risk? *Psychological Bulletin*, *102*, 357-389.
- Payton, J. W., Weissberg, R. P., Durlak, J.A., Dymnicki, A.B., Taylor, R.D., Schellinger, K.B., & Pachan, M. (2008). The positive impact of social and emotional learning for kindergarten to eighth-grade students: Findings from three scientific reviews. Chicago, IL: Collaborative for Academic, Social, and Emotional Learning.
- Prizant, B. M., Audet, L. R., Burke, G. M., Hummel, L.J., Maher, S.R., & Theadore, G. (1990). Communication disorders and emotional/behavioral disorders in children and adolescents. *Journal of Speech and Hearing Disorders*, *55*, 179-192.
- Prizant, B., & Weatherby, A. (1990). Toward an integrated view of early language and communication development and socioemotional development. *Topics in Language Disorders*, 10, 1-16.
- Redmond, S., & Rice, M. (1998). The social emotional behaviors of children with SLI: Social adaptation or social deviance? *Journal of Speech, Language, and Hearing Research*, 41, 688-700.
- Robinson, T. R., Smith, S. W., & Miller, M. D. (2002). Effect of a cognitive-behavioral intervention on responses to anger by middle school students with chronic behavioral problems. *Behavioral Disorders*, 27, 256-271.



- Robinson, T. R., Smith, S. W., & Miller, M. D., & Brownell, M. T. (1999). Cognitive behavior modification of hyperactivity/impulsivity and aggression: A meta-analysis of school-based studies. *Journal of Educational Psychology*, *91*, 195-203.
- Rosenthal, S. & Simeonsson, R. (1991). Communication skills in emotionally disturbed and undisturbed adolescents. *Behavioral Disorders*, *16*, 192-199.
- Rourke, B. P. (1989). Nonverbal learning disabilities: The syndrome and the model. New York: Guilford Press.
- Selbst, M. C. & Gordon, S. B. (2012). POWER-Solving: Stepping stones to solving life's everyday social problems. Somerset, NJ:Hi-STEP, LLC.
- Smith, S. W., Graber, J., & Daunic, A. P. (2009). Cognitive-behavioral interventions for anger/aggression: Review of research and research-to-practice issues. In M. Mayer, R. Van Acker, J. Lochman, & F. Gresham (Eds.), Cognitive-behavioral interventions for emotional and behavioral disorders: School-based practice (pp.111-142). New York: Guilford Press.
- Stanton-Chapman, T. L., Denning, C. B., & Jamison, K. R. (2008). Exploring the effects of a social communication intervention for improving requests and word diversity in preschoolers with disabilities. *Psychology in the Schools*, 45, 644-664.
- Swanson, L., Fay, M. E., Mills, C. E., & Hood, L. S. (2005). Use of narrative-based language intervention with children who have specific language impairment. *American Journal of Speech and Language Pathology*, *14*, 131-143.
- Thatcher, K. L., Fletcher, K., & Decker, B. (2008). Communication disorders in the school: Perspectives on academic and social success an introduction. *Psychology in the Schools*, 45, 579-581.
- Thiemann, K. & Goldstein, H. (2004). Effects of peer training and written text cueing on social communication of school-age children with pervasive developmental disorder. *Journal of Speech, Language, and Hearing Research, 47*,126-144.
- Timler, G. R. (2008). Social knowledge in children with language impairments: Examination of strategies, predicted consequences, and goals in peer conflict situations. *Clinical Linguistics and Phonetics*, 22, 741-763.
- Vallance, D. D., Cummings, R. L., & Humphries, T. (1998). Mediators of the risk for problem behavior in children with language and learning disabilities. *Journal of Learning Disabilities*, *3*, 160-171.
- Walker, H. M., Colvin, G., & Ramsey, E. (1995). *Antisocial behavior in school: Strategies and best practices*. Pacific Grove, CA: Brookes/Cole Publishing.



Zins, J. E., Weissberg, R. P., Wang, M. C., & Walberg, H. J. (Eds.) (2004). Building academic success on social and emotional learning: What does the research say? New York, NY: Teachers College Press.



