EVALUATION OF A VISUAL ART SOCIAL SKILLS INTERVENTION FOR ELEMENTARY CHILDREN

Thesis

Submitted to

The School of Education and Health Sciences of the

UNIVERSITY OF DAYTON

In Partial Fulfillment of the Requirements for

The Degree of

Education Specialist in School Psychology

By

Rebecca Diane Sargent, M.S. Ed., M.F.A.

Dayton, Ohio

August 2023

EVALUATION OF A VISUAL ART SOCIAL SKILLS INTERVENTION FOR ELEMENTARY CHILDREN

Name: Sargent, Rebecca D.

APPROVED BY:

_____

Elana Bernstein, Ph. D.
Advisory Committee Chair
Assistant Professor
Department of Counselor Education
& Human Services

_____

Michele Welkener, Ph.D.
Committee Member
Associate Professor
Department of Counselor Education
& Human Services

_____

R. Darden Bradshaw, Ph.D.
Committee Member
Associate Professor & Area Coordinator
Art Education
College of Arts & Sciences

ABSTRACT

EVALUATION OF A VISUAL ART SOCIAL SKILLS INTERVENTION FOR ELEMENTARY CHILDREN

Name: Sargent, Rebecca D.
University of Dayton

Advisor: Dr. Elana Bernstein

Social skills are critical for a child to establish and maintain relationships and perform in society. Evidence-based social skills training (SST) programs delivered in school at tier 2 are an efficient way to provide interventions to students. Thoughtfully combining visual art with an SST program provides students the opportunity to engage with content in a more meaningful way. The present study evaluated the effectiveness of a small group social skills intervention that utilized visual art experiences and activities to support the development of social skills for students in elementary school. Students received SST in one of two groups; the only difference between groups was the inclusion of visual art components in the experimental group. Weekly direct behavior ratings (DBRs) and pre/post administration of the SSIS-RS were used to evaluate the effectiveness of the intervention. Findings suggest that embedding visual arts components in an SST program can be an effective strategy to teach social skills. Implications for effective delivery of an SST intervention delivered through the arts are discussed.

To my husband and parents for providing enormous love, encouragement, and support to pursue my new profession as a School Psychologist. And to my daughter Cora for being my inspiration and driving force. May you create a life that allows you to do something you love while giving back to the world.

ACKNOWLEDGEMENTS

I would like to acknowledge my thesis chair, Dr. Elana Bernstein, for offering guidance, encouragement, and support for my thesis project. I would also like to thank my committee members, Dr. Michele Welkener and Dr. R. Darden Bradshaw for their support and assistance. Additionally, I would like to thank the supporting school district for allowing me to conduct my study within the school. Finally, thank you to my site supervisor and student participants.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

The development of social skills is of vital importance for children. Social skills are a subset of behaviors that fall under the umbrella of social-emotional competence (SEC) and include behaviors such as assertion, self-management, peer relations, compliance, and social engagement (Caldarella & Merrell, 2017). According to Durlak et al. (2011), more than 50% of children lack social-emotional competencies. Children with ADHD, learning disabilities, developmental disabilities, and emotional difficulties are especially at risk for social skill difficulties (Cervantes et al., 2013; Kavale & Mostert, 2000; Swanson & Malone, 1992).

Social skills deficits are associated with academic difficulties, externalizing and internalizing behaviors, stress, loneliness, and compromised mental and physical health (Bornstein et al., 2012; Malecki & Elliott, 2002; Segrin, 2019). Small group social skills training programs are effective for increasing social skills in children with instructional needs in these areas (Kavale & Mostert, 2004). Characteristics of effective social skills training programs include utilizing interactive teaching methods; empowering students while building their competency; explicitly teaching skills; clearly defining goals; aligning activities with goals, linking activities to assessment; and using manuals (de Mooij et al., 2020; Elliot & Busse, 1991; Evans & Bond, 2020). *Skillstreaming the Elementary School Child* is an evidence-based social skills training program that has demonstrated efficacy in developing social skills (McGinnis, 2012; Sheridan et al., 2011). Further, in a recent study, Kato (2022) demonstrated that collaborative group activities

such as building with LEGO blocks can be an effective way to foster communication, develop social skills, and build trust with peers.

Working as an art teacher for fifteen years, the primary researcher regularly saw the utility of the visual arts in the development of children's social skills. Art enables us to separate from the literal and step into the shoes of others; encourages us to tolerate ambiguity and different perspectives; enables us to perceive subtleties and recognize complexities; invites us to explore our interior landscape; and allows us to develop our mind through the experience that creation or the perception of artworks (Eisner, 2002). Creating art can be transcendental for some people; it breaks boundaries and allows people to "try on" different identities and explore new ideas and ways of behaving (Farrington et al., 2019). Children can develop discipline, a sense of mastery, and self-confidence while making art. By working through difficult projects, they may learn persistence, problem-solving skills, and self-regulation strategies. When talking about their artwork with their peers, children can become more confident and assertive.

Research supporting the efficacy of using visual art to promote cognitive and social emotional development is abundant. The arts may improve confidence, self-regulation, collaboration, responsibility, and assertiveness (Farrington & Shewfelt, 2020); attention and cognition (Posner & Patoine, 2009); emotional awareness and cognitive development (Eisner, 2002); communication (Springham & Huet, 2018); and social skills (Yazici, 2017). However, there is limited literature related to the efficacy of teaching social skills in a small group setting through the use of visual art because this area of research is still at an early stage of development (Evans & Bond, 2020). Lenz et al. (2010) demonstrated that embedding social skills training into expressive art and drama

with adolescents was positively associated with development of relationship building, problem-solving, and assertion skills. Mogro-Wilson and Tredinnick (2020) demonstrated that teaching social skills through music and art lessons can increase empathy and improve decision-making. Research also suggests that art can increase these areas by impacting children and adolescents' social scripts and "habits of mind" (Hetland et al., 2007; Brouillette, 2010). Finally, Farrington et al. (2019) emphasizes the efficacy of using reflection and action experiences embedded in visual art to promote social-emotional competency.

The research supporting the use of visual art to deliver social skills to children in small groups is not well-established (Evans & Bond, 2020); school-based intervention studies are thus warranted to provide practitioners with modified strategies to improve students' social emotional competencies. The purpose of this research was to evaluate the effectiveness of teaching social skills through the use of visual art with a small group of teacher-referred elementary-aged students. The outcomes add to a limited number of studies with such a focus, contributing to implementation science for school-based social skills interventions.

CHAPTER II

LITERATURE REVIEW

The first section of this literature review defines social skills, explains the significance of social skills, and discusses the impact of social skills deficits. The following section discusses methods and instruments for identifying social skills deficits in children within the school setting. The third section reviews current social skills training programs. Finally, there is a discussion about how the arts cultivate social emotional development and an evaluation of the literature reviewing school-based interventions that use visual art to teach social skills. This section presents evidence of limited research on small group social skills interventions taught through the arts.

Social Skills

According to Gresham et al. (2001), social skills are a set of learned behaviors, such as communicating and making friends, that an individual utilizes to adequately navigate social situations. Social skills include both cognitive abilities such as deciding on appropriate skills to use in different social situations and interpersonal abilities such as communicating to increase the likelihood of good relations with others (Beauchamp & Anderson, 2010). Caldarella and Merrell (1997) developed a taxonomy of social skills through a review of nineteen social skills rating inventories. They found that social skills fall under five broad dimensions: assertion, compliance skills, self-management skills, peer relationship skills, and academic skills. According to Gresham et al. (2001), peer relationship skills include empathy, complimenting others, supporting peers, and leadership skills. Self-management includes following rules, controlling temper,

receiving criticism well, responding accordingly to teasing, and compromising in conflict situations. Academic skills, essential for thriving in a classroom, include listening to and following teacher directions, asking for assistance, ignoring peer distractions, and completing work. Compliance includes following directions, following rules, sharing, completing tasks, and using free time appropriately. Finally, assertion skills include acknowledging compliments, starting conversations, joining group activities, inviting peers to play, and expressing feelings.

Importance of Social Skills

Social skills are critical for a child to establish and maintain relationships and perform in society (Cacioppo & Cacioppo, 2014). Long-term psychological and social adjustment is predicted by the extent to which children are able to develop and maintain relationships, navigate social problems, and achieve peer support (Kupersmidt et al., 1990). Social competency reduces conduct and internalizing difficulties and improves academic achievement (Durlak et al., 2011). Malecki and Elliot (2002) demonstrated that social skills are positively associated with academic performance. They found that social skills promote academic achievement in the school environment. Additionally, Domitrovich et al. (2017) indicate that social competence is particularly important for children who are at risk due to behavioral problems, economic disadvantage, or minority status. When targeted through intervention, social emotional competence can be improved which, in turn, can promote resilience for students at risk.

Impact of Social Skills Deficits

There is no estimation of the pervasiveness of social skills problems in children, however, Beauchamp and Anderson (2010) theorized that up to 10% of typically

developing children may have social skill instructional needs, though nearly 50% of children in "at risk" groups may have social skills difficulties. Children with learning disabilities, developmental disabilities, psychological disorders, economic disadvantage, or minority status may be considered at risk. Kavale and Mostert (2004) indicate that up to 75% of students with a specific learning disability have co-occurring social skill deficits. Children with attention-deficit/hyperactivity disorder (ADHD) and autism spectrum disorders (ASD) also demonstrate significant delays in social skills when compared with typically developing peers (Cervantes et al., 2013). Social skills difficulties can manifest in various ways: as a separate problem, as a secondary consequence, through problem behaviors, psychological distress, or cognitive impairments (Beauchamp & Anderson, 2010). Children with social skills deficiencies experience both long- and short-term negative ramifications which may be related to serious difficulties later in life.

