Self-monitoring as a Means to Generalize Social Skills

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SELF-MONITORING AS A MEANS TO GENERALIZE SOCIAL SKILLS

by

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Abstract

Social skills are important for success in school as well as in life. Social skills training (SST) has been effective in teaching students required skills within the context of the training site, but often these have not generalized to additional settings (DuPaul & Eckert, 1994). This study researches the effect of adding self-management to an existing training program to determine if it will increase generalization of learned behaviors. Elementary students in a mid-west school were taught social skills in a pull-out program, but those skills did not generalize for many of those students into the classroom or other settings. Five students were then selected for additional intervention by teacher and counselor nominations. Each student had a target social skill that was identified for improvement. The target skill was assessed using multiple measures such as records of student discipline, teacher ratings, student ratings, grades, teacher survey, parent survey, and student survey. Adding a self-management system for four weeks increased generalization of learned social skills to other settings such as classroom, playground, cafeteria, art, and music classes. Implications for practice and future research are discussed.
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Chapter 1

Introduction

The Importance of Social Skills

Social skills are specific behaviors that well-socialized individuals demonstrate appropriately when they engage in social tasks (Gresham, Sugai, & Horner, 2001). Social competence is a composite of the ability to perform a social skill and the ability to discriminate when and where to use the skill (Schumaker & Hazel, 1984a). Social skills are an important aspect of a person’s life that affects many aspects of their well-being. Goleman (1995) suggests that emotional intelligence, which includes skills such as empathy, self-regulation, and putting others at ease, is more important for life success than one’s intelligence quotient. Gumpel (2007) claims “There may be no greater predictor of mental health than an individual’s ability to interact with his or her environment and develop a network of friends, associates, and peers” (p. 351). Employers consistently rank interpersonal skills as being as important as, or more important, than vocational preparation (Bullis, Davis, Bull, & Johnson, 1997; Elksnin & Elksnin, 1991, 1995). Employers want and expect their employees to be able to work cooperatively with others to develop products and services. Hagner and Rogan (1992) and Johnson and Johnson (1990) report that 90% of job loss is related to social-problems. Social skills are vital to a person’s well being and a major component in a person’s ability to keep a job.

Ray and Elliott (2006) cited numerous studies that positively correlate classroom behavior and social skills with academic achievement. Students who interact
appropriately with classmates are better able to work cooperatively and gain knowledge. Prosocial behaviors set the stage for learning and contribute in a variety of ways to student achievement. Academic knowledge, critical thinking, reasoning, problem solving, and meaningful learning are all enhanced when students have ample opportunities to interact and dialogue with their peers (Palinscar, 1998). This finding emphasizes the need for all students to have adequate social skills in order to interact appropriately so they may gain the most knowledge possible academically. Social skills and academic knowledge are fluid; one affects the other (Green, Forehand, Beck, & Vosk, 1980). Thus, acquisition of social skills is vital for students to be successful in school.

Although it is well documented that there is a relationship between academic performance and social competence, the natural question to ask is: Where is the link? Through the mapping of existing research, Patrick (1997) concluded the underlying skill affecting both domains is the ability to self regulate. Krappmann (1985) found a positive correlation between social competence and school achievement in his longitudinal study of 1st through 10th graders. By contrast, Ladd (1990) found those rejected by their peers scored lower on standardized school performance measures. Conduct also appears to be related to school achievement. Rejection by peers also predicted poor school adjustment and school avoidance; furthermore, it also related to decreased motivation for schoolwork. Patrick’s review (1997) concluded that students who learn how to self regulate improve in both academic and social skills.

Students with learning disabilities or behavior problems are increasingly being served in general education classrooms (National Center for Education Statistics, 2005).
The majority of these students have major deficiencies with social skills (Elksnin & Elksnin, 1995). Simply including them in the general education classroom does not ensure that they will make friends. Social skills are commonly incorporated into a resource room curriculum for students with disabilities. However, when social skills are taught in pullout classroom settings, there is a lack of transfer to the general education setting (Forness & Kavale, 1996; Krauter, McLaughlin, & Williams, 1986; Lewis, 1994). The ability to attain and keep friendships is perceived as an essential part of living and affects the students’ ability to perform academically.

The National Center for Education Statistics (2009) reports aggressive and violent behaviors continue as a problem in public schools. In the 2007-2008 school year, 85% of schools recorded at least one violent crime, theft, or other crime. Forty-six percent of schools took at least one serious disciplinary action against a student, defined as over 5 days of suspension or expulsion (National Center for Education Statistics, 2009). Exclusionary approaches, such as suspension and expulsion, have been shown to have negative effects such as: increased school dropouts, increased rates of disruption, and disproportionate representation of minorities in those excluded. Schools must address such behaviors in order to ensure that all students successfully complete school and are able to contribute positively to society.

About half of all children labeled with attention deficit-hyperactivity disorder (ADHD) have significant problems with peer relationships (Guevremont & Dumas, 1994). Numerous studies (Blackburn, 1989; Elksnin & Elksnin, 1998; Miller, Lane, & Wehby, 2005; Moore & Carey, 2005; Schumaker & Hazel, 1984b) indicate that people with learning disabilities have few friends, and this is disconcerting because the overall
The number of students identified as having a learning disability has grown significantly in the last 20 years despite a recent leveling trend.

Children are spending more time involved with computers, video games, and television (Boyse, 2009), which allows for less time to learn and practice social skills. Students who prefer to spend time by themselves rather than doing social activities have an increased chance of becoming socially isolated. Students who have been termed “social isolates” are more likely to be involved in crimes, drop out of school, and have psychiatric problems (Vincent, Houlihan, & Zwart, 1996).

**Social Skills and Cultural Diversity**

Although the term social skill refers to specific behaviors with agreed upon parameters, there are cultural influences to consider. Social competence is the combination of the ability to perform social skills and the ability to discriminate when and where to use them. Social competence may be hard to distinguish due to the subjectivity of the term. Determination of social competence is based on the judgment of others in the presence of demonstrated behaviors and the cultural bias of the observer. An understanding of a child’s cultural background will aid in determining if the child has a deficiency in social skills or simply a difference due to their cultural influences.

Rivera and Rogers-Adkinson (1997) argue that the misinterpretation of cultural differences as skill deficits contributes to conflicts between school and home environments. A person’s culture moderates the perception in which children are perceived as deficient in social skills. Rivera and Rogers-Adkinson note the four largest minority groups in the United States and the typical differences in approaches to certain social skills. Children from Hispanic American backgrounds are taught to respect and
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obey authority figures while African-American children are often raised to be more assertive and question those in authority. Cooperation is emphasized in Native American, Hispanic American, and Asian American societies while competition is emphasized in Anglo-American culture. Understanding the concept of establishing goals represents a futuristic orientation that may cause confusion to those that stress mastering each day as it comes. Non-verbal communication such as eye contact, proximity, and touching vary widely among different cultures as well. The instructor may need to adjust the skill being taught when a subset of the skill is identified as a cultural difference rather than a deficiency. The instructor may want to take cultural influences into account and integrate them into the social skills training such as stressing cooperation rather than competition. Discerning the difference between cultural differences and skill deficits has direct impact on assessment, identification, and instructional decisions. Culturally appropriate instruction promotes a philosophy of “different,” not “wrong” and assists children from culturally diverse backgrounds to achieve success in mainstream society yet provides validation and support for their cultural membership.

Social Skills Programs

Social Skills programs have been available for school use since the late 1970s. Elksnin and Elksnin (1998) recommend 11 curricula designed for elementary age children and 12 for adolescents. One of the first developed is Goldstein, Sprafkin, Gershaw, and Klein’s, (1980) Skillstreaming the Adolescent. Another choice, also by Goldstein (1999), is The Prepare Curriculum: Teaching Prosocial Competencies. These programs provide scripted lessons for 50 different social skills as well as suggestions for monitoring and feedback.
Gresham and Elliott’s Social Skills Improvement System (SSIS) (1990) has been referred to as one of the most effective social skills programs available today (Merrell, 2001). The SSIS uses a multisource approach by including videos, role-plays, work sheets, cue cards, and parent information forms. This intervention has evidence for reliability and validity of the scores (Elliott, Malecki, & Demaray, 2001). It contains teaching scripts and structure for ten social skills as well as suggestions for generalization and maintenance.

Social skills are taught in many general education elementary classrooms and are included as part of character and citizenship training (Meadan & Monda-Amaya, 2008). Social skills improvement is a common goal identified as part of an individualized education plan for students with disabilities who receive special education services (Schumaker & Hazel, 1984b). Social skills instruction can be effective, but delivering social skills instruction so that generalization and maintenance occur is very difficult and has not been broadly perfected (Gresham et al., 2001). Gresham (1998) determined that the greatest weakness of social skills training was lack of generalizing skills. In Stokes and Baer’s landmark article on generalization (1977), they refer to ”train and hope” as the most commonly used generalization technique, in which we teach a strategy and hope that the skill is used in other settings. They identify “train and hope” as a very ineffective technique. Three meta-analysis studies conducted by Gresham (1998) showed a treatment effect of social skills training over time to range from .20 to .47 ($M=.35$). This represents a 14% increase in social skills over a chance level of 50%.

Although many social skills programs have been shown to be effective for teaching social skills, they have not been effectively generalized over time or additional settings. More
research is needed on methods to promote this generalization; this research will fill this gap in knowledge.

**Definition of Terms**

**Social skills** are specific behaviors that well socialized individuals demonstrate appropriately when they complete social tasks (Gresham et al., 2001). A social skill can also be viewed as any overt behavior that a person displays involving another person (Schumaker & Hazel, 1984a). There is significant cognitive functioning involved in social skills. In using empathy, for example, an individual is required to understand a specific situation, discriminate among social cues to determine what skills are warranted, select an appropriate behavioral response, and then display the selected response.

**Social competence** is the combination of the ability to perform social skills as well as being able to discriminate when and where to use them. To be socially competent a person must be motivated to use the skills and demonstrate fluency. Social competence has an element of cultural behavior attached to it given individual experience and learning. Many cultures have different expectations as to aspects of social skills. To be socially competent, a person must be able to social problem solve. It involves the ability to bring skills together so that one skill flows seamlessly into another.

**Self-management** is a broad term that is related to self-monitoring and self-evaluation. Self-monitoring involves self-observation and recording when the behavior has been displayed. Self-evaluation is the use of self-monitoring outcomes to judge whether performance is acceptable or not. It involves the ability to evaluate a situation to determine if a particular skill is warranted, perform the skill, and then evaluate the skill as to accuracy. An individual is taught a desired target behavior and how to use a
monitoring form to collect data. The monitoring form should be designed to be age appropriate, simple to use, and remind the student of the skill and steps to the skill. Reinforcement is given for the accuracy of self-monitoring as well as the use of the target behavior. The reinforcement may be something simple such as a ‘thumbs up’ or verbal praise. It also may take the form of a tangible reinforcement. In some cases, a person may also be taught to self reinforce. Self-reinforcement with structured, frequent comparisons between self-monitoring and another data collector gives support and assurance that the behavior is accurately monitored. The support of comparing self-monitoring with another data collector is slowly faded to allow the individual increased independence with the skill. Skills used in self-monitoring may be academic in nature, such as number of correct answers, or behavioral, such as staying on task (Clark & McKenzie, 1989; Clees, 1994-1995). The frequency of self-monitoring can also be adjusted so that the individual is expected to go longer periods of time before self-monitoring. Frequency of data collection and supports can be adjusted or increased if the skill is not demonstrated at appropriate rates or accuracy. An important asset to self-management interventions is their ability to enable students to take responsibility for their own behaviors (Shapiro & Cole, 1994).

**Generalization** refers to the ability to perform a behavior outside the original training environment (Stokes & Baer, 1977). This would include performing the skill with other people, in additional settings, and with a variety of variables. It includes being able to recognize the need to use the skill as well as the accurate performance of the skill. It is an area that is frequently ignored during planning interventions but is an integral part
of any intervention if a strategy is successful in developing a skill that can be maintained (Baer, Wolf, & Risley, 1987).

**Problem Statement**

Social skills training is an essential curriculum in today’s schools (Korinek & Popp, 1997). The acquisition of social skills is essential for students to be successful, not only in school, but in life (Gumpel, 2007). Social skills training programs have been shown to effectively teach a variety of social skills (Maag, 2006); however, the generalization of those skills to other settings is still a concern. How can these programs be made more effective? What techniques can be added to existing programs that will increase generalization and maintenance? To what extent will the use of self-monitoring facilitate the transfer of social skills to a second setting in a school environment?

The independent variable in this research is the training of self-monitoring to students to use as a generalization tool to increase the use of social skills to other settings. Self-monitoring is operationally defined as the ability of the student to observe and record their use of the targeted social skill. The specific skill (or target behavior) for each child will vary and be determined by the child’s unique needs. Assessment data are helpful in identifying a child’s needs. The assessments used in this study were: discipline records, grades, teacher ratings, student ratings, teacher survey, parent survey, and student survey. These assessment data were gathered again after the intervention to determine if self-monitoring increased the students’ use of the target skill as well as had an effect on problem behaviors and grades.
The dependent variable is the ability to use social skills in a variety of school settings. The use of these skills was observed by teachers across settings within a school such as classroom, cafeteria, playground, hallway, to determine if the use of the self-monitoring intervention increased student use of the targeted skills. Teachers quantified their observations into ratings. These ratings, along with grades, discipline records, and SSRS surveys determined the level of generalization that was achieved.

The null hypothesis is that the use of self-monitoring will have no effect on students’ generalization of social skills.

Given the importance of increasing social competence in schools, what is needed is a literature review of self-management and generalization. Research will guide the methodology for the use of social skills training and related assessment tools that are valid and reliable. Much has been written concerning the use of self-management as a strategy for improving behaviors (Fantuzzo & Polite, 1990); however, less empirical evidence documents effective generalization techniques for social skills training programs. Issues and best practice research will be discussed in Chapter 2.

**Limitations and Delimitations**

This study is using a convenience sample of students nominated by teachers and a counselor using existing data and informal observation as a guide. These students have externalizing behaviors that disrupt the learning process and cause complaints or problems from peers. The study excluded those students with internalizing behaviors who do not have essential skills because they cause few problems with the learning process. This study is limited to those classrooms or students who have been taught
social skills since the focus is on teaching students to generalize to additional settings rather than teaching the behaviors.

Teachers were asked to help with the self-monitoring process by periodically checking students’ accuracy of their self-evaluation, participating in the interview process, and following through with agreed upon rewards for appropriate behavior. The study also required a commitment of time by parents and students who were asked to complete assessment surveys at the beginning and end of the study.
Chapter 2

Literature Review

This research focuses on the use of self-monitoring in order to improve generalization of social skills programs. A review examines critical aspects of social skills programs and the current research that supports the use of the most popular social skills programs. Approaches to generalization will be discussed as they pertain to social skills. Self-monitoring will then be reviewed as it applies to the generalization of social skills.

Critical Aspects of Social Skills Training Programs

Social skill training (SST) involves teaching explicit behaviors that are defined and demonstrated. These explicit behaviors are observable, and data may be collected to determine accuracy and frequency. According to Elliot and Gresham (1991, 1993), all social skills programs are designed to promote the acquisition and performance of social skills, while reducing or removing interfering behavior, and facilitate generalization and maintenance. The acronym of CARES can be used to identify five major clusters of social skills—cooperation, assertion, responsibility, empathy, and self-control—that have been shown to be valued by parents and teachers, and are in the repertoire of socially competent individuals (Elliot & Gresham, 1991). Social skills training programs lead teachers to classifying deficits as acquisition, performance, or fluency.