## Appendix A

# **POWER-Solving Scorecard Book 1**

# POWER-Solving® Scorecard

Student:		Вс	ok 1 Start D	ate:	_
Rater:					
n/a = no opportunity (goal is to seek and/or contr 0 = did not independently display skill on the first 1 = independently displayed skill on the first oppo	opportunity	(prompting /			vided)
Location Coding:	Date:	Date:	Date:	Date:	Date:
GE – general ed; L/R – lunch/recess; RR – resource room; ICS – in-class support;	Location:	Location:	Location:	Location:	Location:
SS – social skills					
Social Problem-Solving Skill					
"POWER-Solving"® Steps	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1
Puts problems into words regarding a social situation     ("I was trying to play a game and then")	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1
2) Observes and states his/her own feelings ("I feel sad/frustrated/angry/happy/nervous")	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1
3) Measures the intensity of his/her feelings (how strong-weak: "My sad feelings are a 10")	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1
4) States his/her goal within a situation ("I really would like to play a game with her." "I really want to talk with him.")	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1
5) Measures how strong his/her desire is to reach the goal ("My goal to play with him is a 10")	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1
6) Explores/Brainstorms solutions to reach the goal ("I could walk away. I could ask for help. I could take a deep breath. I could do nothing.")	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1
Evaluates solutions to see if they are safe, fair, would solve the problem and achieve the goal	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1
8) Chooses and implements a solution to put into action ("I will choose to ask my teacher for help.")	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1
Reviews the plan to see if the goal was accomplished	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1
10) Rewards him/herself if the plan was successful (says "I did great"; does something he enjoys)	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1
Total Score:					
Comments:					



## Appendix B

## **POWER-Solving Scorecard Book 2**

# POWER-Solving® Scorecard

ocation Coding:	Date:	Date:	Date:	Date:	Date:
GE – general ed; L/R – lunch/recess; CR – resource room; ICS – in-class support; CS – social skills	Location:	Location:	Location:	Location:	Location
Social Problem-Solving Skills  Area: "Social Conversation"	n/a, 0, 1				
) Started a conversation appropriately with a peer.	n/a, 0, 1				
) Maintained a reciprocal conversation with a eer for at least exchanges.	n/a, 0, 1				
) Changed conversation topics appropriately with peer.	n/a, 0, 1				
Ended a conversation appropriately with a peer.	n/a, 0, 1				
) Used POWER-Solving Steps during a social tuation.	n/a, 0, 1				
otal Score:					



## Appendix C

### **POWER-Solving Scorecard Book 3**

Book 3 Start Date: \_\_\_\_\_

# POWER-Solving® Scorecard

Location:	Location:	Location:	Location
n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1
n/a, 0, 1	n/a, 0, 1	п/а, 0, 1	n/a, 0, 1
n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1
n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1
n/a, 0, 1	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1
	n/a, 0, 1	n/a, 0, 1	n/a, 0, 1



## Appendix D

## **POWER-Solving Scorecard Book 4**

Book 4 Start Date:

# POWER-Solving® Scorecard

Location Coding:	Date:	Date:	Date:	Date:	Date:
GE – general ed; L/R – lunch/recess; RR – resource room; ICS – in-class support; SS – social skills	Location:	Location:	Location:	Location:	Location
Social Problem-Solving Skills  Area: "Anger Management"	n/a, 0, 1				
Stated triggers that contributed to feeling angry.	n/a, 0, 1				
Stayed calm by counting to 10, taking deep breaths, asking for a break, using feeling words, asking for help, or another calm and safe strategy.	n/a, 0, 1				
<ol> <li>Accepted if/when told "no" or if/when things didn't go their way by staying calm.</li> </ol>	n/a, 0, 1				
Stayed calm if/when someone teased or bullied them.	n/a, 0, 1				
<ol> <li>Used POWER-Solving Steps during a situation that could have made them feel upset, frustrated, angry, or another down feeling.</li> </ol>	n/a, 0, 1				
Total Score:					