Bornstein et al. (2010) conducted a longitudinal study to examine developmental cascades among internalizing and externalizing behavioral adjustment and social competence. By comparing these constructs at age 4, 10, and 14, they found that through a developmental cascade, social competence later influenced internalizing and externalizing behavioral functioning (Bornstein et al., 2010). Self-regulation, attention, noncompliance, and aggression are examples of externalizing behaviors. Withdrawal, anxiety, depression, hypersensitivity, and shyness are examples of internalizing behaviors. The authors theorize that social competence might play an important role in the development of externalizing and internalizing symptoms because social competence impacts both achievement and self-control. Experiences of behavioral reinforcement or

punishment are connected to emotional and cognitive responses that, in turn, may influence the development of psychopathology (Bornstein et al., 2010). For example, children with social incompetencies may become aggressive, disruptive, or withdrawn which impacts others' ability to respond appropriately. Subsequently, children with low social competence have fewer positive interactions with others which can lead to emotional adjustment problems.

In a study exploring the indirect impact of social skills on health, Segrin demonstrated a correlation between social skill delays and poor physical and mental health, which was attributed to experiences of increased loneliness and stress (2019). This relationship is called the *social skills deficit vulnerability model* and illustrates the importance of developing appropriate social skills during childhood. Social skill delays can be caused by acquisition or performance deficits (Gresham et al., 2011). Acquisition deficits occur because a child was not explicitly taught and/or learned a specific skill, whereas performance deficits occur because a child has not had ample opportunities to practice the skill. According to Gresham (2016), it is imperative to identify and address social skills deficits early in life to reduce the likelihood of future difficulties.

Assessment of Social Skills

Generally, the purpose of social skills assessment is identification, intervention planning, progress monitoring, or outcome evaluation. Some methods for identifying children at risk for social skills deficits include standardized behavior rating scales, systematic direct observations (SDO's), brief behavior ratings, direct behavior ratings (DBR's), and pre – and post – tests (Goforth et al., 2016).

Accurately identifying expected and non-expected behaviors require practitioners to first operationally define the behavior (i.e., identify what specific components make up that behavior; Goforth et al., 2016). A child's social skills should be assessed according to the specific components that make up the area of social skills deficit. Gresham et al. (2012) discuss the importance of not only clearly defining the components of the skill deficit, but also in determining whether it is a performance or acquisition deficit. Interventions will be different for performance and acquisition deficits. For example, a child who knows the skill required to perform a social skill but lacks the experience or motivation to perform the skill will likely require remediation through manipulation of antecedents and consequences (Gresham et al., 2012).

Deciding what measures to use when assessing social skills can be daunting because there are several options available to the practitioner. Systematic direct observation requires observing and methodically recording behavior as it occurs (Goforth et al., 2016). Although it is a method often used to assess behavior, it is time consuming due to the number of observations it requires. Alternatively, behavior rating scales, norm-referenced assessments that provide a dependable method for assessing behavior, are another frequently employed method (Goforth et al., 2016). Because the information provided by the scales can be compared to normative data, standardized behavior rating scales can be particularly helpful for screening or identifying social skills deficits prior to intervention.

Brief behavior rating scales, another tool frequently used to assess social skills, fit within a problem-solving model that uses continuous progress monitoring of behavior change (Briesch et al., 2010). Brief behavior rating scales can be used to successfully

identify children's response to an intervention. Gresham et al. (2010), recommend using a brief behavior rating scale that functions as a general outcome measure (GOM) providing technically adequate, instructionally relevant data about performance as it occurs in the natural (classroom) setting. GOM behavior rating scales can be sensitive to small changes in behavioral performances, can be administered weekly, and reflect general or overall performance. Furthermore, they are easy to administer, are not intervention dependent, and do not require a great deal of teacher training (Gresham et al., 2010).

A direct behavior rating (DBR) is a combination of systematic direct observation and brief behavior rating scale and which can be conducted by teachers. It involves brief evaluative rating of behavior functioning while observing the student in the classroom setting (Kilgus et al., 2016). Gresham et al. (2010), note that research has demonstrated that DBR's are appropriate and technically adequate progress monitoring tools for social skills. Furthermore, Morizio et al. discuss the utility of employing a DBR during an intervention (2020) exploring the efficacy of an art program on social skills in a single-case AB study design. DBR's were used in the current study to assess individual student weekly progress.

According to Goforth et al., another approach to evaluating skill procurement is through a pre – and post – test (2010). These pre/post tests can be developed to link to specific skills taught during the intervention, can allow the practitioner to gauge the student's knowledge, and can be efficiently repeated. Pre – test and post – tests were used in the current study to compare the efficacy of the interventions used in the experimental and control groups.

Social Skills Improvement System- Rating Scale

The *Social Skills Improvement System* (SSIS; Gresham & Elliot, 2018) is one of the most widely used assessments of children's social behaviors in the school setting. The SSIS, a revised version of The *Social Skills Rating System* (SSRS; Gresham & Elliott, 1990) is a standardized assessment of student social behavior across student-teacher relations, peer interactions, and academic performance. The SSIS solicits information from parents, teachers, and students and is appropriate for students in preschool (age 3 – 5), elementary (grades K – 6), and secondary (grades 7 – 12). The SSIS refined the assessment to intervention link initially developed for the SSRS and defines social skills as acquisition or performance deficits. The SSIS contains seven categories of social behavior that include cooperation, assertion, responsibility, empathy, self-control, communication, and engagement. There is ample evidence that the SSIS can provide highly reliable and valid scores for key social skill deficits (Gresham & Elliott, 2018). The current study utilized the SSIS as the pre- and post-test assessment.

Social Skills Training

Social skill training (SST) programs, often a published curriculum, include a collection of activities taught in large and small group settings (McCollow & Hoffman, 2019). These programs utilize procedures such as skills training, psychoeducation, and behavioral exercises to help children increase their social skills (de Mooij, 2020). Many SST program are based on social learning theory which posits that social behavior is developed by observing others (Bandura, 1997). Therefore, many SST programs focus on coaching, modeling, and shaping behavior. SST programs differ according to their design, target population, and content. For example, they can focus on a specific behavior

such as bullying, several children with significant behavior problems, or a whole-class population. Additionally, SST programs may focus on one skill or may include a combination of social skills as target areas.

In their review of the literature, Gresham et al. (2012) conclude that approximately two-thirds of children receiving SST improved compared to only one-third of children in the control groups. However, these authors noted that a comprehensive theoretical and methodological framework for SST is lacking and this gap contributes to disparate empirical literature. From this, Gresham et al. (2012) offered four major conceptual and methodological concerns that may account for the disparity: (1) linking intervention to the type of social skill deficit, (2) determining whether there is a performance or acquisition deficit during assessment, (3) intervention adherence issues, and (4) type of outcome measures collected. For example, research suggests that very little effort is devoted to specifically testing those behaviors that are targeted in social skills interventions. Operationally defining the skill deficit, explicitly teaching the specific subset of skills that make up the behavior, and utilizing a change-sensitive assessment measure are effective strategies to address this issue (Gresham et al., 2012).

Characteristics of Effective SST Programs

Durlak et al. (2011) demonstrated that effective interventions include the use of four recommended practices that are represented in the acronym SAFE (i.e., sequenced, active, focused, and explicit). Interventions are sequenced when they use a connected and coordinated set of activities. Active forms of learning, such as role playing and rehearsal, help children learn and practice skills. Interventions should focus on one domain or set of skills at a time and should explicitly teach individual skills step by step. In a meta-

analysis studying the effective parts of SST programs, de Mooij et al. (2020) explored the impact of psychoeducation and skill-building. Psychoeducation involved exercises designed to transfer knowledge about social roles and group processes while skill-building strategies involved exercises to promote and practice teamwork, communication, and social problem solving. Results of the de Mooij et al. study showed that SST programs that incorporated psychoeducational strategies had significantly larger effect sizes compared to programs that did not include psychoeducation. The inclusion of skill-building components also increased the efficacy of SST programs (de Mooij et al., 2020).

Research related to the efficacy of small group SST has primarily focused on specific populations such as children with learning disabilities, autism, or severe behavioral problems (Evans & Bond, 2020). In their systematic literature review addressing the components of effective small group social skill interventions in elementary school education, Evans and Bond (2020) discovered findings similar to Durlak (2011) and de Mooij (2020). For example, key characteristics of effective SST programs included using interactive teaching practices, having clear goals and exercises aligned to those goals, focusing on explicitly teaching social skills, empowering students, and using teacher training manuals (Evans & Bond, 2020). Further, they found that SST programs based on previously published evidence-based schemes or intervention materials demonstrated better outcomes than programs that did not utilize previously published intervention materials.