Assessment is the first step to good instruction. There continues to be a need to assess what skills are lacking with emphasis placed on those skills that are socially important. A good assessment tool will identify students who need acquisition of skills and those who have performance deficits. Acquisition deficits indicate a student does not
have the skill in their repertoire, implying that they have not mastered the skill.

Performance deficits pertain to students capable of performing the behavior but do not or do not perform the skills at an adequate level. Reasons for this may include: a misunderstanding of when the behavior is to be demonstrated, a lack of feeling comfortable with the skill, or a competing behavior is more efficient than the social skill by being easier to perform and lead to reliable and immediate reinforcement. A fluency deficit relates to the frequency of skill performance (Gresham, 1998). Assessment evaluates what behaviors are needed in the social environment in which the student lives. The reaction and perceptions of others becomes a natural reinforcement tool that can aid in generalization but only if the behaviors taught are those that are meaningful in their social networks (Warnes, Sheridan, Geske, & Warnes, 2005). Warnes et al. determined most but not all social skills viewed as socially significant are represented in social skills training programs. Social skills assessment tools need to identify who is in need, what behaviors are needed in their environment, and if the student has an acquisition or performance deficit.

Behavior rating scales have become popular in the past ten years due to their brief time demands, improved quality, and user friendliness. Scales are primarily used as part of the screening process to identify who is in need of social skills training. It is recommended they be confirmed with an additional type of assessment such as direct observations and/or clinical interview (Elliott & Busse, 1993). Elliott and Gresham (1987) promote the use of the teacher rating of social skills rating scale on which a teacher rates 50 items and four factors on a 1-3 scale. They also rate how important these skills are for classroom success. Demaray and Ruffalo (1995) did a comparative
evaluation of six popular social skills assessments, 4 norm-referenced and 2 criteria referenced. They concluded that the SSRS by Elliott and Gresham is the most comprehensive due to its link to interventions and the multi-assessment approach.

Merrell (2001) provides an extensive overview of best practices when assessing social skills. Naturalistic behavioral observations and behavior rating scales are proposed to be the best choices. The most effective observation system consists of 10-second, whole interval recording. Although this is a common recording tool, the Peer Social Behavior Code, which is part of the Systematic Screening for Behavior Disorders, is recommended. It requires observers to use a code during the 10-second interval to determine if the target student is socially engaged, participating, alone, or no code. Direct observation allows the observer to note the environment in which the social skills are being exhibited as well as the behavior. Observations are also helpful to determine if the behavior is an acquisition or performance deficit. If a student is observed attempting a skill, a performance or fluency deficit may be the problem. A fluency deficit includes a lack of performance of the skill in the proper sequence of steps.

Behavior rating scales have the benefit of requiring less time and training. They also are better at identifying low frequency but important behaviors that might not be seen in an observation. They capitalize on using the judgment of persons who are familiar with the student, such as the teacher or parent. The School Social Behavior Scales (SSBS; Merrell, 1993) provides an empirical structure that includes subscales of social competence and antisocial behavior. It was standardized with a sample of 1,855 students. It possesses an internal reliability range from .91-.98; test retest reliability between .60-.83; and inter-rater reliability between resource room teachers and
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paraprofessional aides from .53-.83. A rating scale is also included in the SSIS (Gresham & Elliott, 1990). This rating scale was standardized using a sample of over 4,000 cases and has a reliability range between .74 and .95 with inter-rater and test retest between .75-.93 (Merrell, 2001).

The Social Skills Rating system (SSRS; Gresham & Elliott, 1990) is a norm-referenced measure of social skills with a teacher, parent, and student rating form. Diperna and Volpe (2005) analyzed the reliability and validity for the elementary version of the SSRS and found internal consistency varied among subsets with the lowest in the area of self-control at .63. An acceptable criterion according to Ysseldyke and Salvia (1980) is at or above .80. Four of the subsets failed to meet this recommendation even though the total score was .83. In summary, evidence for the reliability of the total scale for the SSRS is minimally acceptable and is “…less than acceptable for the Empathy, Cooperation, Self-Control, and Assertion subscales “ (Diperna & Volpe, 2005, p. 346).

These concerns notwithstanding, the SSRS continues to be one of the most used scales in the research literature.

Merrell (2001) considers interviewing and socio-metric techniques to be second choices for assessing social skills. Although these may provide important information, they have not been adequately researched. Self-reporting and projective-expressive techniques were briefly mentioned but deemed not useful enough to detail. However, since it has been recommended that social skills be socially relevant to the people we are expecting to acquire them, it is also important to glean what the child thinks through some sort of assessment. One advantage of a self-report is the person’s unique position to report on their own behaviors across settings and situations (Danielson & Phelps,
Assessment practices are moving toward multiple measures of assessment data or a multiple-gating approach to identification. Therefore, self-assessment or reports are a useful tool. A self-assessment is included in Gresham and Elliott’s SSRS.

Danielson and Phelps (2003) reviewed a number of self-reporting instruments. Matson, Rotatori, and Helsel (1983) developed the Matson Evaluation of Social Skills for Youngsters (MESSY), which is a 62-item instrument on which students rate both positive and negative behaviors. According to Danielson and Phelps, it has not been highly rated in the literature due to the fact it has redundant items. Another self-report assessment is the List of Social Situation Problems (LSSP; Spence, 1980). It assesses social anxiety and assertiveness rather than social skills deficits. Language may be difficult for some students since the LSSP was developed in Australia. The Children’s Self Report Social Skills Scale (CS4) was developed to fill the need for a quick self-reporting assessment (Danielson & Phelps, 2003). It was normed using 276 upper elementary students. It is a 21-item measure in which children rate their behavior on a 5-point Likert scale. The CS4 used the two previously mentioned assessments (MESSY and LSSP) as well as a peer nomination scale to develop item content. It had test-retest reliability of .74, and internal consistence was high at .96. It has been shown to be a possible tool to aid in early identification when used in a multi-testing approach.

Using multiple means for collecting data and information is based on best practices in assessment (Merrell, 2001). Assessment tools can aid in promoting meaningful dialogue between parents, teachers, and students. They aid in determining what behaviors are important in the environment and which students are in need of acquiring specific skills. Observational data are important to determine the
environmental influences that promote or hinder the use of these skills. Observation may also be needed to determine if a student has an acquisition deficit or a performance deficit.

For those students who have acquisition deficits, the social skill is not in their repertoire. Therefore, the desired behavior is explicitly taught through direct instruction. Direct Instruction is a strategy in which the teacher’s role is to pass facts, skills, or strategies on to students in the most explicit way possible (Goeke, 2009). Direct instruction is effective because it is based on common learning principles, such as obtaining students’ attention, reinforcing correct responses, providing corrective feedback, and practicing correct responses (Burden & Byrd, 2010). It has also been termed as a structured learning approach because it consists of modeling, role-playing, feedback, and a transfer of training (McGinnis & Goldstein, 1984). Because it can be scripted, teachers can easily pick up lesson plans, prepared by others, which have the critical steps to the skill broken down, as well as everything the teacher needs to say and do for acquisition (Lane, Menzies, Barton-Arwood, Doukas, & Munton, 2005). Most of the scripts include an introduction, instruction of the skill, modeling, peer involvement, role-playing, feedback, and reinforcement of desired social behaviors (Miller et al., 2005; Williams & Reisberg, 2003).

An introduction includes a description of the skills to be taught with an explanation or discussion of why it is an important skill to possess and situations where the skill can be used (Merrell, 2001). This begins the cognitive aspect of social skills training. The introduction is based on cognitive theory, which attempts to explain behavior based on understanding the processes people use to decide how they will
behave. Humans make choices that make the most sense to them. The mind is often compared to a computer where gathered information determines the output or result. Cognitive theory, therefore, involves the thought processes that influence and occur prior to the behavior (Beck, Rush, Shaw, & Emery, 1979). Although cognitive theory during the 1960s initially rejected behaviorism on the basis that it reduced human behavior to a simple cause and effect, during the 1980s and 1990s the two theories merged into cognitive-behavioral theory (Lazarus, 1998), which allows for humans to think about a situation before reacting to it.

Bullis, Walker and Sprague (2001) point to 12 research articles that have demonstrated cognitive-behavioral theory (CBT) to be an effective approach to social skills training for at-risk youth. Based on a combination of cognitive theory and behavior theory, CBT promotes the teaching of positive thought processes that might influence the use of social skills. Beck et al. (1979) developed cognitive theory in the 1960s after being influenced by Ellis’ development of rational therapy in the 1950s. While antecedents influence student’s use of a skill, the reinforcement of the behavior determines if the skills will be repeated, which is based on behavior theory. During the 1980s and 1990s, cognitive and behavioral theories were merged into CBT. Pivotal to this merging were Lazarus, Clark, and Barlow (Lazarus, 1998). CBT focuses on both the antecedents and consequences. A person may be taught self-instruction or self-talk to help initiate a behavior as well as methods to deal with the emotional arousal that may influence the use of a skill. This involves teaching students the basic decision-making process: generating possible choices, determining the consequences of each, deciding which is best, performing the behavior, and evaluating the behavior. Bullis et al. (2001)
suggest teaching the thought processes behind the choosing of skills to promote
generalization. They also believe social skills training is most effective when embedded
in the regular curriculum so application is guaranteed.

After the introduction and discussion of the need for the social skill, the next step
is to model or demonstrate the skill. The teacher may model the skill and then ask
students to model or demonstrate the skill. This step is supported by social learning
theory (Bandura, 1977), which states people learn from observing others. It is sometimes
considered one of the theoretical bridges between cognitive and behavior theories
because it encompasses the interaction between what a person thinks about what has been
observed as well as the motivation and consequences for the behaviors. The steps to the
skills may be posted or students may be given a personal copy for easy reference. The
teacher must then create situations for the student to practice the skill with peers. This
can be done through role-playing or teaching a skill immediately prior to a situation
where the skill will be needed. McGinnis and Goldstein (1984) report research studies
demonstrating that students who engage in role-playing show significantly more behavior
change than those who just observe. Dong and Juhu (2003) combine the cognitive and
social theories in their approach to social skills training for young children. Feedback
and reinforcement are important components used to shape and encourage the occurrence
of the target behaviors.

The use of reinforcement is based on behavior theory. Behavior theory (Skinner,
1953) is based on principles of operant conditioning. The organism operating in an
environment performs a behavior, and the behaviors that receive reinforcing stimuli
(reinforcer) increase the likelihood of the behavior reoccurring given the same stimuli.
Those behaviors not reinforced will decrease the probability of a reoccurrence of the behavior. Thus, behavior is followed by a consequence, and the nature of the consequence determines if the behavior will likely be repeated in the future. All behaviors, no matter how simple or complex, are affected by the consequences those behaviors illicit. The likelihood of a behavior occurring can be increased by manipulating the consequences of desired behaviors. Teachers need to coach students to use the skills in natural settings. Both home and school contingent reinforcement can be used to generalize to additional settings. Reinforcement is integral to behavior theory, and it demonstrates that when target skills are reinforced immediately following the exhibition of the behavior, the likelihood that the behavior will be repeated increases.

The student who has been observed using a social skill in one context but not others is different from the student who has no knowledge of the skill. The student who has performance deficits needs to be motivated to use the skills. If the student lacks the opportunity to practice the skills, the teacher may need to manipulate the environment to ensure these opportunities arise. Manipulating the antecedents of a behavior is based on applied behavior analysis (ABA), which is an application of behavior theory (Deitz, 1982). Antecedents are those events that occur prior to a behavior and serve as a stimulus for the behavior. One possible antecedent would be to apply prompts or pre-corrects (reminders) to help this student identify situations where the skills should be used. Reinforcement would then be used when the student is observed using the target behaviors appropriately. A functional behavior analysis (FBA) may need to be performed to determine what behavior is being used instead of the appropriate target behavior and
what benefits or function the student is acquiring from the undesired behavior (Horner & Day, 1991).

Fluency problems stem from the lack of opportunities to use the skills or may develop from lacking some component of the skill. Fluency issues refer to a student who may attempt to perform the skill but does not include all the steps or uses the skill in the wrong context. The student may need a review of the steps of the skill before a manipulation of the environment to insure adequate practice. Scaffolding attempts may also help shape the needed behaviors. The student is then reinforced for the use of the skill or close approximations of the skill.

Students may also exhibit behaviors that interfere with the use of social skills. For those students, a contingency reinforcement of replacement behaviors is needed. According to ABA, the behavior should be observed to determine what antecedents are triggering the undesirable behavior so that the antecedents may be manipulated in order for the replacement behavior to occur. A brief FBA may be needed to determine the function the undesirable behavior provides the student in order to better understand how to manipulate both the antecedents and consequences. Gumpel (2007), for example, demonstrated how FBAs were effective with 12 boys with whom contingent reinforcement was successful in improving pro-social behavior play skills during recess.

Successful social skills training programs have common features such as explicit teaching, role-playing, and structured practice of the desired behaviors (Carey & Stoner, 1994). Teachers are capable of choosing a social skill and using these common elements to create their own social skills lessons. However, it may be easier to buy a packaged program that includes assessment and lessons in order to benefit from the suggested
sequence of skills and consistency. Two empirically supported SST programs that accomplish this will be discussed next.

**Social Skills Improvement System (SSIS).** The SSIS was designed to be used after assessment with the Social Skills Rating System (SSRS) developed by Elliott and Gresham (1991). It is the most referenced program in the literature. It is a norm-referenced measure of social behaviors. It includes forms to be completed by the teacher, parent, and students to assess the social skills and problem behaviors in a school setting. It was standardized using ratings from a sample of 2,400 children. The newest version, the SSIS (Elliott & Gresham, 2007), contains 10 social skills units that cover the skills of listening to others, following steps, following rules, paying attention to your work, asking for help, taking turns to talk, getting along with others, staying calm, doing the right thing, and doing nice things for others. All units are adult-or-teacher led activities, which divide each skill into three lessons requiring about 20 to 30 minutes teaching time to complete.

A search of the ERIC database yielded 29 research articles that used the SSRS as assessment tools, some of those following up with the use of the SSIS curricula. The SSRS was used to screen students as young as preschool and as old as adolescence (Bramlett, Gielmann, & Smithson, 1999; Richardson, Caldarella, Young, Young, & Young, 2009). Flanagan (1996) demonstrated evidence of convergent validity of the SSRS with the Behavior Assessment System for Children (BASC). Merrell and Popinga (1994) examined the evidence showing concurrent criterion-related validity between the Scales of Independent Behavior (SIB) and the SSRS. The SSRS has also been translated to Spanish and tested for internal consistency, test-retest reliability, parent-teacher cross-
informant correlations, and construct validity. Overall, it was considered to be a valid and reliable instrument (Jurado, Cumba-Avilies, Collazo, & Matos, 2006). There were no research results when only the SSIS was queried.

**Skillstreaming for Early Childhood, Elementary School Child, and the Adolescent.** These three curricula (Goldstein, 1999; Goldstein et al., 1980; McGinnis & Goldstein, 1997) teach a variety of social skills useful in the classroom and other social situations. Skillstreaming is based on a social theory model. We are social beings that learn from models or examples of appropriate behavior. It recommends a structured learning or direct instruction approach to teaching skills. The assessment, which is included, is divided into five sections: classroom survival, friendship making, skills to deal with emotions, alternatives to aggression, and skills for dealing with stress. There are a total of 60 questions. The assessment/checklist is based on a 5-point Likert scale and may be completed by teachers, parents, or students. The 60 questions are related to the 60 skills in the curriculum.