#### Appendix E

### **POWER-Solving Rating Scale**

### POWER-Solving® Rating Scale

#### Stepping Stones to Solving Life's Everyday Social Problems

Student's Name:	Gender:	Female	Male	
Date of Birth: Toda	ay's Date:			
Age: Grade in September:				
How many years has child been receiving POWER-Solving	ng® program?	1 <sup>st</sup>	2 <sup>nd</sup> 3 <sup>rd</sup>	I
Form completed by (print name):		Gender:	_Female _	_Male
Relationship to child (please check one): Teacher	_Parent/Guard	lian		
<u>Directions</u> : Please consider your child's (the student's) be if the child <i>never</i> displays the skill. Circle the 1 if the child <i>sometimes</i> displays the skill. Circle the 3 if the chil if the child <i>almost always</i> displays the skill.	ld rarely displ	ays the skill	. Circle the	2 if the
Please also rate how important you believe the skill is as development. If the skill is <b>not important</b> , circle the 0. If Lastly, if the skill is <b>very important</b> , circle the 2.				

"POWER-Solving"® Steps	How often is the skill displayed?					How important is the skill to you?			
	Never	Rarely	Sometimes	Often		Not	Somewhat	Very	
	0	1	2	3	Always 4	Important 0	Important I	Important 2	
1) Puts problems into words regarding a social situation	0	1	2	3	4	0	1	2	
2) Observes and identifies his/her own feelings	0	1	2	3	4	0	1	2	
3) Measures the intensity of his/her feelings (strong-weak)	0	1	2	3	4	0	1	2	
4) States his/her goal within a situation	0	1	2	3	4	0	1	2	
5) Measures how strong his/her desire is to reach the goal	0	1	2	3	4	0	1	2	
6) Explores solutions to reach a goal	0	1	2	3	4	0	1	2	
7) Evaluates solutions to determine if they are "good/bad"	0	1	2	3	4	0	1	2	
8) Chooses and implements a solution to put into action	0	1	2	3	4	0	1	2	
9) Reviews the plan to see if the goal was accomplished	0	1	2	3	4	0	1	2	
10) Rewards him/herself if the plan was successful	0	1	2	3	4	0	1	2	
	Subscale Total:				Subsc	ale Total			

Copyright © 2016 All Rights Reserved Michael C. Selbst, Ph.D., BCBA-D & Steven B. Gordon, Ph.D., ABPP



Application of POWER-Solving Steps		How often is the skill displayed?				How important is the skill to you?		
to Social Situations	Never	Rarely	Sometimes	Often	Almost Always	Not Important	Somewhat Important	Very Important
	0	1	2	3	4	Ö	1	2
100								
11) Starts a conversation appropriately with other children	0	1	2	3	4	0	1	2
12) Maintains conversation with other children	0	1	2	3	4	0	1	2
13) Changes conversation topics appropriately	0	1	2	3	4	0	1	2
14) Ends a conversation appropriately	0	1	2	3	4	0	1	2
15) Plays a game appropriately with peers	0	1	2	3	4	0	1	2
16) Requests help appropriately when needed	0	1	2	3	4	0	1	2
17) Gives others a compliment	0	1	2	3	4	0	1	2
18) Accepts others' differences & act respectfully	0	1	2	3	4	0	1	2
19) States triggers that contribute to feeling angry	0	1	2	3	4	0	1	2
20) Displays calming strategies when upset or angry	0	1	2	3	4	0	1	2
21) Stays calm when things do not go his/her way	0	1	2	3	4	0	1	2
22) Handles teasing appropriately in a calm manner	0	1	2	3	4	0	1	2
	Subscale Total:				Subsc	ale Total	l:	

#### SUMMARY OF SCORES

Social / Problem-Solving Skill SUBSCALE	How often is the skill displayed? TOTAL SCORE	How important is the skill to you? TOTAL SCORE
"POWER-Solving"® Steps		
Application of POWER-Solving Steps		
to Social Situations		
TOTAL OF SUBSCALES		
	TOTAL:	TOTAL:

Copyright © 2016 All Rights Reserved Michael C. Selbst, Ph.D., BCBA-D & Steven B. Gordon, Ph.D., ABPP