Skillstreaming

Skillstreaming the Elementary Child (Goldstein & McGinnis, 1997), an evidence-based SST program built on social learning theory, utilizes a psychoeducation approach

that explicitly teaches targeted social skills. *Skillstreaming* systematically teaches social skills to students who display deficits through curricula designed for children in three developmental ranges (i.e., early childhood, elementary, and adolescence; McGinnis, 2012). For elementary-age students, *Skillstreaming* curriculum is made up of 60 skill areas organized into five groups: dealing with feelings, making friends, classroom survival, alternatives to aggression, and dealing with stress (McGinnis, 2012). Social skill deficits are ameliorated through four learning procedures: role playing, modeling, performance feedback, and generalization training, all of which are ideally presented in a small group format (Sheridan et al., 2011). Specific skills should be selected as targets based on the students' deficits. The program is flexible in that practitioners can select from the 60 skill areas while linking the skills to assessment in order to maximize efficacy.

Skillstreaming embodies many of the characteristics of effective SST programs identified in the literature above. For example, it is collaborative, flexible across populations, generalizes effects beyond setting, and integrates evaluation of efficacy into the program (Sheridan et al., 2011). In a study of the efficacy of *Skillstreaming*, statistically significant results indicated that social functioning showed improvement over time (Sheridan et al., 2011). *Skillstreaming the Elementary Child* is the curriculum for the current study.

Adaptations to Tier 2 SST Programs

In their evaluation of adaptions made to Tier 2 SST programs, Kern et al. (2020) found that adjustments may improve the efficacy of interventions. This finding is noteworthy because some Tier 2 students do not respond to standard interventions.

Adaptations can tailor the program to small group or individual needs. Interventions can be adapted by customizing the components, intensity, or dosage to better link to unique student or group characteristics. In examining previous research, Kern et al. (2020) said the core components of SST include having an adult model the skill, having the student role play the skill, and having the adult provide performance feedback. They found that all studies in their evaluation made more than one adaptation with the most prominent being matching lessons to skill deficit, adaptations to session time, and the addition of student self-monitoring. They note that it is important for these adaptations to be made prior to the start of intervention. All the single subject studies analyzed had positive outcomes with effect sizes ranging from moderate to large (Kern et al., 2020). This research supports the utility of selecting an evidence-based SST curriculum (such as *Skillstreaming*) and modifying it to better target individual student social skill deficit areas. Furthermore, this also supports embedding the SST curriculum in a multi-sensory presentation to better facilitate engagement and generalization.

Art and Social Emotional Development

There is an abundance of research demonstrating the ability of the arts to build social emotional competence. For example, the University of Chicago Consortium on School Research and Ingenuity examined the association between arts education and social-emotional development and concluded that arts learning experiences may improve confidence, self-regulation, collaboration, responsibility, and assertiveness (Farrington & Shewfelt, 2020). In another study exploring the socioemotional benefits of the arts, Holochwost et al. (2017) found that the arts can also foster self-awareness, tolerance for

others' perspectives, school engagement, self-concept, self-efficacy, and a growth mindset.

According to the artist and art educator Elliot Eisner (2002), this social emotional development is in part due to the way the arts enable us to separate from the literal and step into the shoes of others; encourages us to tolerate ambiguity and different perspectives; and invites us to explore our interior emotional landscape. Educators can emphasize student cognitive and social emotional development while teaching the arts by: creating supportive teaching environments that foster exploration of materials and ideas; providing opportunities for children to perceive subtle relationships and recognize complexities; developing activities that challenge students to think; discussing artwork to develop communication and social skills; and inviting students to be metacognitive about their own thinking process (Eisner, 2002).

In their book *Studio Thinking: The Real Benefits of Visual Arts Education,* Hetland et al. (2007) posit that the visual arts not only teach students components that are specific to the visual arts – but also other cognitive and attitudinal dispositions that are transferable to other areas of learning and life. Some of the cognitive and attitudinal dispositions that can be cultivated through the arts include self-expression, mental flexibility, and interpersonal relationship skills (Hetland et al., 2007). These skills can be generalized to help students engage and persist in academic tasks, evaluate social problems, and communicate their needs in other areas. Similar to the need for social skills to be explicitly taught, these cognitive and attitudinal skills also must be intentionally included within visual arts lessons (Hetland et al., 2007). By focusing on developing

these habits of mind while also teaching social skills, students may better have the opportunity to learn, practice, and generalize social competence.

Teaching Social Skills Through Visual Art

Strategies to teach social skills through the arts typically involve embedding an SST curriculum into an approach that utilizes music, dance, drama, or visual art. Various studies have demonstrated efficacy of teaching social skills in this manner. For example, Mogro-Wilson and Tredinnick (2020) embedded social skills into music and art lessons and found an increase in positive social behaviors among students when compared with a control group. Morizio et al. (2020) found increases in empathy, self-management, and responsible decision making when using creative activity to promote social competence with elementary students in an after-school setting.

Lenz et al. (2010) indicate that creative strategies that utilize multiple senses may engage students in a way that is more worthwhile than strategies that utilize only dialogue and repetition. Strategies to embed SST into art may include developing projects with collaboration built into the design to encourage connections; utilizing projects that encourage self-reflection and social roles; encouraging art talk by communicating thoughts and feelings while looking at art; and encouraging problem-solving during the art creation process (Lenz et al., 2010).

Eisner (2002) indicates that cultivating emotional and cognitive skills through the arts requires explicit teaching goals and strategies. For example, if an educator wants to further students' social skills, the educator has to decide how the social skills concepts will be incorporated into a project with specific materials that cultivate the social skill concept being taught, while at the same time considering how the particular group of

students, given what they understand, can be promoted. However, students will learn more and less about the intended goals because they bring with them individual life stories that interact with what is taught. Therefore, educators need to reflect on what the actual learning experiences are throughout the teaching process and differentiate instruction to meet individual student needs (Eisner, 2002). Because learning is a function of what students learn from others, educators should also emphasize the social aspects of making art when cultivating emotional and cognitive skills (Eisner, 2002). Part of this social learning atmosphere includes providing feedback to the students, asking students questions that encourage reflection, and encouraging students to communicate with each other (Eisner, 2002).

Several studies have used the concept and methodology similar to what the current study utilizes. For example, Mogro-Wilson and Tredinnick (2020) conducted their research with a quasi-experimental design while studying the efficacy of visual art to teach social emotional awareness. Students in the experimental group received the full intervention (SST program embedded into a music or visual art class) and students in the control group received only the standard music or visual art class). Mogro-Wilson and Tredinnick (2020) used a behavior rating scale for pre – and post – test data collection.

However, research specifically using visual art to teach social skills to elementary students in the school-setting was not found. For example, Mogro-Wilson and Tredinnick (2020) focused on the promotion of broader social emotional awareness for high school students. Other studies focus on using art to teach social skills for subgroups of students such as those with developmental disabilities, students in preschool, or those in a therapeutic or afterschool setting (Morizio et al., 2020; Lenz et al., 2010). Additionally,

several studies were not included in this literature review because of methodological or conceptual concerns. As Mogro-Wilson and Tredinnick (2020) point out, research on utilizing art to teach social skills is scarce. There is a clear gap in the research related to using a Tier 2 small group SST program taught through visual art to promote social skills in elementary-age children.

The Present Study

The purpose of this research study was to examine the impact of teaching social skills through the use of visual art to a small group of elementary-aged students. Because social skills training is more effective when based on evidence-based strategies, this study integrated specific social skill instruction from the *Skillstreaming the Elementary School Child* curriculum within a visual art teaching method. This study targeted the skills needed to demonstrate empathy, friendship skills, assertiveness, social engagement, and self-management. The outcomes add to a limited number of studies with such a focus, contributing to implementation science for school-based social skills interventions.

CHAPTER III

METHOD

Research Questions and Hypotheses

The present study evaluated the effectiveness of a small-group social skills intervention with visual art components for elementary school students with social skills deficits. The following research questions were posed:

Research Question #1

What is the impact of a small-group social skills intervention taught with visual art components on elementary school students' social skills (i.e., empathy, friendship skills, assertiveness, social engagement, and self-management) as measured by weekly Direct Behavior Ratings?

Hypothesis 1. The researcher hypothesized that a small-group social skills intervention taught with visual art components would improve the social skills of students in grades 4 through 5. This hypothesis was based on research suggesting that visual arts can be an effective way to teach social skills (Hetland et al., 2007). Additionally, this hypothesis was based on research suggesting that utilizing an evidence-based curriculum results in more effective social skills interventions (Evans & Bond, 2011).

Research Question #2

Will students' social skills, as measured by the *Social Skills Improvement System* (SSIS) standardized behavior rating scale pre – and post-test, improve more through an intervention based on *Skillstreaming for the Elementary Child* taught with visual art components than an intervention using the *Skillstreaming* curriculum alone?

Hypothesis 2. The researcher hypothesized that students participate in the experimental small group receiving the *Skillstreaming* curriculum taught with visual art components will improve *more* than the group of students who participated in the control small group that teaches social skills solely through the use of the *Skillstreaming* curriculum. This hypothesis was based on research suggesting that adaptations to Tier 2 social skills programs enhance intervention effectiveness (Kern et al., 2020). Additionally, this hypothesis was based on research suggesting that students may develop social skills more effectively by using multi-sensory strategies (Lenz et al., 2010) embedded in visual art (Mogro-Wilson & Tredinnick, 2020).

Research Design

This study utilized a quasi-experimental design that produced quantitative data. Given the constraints of conducting a large-scale experimental design study in a school setting, this design was selected to obtain the most reliable data on the efficacy of the intervention.