An ERIC search yielded 9 research studies, all showing positive effects for students’ pro-social behaviors after applying the Skillstreaming curriculum. Seferian (1999) used the adolescent version to improve the social behaviors of 15 students in a self-contained resource room for students with behavior disorders. He used rating scales and discipline reports to determine improvement. Rahill and Teglasi (2003) compared the use of social stories and the elementary version of Skillstreaming. Although social stories were more successful in improving teacher ratings of “bully” behaviors, both interventions improved overall outcomes of social behaviors based on teacher ratings using the BASC and the Social Competence and Antisocial Behavior subscales of the
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School Social Behavior Scale (SSBS). The study was conducted on 82 elementary students. Leonardi, Roberts, and Wasoka (2001) report positive effects on pro-social behaviors of 12 elementary students after using the Skillstreaming program.

The SSRS/SSIS (Elliott & Gresham, 1991) is more likely to be supported by research studies referring to the use of SSRS, and the Skillstreaming curricula is more frequently supported by research demonstrating positive effects using the lessons that promote pro-social behaviors. These two programs are supported by empirical research (Quinn, Kavale, Mathue, Rutherford, & Forness, 1999); however, there are many additional social skills programs that are commercially available.

Other social skills programs on the market have limited research supporting their use. When a search was conducted using four common educational databases, there were no results for any of the programs that follow. Those mentioned by Scheuermann and Hall (2008) include:

1. ASSET: A social skills program for adolescents which includes videotapes modeling six skills.

2. Social Skills in the Classroom uses scripted modeling and role plays to improve four categories of social skills: environmental behaviors, interpersonal behaviors, self-related behaviors, and task-related behaviors.

3. Stop and Think Social Skills Program uses role-play and activities to teach interpersonal, survival, problem-solving, and conflict resolution skills.
4. The Tough Kid Social Skills Book includes activities for assessing and teaching three basic social skills.

5. The Walker Social Skills Curriculum: ACCEPTS uses scripted lessons to teach 28 skills grouped into five areas at the elementary level and three at the secondary level. One area is devoted to classroom skills, and the rest are those that determine interactive competence and social adjustment with peers. It was originally developed as a grant project designed to prepare students with disabilities for integration into mainstreamed classes as designated by P. L. 94-142. It includes an assessment component called Assessments for Integration into Mainstream Settings or AIMS. AIMS uses teacher ratings and direct observational methods to assess a child’s adjustment to a regular classroom setting. Teachers are to identify behavior expectations and then determine the child’s ability to perform those expectations.

**Problems identified with social skills training.** There are at least three problems identified with social skills training: finding time, determining the skill, and generalizing the skill to additional settings. Finding time to teach social skills is one identified problem (Korinek & Popp, 1997). Teachers are continually asked to teach more with less time to do so. They are held accountable to the academic curriculum with state testing and No Child Left Behind. Some states link pay raises to student test scores. The lack of time to teach social skills is a concern that needs addressed if teachers are expected to include the teaching of prosocial behavior as part of the curriculum.
Another issue is determining which skills are socially relevant and are needed in the child’s environment (Demaray & Ruffalo, 1995). There has been progress made in developing assessment tools that answer questions such as: What students need help with social skills? What type of skill is needed? Is the need an acquisition, performance, or fluency deficit? These assessment tools must be easy to obtain and administer and be accurate and cost effective.

Finally, for a skill to be considered mastered, it must be demonstrated in areas other than the training environment. How can educators be sure that the newly acquired skills will be generalized and maintained to additional settings and across time? The generalization of social skills continues to be a concern that is often addressed in the literature (Blackburn, 1989; Brown & Odom, 1994; DuPaul & Eckert, 1994; Gresham, 1994; Herring & Northrup, 1998, Misra, 1992; Peterson, Young, Sulzberg, West, & Hill, 2006; Scott & Nelson, 1998; Smith & Gilles, 2003; Warrenfeltz, 1981). Suggestions follow for possible solutions to the three identified problems.

School Wide Positive Behavior Supports (SW-PBS) is a 3-tiered prevention approach that identifies and teaches school wide behavioral expectations. It is one response to requiring teachers to teach behavioral expectations. Teachers take a small amount of time to teach expected behaviors for common routines, rules, and procedures to all students. The behaviors are taught as they are needed and reinforced with praise, prompts, and pre-corrects. It is a proactive rather than a reactive approach to school behavior. SW-PBS has shown to effectively improve behavior with approximately 80% of students (Lewis & Sugai, 1999). Since all students are taught the expected behaviors, the need to assess or determine who needs certain skills is eliminated. The time
allowance to teach each skill is minimal and may result in a saving of time because teachers spend less time correcting inappropriate student behavior during the rest of the school year. Schools that use SW-PBS report a reduction in the number of behavioral disruptions (Vincent, Cartledge, May, & Tobin, 2009). A reduction in behavior disruptions has been shown to increase test scores. This correlation may help to encourage teachers to invest time for the instruction of basic social skills.

Smith and Gilles (2003) suggest social skills be embedded in instruction across a variety of settings, instructors, and activities to reduce time spent and promote generalization. Their approach includes a matrix to be used to plan when each skill will be embedded in instruction. The matrix can also be used as a checklist and reinforcement tool. Embedding social skill instruction within academic instruction is a legitimate way of addressing the problem of finding time to teach behavior. It would also ensure the behaviors taught are those needed in the students’ natural environment.

Teaching those behaviors that can be embedded in academic instruction does not ensure all relevant behaviors will be addressed. When determining what behaviors need to be taught, the question of whether a behavior is socially relevant to the student must be considered. Many popular social skills programs teach skills relevant in the classroom such as Elliott and Gresham’s SSIS (1990). Their program includes ten skills: listening to others, following steps, following rules, paying attention to work, asking for help, taking turns when you talk, getting along with others, staying calm with others, doing the right thing, and doing nice things for others. At least half of those skills are directly related to success in the classroom but not necessarily with making and keeping friends, which would be more socially relevant for most children. Making sure the skills taught
are deemed important by students may increase motivation and therefore, aide in generalization and maintenance.

Brown and Odom’s (1994) review of research concluded that social skills are not adequately generalized. Smith and Gilles (2003) reviewed 270 SST studies that used the “train and hope” method for generalization. DuPaul and Eckert (1994) reviewed seven empirical studies, looking specifically at the generalization effects of commercially available social skills training programs. Six out of the seven studies showed mixed success in generalizing skills. The study showing the most success altered the consequences in the natural environment to ensure maintenance of effects. Gresham (1998) acknowledged problems with generalizing social skills. He suggested looking at how efficient the new skill is compared with what has been used by the student in the past to give guidance in how to best manipulate the environment to assure the need for the replacement behavior.

Gresham (1998) reported an overall modest effect size when a meta-analysis was done of the SST literature. He suggested one contributing factor to the absence of generalization is the lack of classifying the skills as being acquisition, performance, or fluency deficits. Teachers need to improve assessments to determine what skills are lacking and what skills are needed in the current environment, along with determining if any deficits are acquisition, performance or fluency problems. Herring and Northrup (1998) led a study using the SSRS and found that group contingency and peer mediators improved generalization since social skills instruction alone had failed. They used peers to prompt students to use the skill, and when targeted skills were demonstrated, the entire group had access to reinforcement.
The problems of time, determination of socially relevant behaviors, and generalization of skills are areas that must be addressed if SST is to be considered a successful intervention. Generalization, as pertaining to behavioral intervention programs, will be discussed next.

**Generalization**

Generalization of behavior has been defined as “the occurrence of relevant behavior under different non-training conditions (i.e., across subjects, setting, people, behaviors, and/or time) without the scheduling of the same events in those conditions as had been scheduled in the training conditions” (Stokes & Baer, 1977, p.350). Stokes and Baer (1977) categorize generalization techniques into eight categories. The majority of interventions use the “train and hope” technique, which consists of teaching the intervention and then hoping students will generalize it to other areas. Sequential modification increases the possibility of generalizing by training across responses, subjects, settings, or trainers. It requires a systematic assessment of other settings requiring the skill and modifying the antecedents in those settings, changing the persons involved, or manipulating the setting to ensure the behavior is encouraged, reinforced and therefore generalized.

Stokes and Baer identified the introduction of natural maintaining contingencies as the most dependable of the programs. This technique consists of transferring the control from the teacher to stable, natural contingencies that can be trusted to operate in the subjects’ environment, such as using the skills at home so that parents may respond with praise. This may require the manipulation of the environment to ensure a student gains access to these naturally occurring reinforcers.
Another category identified by Stokes and Baer consists of training sufficient exemplars by instructing in a variety of settings and a variety of situations and people. They suggest training loosely by allowing for responses that are close to the target behavior and shaping those responses until they meet the parameters of the target behavior. Use of intermittent schedules of reinforcement is desirable because such schedules have been shown to increase behavior effectively across time. The next generalization technique is to make the experimental setting as close to the regular environment as possible. Finally, when certain terms become part of the setting, they can be used to prompt or remind when a skill is needed. Stokes and Baer mention self-monitoring as a possible tool, as well as reinforcing efforts to generalize.

SST can meet many of the generalization techniques that are recommended by Stokes and Baer. Teachers can teach behaviors that are socially relevant to the students in their particular setting and environment. This would mean teaching skills to improve students’ ability to make and keep friends as well as those skills that aid in success in the classroom. They teach these behaviors, as they are needed, embedded in the curriculum. One example is to teach the skills of listening and taking turns prior to a discussion. The teacher creates a list of the skills needed in the environments in which the student(s) is functioning. With that list, the behaviors required in each setting are taught prior to the event in which they are needed. After the skills have been taught, teachers can look for those ‘teachable moments’ to remind or prompt students to use the skills. This allows the student to be taught in the most natural settings possible and increases the number of examples and situations in which the skills should be used.
Teachers can “train loosely” by reinforcing close approximations of the behaviors and can manipulate the environment to ensure skills have an opportunity to be demonstrated across settings. Working with other staff in the building and including parents in the training will allow for an increase in situations, settings, and people involved. The more people who are aware of the training, the more likely they may reinforce attempts by the student to demonstrate the skills. This will also increase the chance of more naturally occurring reinforcers.

A new program introduced to help integrate social skills instruction into the curriculum is referred to as a “Book in a Bag” or BIB (Marchant & Womack, 2010). This program blends social skills and academics by using social skills stories as part of literacy instruction, which then carries over into a social studies lesson and is emphasized during a social skills lesson. Marchant and Womack (2010) note additional research supporting the integration of social-emotional and academic interventions as a holistic approach that is more accepted by educators. Allowing students to identify with the characters who face incidents that most students can relate to follows a bibliotherapy approach to teaching prosocial behaviors (Marchant & Womack, 2010). Bibliotherapy dates back to the 1930s when it was believed that reading is a healing experience particularly when the content of the story has relevance to the person’s life situation. Following up with direct instruction provides a strong basis for social skill acquisition. Generalization of the skills is developed with the use of a home note describing the skill and its steps, the rationale for the social skill, and ways parents may reinforce the skills at home.
Elliott and Gresham’s SSIS curriculum (2008) promotes generalization in a few ways. One of these is by periodically monitoring student progress so skills can be re-taught. The other purpose of progress monitoring is to identify students who should be referred to specialists for additional help. Teachers are encouraged to communicate to school personnel and parents with information about what is being taught to promote opportunities to use the skills and receive feedback. This program assigns practice homework but does not have any monitoring forms to determine if the homework assignments are completed.

In McGinnis and Goldstein’s Skillstreaming curriculum (1984), they refer to generalization as the “transfer of training.” They reference Stokes and Baer by promoting the use of training in the natural setting, training in a variety of settings and with different trainers, the reinforcement of skills, and over-teaching the skills by periodically reviewing, particularly right before an opportunity to use the skill. The Skillstreaming guide also promotes generalization by using homework, but their homework consists of the student using a self-monitoring form to evaluate their use of the target behavior. The skill and steps are listed at the top, a fill-in area for the setting, and then three types of faces (happy, neutral, and sad) for the student to evaluate their use of the skill. The bottom of the form asks the student why they circled the face they chose. Although their recommendation is for self-monitoring to be done in the home environment, this research studied the use in additional school settings to promote generalization.

Stokes and Baer (1977) also promoted the use of self-monitoring as a form of generalization. This could be part of sequential modification that is one of the strategies
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suggested. Sequential modification entails assessing the skills in different settings and then implementing interventions until the skills have been demonstrated in that setting. It entails using similar reinforcement procedures and consequences for the behavior, wherever it is expected to generalize. One step to the sequence could be the addition of self-monitoring procedures to ensure that the student is reminded of the opportunity to demonstrate the accurate use of the skill.

A number of articles have made recommendations for ways to promote generalization of social skills. Brown and Odom (1994) suggested lengthening training to 36 sessions, using a variety of trainers, train loosely with a variety of peers and settings, and varying and fading reinforcement. DuPaul and Eckert (1994) concluded that alteration of consequences in the natural environment led to generalization. Using peers to monitor use of social skills as a generalization technique has been used in studies with positive results (DuPaul, McGoe, & Yugar, 1997; Moore & Carey, 2005). Mathur and Rutherford (1996) reviewed 21 articles employing peer-mediated interventions to promote social skill generalization and found this technique produced immediate effects. Herring and Northup (1998) used a combination of group contingency with peer support to promote generalization after social skills training alone failed to produce the desired behaviors in students with emotional and behavior disorders. Sheridan, Hungelmann, and Maughan (1999) expressed concern for the need to find empirically-based generalization tools and recommended bringing the real world to training sessions. This includes incorporating activities that are part of the child’s usual social environment with many examples of situations where a particular skill may be appropriate. A teacher may train across settings by including elements of training in numerous settings where the skill may
be needed. The teaching of self-management may increase generalization by requiring
students to self-report as part of a homework assignment or journaling activity.
Researchers are responding to the lack of generalization of social skills training by
employing a variety of treatments. The next section will discuss the use of self-
management as one of those treatments.

Self-management as a Generalization Technique

*Self-monitoring* refers to the act of self-observation and recording of a skill by the
student. It is part of a larger concept, *self-management*, which encompasses monitoring,
instructing, evaluating, and reinforcing. In general, it is designed to teach students to
change or maintain their own behavior (Shapiro & Cole, 1994). It is a well-documented
intervention that has been shown to be effective with a variety of age groups and
disabilities, as well as with both academic and behavioral issues. Shapiro and Klein
(1978) initiated much of the interest in self-management with their study of changing the
behavior of children with mental retardation. Studies have shown self-management to be
effective with children as young as preschool (Connell, Carta, & Baer, 1993).

Nelson, Smith, Young, and Dodd (1991) have conducted research using self-
management techniques with emotionally and behaviorally disordered students with
positive results. In fact, self-management has emerged as a particularly effective
approach for students with every category of disabilities in general education settings
(Jolivette & Ramsey, 2006; McDougall & Brady, 1998) and is an effective alternative to
traditional classroom systems of behavior management (Carr & Punzo, 1993; Kern &
Dunlap, 1994). Webber (1993) reviewed 27 studies that found self-monitoring to be used
with special education students to improve classroom behavior. Shapiro and Cole (1994)
have demonstrated its success across both academic and nonacademic behaviors. It is presented as an alternative to teacher management with benefits of improving self-regulation and decreasing time teachers spend monitoring behavior. Shapiro and Cole (1994) promote it as highly beneficial to those students lacking self-control because it moves the presence of external control toward helping students develop skills needed to become more self-reliant. It also focuses on antecedent strategies, thus moving into the realm of preventive rather than a reactive strategy. “One of the most often touted advantages of self-management procedures is the potential for these procedures to facilitate generalization” (Shapiro & Cole, 1994, p.44).