The independent variable in this study was the social skills intervention taught (*Skillstreaming* + visual art components, or *Skillstreaming* alone). The dependent variables include: (1) the SSIS-RS teacher rating scale to evaluate the social skills for the pre-test and post-test, and (2) direct behavior rating (DBR) assessed weekly by teachers over an eleven-week period (three weeks during the baseline phase and eight weeks in the intervention phase).

Participants and Setting

Convenience sampling was used to recruit participants for the current study in the school district where the researcher worked as a graduate assistant. The experimental and

control groups each included five students at a public elementary school in southwest Ohio (n = 10). Students were referred by teachers or the school counselor for inclusion in the study due to difficulties with social skills based on classroom observations and teacher report. Informed written consent was obtained from parents/guardians prior to student inclusion in the study (see Appendix A).

Participant's teachers were given the SSIS rating scale to identify social skills in need of improvement. Participants also participated in an individual 20-minute interview with the researcher in order to establish rapport and understand what social skill difficulties the student felt they needed help with. Because participants presented with a variety of social skill needs (i.e., some with more internalizing symptoms and some with more externalizing symptoms), the researcher determined that participants could not be randomly placed into the two groups. Instead, participants were grouped by similar social skill areas in need of development. The researcher subsequently tailored the weekly intervention topics to target the specific deficits presented by most participants in each group. Table 1 summarizes participant demographic information.

Table 1

Participant Demographic Information

Group	**Sex**	**Grade**
Experimental	80% male students	60% 5th grade students
	20% female students	40% 4th grade students
Control	60% male students	40% 5th grade students
	40% female students	60% 4th grade students

The experimental group was provided eight intervention sessions (one session per week for eight weeks), utilizing the *Skillstreaming for the Elementary Child* curriculum taught with visual art components. The control group was also provided eight intervention sessions (one per week for eight weeks), utilizing the *Skillstreaming for the Elementary Child* curriculum but taught without visual art components. Weekly intervention sessions lasted approximately thirty minutes for both groups and all were held at various times during the school day in order to limit repeated interruptions to the student's academic instruction. Intervention sessions took place in the researcher's school office.

Materials

Measures

Two measures were used in this research study. First, the Social Skills Improvement System-Rating Scale (SSIS-RS; Gresham & Elliot, 2018) was used to assess pre- and post-intervention social skills for students in both the control and experimental groups. Direct behavior ratings (DBRs) were collected weekly as baseline and progress monitoring data during the intervention for students in the experimental group.

Social Skills Improvement System-Rating Scales. A teacher rating scale from the SSIS-RS was used to collect pre- and post-intervention data. The rating scales were given to each teacher prior to the beginning of interventions and at the conclusion of the interventions. The SSIS-RS assesses student behavior in three different domain areas: social skills, problem behaviors, and academic competence. The current study focuses on the social skills and problem behaviors domains. Seven subscales make up the social

skills domain: cooperation, communication, assertion, responsibility, self-control, communication, empathy, and engagement (Gresham et al., 2011). The SSIS-RS was selected as the pre- and post-test because it is a standardized, norm-referenced instrument with excellent internal consistency and test-retest reliability.

The SSIS-RS uses a behavior analysis framework to assess whether areas are strengths, performance deficits, or acquisition deficits. Each item on the SSIS-RS subscales is rated on a 4-point scale (0 = Never, 1 = Seldom, 2 = Often, and 3 = Almost Always) based on the raters' perception of the frequency of the behavior (Gresham et al., 2011). The SSIS-RS was normed on a nationwide sample of 4,700 children and adolescents aged 3 through 18 years; demographic targets are based on the 2006 U.S. Census Bureau data and were applied to three norm age groups: (ages 3-5 years, ages 5-12 years, and ages 13-18 years). According to Gresham et al. (2011), the SSIS has strong psychometric properties in terms of internal consistency and test-retest reliability (i.e., median scale reliabilities of the Social Skills scales are in the mid- to upper .90s for every age group on all forms; median subscale reliabilities are in the .80s for all forms; and test-retest indices for Total Social Skills were in the .80s for all forms).

Social skills strengths and deficits found on the pre-intervention SSIS-RS were used to guide the specific skills targeted in the intervention. The researcher selected students for the two groups based on their social skill areas of need with the goal of having most participants in each group demonstrating similar needs.

Direct Behavior Ratings. Direct behavior ratings (DBRs) were collected from teachers during the baseline and intervention phases to assess individual student growth in five targeted social skills areas (i.e., empathy, friendship skills, assertiveness, social

engagement, and self-management). According to Briesch et al. (2016), DBRs require raters to conduct brief behavior ratings (similar to a rating scales) at the time and place that the behavior occurs (similar to direct observations). Briesch et al. note that using teachers, who maintain constant presence with the student, increases the likelihood that all instances of behavior will be observed. DBRs are customizable, in that they can be used to directly assess the targeted operationally defined behaviors while using ratings to quantify the teachers' perceptions of student behavior (Briesch et al., 2016). Each DBR form (see Appendix B) contained a total of five questions (one question related to each operationally defined behavior targeted in the intervention: empathy, friendship skills, assertiveness, social engagement, and self-management). Each question was rated on a Likert scale from 0 to 10 that were anchored to seven qualitative descriptors: (1) *never,* (2) *occasionally,* (3) *a little less than half the time*, (4) *sometimes*, (5) *a little more than half the time*, (6) *very frequently*, and (7) *always.* DBRs were collected weekly during baseline and progress-monitoring phases of the intervention for students in the experimental group. There were three data collection points during the baseline phase (prior to the start of the intervention) and eight data collection points during the intervention phase. Data collected from the DBRs were analyzed visually by the researcher at the conclusion of the intervention period.

Intervention materials

An eight-session social skills intervention program was developed by the researcher by combining the *Skillstreaming the Elementary School Child* curriculum with visual art components. The intervention program was based on multiple sources including materials (i.e., handouts and worksheets) from the *Skillstreaming* curriculum, art

education strategies to foster social emotional growth (Hetland et al., 2007), and multi-sensory strategies to increase learning (Lenz et al, 2010). Visual art projects were specifically designed to incorporate skills from the *Skillstreaming* curriculum. Session lesson plans were created during baseline, however, some were redesigned prior to the week they were implemented in order to best support students' evolving needs.

The intervention program began with an introduction and explanation of the group's purpose, confidentiality, and group rules. Each session focused on one pre-identified social skill and taught students the steps required to adequately perform each skill. The researcher modeled each new social skill, provided opportunities for each student to practice the skill through role-playing activities, and provided performance feedback and praise. In the experimental group, visual art was used in multiple capacities during the intervention, including: (1) as an icebreaker activity, (2) to reinforce specific social skills through an integrated art project, (3) as a method to practice collaboration through group projects, (4) as a tool for developing communication skills during discussion, and (5) as a multi-sensory method for learning specific skills. For example, in a lesson on contributing to discussions, famous works of art were used as a communication tool to help students learn to share their ideas and opinions. Another example includes using a collaborative drawing in a lesson on joining in to help students communicate with peers. A sample lesson plan, included in Appendix C, demonstrates how visual art activities were strategically embedded in the experimental group intervention. Appendix D includes samples of some of the art activities included.

Students in the control group were taught directly from the *Skillstreaming* curriculum. Because the control group did not have visual art activities included in their

session, they had extra time to practice the role-play activities and work on *Skillstreaming* worksheets to further generalize the lesson content. Students in both conditions also had the opportunity to generalize the skills taught in the time between sessions through a homework activity that involved practicing the skill in other settings. Table 2 outlines the intervention for the experimental (visual art) group. Table 3 outlines the intervention for the control (non-art) group.

Table 2

Session Skills and Objectives for Experimental (Visual Art) Group

Session	Skill(s) Addressed	Objective(s)	Visual Art Component(s)
1	Skillstreaming skill #14: *Introducing yourself*	Develop group rapport, discuss confidentiality, establish group rules, and practice communicating	Students introduced themselves using a picture drawn that included 5 things they liked
2	Skillstreaming skill #15: *Beginning a conversation*	Develop an understanding of verbal and nonverbal communication while practicing assertion & friendship skills	Students created artist trading cards and then used cards as conversation starters
3	Skillstreaming skill #17: *Joining in*	Develop the ability to join peers in an ongoing activity (assertion, social engagement, and friendship skills)	Students created collaborative monster *Exquisite Corpse* drawings
4	Skillstreaming skill #10: *Ignoring distractions*	Define and develop impulse control by counting to five, considering appropriate behaviors, and using self-control	Students worked on *Zentagle* drawings to practice focus and self-control
5	Skillstreaming skill #7: *Contributing to discussions*	Develop social engagement and communication strategies	Students looked at and talked about famous artwork in order to

			practice contributing to discussion
6	Skillstreaming skill #27: *Expressing your feelings*	Develop emotional awareness, pay attention to body clues to identify feelings, and develop choices to express your feelings	Students created expressive marker drawings while thinking about colors and emotions
7	Skillstreaming skill #51: *Dealing with being left out*	Develop strategies for dealing with being left out (ask to join in, choose someone else to hang out with, or do another activity) and prepare students for final session	Students created mandalas to practice mindfulness as a strategy for handling emotions
8	Skillstreaming skill #34: *Dealing with fear*	Develop strategies to deal with anxiety and discuss small vs. large problems and implement student intervention acceptability measure	Students finished culminating group strengths paper chain art project

Table 3

Session Skills and Objectives for Control (Non-Art) Group

Session Number	Skill(s) Addressed	Objective(s)
1	Skillstreaming skill #14: *Introducing yourself*	Develop group rapport, discuss confidentiality, establishing group rules, and practice communicating
2	Skillstreaming skill #15: *Beginning a conversation*	Develop an understanding of verbal and nonverbal communication while practicing assertion & friendship skills
3	Skillstreaming skill # 1: *Listening*	Develop strategies to effectively engage in whole body listening (self-control skill)

4	Skillstreaming skill #10: *Ignoring distractions*	Define and develop impulse control by counting to five, considering appropriate behaviors, and using self-control.
5	Skillstreaming skill #36: *Using self-control*	Understand self-control and develop strategies to self-regulate (deep breaths, body scan, sensory supports).
6	Skillstreaming skill #39: *Avoiding trouble*	Develop ability to understand consequences of behaviors and how to make appropriate decisions to stay out of trouble (self-control)
7	Skillstreaming skill #31: *Dealing with your anger*	Develop strategies to deal with anger (count to 10, walk away, or do relaxation exercises, self-control) and prepare students for final session
8	Skillstreaming skill #41: *Problem solving*	Develop strategies to solve a problem and consider consequences (self-control) and implement student intervention acceptability measure

Procedures

Phase I: IRB approval. This study was approved by the University of Dayton Institutional Review Board (IRB) on February 14, 2021, prior to participant recruitment.

Phase II: Recruitment and consent. Prior to recruitment, the participating school's principal consented to the school's participation in this project. Recruitment of participants occurred at an elementary school in southwest Ohio. Students were recruited via referrals from teachers and the school counselor as well as through consultation with the school psychologist in the Spring of the 2021-22 school year. Eleven students were referred to the researcher in the initial round of recruitment. In order to be included in the study, the following criteria had to be met: the student was in grades 4 or 5, demonstrated social skills instructional needs based on teacher referral, and a signed parent informed

consent form was received. One student did not return a parent consent form and was therefore excluded from the study. After parent consent was obtained, the researcher conducted an individual interview with students in order to gain student assent, establish rapport, and learn more about each student's social skills strengths and weaknesses via the SSIS-RS self-report.

Phase III: Pre-intervention data collection. Teachers in both conditions completed an SSIS-RS pre-test prior to the start of the intervention. Teachers of students in the experimental group were also given DBRs for three weeks prior to the start of the intervention stage in order to establish a baseline of performance.

Phase IV: Intervention. The researcher implemented two concurrent social skills intervention groups; meeting once per week for eight weeks. Weekly sessions for both groups were approximately thirty minutes in length. The researcher conducted the lessons due to her familiarity with the program. The social skills intervention sessions took place in the researcher's school office. Teachers were given DBR forms to complete for students in the experimental group once a week during the intervention phase.

Phase V: Post-Intervention Data Collection. After the final intervention session, teachers in both conditions completed the post – test SSIS-RS.

Phase VI: Treatment adherence and acceptability. An intervention adherence checklist was created to ensure that the interventions were implemented consistently at each session (see Appendix E). The researcher completed the checklist during each of the sessions. A student measure of intervention acceptability was created to gauge students' acceptability and general perceptions of the intervention (see Appendix F). This measure was completed by all students in both conditions during the final intervention session.

Data Analysis

Research Question 1. To measure the impact of the small-group social skills intervention taught with visual art components, weekly teacher DBR assessments were evaluated through descriptive statistics and visual analysis of graphed data. The DBR scores from baseline and intervention phases were graphed individually for each participant to evaluate growth in the operationally defined social skill areas (i.e., empathy, friendship skills, assertiveness, social engagement, and self-management). The steps for visual analysis followed the guidelines from the What Works Clearinghouse (Kratochwill, 2010); Cohen's *d* was calculated to determine the effect size.

Research Question 2. To measure the impact of the small-group social skills intervention taught with visual art components, pre- and post-test SSIS-RS (teacher form) data were compared between the experimental and control intervention groups using a reliability of change index (RCI; Nunally & Kotsche, 1983). Additionally, a *t*-test was conducted to evaluate whether the means on the SSIS differed significantly between the experimental and control intervention groups.

CHAPTER IV

RESULTS

This chapter presents the results of delivering two small group social skills interventions for elementary students, one delivered with dedicated visual art components and the other without. Following is an analysis of pre- and post-test measurement of all participating students' social skills, as well as an analysis of the visual art social skills group participants' growth measured with direct behavior ratings (DBRs). Results are presented by research question.

Data Analysis

Data analysis occurred via four primary methods: 1) visual analysis of weekly DBR data, 2) effect size calculation using Cohen's *d*, 3) pre/post SSIS-RS score comparisons using a reliability of change index method, and 4) and independent t-test to compare the intervention results between the two groups.

Research Question 1. What is the impact of a small-group social skills intervention taught with visual art components on elementary school students' social skills (i.e., empathy, friendship skills, assertiveness, and social engagement) as measured by weekly Direct Behavior Ratings?

To measure the effect of the visual art social skills intervention on students' prosocial behaviors, teachers completed the SSIS-RS before and following the conclusion of the intervention. Additionally, experimental group participants' teachers completed weekly Direct Behavior Ratings (DBRs) which served as a behavioral representation of

improvements in social skills demonstrated in the classroom during and following the intervention.

DBR ratings were analyzed visually via individually graphed data and specifically examined for patterns in level, trend, variability, overlap of data in different phrases, and consistency (What Works Clearinghouse, 2020). Graphed data represent an average DBR score for all behaviors. Additionally, an effect size for each participant was calculated using Cohen's *d* (*d*-index); a *d*-index above .80 is considered a large effect (Kratochwill et al., 2010). This approach is used when there are at least three baseline data points and variability exist among the data (Hunley & McNamara, 2010). DBR outcomes for the experimental group are presented for each participating student using pseudonyms to follow.

Bradley

Bradley was referred to the social skills group due to difficulties initiating and maintaining friendships. Bradley was very quiet and withdrawn and had difficulty asking for help and sharing his thoughts and ideas in class. Due to these difficulties, some intervention session objectives focused on developing assertiveness and friendship skills. Bradley's average DBR score data demonstrate an increase in social skill behaviors from baseline to the end of the intervention. Furthermore, Bradley's assertiveness scores (baseline average = 1, intervention average = 4.55, *d*-index = 1.22), friendship skills scores (baseline average = 3, intervention average = 4.25, *d*-index = 0.86), and self-management scores (baseline average = 3, intervention average = 4.75, *d*-index = 0.81) all demonstrated a significant increase baseline to intervention. Anecdotally, Bradley made noticeable improvements in his *self-expression*, a studio habit of mind, throughout

the course of the intervention. For example, during session one, Bradley crumpled up his drawing and was withdrawn, presumably because he did not want to share it with the group. However, by session three, Bradley engaged in the lessons more by sharing his point of view and opinion about others' artwork. By session four during the self-expressive art project, Bradley demonstrated a more curious and open process, which allowed him to experiment with color and shapes and express himself. Bradley's teacher also reported anecdotally that Bradley was asking for help when needed and participating in classroom discussions more after participating in the intervention sessions.

Amaya

Amaya was referred to the social skills group due to difficulties initiating and maintaining friendships and social anxiety. Amaya was very shy and withdrawn; she sometimes placed her long hair over her face in order to hide behind it. Due to these difficulties, several intervention sessions focused on friendship skills, assertiveness, and social engagement. Amaya's average DBR score data demonstrate an increase in social skill behaviors from baseline to the end of the intervention. Additionally, Amaya's assertiveness scores (baseline average = 1.67, intervention average = 4.63, *d*-index = 1.53), friendship skills scores (baseline average = 2.33, intervention average = 4.75, *d*-index = 1.6), and social engagement scores (baseline average = 3, intervention average = 5, *d*-index = 1.54) all demonstrated a significant increase baseline to intervention. The researcher also observed Amaya's confidence and engagement blossom throughout the intervention sessions. Amaya shared her feelings with her peers during the intervention sessions and emerged as a leader in the group. Amaya was observed to strengthen her ability to *stretch and explore* (a studio habit of mind) through her encounters with the art

projects. Because of her social anxiety, Amaya's initial artworks were tight and limited in creativity and freedom. With time, as she became more confident, Amaya became more playful with her mark-making and the size of her drawings. She was able to tap into her exuberant voice more authentically by stretching the limits of her ability and exploring new marks. Additionally, the culminating paper-chain art project gave Amaya the opportunity to stretch in her role in the group by becoming a leader of the project.

Cameron

Cameron was referred to the social skills group due to difficulties with self-regulation and aggression. Cameron was having a difficult time blurting out in class at inappropriate times, establishing and maintaining friendships, and demonstrating self-regulation. Cameron sometimes demonstrated disruptive behaviors in the classroom and had several office discipline referrals. Additionally, Cameron demonstrated a need to further develop his empathy skills and friendship skills. Cameron's average DBR score data demonstrate a decrease in social skill behaviors from baseline to the end of the intervention. Anecdotally, Cameron's teacher reported that his problem behaviors in class continued throughout the intervention. However, the researcher observed a strained relationship between the teacher and Cameron which may have impacted the teacher ratings. Cameron had a similar number of office discipline referrals from pre- to post-intervention. However, Cameron's friendship skills (baseline average = 1.67, intervention average = 4.63, *d*-index = 1.53) and social engagement (baseline average = 2.33, intervention average = 3.13, *d*-index = 0.84) demonstrated a significant increase from baseline to intervention. Although the weekly DBR scores captured limited improvement in social skills, this researcher observed more dramatic improvements. Cameron was one

of the most enthusiastic members of the group. For example, Cameron often did extra drawings outside of the group sessions and brought them to share with the group and to hang on the "exhibition wall" the group created. Cameron developed *confidence* (a studio habit of mind) by finding that he excelled in creatively expressing himself through visual art. This was a powerful trait for Cameron to feel because he was not used to feeling this way in his regular classroom where he faced academic and behavioral difficulties.