Self-management may be approached through applied behavior analysis procedures emphasizing contingency reinforcement of appropriately and accurately self-monitoring the target behavior. Consequences, both positive and negative, may be given for behavior. Therefore, two levels of reinforcement are given; one for the act of self-monitoring accurately, and another for the behavior itself. Students are taught to self-monitor, evaluate, and reinforce target behaviors. Self-management may also have a more cognitive-behavioral approach when teaching children the various strategies used in different situations. In a cognitive approach, students are taught to self-instruct (talk to themselves), which has been identified as an important factor in the normal development of self-control (Meichenbaum & Goodman, 1969). It also asks students to examine or alter the thought processes preceding the response, thus emphasizing the antecedents that correspond to the behavior. Specific skills that may be of focus are self-instruction, learning to cope with stress, and social problem solving (Shapiro & Cole, 1994).
Self-management techniques employing a cognitive behavioral approach encourage the development of self-regulation behaviors. Self-regulation depends on a students’ knowledge of different strategies, which includes understanding the task content and the situations or contexts where the behavior is required. Also included are the students’ perceptions of the task, its perceived value, and the general interest in the task. Self-management allows for students to be periodically cued as to when social skills may be needed in order to scaffold their attempts to use these skills. SST helps in understanding the behavior expectations or the task.

Cognitive learning strategies include the ability to set goals, plan, monitor, and evaluate one’s performance. Self-regulation involves three processes: self-observation, self-judgment, and self-reaction. These are similar to the basic elements involved with self-management. The individual must have strategies that include elements that will control behavior as well as manipulate the environment. Students who possess facility with self-regulation are continually assessing the demands of a situation: selecting strategies, making decisions, planning, and monitoring. They alter the strategies used by evaluating their progress. This may involve being faced with an academic problem in which the student must decide on what math process will successfully solve the problem, or a social situation where the student must determine how to approach someone and what words to use to gain the desired results.

Self-management is a multistage process of observing and recording one’s behavior (Mace, Belfiore, & Hutchinson, 2001). The first step is for the individual to be able to discriminate the occurrence of the behavior. The behavior must be in an individual’s repertoire, and a person must be aware of when to elicit the behavior. The
goal is to recognize when and where a specific skill is needed. The second step is to record that occurrence. Self-recording is considered an immediate consequence and is frequently self-rewarding. Typically, a prompt is given to the child indicating when to assess the behavior and record. A student’s accuracy of recording can be evaluated by using an external observer, who will intermittently record the behavior and then compare results. Reinforcement can then be given when the self-evaluations closely match the evaluation of the external observer. This aids in teaching the student how to evaluate because the reinforcement at this stage is given for accurate recording of the behavior, even if the behavior was not appropriately demonstrated. Feedback can also be given as to the accuracy of the skill. After it has been established that the student is able to accurately evaluate and record their use of the target skill, reinforcement is given for the demonstration of the skill, although this may be unnecessary as the self-recording may serve as reinforcement. The frequency with which the individual is asked to self-record can be adjusted as needed. Monitoring forms can be developed to be simple enough for any cognitive level. Increasing the length of time between self-recordings can easily fade this type of intervention.

Despite the substantial empirical support, this intervention does not appear to be used regularly in schools (Cole & Bambara, 1992), nor is it widely used as a tool to promote the generalization of social skills. A search of the EBSCOT database yielded 7959 results when queried to show peer reviewed articles concerning self-management or related terms. When the term social skill was added, the yield dropped to 5. Psych Info yielded 11586 results for self-management but dropped to 14 when social skill was added to the query. The ERIC database had similar results. Cole and Bambara (1992) surmised
that schools do not widely adopt the use of self-management due to the lack of knowledge or comfort level of their use.

**Self-monitoring and Generalization**

Self-monitoring has been used as a generalization tool in nine studies involving social skills. In Gumpel’s research (2007), three elementary boys with an Emotional/Behavioral Disorder diagnosis were taught to monitor prosocial play skills during recess with positive results. Another study used a combination of self-evaluation and peer mediation to improve the classroom behavior of two boys with Behavior Disorders who had been transitioned to a general education setting (DuPaul et al., 1997). Misra (1992) also used self-monitoring with three adults with mental retardation to promote generalization of social skills. The intervention demonstrated an increase of desired behaviors across settings and people.

Nelson et al. (1991) conducted a review of 16 studies of self-management with students identified with a behavior disorder and found self-management to be an effective procedure for promoting both social and academic behaviors. Rhode, Morgan and Young (1983) demonstrated the use of self-evaluation with six students with EBD to improve classroom behavior. Peterson et al. (2006) and Peterson, Young, West and Hill (1999) conducted studies with middle school students demonstrating positive effects of the use of self-monitoring as a generalization tool when teaching social skills. Sasso (1990) used a structured learning approach to teach social behaviors and then taught the three male students in a self-contained classroom for behavior disorders to chart the frequency of their behavior. DuPaul and Hoff (1998) used self-management to reduce the disruptive
behavior of three elementary boys with ADHD. These studies demonstrate the ability of students labeled EBD to learn and use self-monitoring to generalize behavior.

A review of 27 studies conducted by Webber (1993) found that self-monitoring can be successfully used with special education students to decrease inappropriate classroom behavior and to increase attention to task, positive classroom behaviors, and some social skills. Self-monitoring also appears to increase the likelihood of generalizing learned behaviors to new settings. Results indicate the procedure was effective in promoting social and academic behaviors and aided in generalization. The research demonstrated self-monitoring as a generalization tool with a few social skills; most studies addressed classroom behaviors rather than those skills needed to make or keep friends. The majority of these studies used special education students as participants rather than using the technique as a common generalization tool to be used at the end of social skills training.

As mentioned earlier, one of the reasons that social skills are important is their association with academic skills. One of the components that links them together is the ability to self regulate or control one’s behavior (Patrick, 1997). Wentzel (1991) studied the relationship between academic performance and three aspects of social competence: socially responsible behavior, socio-metric status, and self-regulatory processes. The ability to set goals and problem solve were considered basic components of social competence. These are skills taught in self-regulation and self-management interventions. Many of the same constructs that are needed to self regulate behavior are necessary to successfully maneuver academic processes. Self-regulated learners are able to assess the demands that a task requires, are motivated to attempt even difficult tasks,
and view mistakes as part of learning (Wery & Nietfield, 2010). Wery and Nietfield provide research indicating that to develop self-regulation, children must have some control over their learning and be asked to evaluate their own work. They suggest the use of self-monitoring to promote overall self-regulation skills.

The benefits of self-management with students with ADHD have long been questioned. Cognitive approaches have not been found to be effective due to the fact that a common characteristic of students with ADHD is impulsivity. However, when based on contingency management, positive effects have occurred (Shapiro, DuPaul, & Bradley-Klug, 1998). When a person is taught to focus attention on one’s own behavior, through the act of self-observation and self-recording, it causes positive effects or improvements in the target behavior. Self-regulation is lacking in students with ADHD but the use of a contingency approach to self-management improves this area.

**Summary**

Social skills are important for students to be successful in school as well as in life. Schools and teachers have access to social skills training programs that have proven to be effective within certain contexts; however, these programs lack generalization. For an intervention to be considered truly successful, it must generalize across settings and situations. Self-management has proven to be an effective intervention strategy that is flexible enough to use with students of various ages and disabilities. There is limited research that supports its use with social skills. Additional research is needed to support the use of self-management strategies as a generalization tool.

Social skills affect many aspects of a person’s life and, therefore, are essential. Social skills can be easily taught in a school setting by imbedding the skills within the
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Curriculum or teaching through direct instruction to small groups of students or the entire class. Research studies demonstrate that students are able to learn needed skills using those frameworks. However, skills have not been shown to generalize to other settings within the school. The purpose of this study is to determine the extent that self-monitoring techniques can be used to facilitate the transfer of social skills to other settings within the school environment.

The major research questions answered by this research are:

1. Does self-monitoring by elementary students improve the observed use of targeted social skills to a variety of settings?

2. Does the improvement of social skills have any effect on grades?

3. Does the improvement of social skills decrease the number of discipline referrals given to students?

4. Is there a difference between baseline and post-intervention attitudes as measured by indirect assessments of social skills (i.e., teacher, parent, and student interviews using the SSRS)?

5. Do practitioners view the teaching of self-management as a method for students to generalize social skills as a manageable, effective, and efficient tool?
Chapter 3

Methods

Participants and Setting

A convenience sample was employed to identify students to be involved in the study. Students were selected to participate in social skills training based on discipline records gathered from office referrals and teacher/counselor referral. The same information was used to select students for the generalization intervention.

The school district was a rural district in a farming area of eastern Missouri. The population was approximately 18,000 with 7.6% of the families in poverty status. Most adults were employed in manufacturing (23.5%), and 10.9% had achieved a bachelor’s degree or higher. The district had 2,010 enrolled in school (K-12) with an 83% graduation rate. The district was predominantly Caucasian (97%). The building involved in the study was a K-5 building.

The school district was trained in School Wide Positive Behavior Supports (SW-PBS) but had dropped the program when administration was changed. The school continued some of the systems employed by SW-PBS. One of those was the use of a process to identify students who need additional supports with the use of teacher nominations and office discipline referrals. Students identified were offered two interventions: Check In Check Out and/or Small Group Social Skills

**Student #1.** Student #1 was a Caucasian female in Kindergarten with no reported disability. She turned six years of age during the research. The target behavior for Student #1 was to increase her respect for other’s personal space. When this student did not get peer attention quickly, she would inappropriately touch or put her face very close
to theirs, or take away what the peer was playing with. During the review of the target social skill, appropriate touch, asking to use others’ belongings and personal spacing were discussed, modeled and practiced.

**Student #2.** Student #2 was a Caucasian male in Kindergarten with no reported disability. He was five years of age. The target behavior for Student #2 was to act appropriately when angry or frustrated. When this student became angry or frustrated, he pouted, threw things, and refused to talk or work. Review of the target social skill included asking the student to describe situations that made him frustrated or angry and identifying as effective strategy to use: using words, walking away, or asking for help. The student rehearsed a variety of possible scenarios.

**Student #3.** Student #3 was a male in first grade with no reported disability. He was a seven-year-old. The target behavior for Student #3 was following directions. When the teacher gave a direction, the student did not complete the direction in a timely manner or did not attempt the task. Review of the target social skill involved a discussion of why the skill was important and situations requiring the skill. Steps to following directions were reviewed, modeled, and practiced. The steps included: listen to direction, ask questions if needed, say the direction out loud or to yourself, do it.

**Student #4.** Student #4 was an African American male in first grade with a disability of Intellectually Disabled. He was a seven-year-old. His discipline report showed frequent problem behaviors on the bus, which included getting out of his seat, yelling, and throwing things. He rode a bus provided for special education students with an aide to assist students’ needs. Review of the target social skill involved modeling and
practicing the bus rules. Appropriate items to play with were discussed and collected to keep the student busy during his ride.

**Student #5.** Student #5 was a Caucasian male in second grade with no reported disability. He was eight years of age. The target social skill for Student #5 was to act appropriately when angry or frustrated. When angry or frustrated, he hit or spoke inappropriately to peers. Review of the target social skill involved the student describing situations that made him frustrated or angry and identifying an effective strategy to use: using words, walking away, or asking for help. The student rehearsed a variety of possible scenarios.

**Instruments and Materials**

**SSRS.** The SSRS is a well-researched method of identifying students in need of social skills training. The SSRS includes rating scales for parent, student, and teacher use (see appendices A, B, and C). This standardized, norm-referenced scale documents the perceived frequency of a student’s social competence. It was designed to be used as a screening, classification, and intervention planning tool and was used as such in this research study, but it was also used as a dependent measure to evaluate the intervention effects. Meier (2000) researched the Parent-Elementary Form of the SSRS to determine its ability to measure treatment effects. The use of .05 level of statistical significance led to the conclusion that 22 of the 55 items on the assessment provided reliable indications of changes in response to an intervention. These indirect assessments were used to gather baseline information and again at post-intervention to determine perceived changes. This pre/posttest information was charted for visual inspection, and a paired $t$ test further aided the analysis of the data.
It was important to include parents, teachers, and students in the SSRS assessment for several reasons. Parents have a unique view of their child during times not available for researcher observation and during purely social periods. Parents hold valuable information concerning their child’s skills that are an asset to the intervention process. They have observed their child in multiple interactions involving a variety of people in diverse settings that give them a unique perspective as to their child’s needs.

Students have unique insight into their own behavior. Elementary children are capable of completing a simple behavior assessment developed for their age that glean valuable pieces of information concerning what they want to learn. Including students in the assessment validates them as important participants in the process of improving needed social skills. Criticism of many social skills programs has been they teach skills not relevant to the child. Socially relevant behaviors are more likely to be identified when students are included.

Elementary teachers spend a great deal of time with their students. They also have cafeteria and recess duty, which allows them to observe their students in less structured settings. They have regular communication with other adults who supervise or teach their students’ physical education, music, and art. They use a variety of teaching methods requiring students to interact with their peers in an assortment of ways and also have access to data concerning which students are experiencing behavior concerns requiring office referrals or time out procedures.

**Office referral data.** As part of the SW-PBS, information concerning students’ discipline referrals was available along with what behavior caused the referral and where the problem occurred. These records were originally going to be a dependent measure as
one method to determine treatment effect. However, the school used a cumulative method of determining consequences for a behavior. With this method, a student was given harsher consequences each time a problem behavior was demonstrated. A problem behavior may start with consequences in the classroom but will result in an office referral if the student continues displaying the behavior. Comparing office referrals for the month prior to intervention with the month after intervention would not necessarily define the intensity or amount of problem behavior demonstrated by the students because this study was conducted near the end of the school year. As a result, office referral data were unable to be used as a valid measure of behavior progress.

Minor discipline could have been another method to determine if the intervention had an effect on overall discipline issues. Teachers were encouraged to keep track of minor discipline problems by recording days a student earned a red card when using the green, yellow, red card system. These minor discipline records were used to determine students in need of behavior interventions. However, teachers did not regularly keep track of classroom discipline as the school year came to a close, so those records were not available.

**Teacher rating scale.** Although direct observation is a common tool to measure a student’s use of a skill, it was not accurately assessing students with anger management issues when employed at a pilot site. Several participants had anger management problems, and it was difficult to systematically observe high intensity but low frequency behaviors. Therefore, a teacher rating scale was used in place of direct observation. Teachers were asked to rate the student’s use of the target social skill daily on a 1 to 3 scale for 2 weeks. These scores were averaged and given a percent of the possible total
for the week and are labeled as “baseline” in student graphs. A 3-point scale was used to match the 3-point scale of the students’ self-monitoring form. A 3 indicated a student displayed the target skill, a 2 indicated the student needed reminders or inconsistently displayed the skill, or a 1 indicated the student did not display the skill. A copy of the scale can be found in Appendix D.

**Student self-monitoring form.** This form consisted of the students’ target social skill with the subsequent steps that comprised the skill. An area was designated for students to record their rating of the social skill by circling a smiley face, a straight face, or a sad face. A smiley face indicated the student had accurately displayed the skill and was worth 3 points. A straight face indicated they had needed one or two reminders to display the skill and was worth 2 points. A sad face indicated they had not used the skill or needed more than two reminders and was worth 1 point. This point value corresponded to the point value on the teacher rating form. Student ratings of their behavior were averaged each week and percent of possible points graphed. Student use of target skill was labeled on the graph as “training” during the time they were being checked by the teacher each time they rated themselves, and “independent” while the teacher was periodically checking. A final area was used for teachers to indicate if they agreed or disagreed with the student ratings. Appendix E contains a copy of the monitoring form.

Teachers were asked to evaluate the fidelity of the intervention by completing a checklist each time they completed an agreement check (Appendix F). Checklists were completed weekly by all teachers in the study and collected when the researcher visited the students. These checklists allowed the researcher to evaluate if teachers were correctly implementing so additional instruction could be given as needed. A total of 2-4
checklists were collected during training phase and 4-6 checklists collected during intervention phase. Checklists are not as reliable as direct observation in determining implementation fidelity, but they are an efficient tool shown to effectively increase fidelity of implementation (Gawandem, 2009).

**Student grades.** Grades are used as indicators of academic success in schools. McIntosh (2005) and Tobin and Sugai (1999) found a relationship between academic performance and problem behaviors across grade levels. Additional studies (Luiselli, Putnam, Handler, & Feinberg, 2005; Horner, Sugai, Eber, & Lewandowski, 2004) found schools in which behavior improved as measured by decreases in office discipline referrals and suspensions and by increases in academic proficiency as measured by standardized tests. Grades are a useful indicator of generalization of behavior (Sparks, 2011). Therefore, term 3 grades, which were gathered before the study began, and term 4 grades, which were gathered after the intervention was complete, were compared.

**Program evaluation.** All participants were interviewed to determine their satisfaction of the process and their perceived benefits or needed changes of the program (Appendix G).

**Procedures and Research Design**

This study was a single-subject multiple baseline design. This case study approach used pre-intervention data as the control and compared these data to post-intervention data to determine level of effects. A multiple-baseline design was used to initiate treatment at different times across subjects. This allowed the researcher to rule out other possible explanations for a change in the behavior during treatment (Morgan & Morgan, 2009). Although all participant behaviors were considered social skills, the
target behaviors emphasized for skill training varied by participant according to their needs.

The study was conducted in four steps. The first step consisted of gathering baseline data. Interviews, teacher ratings, and discipline records formed the multi-assessment approach at step one. The interviews consisted of SSRS survey completion by teacher, parent, and student. From these results, a target behavior was identified for each student. Teachers were interviewed again to determine function of problem behavior and identify a time frame for the intervention to occur. Teachers were then asked to begin daily ratings of the student’s use of the target social skill on a 1 to 3 scale.

Step two, the training phase, consisted of the review of the identified social skills and the teaching of the self-monitoring tool. Each student met with the researcher to discuss the importance of the target social skill, the critical steps, and situations the skill would be needed. Teaching the self-monitoring tool involved role playing examples and various levels of adherence to the steps of the target skill and allowing the student to determine the appropriate face to be circled (smiley face, straight face, or sad face). Training continued during the designated time frame with the student using the self-monitoring tool and teacher checking for accuracy each time. This training phase continued until teacher and student agreed on skill rating a minimum of 80%.

Step three was implementation of the intervention with periodic checks as to the accuracy of student monitoring. Students self-monitored the target skill during the designated time frame, and teachers faded student accuracy checks to 1/5. The fading consisted of teachers checking every other time, if accurate fading to every third time,
then every fourth time and maintaining once every fifth time. If the student was not accurate, the teacher increased checks.

Step four entailed repeated assessment and data collection from interviews, rating scales and discipline referrals to determine effects of the intervention. Teachers, parents, and students were asked to complete the SSRS and satisfaction surveys.

The counselor used a pull-out approach to group students by skill; students requiring work on similar skills worked together. The counselor used scripted lesson plans gathered from a variety of sources, including the state counseling social skills curriculum (for example, see www.mcce.org), to teach identified skills. The counselor conducted 3-5 groups. Some learned basic skills such as listening and staying on task, and more advanced groups learned pro-social skills such as how to get along with others. The counselor conducted the Small Group Social Skills with strategies discussed earlier and recommended by research. The counselor completed a checklist adapted from a popular social skills curriculum to determine the counselor’s level of adherence to the steps needed to implement a social skills group with fidelity. The completed checklist indicated all steps except generalization were completed as recommended (see Appendix H). Although students demonstrated skills within the training setting, some of the students considered by the counselor to be models failed to use the skills in the classroom. Teachers were asked to review the social skills and reinforce students when they observed the use of the target skills. They also were asked to use pre-corrects or prompts as reminders immediately prior to when a social skill was needed in the natural environment. Teachers still reported persistent lack of generalization of these skills to the
Self-monitoring as a Means to Generalize Social Skills

classroom or other areas of the school building. This research studied one possible way to increase generalization of social skills training.

The district granted permission for the additional research to be conducted following the parameters outlined in this report.

**Step 1 – collecting pre-intervention data.** A parent of each of the five students in this study was asked to complete the parent form of the SSRS prior to the intervention and again approximately three months later after implementation of the intervention. One parent declined to be part of the study. The goal was to identify the socially relevant behaviors parents were interested in reinforcing and supporting in the home environment. The parent form of the SSRS contains five sub-scales; cooperation, assertion, responsibility, self-control, and problem behaviors.

Each of the students’ teachers completed the teacher form of the SSRS during the same time periods. The teacher form of the SSRS contains four sub-scales; cooperation, assertion, self-control, and problem behavior.

The SSRS student form was normed and recommended for students in grades three or above. Since all students in the study were below third grade, the SSRS student version was not completed but used as a guide for discussion of social behaviors the students might be interested in improving.

The results of the SSRS parent and teacher pre-assessment were used to determine the target social skill for each student. The pre- and posttest results were compared, and a paired *t* test used to assess intervention effects.

From the SSRS and office discipline referral data, specific behaviors for each child were identified along with settings in which the behavior was a concern. The social
skill was also chosen from those skills that had already been taught to the student by the counselor in the pullout program. The behavior was operationally defined to be observable and measurable to enable clear communication to the child, teacher, and parent. From this definition, teachers were asked to rate the child’s use of the skill.

Teachers were also interviewed to determine the probable function for each student of the problem behavior and in what settings the behavior was most likely to occur. A follow-up observation was done to confirm the hypothesis. A time was agreed upon for the student to review the skill and receive training on how to self-monitor.

Teachers were instructed as to their role during the training and independent phases of the intervention, and a date upon which to begin the intervention was agreed.

Teachers were asked to begin charting the student’s use of the replacement behavior for the purpose of pre-intervention data. Teachers rated the student’s use of the target behavior on a 1 to 3 scale daily for two weeks prior to the intervention. A rating of 1 indicated the student did not display the behavior, 2 indicated they inconsistently displayed the behavior or needed reminders, and 3 indicated display of the behavior. The 3-point scale matched the scale used by the student during the intervention phase as they self-monitored the same behavior during training and then independently.

Student trainings were staggered to create a multiple baseline approach. Students #1 and #2 were trained first, Student #3 ten days later, Student #4 seven days after Student #3, and Student #5 seven days after Student #4. Teachers were asked to complete a weekly implementation checklist as a reminder of the steps and to ensure fidelity.
**Step 2 – instruction.** Social skills were reviewed with each student using a scripted, direct instruction approach. This was done individually. All social skills reviewed were those the student had previously learned with the counselor in the pullout program. Students were asked to define the target social skill. They were asked why the skill was important, when they would use the skill, and the specific steps of the skill. Students were given a situation and asked to model or role-play how they could best handle that situation using the steps of the target social skill. A discussion followed concerning recent times when they needed to use the skill. This session took approximately 30 - 45 minutes and was conducted at a time convenient for the teacher.

Students who completed the review session were taught self-monitoring to begin the intervention phase. At this step, the self-monitoring form was introduced with a discussion of how to use it, how frequently it should be used, and settings for its use. During the training and intervention phases, students circled a face corresponding to their opinion of their use of the target skill. Students were instructed to circle a smiley face if they used the skill correctly (corresponding to a 3 on the teacher rating chart), a straight face if they needed help or a reminder to demonstrate the skill (corresponding to a 2 on the teacher chart), or a sad face if they did not use the skill (corresponding to a 1 on the teacher chart).

One classroom setting was selected based on the teacher interview as to when problem behavior most frequently occurred. Students were informed that teachers would be checking the accuracy of their rating. The teacher expressed agreement with the rating by initialing in the box provided or asked the student why the rating was chosen if there was disagreement. If the teacher and student agreed, the teacher gave verbal praise for
agreeing and allowed the student to put a sticker on their chart. If there was disagreement, teachers were asked to discuss rather than just tell the student they did not agree so the student would gain an understanding of the expected behavior. The charts were checked each time the student rated their behavior until the student agreed with the teacher four out of five times. Once a student reached 80% agreement, the teachers were asked to fade verbal praise for agreement slowly—every other time, every third time, fourth time, and then maintain at a rate of approximately 1/5. In practice, teachers reported they checked daily because younger children required them to store the chart in a secure location. This allowed teachers to daily view the students’ responses and increase or decrease praise for accuracy as needed. Teachers were encouraged to reduce praise for accuracy to the 1/5 rate and praise only for demonstrating the target behavior.

**Step 3 – intervention.** Student participation in the intervention was staggered by when student completed the two instructional sessions. During the acquisition of the self-monitoring skills (training phase), students were checked daily by the teacher as to the accuracy of their self-monitoring. If the student was not accurately assessing behavior, an additional session was given to review the procedure. The agreement checks were increased or decreased based on agreement.

From the functional behavior information gathered during the teacher interview and initial observations, a reinforcement schedule was established. Reinforcement included teacher praise for self-evaluating correctly and use of the target social skill. Stickers were given for student/teacher agreements during training phase and for a smiley face rating during intervention phase. A star student certificate was awarded for meeting weekly goals which could be turned in for positive attention from the principal. The
student independently self-monitored for a minimum of four weeks. The last week of the intervention, teachers were asked to initial their ratings on the self-monitoring to check accuracy again. The teacher was asked to complete a weekly check list to determine if the intervention was implemented with fidelity.

**Step 4 – analysis of data.** After students had independently self-monitored their behavior for 4-6 weeks, the original assessments were repeated. Teachers and parents were interviewed using SSRS rating scale with the addition of a program evaluation survey for parents and staff to assess perceived effectiveness, feasibility, and ability to sustain intervention. A $t$ test was applied to the SSRS teacher and parent pre and post intervention rating scales. The means of the baseline and treatment phases were compared as well as the variability of their scores. The table of significance determined if the ratio was large enough to say that the difference between the groups was not likely to have been by chance. The significance level used was .05.

The teacher daily ratings of skills before treatment were totaled and computed to a percentage, graphed, and used as baseline. The student’s self-monitoring was also totaled each week and computed to a percentage and graphed. A comparison was visually made between the baseline and the intervention phases to determine effects of the intervention. One can look to see if differences are apparent between the levels of behavior recorded during baseline as compared to intervention. A trend line was applied to the graph to further aid in visual inspection. The two phases were further analyzed by using the percentage of non-overlapping data (PND) statistic recommended by Scruggs and Mastropieri (2001). In this method, a line is drawn through the most extreme data point in baseline and extended into the treatment phase. The number of data points that
fall outside the line in the preferred direction of the intervention effect were compared with the total number of data points collected in the treatment phase. Thus, a percentage was calculated. Scruggs and Mastropieri offered criteria to use to judge the effects of treatment; above 90% is very effective, between 70% and 90% equals an effective treatment, 50% to 70% would equal questionable effectiveness, and below 50% would be considered ineffective. In addition to visual examination and PND as methods of analysis, effect sizes were calculated to determine the strength of the intervention. Effect sizes were calculated by subtracting the mean of the baseline phase from the mean of the treatment phase and dividing by the standard deviation of all data points (for example, see Bonner & Barnett, 2004). Cohen (1992) gives the following guidelines; small effect size $r = 0.1 – 0.23$, medium effect size $r = 0.24 -0.36$, large effect size $r = 0.37$ or larger.

**Limitations**

External validity was limited due to the small sample size inherent in single case research design. The participants were selected by teacher nomination based on office referral and time out data. There is a possibility of bias or subjective use of both of those forms of consequences. Using this form of data may result in some students being ignored due to exhibiting internalizing types of behaviors rather than externalizing. Teachers may not be aware of students that lack social skills if they do not cause a disruption in the learning process or conflicts between other students.
Chapter 4

Results

SSRS

The teacher and parent forms of the SSRS were used as a pre- and post-intervention measure. If the intervention is effective, mean scores increase from pre- to post-test in the area of social skills for parent and teacher subtests, and they should decrease in the area of problem behaviors. The results are summarized in Table 1.
Table 1

SSRS Pre- and Post-Intervention Descriptive Statistics, $t$ Values, and Probability Values

<table>
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<tr>
<th>Subscale</th>
<th>Pre-Test</th>
<th></th>
<th>Post-Test</th>
<th></th>
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<th>$p$</th>
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<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td>M</td>
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<tr>
<td>Cooperation</td>
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<td>8.50</td>
<td>4.36</td>
<td>14.00</td>
<td>4.40</td>
<td>3.54</td>
</tr>
<tr>
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<td>15.75</td>
<td>5.06</td>
<td>18.75</td>
<td>1.89</td>
<td>1.41</td>
</tr>
<tr>
<td>Responsibility</td>
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<td>12.25</td>
<td>4.57</td>
<td>14.25</td>
<td>2.22</td>
<td>1.36</td>
</tr>
<tr>
<td>Self-Control</td>
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<td>8.25</td>
<td>4.57</td>
<td>12.75</td>
<td>4.86</td>
<td>3.78</td>
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<td>Total</td>
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<td>5.23</td>
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<td>3.97</td>
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<td>2.22</td>
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<td>1.41</td>
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<td>3.15</td>
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<tr>
<td>Total</td>
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<td>3.06</td>
<td>5.00</td>
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<tr>
<td>Cooperation</td>
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<td>Total</td>
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<tr>
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<td>9.00</td>
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<tr>
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<td>3.27</td>
<td>6.47</td>
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The parent survey showed significant changes in the areas of cooperation and self-control. Totals of the subtest social skills and problem behaviors also showed statistically significant change. No areas of the teacher subtests showing statistically
significant change. Parents observed some important changes in their child related to behavior such as cooperation and self-control, though teachers did not report any change.

**Behavior Ratings of Teacher and Student**

Teachers used a chart to rate the student’s target social skill on a 3-point scale for two weeks. This weekly chart was averaged to achieve a percentage of the total possible points and is reflected on the graph as baseline data. The period of time in which students were learning to accurately self-monitor their target social skill is labeled training. During the independent phase, the student was self-monitoring with periodic checks by the teacher.

**Treatment integrity.** Teachers were asked to evaluate the fidelity of the intervention by completing a weekly checklist. This listed each of the steps teachers were to complete each time they checked for student accuracy in self-rating. Checklists were completed during both training and intervention phases. There were a total of 34 weekly checklists possible with a total of 34 returned which represents 100% of possible integrity checks. All teachers reported 100% fidelity of all steps; consequently, treatment integrity was very high.

**Student #1.** Prior to training, the teacher reported the student had problems keeping personal space during “center time” approximately 50% of the time. “Center time” referred to an hour of the school day when students spent approximately 15 minutes at four different activity stations. This activity allowed students to spend semi-structured time with a small group. Student #1 required four weeks to achieve 80% agreement of her rating of the target social skill compared to the teacher’s rating. Retraining after two weeks was needed to better define for both the teacher and the
student the use of the straight face. The student was rating a straight face for multiple
reminders as well as when she only had one reminder, but it was for an extreme violation,
such as hitting. The teacher was taking into consideration the entire day rather than the
time frame agreed upon. The teacher also hesitated to give the student a sticker for being
accurate because she thought she was, at times, reinforcing the student for inappropriate
behavior. During the training phase, the student did not appear to be working on the skill
itself but only on accurately rating herself as her weekly average continued to decrease.
Once she was independently rating her behavior and received verbal praise and stickers
only for appropriate use of the skill, her weekly average improved. The student was
reinforced daily for appropriate behavior with verbal praise and stickers. Weekly
reinforcement for meeting a goal that was agreed upon by the researcher and student
consisted of earning a star student certificate which allowed her positive time with the
principal.