Marcus

Marcus was referred to the social skills group due to difficulties with self-regulation, blurting out at inappropriate times, and impulsivity. Marcus also had some difficulties establishing and maintaining friendships. Due to these difficulties, some intervention sessions focused on self-management skills and friendship skills. Marcus' average DBR score data demonstrate an increase in social skill behaviors from baseline to the end of the intervention. Additionally, Marcus' assertiveness scores (baseline average = 5, intervention average = 6.13, *d*-index = 1.29), friendship skills scores (baseline average = 4, intervention average = 6.5, *d*-index = 1.88), social engagement scores (baseline average = 6, intervention average = 6.75, *d*-index = 1.09), and self-management scores (baseline average = 2, intervention average = 6.13, *d*-index = 1.92) all demonstrated a significant increase baseline to intervention. Anecdotally, Marcus' teacher reported that Marcus was demonstrating more self-regulated behaviors in class towards the end of the intervention. For example, Marcus reduced the number of times he was blurting out in class, stayed on topic more during discussions, and worked more effectively with a small group. Additionally, Marcus strengthened his ability to *observe* (a studio habit of mind) over the course of the intervention. During the first few sessions,

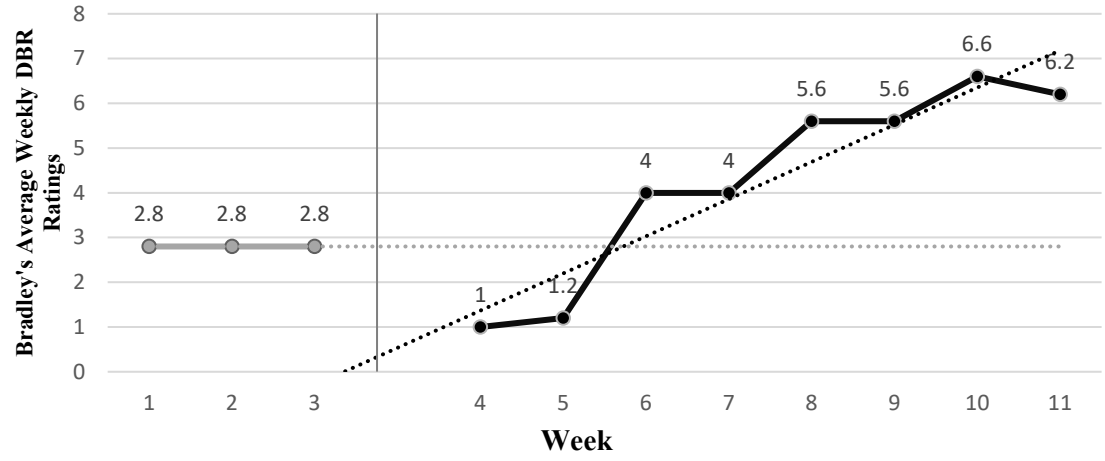
Marcus struggled to listen and not interrupt others with his own ideas and thoughts. That same impulsivity was apparent in his artwork. Marcus tended to quickly make his drawings without going back to fine tune any elements. During lesson three, Marcus observed artwork with a newfound slowness and appreciation. He also appropriately waited his turn to talk while engaging in the conversation about the artwork. And over the course of the remaining sessions, with prompting, Marcus slowed down in the creation of his artworks and stopped more often to observe something noteworthy in others' artworks.

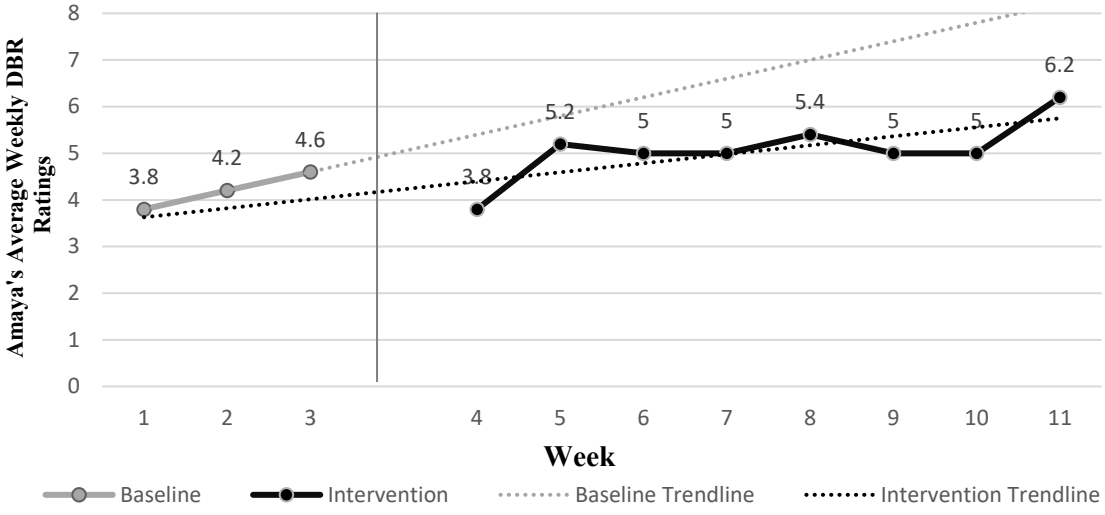
Rahul

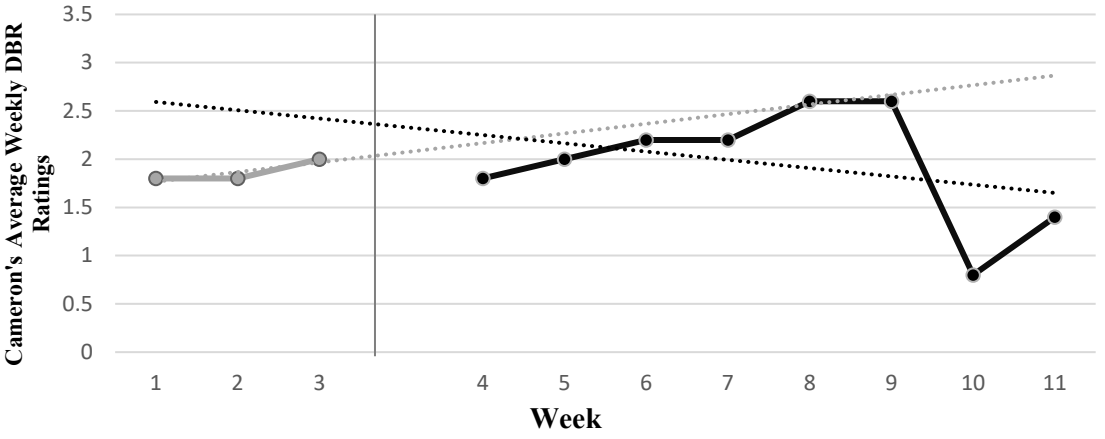
Rahul was referred to the social skills group due to difficulties establishing and maintaining friendships. Rahul's teacher reported that Rahul was very withdrawn in class and rarely shared his thoughts and ideas during class. Rahul's average DBR score data demonstrate an increase in social skill behaviors from baseline to the end of the intervention. Additionally, Rahul's assertiveness scores (baseline average = 5, intervention average = 7.25, *d*-index = 1.65), empathy scores (baseline average = 5.33, intervention average = 7.25, *d*-index = 1.9), social engagement scores (baseline average = 6.67, intervention average = 6.88, *d*-index = 1.11), and self-management scores (baseline average = 3, intervention average = 6.5, *d*-index = 1.87) all demonstrated a significant increase from baseline to intervention. Anecdotally, Rahul's teacher reported that Rahul was more engaged with his peers and shared more of his ideas in class towards the end of the intervention. This researcher also observed this during the intervention sessions. Rahul was observed to engage in the studio habit of mind: *reflection* throughout the intervention sessions. From the beginning, Rahul had a natural talent for reflecting on

what he was making by thoughtfully considering what he wanted to make and how he wanted to represent it. Rahul also successfully utilized symbols in his work and used them as a vehicle to share his experiences and ideas.

Figure 1 displays the graphed DBR outcome data for each participant in the experimental group. Tables 4-8 summarize the visual analysis of each of these participant's graphed DBR outcome data.