The function of this student’s behavior was to receive peer attention. The teacher
was not receptive of the suggestion to allow the student to earn time spent with a peer as
a weekly reinforcement for achieving her goal because the teacher did not want the
student singled out to receive something the other students could not earn. Therefore, the
student did not have the opportunity to be reinforced with peer attention, which would
have matched the same function as the inappropriate behavior. If this student increased
her use of the target skill (maintaining appropriate personal space), the result may have
been an increase of positive interactions with peers, but structured reinforcement
consisted of adult attention from teacher and researcher, who set goals with the student
and met to check progress once or twice a week. The student could also earn attention from the principal by attaining weekly goals.

The target social skill was demonstrated 65.8% of the time during the four weeks the student independently self-monitored. The PND for Student #1 was 75%, and the effect size was 1.01. The following graph is a visual display of the weekly averages of the target social skill during baseline, training, and independent self-monitoring.

![Graph showing weekly percentages of appropriate use of personal space during baseline, training, and independent phases.]

Figure 1. Student #1- Appropriate use of personal space. This figure illustrates weekly percentages of appropriate use of personal space during baseline, training, and independent phases.

**Student #2.** The baseline mean for the student’s appropriate response to anger or frustration during “centers time” was 63%. During training, while the teacher was checking each time the student self-monitored, the mean for dealing with anger/frustration rose to 90% for the two weeks required to achieve 80% agreement. The student was reinforced for matching teacher ratings with a sticker and verbal praise. Disagreements were discussed to allow the student to understand expectations. The student then began self-monitoring with periodic checks by the teacher. During the
independent phase of self-monitoring the target social skill, the mean was 85.8%. This student’s function of his behavior was adult attention. He earned teacher praise each time he used the target social skill. The researcher also met with the student one to two times each week for goal setting and reinforcement. Student #2 could earn a star student certificate for achieving a weekly goal, which could be exchanged for positive time with the principal.

The PND for student #2 was 100%, and effect size was 1.55. Baseline data, training and intervention phases are reflected on the following graph.

![Graph showing self-monitoring data]

*Figure 2.* Student #2 – Appropriate behavior when angry or frustrated. This figure illustrates weekly percentages of appropriate behavior when angry or frustrated during baseline, training, and independent phases.

**Student #3.** Baseline mean for following directions during communication arts was reported to be 63%. Student #3 required three weeks during the training phase to acquire 80% agreement on rating his target social skill. He earned a sticker and verbal praise for matching teacher ratings. During the training phase, his use of the skill showed an upward trend and averaged 78.7%. This student’s function of his behavior was adult
attention. During the independent phase he averaged 88.4%. He earned teacher praise each time he used the skill. The researcher also met with the student one or two times each week for goal setting and reinforcement. Student #3 could earn a star student certificate for achieving his weekly goal, which could be exchanged for positive time with the principal.

The PND for Student #3 was 100%, and effect size was 1.94. Baseline, training phase, and independent phase are recorded on the following graph:

Figure 3. Student 3 – Following directions. This figure illustrates weekly percentages of following directions during baseline, training, and independent phases.

Student #4. The bus aide reported the student followed bus rules 57% of the time during the baseline phase. The student was the last one to be delivered home giving him approximately one hour of ride time. The function of his behavior was determined to be seeking adult attention due to boredom. His self-monitoring form reflected the four bus rules so his adherence to each could be monitored to determine if one rule was more difficult than another to follow. The form was completed before he exited the bus in the morning and again at the end of the day. He was the only student in the study who had
Self-monitoring as a Means to Generalize Social Skills

more than one time frame to self-monitor. His target social skill was also more specific in nature than the other students in the study as he was to follow specific rules rather than the more global skill of following directions. During the training phase, the aide expressed agreement by initialing in the box for each rule that he followed and correctly rated. She provided verbal praise and a sticker for matching. His adherence to bus rules increased to a mean of 79.5% during the two weeks required for him to attain 80% agreement. While independently self-monitoring, his use of the skill averaged 91.4%. He was given verbal praise by the bus aide for following the rules. He met with the researcher one or two times each week for additional reinforcement and setting of goals. Student #4 could earn a star student certificate for achieving his goal, which could be exchanged for positive time with the principal.

The PND for Student #4 was 100%, and effect size was 1.95. The following graph reflects baseline, training, and independent phases:

![Graph](image)

*Figure 4. Student #4 – Following bus rules. This figure illustrates weekly percentages of following bus rules during baseline, training, and independent phases.*
**Student #5.** The baseline mean during math time for the student’s appropriate response to frustration or anger was 71%. During training, while the teacher was checking each time the student self-monitored, the mean for dealing with anger/frustration was 80.5% for the two weeks required to achieve 80% agreement. The student was reinforced for matching teacher ratings with a sticker and verbal praise. Disagreements were discussed to allow the student to understand expectations. The student then began self-monitoring with periodic checks by the teacher. During the independent phase of self-monitoring the target social skill, the student’s mean was 74.5%. This student’s function of his behavior was adult attention. He earned teacher praise each time he used the skill. The researcher also met with the student one or two times each week for goal setting and reinforcement. Student #5 could earn a star student certificate for achieving his goal, which could be exchanged for positive time with the principal.

The PND for Student #5 was 25%, with an effect size of 0.58. Baseline, training, and independent phases of the intervention are reflected on the following graph:
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Figure 5. Student #5 – Appropriate behavior when angry or frustrated. This figure illustrates weekly percentages of being appropriate when angry or frustrated during baseline, training, and independent phases.

The first method to interpret data is through visual inspection. Visual inspection of the data shows the intervention clearly improved behavior for all five students. Emphasis on self-monitoring during training phase improved behavior for students 2 through 5.

A multiple baseline approach was used. Students were staggered as to their entry to the study. Initiating treatment at different times across subjects allowed the researcher to rule out other possible explanations for a change in behavior (Morgan & Morgan, 2009). Use of a multiple baseline design permits causal attribution to be made because of changes in behavior once a phase change has been made. This trend is apparent for 4 out of 5 students in the training phase and for all students in the intervention phase. Coupled with the PND outcomes and the effect sizes, improvement in student behavior appears to be related to the introduction of treatment. The following graph shows entry into each phase by student:
Figure 6 Multiple Baseline
This figure illustrates student entry into each phase.
Four out of five students had significant intervention effects as measured by PND. All five of the students had large effect size (Bonner & Barnett, 2004).

**Student Grades**

Students #1 and #2 were in kindergarten where grades are not given. Table 2 reports grades earned by the remaining three students.

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Student Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>Course</td>
</tr>
<tr>
<td>Student 3</td>
<td>Language Arts</td>
</tr>
<tr>
<td></td>
<td>Reading</td>
</tr>
<tr>
<td></td>
<td>Spelling</td>
</tr>
<tr>
<td></td>
<td>Math</td>
</tr>
<tr>
<td></td>
<td>Science</td>
</tr>
<tr>
<td></td>
<td>Social Studies</td>
</tr>
<tr>
<td>Student 4</td>
<td>Language Arts</td>
</tr>
<tr>
<td></td>
<td>Reading</td>
</tr>
<tr>
<td></td>
<td>Math</td>
</tr>
<tr>
<td></td>
<td>Science</td>
</tr>
<tr>
<td></td>
<td>Social Studies</td>
</tr>
<tr>
<td>Student 5</td>
<td>Language Arts</td>
</tr>
<tr>
<td></td>
<td>Reading</td>
</tr>
<tr>
<td></td>
<td>Spelling</td>
</tr>
<tr>
<td></td>
<td>Math</td>
</tr>
</tbody>
</table>

Student #3 had slight improvement in two subjects and a slight reduction in one with three staying the same. Changes were not significant enough to change the letter grade. Student #4 improved three out of five grades with the remaining two remaining at the letter grade of A. Student #5 improved three out of four grades.
Program Evaluation Survey

A questionnaire was given to each teacher, student, parent, and one bus aide involved in the study. One parent chose to not participate in the study but requested that his child still be included. The survey contained questions to be answered with a Likert scale and open ended questions.

Responses to the Open Ended Questions. Three parents responded to the open ended questions. One liked that the researcher worked cooperatively with the school counselor. One saw minimal difference in their child’s behavior while another saw a big improvement.

All four teachers had used self-monitoring to help change behavior. When teachers were asked what they liked best about the process, one saw some progress with one of their students, another liked that the process included positive feedback, a third appreciated someone in addition to the teacher was involved and was checking to see if student improved, and one thought the process held the student accountable for their behavior. One teacher wished that there had been more time to expand behavior monitoring to entire day or focus on other issues.

Students liked getting stickers, circling smiley faces, and being involved in the study. When asked how to improve the study, one student wished he could have monitored himself more often, and another student wanted more attention such as the researcher checking on him daily or at least more frequently.

According to the satisfaction survey, all participants perceived the social skill to improve as a result of the intervention. Teachers found the intervention to be easy to use. Three of the students found the intervention to be extremely easy to use, two of the
students found it somewhat difficult. All participants were satisfied with the process, students in particular. Results are reported in Table 3:

Table 3

*Satisfaction Surveys*

<table>
<thead>
<tr>
<th>Rating</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
</table>

*Satisfaction Survey - Parent*

- Effects of project to increase skill? 1 1 2
- Difference outside of school? 1 1 1 1
- Will they use self-monitoring again? 1 2 1
- Satisfaction with overall process? 1 3

*Satisfaction Survey - Teacher/bus aide*

- Effects of project to increase skill? 4 1
- Ease of checking student’s self-monitoring? 2 3
- Will they use self-monitoring again? 1 2 2
- Satisfaction with overall process? 1 2 2

*Satisfaction Survey - Student*

- Did you get better at the skill? 4 1
- How easy to learn process? 3 2
- Will they use self-monitoring again? 1 1 1 2
- Did they like being part of the study? 5

*Note. 5 = extremely, 4 = very, 3 = neutral, 2 = somewhat, 1 = not*
The results from the program evaluation survey provide another piece of evidence on the efficacy of using self-monitoring as a tool to aid in generalization of social skills. Not only did the intervention improve student use of a target social skill to a second setting of the school, but the intervention process was also viewed by all participants as being socially valid. It was viewed as easy to implement with fidelity and was effective for all student participants.
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Chapter 5

Discussion

The primary focus of this study was to determine to what extent the use of self-monitoring facilitated the transfer of social skills to a second setting in a school environment. Many social skills programs have been shown to be effective for teaching social skills (Elliott & Gresham, 1993), but research continues to indicate a lack of generalization to areas other than the training environment (Gresham, 1998). The results of this study demonstrate self-monitoring to be one viable option to aid in generalizing social skills. All five students generalized the use of a target social skill to an area of the school other than the training site. Teacher and student participants reported an increase in target social skills during a specific time frame in which competing problem behaviors had been occurring.

One instrument used to evaluate this intervention was the use of behavior ratings of teacher and student. Sprague, Cook, Wright, and Sadler (2008) classify an intervention as successful if the student demonstrates the target behavior on an average of 80% of the time within three weeks of instruction. According to this criterion, this intervention was successful for three out of the five students. However, according to Scruggs and Mastropieri (2001), using the PND criteria would classify this intervention as very effective for three of the students, effective for one of the students, and ineffective for one of the students. Another statistic applied to these data is the use of effect size. Using Cohen (1992) criteria, all five students would be rated as having moderate to large effect sizes.
This study suggests the need for continuing to match function of behavior to intervention parameters because two of the five students demonstrating less change in behavior may have been due to a mismatch. Research has shown the importance of function-based intervention planning (Ingram, Lewis-Palmer, & Sugai, 2005; Newcomer & Lewis, 2004; Sasso et al. 1992; Sugai, Lewis-Palmer, & Hagan, 1998; Umbreit, Lane, & Dejud, 2004). Behavior is a form of communication. All behavior results in reactions or consequences. Behaviors are repeated when consequences are reinforcing to the person. The person is telling you what is needed by repeating the behavior. When students are taught appropriate behaviors to replace the problem behavior, the consequences should be manipulated so they meet the same function. The parameters of this study’s intervention included an increase in adult attention; therefore it appeared to be most effective with students who were adult-attention motivated.

Student #1’s function of behavior was to attain peer attention. The reinforcement for daily and weekly attainment of goals was adult attention. The student had an opportunity to attain positive peer interactions by implementing the social skill (increasing appropriate use of personal space) during the designated time frame. However, the reinforcement given was adult attention. It is plausible that the small increase in the target social skill may have been due to not matching the function.

Student #5’s function was determined to be to attain adult attention. He frequently required adult attention due to his lack of understanding of the task which would cause him to become angry or frustrated. One of the steps he was encouraged to use as a response to frustration was to ask for help. The time frame chosen to monitor was during math. The second grade curriculum becomes more complex in math, and the
teacher reported the student was slightly below his peers in this academic area. Consequently, the student’s function may have been a combination of adult attention and escape from difficult tasks. It is reasonable to assume the student may have made greater gains if he had been given additional academic supports such as allowing him to work with a partner or alternating easy academic tasks with difficult ones.

Prior research has indicated when specific behaviors are asked to be observed or evaluated, an increase in accuracy and frequency of those behaviors is likely to occur (Baer et. al., 1987). Four out of the five students in this study experienced an increase in the target social skill during the training phase of the intervention. During this phase, students were asked to evaluate the use of the target social skill on a 1-3 scale, and their teacher checked the accuracy of their rating. The length of time spent in the training phase depended on how long the student took to reach 80% criteria of matching their rating with their teacher’s rating.

As indicated on the multiple-baseline graph, every student performed better in the independent phase irrespective of when they entered the study. Staggering entry increases the confidence in the causal effects of the treatment. Baseline data collections were staggered as well as training of the student on the self-monitoring form and review of the target social skill. Entry into the independent monitoring phase depended on the length of training time the student needed to accurately rate the target social skill. Student #1 required four weeks to complete the training phase, Student #3 required three weeks to complete, and the remaining students required two weeks.

Other factors that may have influenced results were noted during the course of the study. For student #1, during the second week of intervention, the school schedule was
changed due to state testing, and she found this upsetting. This affected her usual time with the counselor reviewing social skills in a small group setting. She looked forward to this structured interaction with peers. Student #4 was absent two days between weeks two and three of the intervention phase. This may have contributed to the slight down turn in his weekly averages for weeks three and four. The study was conducted near the end of the school year, and with the increase activity associated with that period of time, it is possible the timing of the intervention may have affected outcomes. This is a question for future research.

Another research question this study attempted to answer was if the improvement of social skills had any effect on grades. Two of the students (#1 and #2) were in kindergarten where grades are not used to evaluate student academic progress. Grades were collected on the remaining three students, and a qualitative comparison was made between term three and term four. Although one student (#3) earned the similar grades both terms, two students improved their grades. Student #4 improved in three out of five subjects (the two he did not increase were both A’s), and student #5 improved in three out of four subjects. Research has found an inverse correlation between academic success and behavior problems (Green et al., 1980; Gumpel, 2007; Korinek & Popp, 1997; Krappmann, 1985; Patrick, 1997; Ray & Elliott, 2006; Wentzel, 1991; Wery & Nietfeld, 2010). Research has not been able to determine a cause/effect relationship. SW-PBS nationwide data indicate that schools using systems of behavioral support exhibit a decrease in office discipline referrals and an increase in academic proficiency as measured by state tests (see Horner et al., 2004, or apbs.org). This study provides some evidence supporting the relationship between academic and behavioral success. Students
#4 and #5 showed increases in academics between term three and four, and an improvement of a target social skill during the same time frame.

A third research question focused on the use of the SSRS as an indirect method of assessing intervention effects. The SSRS was a useful tool for surveying parents and teachers to determine a skill area of weakness for each student. Some portions of the survey indicated statistically significant change from pre- to post-intervention. The parent form was the only portion with prior evaluation as to its use to reliably detect intervention effects. Prior research (Meier, 2000) found 22 out of 55 items to be sensitive to change on the parent version. The current research supports these findings as two out of the four parent subtests (Cooperation, Self-control) in the area of social skills showed statistical significance, and one area (Hyperactivity) was significant in the area of problem behaviors. A plausible explanation for a perceived improvement in self-control is the link suggested by Patrick (1997) between self-regulation and self-monitoring. By learning how to self-monitor, students may have generalized the skill of evaluating their behavior to other areas. One possible reason why more changes were not observed on SSRS subtests may be that not enough time had elapsed to allow parents or teachers to recognize changes in student behavior that had occurred. The Meier study (2000) averaged eight months between pre- and posttest administration. This study averaged 2.5 months between pre- and posttest administration. The ability to separate the month of intervention with a student’s status prior to intervention may have been difficult as well. More research is needed on the SSRS to determine adequate length of time needed between pre-and posttest administration, as well as its sensitivity to change.
A final research question explored by this study was if practitioners viewed the intervention as a manageable, effective, and efficient tool. In order for an intervention to be useful, it must be viewed as sustainable in a regular school environment. All four teachers and one bus aide found their involvement in teaching self-monitoring to be extremely easy or very easy to facilitate. All four teachers had some experience with its use, and three of them anticipate using the method in the future. The counselor involved in facilitating the social skills training curriculum indicated her awareness of the need to add generalization techniques to the existing program.

The importance of these findings indicate self-monitoring to be a viable option to add to existing social skills training programs to increase generalization. Teachers’ opinions as to the ease of implementation are an important variable to consider when choosing techniques to increase generalization. Familiarity and willingness to use the technique again are also important variables.

**Limitations**

Although results of this research were promising, some limitations should be noted. The small number of participants used in this case study approach limits the ability to generalize to students in other grade levels or with other behaviors. A second limitation is the behaviors in this study were chosen from those that had been taught in the existing social skills training program. This limited the behaviors used as target social skills. Students were chosen based on teacher and/or counselor nomination. Additional replications are needed across ages and behaviors to provide support for the use of self-monitoring as a generalization tool.
The instruments used to assess effects each had their own limitations. The SSRS should be interpreted cautiously when used as a measure to assess behavior change as a result of an intervention. This instrument was designed to identify behavior deficits, not measure treatment effects. The use of teacher rating scales to access student skill performance allowed for subjectivity particularly when reliability measures were not used. Student observations would have been a preferred method but were not sustainable in this study. Related to this, teachers were asked to complete an implementation fidelity checklist to determine if they were accurately and completely implementing the intervention as designed. Because these were self-reports, it is possible that teachers may have overrated their implementation of the intervention. When asked to check-mark items on a list, teachers may have failed to read each step before marking that it had occurred. Observations of teacher implementation would have been preferred as a method to check fidelity of implementation.

An additional limitation was the amount and timing of baseline gathered for the study. Students were added to the study as parent permission and surveys were gathered. It would have been preferable to start all student baseline data at the same time with training and independent phases staggered across students.

**Implications for Practice**

Self-monitoring procedures appear to be a potentially useful system that could be added to an existing social skills training program to aid generalization of skills. At the beginning of social skills training, the social skills facilitator would teach all students self-monitoring techniques and instruct all teachers concerning their role in checking student’s accuracy. After teaching each individual social skill, students would be given a
self-monitoring form with the skill and steps to display the behavior. Individual goals and reinforcement for attaining goals could be established. Students would need to be reinforced using the function of their behavior for attaining weekly goals. Teachers would check student accuracy regularly until student was matching teacher rating at a level of 80% agreement and then fade to checking on an average of 1/5. Students would independently self-monitor until they had attained 80% average for four weeks. The self-monitoring form would also serve as a communication tool to inform teachers what skills have been taught so they can praise, pre-correct, or remind students.

This generalization technique could be particularly beneficial to schools already participating in SW-PBS as the structure and systems would already be in place to support this small group intervention. These systems include student identification of the need for additional supports, brief methods of determining function of problematic behaviors, and communication with teachers as to their involvement and role in supporting these students in the classroom.

**Implications for Future Research**

Because of the small number of participants and behaviors in this study, additional replications across age, gender, and behavior are needed in order to generalize results. A larger sample size would also allow for ethnic, race, and other social background factors to be considered. Many social skills programs promote home communication as part of their efforts to generalize skills. Including cultural differences in the teaching of social skills as well as strategies to promote the bridge between home and school cultures would contribute to the research in this area. The focus of additional studies should be on the efficiency and effectiveness of adding self-monitoring to existing
social skills training programs compared to other generalization techniques. Ease of implementation of these techniques is imperative for sustainability. Because of the need for a training phase for teachers and students, research designs contrasting training conditions for student monitoring conditions are recommended.

A second implication for additional research focuses on the importance of matching the function of student behavior to the intervention parameters. Two students (#1 and #5) in this study had relatively lower intervention outcomes compared to their three peers. These two students were reinforced with adult attention, but the primary function of their behavior was peer attention (student #1) and a combination of attention and escape (student #5). A plausible explanation for less potent intervention effect for Students 1 and 5 is that their function of behavior was not sufficiently matched with reinforcement. This pattern of findings underscores the importance of continually matching intervention contingencies with the appropriate function of behavior. Social skills research studies (Gresham & Elliott, 1990; Horner & Day, 1991) that have investigated function of behavior suggest students who benefit the most from social skills training have escape as their primary function of behavior. Further research is needed to compare benefits across function of behavior.

The SSRS or other social skill evaluation tool should be further evaluated to determine ability to accurately assess the increase of social skills across time. The teacher form of the SSRS has not been sufficiently researched, only the parent form. The parent form contained subtests (Cooperation and Self Control) that were sensitive to change, and this appears to be an asset of the SSRS. Currently, the research does not recommend what the optimal time period is for pre- to post-intervention changes to be
Self-monitoring as a Means to Generalize Social Skills

noted using the SSRS. Further research is needed to explore pre/post-assessment tools to use for this purpose.

Conclusion

Social skills are vital for success in school and in life. Social Skills Training programs have demonstrated the ability to teach these skills but have failed to generalize them outside the training environment. An intervention is not effective or a good use of time if behaviors do not generalize. Constraints of time and resources require efficient and effective methods to support interventions if expected to be sustained by school personnel. This study provided evidence that self-monitoring is a viable option for increasing the use of learned skills to additional areas of a school.

Results of this study replicate and extend existing research in several ways. Self-monitoring is a well-researched intervention with a history of effectiveness for a variety of behaviors and with varying ages. This study provided further evidence of the efficacy of self-monitoring as a method to change behavior. It extended knowledge by demonstrating its use as a generalization tool to increase behaviors learned in social skills training programs. Developing social skills is critical for success in school and in life (Elliott & Gresham, 2008). The addition of self-monitoring to social skills acquisition gives students the responsibility and skills needed to assess and improve their own behavior.
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References


Gresham, F. M. (1998). Social skills training: Should we raze, remodel, or rebuild? 

*Behavioral Disorders, 24*(1), 19-25.


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Oregon: Center on Positive Behavior Interventions and Support & Illinois State Board of Education.


Appendix A- SSRS Parent form

Next, read each item on pages 2-4 (items 1-55) and think about your child’s present behavior. Decide how often your child does the behavior described.

If your child never does this behavior, circle the 0.
If your child sometimes does this behavior, circle the 1.
If your child very often does this behavior, circle the 2.

For items 1-38, you should also rate how important each of these behaviors is for your child’s development.

If it is not important for your child’s development, circle the 0.
If it is important for your child’s development, circle the 1.
If it is critical for your child’s development, circle the 2.

Here are two examples:

<table>
<thead>
<tr>
<th>Shows a sense of humor.</th>
<th>How Often?</th>
<th>How Important?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Sometimes</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Answers the phone appropriately.</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

This parent thought that the child very often showed a sense of humor and that showing a sense of humor was important to the child’s development. This parent also thought that the child never answered the phone appropriately and that answering the phone appropriately was critical to the child’s development.

There are no right or wrong answers. You may take as much time as you like.

Please do not skip any items.

<table>
<thead>
<tr>
<th>Social Skills</th>
<th>How Often?</th>
<th>How Important?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Sometimes</td>
</tr>
<tr>
<td>1. Uses free time at home in an acceptable way.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2. Keeps room clean and neat without being reminded.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3. Speaks in an appropriate tone of voice at home.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>4. Joins group activities without being told.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>5. Introduces herself or himself to new people without being told.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>6. Responds appropriately when hit or pushed by other children.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>7. Asks sales clerks for information or assistance.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>8. Attends to speakers at meetings such as in church or youth groups.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>9. Politely refuses unreasonable requests from others.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>10. Invites others to your home.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>11. Congratulates family members on accomplishments.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>12. Makes friends easily.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>13. Shows interest in a variety of things.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>14. Avoids situations that are likely to result in trouble.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>15. Puts away toys or other household property.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>16. Volunteers to help family members with tasks.</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
### Social Skills (cont.)

<table>
<thead>
<tr>
<th></th>
<th>How Often?</th>
<th>How Important?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Sometimes</td>
</tr>
<tr>
<td>17.</td>
<td>Receives criticism well.</td>
<td>0</td>
</tr>
<tr>
<td>18.</td>
<td>Answers the phone appropriately.</td>
<td>0</td>
</tr>
<tr>
<td>19.</td>
<td>Helps you with household tasks without being asked.</td>
<td>0</td>
</tr>
<tr>
<td>20.</td>
<td>Appropriately questions household rules that may be unfair.</td>
<td>0</td>
</tr>
<tr>
<td>21.</td>
<td>Attempts household tasks before asking for your help.</td>
<td>0</td>
</tr>
<tr>
<td>22.</td>
<td>Controls temper when arguing with other children.</td>
<td>0</td>
</tr>
<tr>
<td>23.</td>
<td>Is liked by others.</td>
<td>0</td>
</tr>
<tr>
<td>24.</td>
<td>Starts conversations rather than waiting for others to talk first.</td>
<td>0</td>
</tr>
<tr>
<td>25.</td>
<td>Ends disagreements with you calmly.</td>
<td>0</td>
</tr>
<tr>
<td>26.</td>
<td>Controls temper in conflict situations with you.</td>
<td>0</td>
</tr>
<tr>
<td>27.</td>
<td>Gives compliments to friends or other children in the family.</td>
<td>0</td>
</tr>
<tr>
<td>28.</td>
<td>Completes household tasks within a reasonable time.</td>
<td>0</td>
</tr>
<tr>
<td>29.</td>
<td>Asks permission before using another family member's property.</td>
<td>0</td>
</tr>
<tr>
<td>30.</td>
<td>Is self-confident in social situations such as parties or group outings.</td>
<td>0</td>
</tr>
<tr>
<td>31.</td>
<td>Requests permission before leaving the house.</td>
<td>0</td>
</tr>
<tr>
<td>32.</td>
<td>Responds appropriately to teasing from friends or relatives of his or her own age.</td>
<td>0</td>
</tr>
<tr>
<td>33.</td>
<td>Uses time appropriately while waiting for your help with homework or some other task.</td>
<td>0</td>
</tr>
<tr>
<td>34.</td>
<td>Accepts friends' ideas for playing.</td>
<td>0</td>
</tr>
<tr>
<td>35.</td>
<td>Easily changes from one activity to another.</td>
<td>0</td>
</tr>
<tr>
<td>36.</td>
<td>Cooperates with family members without being asked to do so.</td>
<td>0</td>
</tr>
<tr>
<td>37.</td>
<td>Acknowledges compliments or praise from friends.</td>
<td>0</td>
</tr>
<tr>
<td>38.</td>
<td>Reports accidents to appropriate persons.</td>
<td>0</td>
</tr>
</tbody>
</table>

**Sums of How Often Columns**

---

Go on to Page 4.
Self-monitoring as a Means to Generalize Social Skills

<table>
<thead>
<tr>
<th>Problem Behaviors</th>
<th>How Often?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
</tr>
<tr>
<td>39. Fights with others.</td>
<td>0</td>
</tr>
<tr>
<td>40. Acts sad or depressed.</td>
<td>0</td>
</tr>
<tr>
<td>41. Appears lonely.</td>
<td>0</td>
</tr>
<tr>
<td>42. Has low self-esteem.</td>
<td>0</td>
</tr>
<tr>
<td>43. Threatens or bullies others.</td>
<td>0</td>
</tr>
<tr>
<td>44. Disturbs ongoing activities.</td>
<td>0</td>
</tr>
<tr>
<td>45. Shows anxiety about being with a group of children.</td>
<td>0</td>
</tr>
<tr>
<td>46. Argues with others.</td>
<td>0</td>
</tr>
<tr>
<td>47. Fidgets or moves excessively.</td>
<td>0</td>
</tr>
<tr>
<td>48. Disobeys rules or requests.</td>
<td>0</td>
</tr>
<tr>
<td>49. Talks back to adults when corrected.</td>
<td>0</td>
</tr>
<tr>
<td>50. Acts impulsively.</td>
<td>0</td>
</tr>
<tr>
<td>51. Doesn’t listen to what others say.</td>
<td>0</td>
</tr>
<tr>
<td>52. Is easily embarrassed.</td>
<td>0</td>
</tr>
<tr>
<td>53. Is easily distracted.</td>
<td>0</td>
</tr>
<tr>
<td>54. Gets angry easily.</td>
<td>0</td>
</tr>
<tr>
<td>55. Has temper tantrums.</td>
<td>0</td>
</tr>
</tbody>
</table>

Stop. Please check to be sure all items have been marked.

FOR OFFICE USE ONLY

<table>
<thead>
<tr>
<th>SOCIAL SKILLS</th>
<th>BEHAVIOR LEVEL</th>
<th>PROBLEM BEHAVIORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOW OFTEN? TOTAL</td>
<td>Fewer</td>
<td>Average</td>
</tr>
<tr>
<td>C +</td>
<td>(see Appendix A)</td>
<td>E</td>
</tr>
<tr>
<td>A +</td>
<td></td>
<td>I</td>
</tr>
<tr>
<td>R +</td>
<td></td>
<td>H</td>
</tr>
<tr>
<td>S +</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>(C + A + R + S)</td>
<td></td>
</tr>
<tr>
<td>Standard Score</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentile Rank</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(see Appendix C)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confidence Level</td>
<td>68%</td>
<td>95%</td>
</tr>
<tr>
<td>SEM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confidence Band (standard scores)</td>
<td>to</td>
<td></td>
</tr>
</tbody>
</table>

(for items 39 - 55)

Do not make importance ratings
Appendix B – SSRS Student form

This paper lists a lot of things that students your age may do. Please read each sentence and think about yourself. Then decide how often you do the behavior described.

If you never do this behavior, circle the 0.
If you sometimes do this behavior, circle the 1.
If you very often do this behavior, circle the 2.

Here are two examples:

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Never</th>
<th>Sometimes</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>I start conversations with classmates.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>I keep my desk clean and neat.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

This student very often starts conversations with classmates. This student keeps his or her desk clean and neat sometimes.

If you change an answer, be sure to erase completely. Please answer all questions. When you are finished, wait for further directions from your teacher.

Be sure to ask questions if you do not know what to do. There are no right or wrong answers, just your feelings of how often you do these things.

Begin working when told to do so.