Bradley's Average Weekly DBR Ratings
Week
2.8
2.8
2.8
1
1.2
4
4
5.6
5.6
6.6
6.2


Amaya's Average Weekly DBR Ratings
Week
3.8
4.2
4.6
3.8
5.2
5
5
5.4
5
5
6.2
Baseline
Intervention
Baseline Trendline
Intervention Trendline


Cameron's Average Weekly DBR Ratings
Week

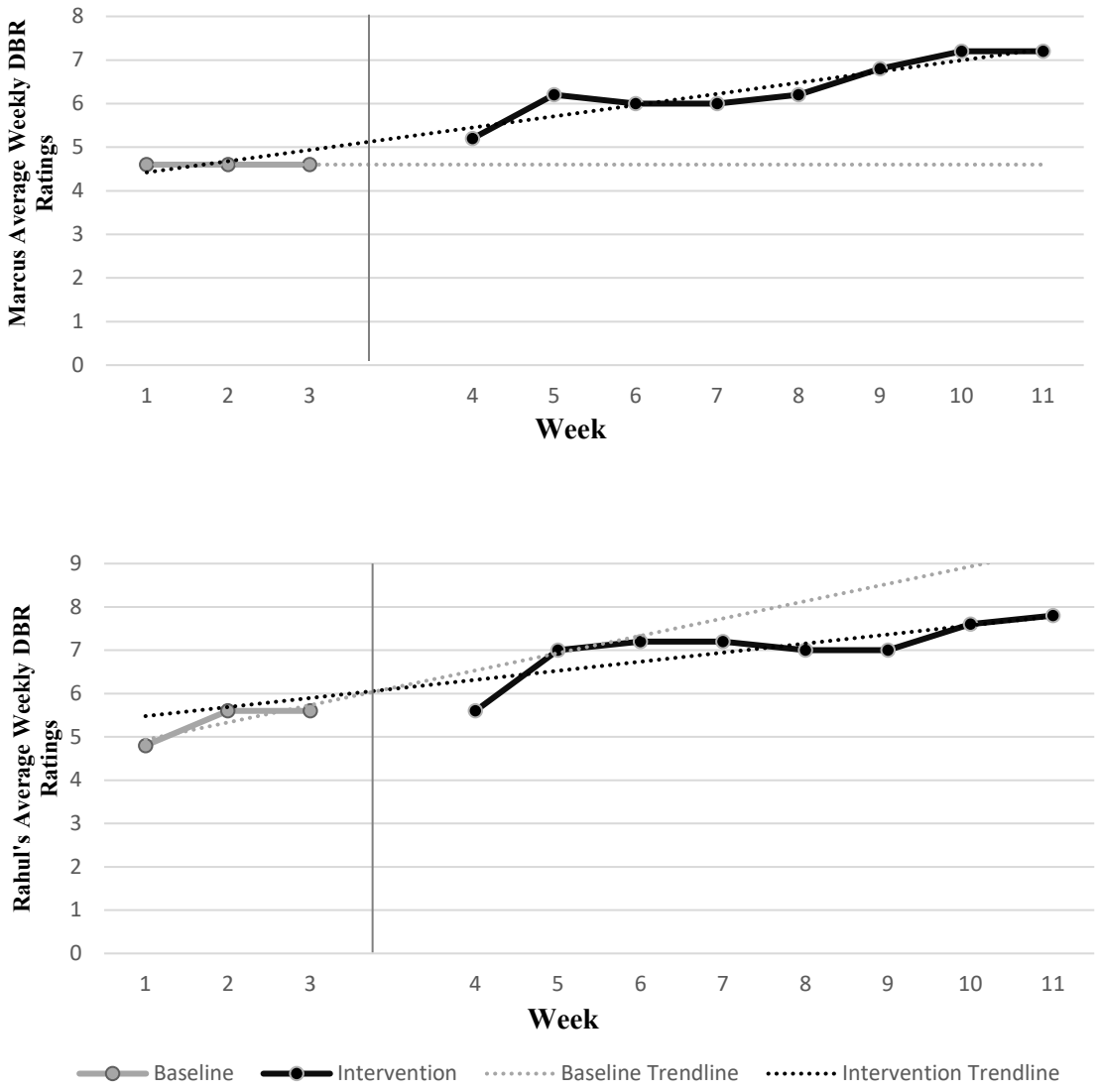


Figure 1

Average Weekly DBR Results for Experimental Group

Table 4

Results of Visual Analysis of DBR Ratings for Bradley

	Baseline		Intervention		Difference				
Social Skill Area:	Mean	Trend	Mean	Trend	Mean Change	Level Change	Upward Trend	% of Non-Overlap Scores	*d*-index
Assertiveness	1	stable	4.55	accel	3.55	Yes	Yes	62.5%	1.22*
Friendship Skills	3	stable	4.25	accel	1.25	Yes	Yes	62.5%	0.86*
Empathy	4	stable	3.25	decel	- .75	No	No	25%	-0.38
Social Engagement	3	stable	4.13	accel	1.13	Yes	Yes	62.5%	0.61
Self-Management	3	stable	4.75	accel	1.75	Yes	Yes	62.5%	0.81*

**Indicates large effect size*

Table 5

Results of Visual Analysis of DBR Ratings for Amaya

	Baseline		Intervention		Difference				
Social Skill Area:	Mean	Trend	Mean	Trend	Mean Change	Level Change	Upward Trend	% of Non-Overlap Scores	*d*-index
Assertiveness	1.67	accel	4.63	accel	2.96	Yes	Yes	62.5%	1.53*
Friendship Skills	2.33	accel	4.75	accel	2.42	Yes	Yes	87.5%	1.6*
Empathy	5	stable	4.38	accel	.62	No	No	0%	-0.76
Social Engagement	3	accel	5	accel	2	Yes	Yes	62.5%	1.54*
Self-Management	9	decel	6.63	decel	-2.37	No	No	0%	-1.47

**Indicates large effect size*

Table 6

Results of Visual Analysis of DBR Ratings for Cameron

	Baseline		Intervention		Difference				
Social Skill Area:	Mean	Trend	Mean	Trend	Mean Change	Level Change	Upward Trend	% of Non-Overlap Scores	*d*-index
Assertiveness	2.33	accel	2	stable	-.33	No	No	0%	-0.48
Friendship Skills	1.67	accel	3	accel	1.33	Yes	Yes	50%	0.85*
Empathy	1	stable	.75	decel	-.25	No	No	0%	-0.62
Social Engagement	2.33	decel	3.13	accel	.8	Yes	Yes	0%	0.84*
Self-Management	2	stable	.88	decel	-1.12	No	No	0%	-1.87

**Indicates large effect size*

Table 7

Results of Visual Analysis of DBR Ratings for Marcus

	Baseline		Intervention		Difference				
Social Skill Area:	Mean	Trend	Mean	Trend	Mean Change	Level Change	Upward Trend	% of Non-Overlap Scores	*d*-index
Assertiveness	5	stable	6.13	accel	1.13	Yes	Yes	75%	1.29*
Friendship Skills	4	stable	6.5	accel	2.5	Yes	Yes	100%	1.88*
Empathy	6	stable	6.25	accel	.25	No	Yes	25%	0.33
Social Engagement	6	stable	6.75	accel	.75	Yes	Yes	88%	1.09*
Self-Management	2	stable	6.13	accel	4.13	Yes	Yes	100%	1.92*

**Indicates large effect size*

Table 8

Results of Visual Analysis of DBR Ratings for Rahul

	Baseline		Intervention		Difference				
Social Skill Area:	Mean	Trend	Mean	Trend	Mean Change	Level Change	Upward Trend	% of Non-Overlap Scores	*d*-index
Assertiveness	5	stable	7.25	accel	1.13	Yes	Yes	75%	1.65*
Friendship Skills	6.67	accel	7.38	accel	2.5	Yes	Yes	100%	0.75
Empathy	5.33	decel	7.25	accel	.25	No	Yes	25%	1.9*
Social Engagement	6.67	accel	6.88	accel	.75	Yes	Yes	88%	1.11*
Self-Management	3	stable	6.5	accel	4.13	Yes	Yes	100%	1.87*

**Indicates large effect size*

Research Question 2. Will students' social skills, as measured by the *Social Skills Improvement System* (SSIS) standardized behavior rating scale pre – and post-test, improve more through an intervention based on *Skillstreaming for the Elementary Child* taught with visual art components than an intervention using the *Skillstreaming* curriculum alone?

To measure the impact of the small-group social skills intervention taught with visual art components, pre- and post-test SSIS-RS data were compared between the experimental and control intervention groups. Descriptive statistics were used to evaluate the participants' level of social skills pre- and post-intervention. Table 9 presents the pre- and post-intervention scores on the SSIS-RS for the experimental (visual art) group. Table 11 presents the pre- and post-intervention scores on the SSIS-RS for the control (non-art) group.

The SSIS-RS yielded ordinal and interval data that were analyzed using descriptive statistics and calculation of Reliability Change Indexes (RCI). Given the small number of participants in the study, there were statistical limitations for measuring the significance of the change in scores on the pre/post assessments. A reliability change index (RCI), originally proposed by Nunally and Kotsche (1983) is a method for determining if an intervention's effect is considered significant. The RCI is computed by dividing the difference between the pre-intervention and post-intervention scores by the standard error of measurement (*SEM*) and is interpreted based on a z-score distribution. If the z-score is greater than +1.96 (or less than -1.96 for change in the negative direction) the difference is considered to be reliable since a change of this magnitude would not be expected given the reliability of the measure. Conversely, if the RCI score is less than

+1.96 (or greater than -1.96 for change in the negative direction), the change is not considered to be reliable, as it could have occurred simply due to the unreliability of the measure. The RCI was calculated for the students' pre- and post-scores on the SSIS-RS; RCI values greater +1.96 were considered significant given that increase in SSIS-RS scores reflect improvement in social skills. However, in the domain of problem behaviors, RCI values of less than -1.96 were considered significant since reductions in behaviors reflect improvements on this subscale. Table 10 summarizes the RCI calculations for participants in the experimental group and Table 12 summarizes the RCI calculations for participants in the control group.