<table>
<thead>
<tr>
<th>Social Skills</th>
<th>Never</th>
<th>Sometimes</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I make friends easily.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. I smile, wave, or nod at others.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. I ask before using other people’s things.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. I ignore classmates who are clowning around in class.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. I feel sorry for others when bad things happen to them.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6. I tell others when I am upset with them.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7. I disagree with adults without fighting or arguing.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8. I keep my desk clean and neat.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9. I am active in school activities such as sports or clubs.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>10. I do my homework on time.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>11. I tell new people my name without being asked to tell it.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>12. I control my temper when people are angry with me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>13. I politely question rules that may be unfair.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>14. I let friends know I like them by telling or showing them.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
## Self-monitoring as a Means to Generalize Social Skills

### Social Skills (cont.)

<table>
<thead>
<tr>
<th></th>
<th>社</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>15.</td>
<td>I listen to adults when they are talking with me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>16.</td>
<td>I show that I like compliments or praise from friends.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>17.</td>
<td>I listen to my friends when they talk about problems they are having.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>18.</td>
<td>I avoid doing things with others that may get me in trouble with adults.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>19.</td>
<td>I end fights with my parents calmly.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>20.</td>
<td>I say nice things to others when they have done something well.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>21.</td>
<td>I listen to the teacher when a lesson is being taught.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>22.</td>
<td>I finish classroom work on time.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>23.</td>
<td>I start talks with class members.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>24.</td>
<td>I tell adults when they have done something for me that I like.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>25.</td>
<td>I follow the teacher’s directions.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>26.</td>
<td>I try to understand how my friends feel when they are angry, upset, or sad.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>27.</td>
<td>I ask friends for help with my problems.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>28.</td>
<td>I ignore other children when they tease me or call me names.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>29.</td>
<td>I accept people who are different.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>30.</td>
<td>I use my free time in a good way.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>31.</td>
<td>I ask classmates to join in an activity or game.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>32.</td>
<td>I use a nice tone of voice in classroom discussions.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>33.</td>
<td>I ask adults for help when other children try to hit me or push me around.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>34.</td>
<td>I talk things over with classmates when there is a problem or an argument.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

---

Stop. Please check to be sure that all items have been marked.
Appendix C: SSRS Teacher form

Next, read each item on pages 2 and 3 (items 1–48) and think about this student’s behavior during the past month or two. Decide how often the student does the behavior described.

If the student never does this behavior, circle the 0.
If the student sometimes does this behavior, circle the 1.
If the student very often does this behavior, circle the 2.

For items 1–30, you should also rate how important each of these behaviors is for success in your classroom.
If the behavior is not important for success in your classroom, circle the 0.
If the behavior is important for success in your classroom, circle the 1.
If the behavior is critical for success in your classroom, circle the 2.

Here are two examples:

<table>
<thead>
<tr>
<th>Show empathy for peers.</th>
<th>How Often?</th>
<th>How Important?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Sometimes</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

This student very often shows empathy for classmates. Also, this student sometimes asks questions when unsure of schoolwork. This teacher thinks that showing empathy is important for success in his or her classroom and that asking questions is critical for success.

Please do not skip any items. In some cases you may not have observed the student perform a particular behavior. Make an estimate of the degree to which you think the student would probably perform that behavior.

<table>
<thead>
<tr>
<th>FOR OFFICE USE ONLY HOW OFTEN?</th>
<th>Social Skills</th>
<th>How Often?</th>
<th>How Important?</th>
</tr>
</thead>
<tbody>
<tr>
<td>C A S</td>
<td></td>
<td>Never</td>
<td>Sometimes</td>
</tr>
<tr>
<td>1. Controls temper in conflict situations with peers.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. Introduces herself/himself to new people without being told.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. Appropriately questions rules that may be unfair.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. Compromises in conflict situations by changing own ideas to reach agreement.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. Responds appropriately to peer pressure.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6. Says nice things about himself/herself when appropriate.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7. Invites others to join in activities.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8. Uses free time in an acceptable way.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9. Finishes class assignments within time limits.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>10. Makes friends easily.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>11. Responds appropriately to teasing by peers.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>12. Controls temper in conflict situations with adults.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>13. Receives criticism well.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>14. Initiates conversations with peers.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>15. Uses time appropriately while waiting for help.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>16. Produces correct schoolwork.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
### Social Skills (cont.)

<table>
<thead>
<tr>
<th></th>
<th>How Often?</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Sometimes</td>
<td>Very Often</td>
</tr>
<tr>
<td>17.</td>
<td>Appropriately tells you when he or she thinks you have treated him or her unfairly.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>18.</td>
<td>Accepts peers' ideas for group activities.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>19.</td>
<td>Gives compliments to peers.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>20.</td>
<td>Follows your directions.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>21.</td>
<td>Puts work materials or school property away.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>22.</td>
<td>Cooperates with peers without prompting.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>23.</td>
<td>Voluntarily helps peers with classroom tasks.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>24.</td>
<td>Joins ongoing activity or group without being told to do so.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>25.</td>
<td>Responds appropriately when pushed or hit by other children.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>26.</td>
<td>Ignores peer distractions when doing class work.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>27.</td>
<td>Keeps desk clean and neat without being reminded.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>28.</td>
<td>Attends to your instructions.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>29.</td>
<td>Easily makes transition from one classroom activity to another.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>30.</td>
<td>Gets along with people who are different.</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

### Problem Behaviors

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>How Often?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Never</td>
<td>Sometimes</td>
</tr>
<tr>
<td>31.</td>
<td>Fights with others.</td>
<td>0</td>
</tr>
<tr>
<td>32.</td>
<td>Has low self-esteem.</td>
<td>0</td>
</tr>
<tr>
<td>33.</td>
<td>Threatens or bullies others.</td>
<td>0</td>
</tr>
<tr>
<td>34.</td>
<td>Appears lonely.</td>
<td>0</td>
</tr>
<tr>
<td>35.</td>
<td>Easily distracted.</td>
<td>0</td>
</tr>
<tr>
<td>36.</td>
<td>Interrupts conversations of others.</td>
<td>0</td>
</tr>
<tr>
<td>37.</td>
<td>Disturbs ongoing activities.</td>
<td>0</td>
</tr>
<tr>
<td>38.</td>
<td>Shows anxiety about being with a group of children.</td>
<td>0</td>
</tr>
<tr>
<td>39.</td>
<td>Is easily embarrassed.</td>
<td>0</td>
</tr>
<tr>
<td>40.</td>
<td>Doesn't listen to what others say.</td>
<td>0</td>
</tr>
<tr>
<td>41.</td>
<td>Argues with others.</td>
<td>0</td>
</tr>
<tr>
<td>42.</td>
<td>Talks back to adults when corrected.</td>
<td>0</td>
</tr>
<tr>
<td>43.</td>
<td>Gets angry easily.</td>
<td>0</td>
</tr>
<tr>
<td>44.</td>
<td>Has temper tantrums.</td>
<td>0</td>
</tr>
<tr>
<td>45.</td>
<td>Likes to be alone.</td>
<td>0</td>
</tr>
<tr>
<td>46.</td>
<td>Acts sad or depressed.</td>
<td>0</td>
</tr>
<tr>
<td>47.</td>
<td>Acts impulsively.</td>
<td>0</td>
</tr>
<tr>
<td>48.</td>
<td>Fidgets or moves excessively.</td>
<td>0</td>
</tr>
</tbody>
</table>

---

**Note:** Do not make importance ratings for items 31-48. Go on to Page 4.
Self-monitoring as a Means to Generalize Social Skills

Academic Competence

The next nine items require your judgments of this student’s academic or learning behaviors as observed in your classroom. Compare the student with other children who are in the same classroom.

Rate all items using a scale of 1 to 5. Circle the number that best represents your judgment. The number 1 indicates the lowest or least favorable performance, placing the student in the lowest 10% of the class. Number 5 indicates the highest or most favorable performance, placing the student in the highest 10% compared with other students in the classroom.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Lowest 10%</th>
<th>Next Lowest 20%</th>
<th>Middle 40%</th>
<th>Next Highest 20%</th>
<th>Highest 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>49.</td>
<td>Compared with other children in my classroom, the overall academic performance of this child is:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>50.</td>
<td>In reading, how does this child compare with other students?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>51.</td>
<td>In mathematics, how does this child compare with other students?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>52.</td>
<td>In terms of grade-level expectations, this child’s skills in reading are:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>53.</td>
<td>In terms of grade-level expectations, this child’s skills in mathematics are:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>54.</td>
<td>This child’s overall motivation to succeed academically is:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>55.</td>
<td>This child’s parental encouragement to succeed academically is:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>56.</td>
<td>Compared with other children in my classroom this child’s intellectual functioning is:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>57.</td>
<td>Compared with other children in my classroom this child’s overall classroom behavior is:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Stop. Please check to be sure all items have been marked.

Summary Table

<table>
<thead>
<tr>
<th>Social Skills</th>
<th>How Often? Total</th>
<th>Behavior Level</th>
<th>Problem Behaviors</th>
<th>How Often? Total</th>
<th>Behavior Level</th>
<th>Academic Competence</th>
<th>Rating Total</th>
<th>Competence Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nom</td>
<td>Power</td>
<td>Average</td>
<td>More</td>
<td>Nom</td>
<td>Power</td>
<td>Average</td>
<td>More</td>
</tr>
<tr>
<td></td>
<td>(see Appendix A)</td>
<td>(see Appendix A)</td>
<td>(see Appendix A)</td>
<td>(see Appendix A)</td>
<td>(see Appendix A)</td>
<td>(see Appendix A)</td>
<td>(see Appendix A)</td>
<td>(see Appendix A)</td>
</tr>
<tr>
<td></td>
<td>Score</td>
<td>Percentile</td>
<td>Rank</td>
<td>Score</td>
<td>Percentile</td>
<td>Rank</td>
<td>Score</td>
<td>Percentile</td>
</tr>
<tr>
<td></td>
<td>Confidence Level</td>
<td>60%</td>
<td>80%</td>
<td>Confidence Level</td>
<td>60%</td>
<td>80%</td>
<td>Confidence Level</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>SEM</td>
<td>Confidence Band</td>
<td>(standard scores)</td>
<td>SEM</td>
<td>Confidence Band</td>
<td>(standard scores)</td>
<td>SEM</td>
<td>Confidence Band</td>
</tr>
</tbody>
</table>

Noms used: Handicapped Nonhandicapped

Note: To obtain a detailed analysis of the student’s Social Skills strengths and weaknesses, complete the Assessment Intervention Record.
Appendix D

Social Skills Daily Progress Report

Student Name ______________________  Rater Name ______________________

Week of ________________

The targeted social skills are listed below. Using the provided criteria, rate the student’s use of the individual skills each day.

3 = Displayed Consistently  2 = Displayed periodically/inconsistently  1 = Did not display

<table>
<thead>
<tr>
<th>Targeted Social Skills</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3  2  1</td>
<td>3  2  1</td>
<td>3  2  1</td>
<td>3  2  1</td>
<td>3  2  1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Week’s Total __________
Week’s Percentage ______

If you have questions about this form please contact Deb Childs – childsde@missouri.edu.
## Appendix E

### Self- Monitoring Chart

| Name____ | Date______________ |
| Grade_____ | Teacher______ | Location______________ |
| Social Skill – __________________________ | Time______________ |

**Steps**

1. ________________
2. ________________
3. ________________

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child rating</td>
<td>Teacher rating</td>
<td>Child rating</td>
<td>Teacher rating</td>
<td>Child rating</td>
</tr>
<tr>
<td>I followed the steps with 0 or 1 reminder</td>
<td><img src="" alt="Smiley" /></td>
<td><img src="" alt="Smiley" /></td>
<td><img src="" alt="Smiley" /></td>
<td><img src="" alt="Smiley" /></td>
</tr>
<tr>
<td>I needed help to follow steps (needed 2 to 3 reminders)</td>
<td><img src="" alt="Help" /></td>
<td><img src="" alt="Help" /></td>
<td><img src="" alt="Help" /></td>
<td><img src="" alt="Help" /></td>
</tr>
<tr>
<td>I didn't use the skill (needed more than 4 reminders)</td>
<td><img src="" alt="Sad" /></td>
<td><img src="" alt="Sad" /></td>
<td><img src="" alt="Sad" /></td>
<td><img src="" alt="Sad" /></td>
</tr>
</tbody>
</table>

We match!
Appendix F

Teacher Implementation Checklist

Teacher name_________________________Student name_________________________

Date______________

Place a checkmark next to the steps that you completed:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Attain monitoring form for student</td>
</tr>
<tr>
<td>2.</td>
<td>Observe student’s behavior; observe the targeted social skill.</td>
</tr>
<tr>
<td>3.</td>
<td>Check each step the student must complete in successfully demonstrating the target behavior.</td>
</tr>
<tr>
<td>4.</td>
<td>Meet briefly with student when self-monitoring is completed.</td>
</tr>
<tr>
<td>5.</td>
<td>Compare your monitoring of the student’s behavior with the self-monitoring by the students.</td>
</tr>
<tr>
<td>6.</td>
<td>If the student monitoring form and your form agree or are in very close agreement, give positive feedback.</td>
</tr>
<tr>
<td>7.</td>
<td>If the student form and your form do not agree, ask the student to explain why their self-monitoring. As the student to reflect on the accuracy of their behavior and the self-monitoring.</td>
</tr>
</tbody>
</table>
Appendix G

Project Satisfaction Survey

Please complete this survey on the process of student self-monitoring to increase social skill generalization. Most questions request you provide a rating by circling a number. Others permit written responses. Thanks for completing this information.

Teacher form:
1. Overall how effective was the use of self-monitoring as a tool to increase a student’s use of a social skill?
   
<table>
<thead>
<tr>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very helpful</td>
<td>Not helpful</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. How easy or difficult was it to check the students’ ability to self-monitor?
   
<table>
<thead>
<tr>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very easy</td>
<td>Very difficult</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. How likely are you to use this technique again?
   
<table>
<thead>
<tr>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very likely</td>
<td>Not likely</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Prior to this, had you used self-monitoring before? Yes_____ No_____ 
   If yes, what was monitored? ____________________

5. How satisfied are you with the overall process that was used?
   
<table>
<thead>
<tr>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very satisfied</td>
<td>Not satisfied</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. What did you like best about the process?

7. What suggestion do you have for improving the process?

8. Other comments
Parent form:

1. Overall how effective was this project in helping to increase your child’s use of a social skill in school?
   5 4 3 2 1
   Very helpful Not helpful

2. Did you see any difference in your child’s use of the social skill outside of school?
   5 4 3 2 1
   A lot of difference No difference

3. Did you learn enough about self-monitoring to use it again for another skill?
   5 4 3 2 1
   Very likely Not likely

4. How satisfied are you with the overall process that was used?
   5 4 3 2 1
   Very satisfied Not satisfied

5. What did you like best about the process?

6. What suggestion do you have for improving the process?

7. Other comments:
Student form:

1. Did you get better at the skill you were working on?

   5  4  3  2  1
lots better  Not any better

2. How easy or difficult was it to learn to check yourself on the skill?

   5  4  3  2  1
very easy    very difficult

3. How likely are you to use this technique again?

   5  4  3  2  1
very likely  not likely

4. Did you like being part of this study?

   5  4  3  2  1
liked a lot   didn’t like

5. What did you like best about being involved in this project?

6. What would make it better?

7. Other comments?
### Appendix H

**Small Group Social Skills Lesson Plan Fidelity Checklist**

Today’s Date____________________ Social Skills  
Unit______________________________

Group member’s names______________________________________________________  
___________________________________________________

Group leader__________________________________________

Use the chart below to rate the degree to which each component was implemented.

<table>
<thead>
<tr>
<th>Component</th>
<th>Not</th>
<th>Limited</th>
<th>Partial</th>
<th>Full</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduce the skill, and ask questions about it.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Define the skill, and discuss the Key words</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discuss why the skill is important</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify the Skill Steps; have students repeat them</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model and role-play the skill.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reinforce occurrences of the skill throughout the session</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correct inappropriate demonstration of the skill.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments about implementation__________________________________________________