Table 9

Pre/Post Scores on the SSIS-RS for Experimental (Visual Art) Group

	Social Skills Composite[1]		Problem Behaviors[2] Composite		Communication Scale[3]		Assertion Scale		Empathy Scale		Engagement Scale		Self-Control Scale	
Participant	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Bradley	83	97	97	92	6	13	6	7	7	10	9	10	13	16
Amaya	81	97	125	113	12	16	4	8	10	13	6	8	14	19
Cameron	73	75	122	126	12	12	8	6	2	6	8	9	6	6
Marcus	94	83	113	97	18	11	11	10	10	7	12	9	12	9
Rahul	94	92	99	94	16	14	6	10	12	11	10	10	16	13
Average	85	88.8	111.2	104.4	12.8	13.2	7	8.2	8.2	9.4	9	9.2	12.2	12.6

Notes:
[1] Composite Score Mean = 100; Standard deviation = 15
[2] Decrease in scores desired.
[3] Scale Score Mean = ?; Standard deviation = ?

Table 10

Reliability Change Indexes (RCI) for Students' Pre/Post Scores on the SSIS-RS (Experimental Group)

	Social Skills Composite		Problem Behaviors Composite*	
Participant	RCI	Sig?	RCI	Sig?
Bradley	5.38	Yes	-1.51	No
Amaya	5.33	Yes	-3.33	Yes
Cameron	0.77	No	1.21	No
Marcus	-4.23	No	-4.85	Yes
Rahul	-0.77	No	-1.55	No

Note. SEM used is based on Age Level and Gender from the Teacher Form Samples.
*Significance on this scale indicates a decrease in behaviors.

Table 11

Pre/Post Scores on the SSIS-RS for Control (Non-Visual Art) Group

	Social Skills Composite[1]		Problem Behaviors[2] Composite		Communication Scale[3]		Assertion Scale		Empathy Scale		Engagement Scale		Self-Control Scale	
Participant	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Chloe	61	71	138	149	11	13	11	17	6	7	10	12	4	4
Liam	76	75	125	127	10	8	11	13	6	7	8	9	9	4
Levi	67	70	125	129	8	8	9	11	4	6	6	8	2	2
Raymond	78	80	105	102	11	8	11	12	5	6	10	11	4	9
Presley	75	77	138	113	13	14	10	13	9	7	5	7	13	13
Average	71.4	74.6	126.2	124	10.6	10.2	10.4	13.2	6	6.6	7.8	9.4	6.4	6.4

Notes:
[1] Composite Score Mean = 100; Standard deviation = 15
[2] Decrease in scores desired.
[3] Scale Score Mean = ?; Standard deviation

Table 12

Reliability Change Indexes (RCI) for Students' Pre/Post Scores on the SSIS-RS (Control Group)

	Social Skills Composite		Problem Behaviors Composite*	
Participant	RCI	Sig?	RCI	Sig?
Chloe	3.33	Yes	3.06	No
Liam	-0.38	No	0.61	No
Levi	1.15	No	1.21	No
Raymond	0.77	No	-0.91	No
Presley	-0.67	No	-6.94	Yes

Note. SEM used is based on Age Level and Gender from the Teacher Form Samples.
*Significance on this scale indicates a decrease in behaviors.

An independent samples *t*-test was conducted to compare the results between the two intervention groups. Independent samples *t*-tests are used when there are two independent groups (Ravid, 2015). According to Ravid (2015), p-values at or less than .05 level are generally considered significant. The independent t-test was computed using SPSS statistics software, version 27 (IBM, 2020). Results of the t-test comparing students' scores on the social skills composite, problem behaviors composite, communication scale, assertion scale, empathy scale, engagement scale, and self-control scale can be found in Table 13.

Table 13

Mean Difference, t-test, and Significance of SSIS-RS Score Comparison

Composite Area	Control Group Mean	Experimental Group Mean	Mean Difference	t-test statistic	Sig Level
Social Skills	3.2	3.8	0.6	.112	.914
Problem Behaviors	-2.2	-6.8	4.6	2.46	.04*
Communication	-0.4	0.4	0.4	.31	.77
Scale Area					
Assertion	2.8	1.2	-1.6	-1.06	.32
Empathy	0.6	1.2	0.6	.40	.70
Engagement	1.6	0.2	-1.4	-1.57	.16
Self-Control	0	0.4	0.4	.18	.86

*Significant at < 0.05%

Treatment Adherence and Acceptability

The interventions were implemented with 95% adherence. Seven of the eight interventions were implemented with 100% adherence. During session number three for the control group, the session was concluded early due to student behavioral challenges. A positive behavior plan was implemented beginning on the fourth session for the control group. Participants in both conditions completed the student intervention acceptability measure during the final intervention session. Students were asked to indicate whether they 'strongly agreed', 'agreed', were 'neutral', 'disagreed', or 'strongly disagreed' to ten questions related to intervention. A Likert value was established for each response and an overall acceptability rating was calculated for each group. The overall acceptability rating for the experimental group was 4.16 which was higher than the overall acceptability rating for the control group which was 3.36. Table 14 provides more detailed comparisons of students' responses on the intervention acceptability measure.

Figure 2

Results from Student Intervention Acceptability Measure

The Intervention Acceptability Measure results indicate that the control group enjoyed that group much more than the control group and believed that they would continue to use some of the skills they learned in the future. When reviewing individual student responses, there is a link between perceived acceptability of the intervention and ultimate success of the intervention. For example, students that rated the intervention the highest in terms of acceptability, made the most significant improvements. Overall, this suggests that finding an enjoyable activity as the vehicle with which to teach social skills may be more impactful that teaching solely through a manualized program without such an activity. This correlates with recent research that demonstrates that using an enjoyable activity such as Legos can be a beneficial way to teach social skills to children (Kato, 2022).

CHAPTER V

DISCUSSION

Review of Purpose and Major Findings

Social skills are critical for a child to establish and maintain relationships and perform in society (Cacioppo & Cacioppo, 2014). Social skill deficits are correlated with conduct problems, internalizing and externalizing difficulties, and the development of later psychopathology (Bornstein et al., 2011; Durlak et al., 2011), and poor physical and mental health through increased stress and loneliness (Segrin, 2019). When targeted through intervention, social competence can be improved which, in turn, can promote resilience for students at risk (Domitrovich et al., 2017). Due to increased accountability and lack of resources, it is important that school-based interventions are efficient and effective. Evidence-based SST programs delivered at tier 2 are an efficient way to provide interventions to students. Thoughtfully combining visual art with an SST program provides students the opportunity to engage with content in a more meaningful way. Specifically, studio habits of mind can be used as a process to strategically build social emotional awareness (Hetland et al., 2007). Although there is evidence to support the use of art more broadly to develop social skills, much of the research is narrow in scope (e.g., programs implemented at a tier 1 universal level or in a therapeutic setting). There is a gap in the research related to using a tier 2 small group SST program taught through visual art to promote social skills in elementary-age children in the school setting. This study aimed to evaluate an intervention that utilizes visual art experiences and activities to support the development of social skills for students in elementary school.

Interpretation of Findings Relative to the Hypotheses

Research Question 1. Participants in the experimental group demonstrated overall improvements in their social skills throughout the course of the intervention phase. Based on visual analysis of average weekly DBR data, four out of five participants demonstrated an upward trend in the data, indicating that social skills had increased over time. Furthermore, all students in the experimental group demonstrated significant improvements in at least two social skill behavior areas on the DBR (i.e., assertiveness, friendship skills, empathy, social engagement, and self-management) with effect sizes greater than +0.80. Given that no other intervention was implemented during this time, it can be reasonably presumed that the visual art social skills intervention was the primary factor that led to the increase in in participants' social skills. Among all experimental group participants, Cameron demonstrated the smallest overall improvement in social skills; however, he still made significant improvements in the areas of friendship skills and social engagement.

The current findings support the use of a visual art social skills intervention that combines a manualized social skills program (such as the Skillstreaming curriculum) with visual art activities. This study helps to further close the gap in literature by contributing to the empirical support for the use of a tier 2 intervention for children who experience social skill difficulties. Specifically, this research provides significant narrative evidence that, while statistically small, visual art can help improve the social skills in children taught in a small group setting. Anecdotally, each of the experimental group participants' were observed engaging in the process of developing at least one of the studio habits of mind that reflected growth in confidence, self-expression,

observation, reflection, and exploration. Anecdotal evidence suggests that using these studio habits of mind as a vehicle for self-exploration and social skill development was successful for each of the experimental group participants.

Research Question 2. Students in both conditions demonstrated overall increases in social skills and a decrease in problem behaviors during the post-intervention phase of the study; however, the experimental groups' growth margin was slightly larger. Prior to intervention, on average, students in the experimental group had a social skills score of 85 on the SSIS. After the intervention, the experimental group had a social skills score average of 88.8 indicating a 3.8-point average increase in social skills. Similarly, before intervention, on average, students in the experimental group had a problem behavior score of 112.2. After the intervention, the experimental group had an average problem behavior score of 104.4 indicating a 7.8-point average decrease in problem behaviors. Alternatively, before the intervention, students in the control group had a social skills score of 71.4. After the intervention, the control group had a social skills score average of 74.6 indicating a 3.2-point average increase in social skills. Before intervention, on average, students in the control group had a problem behavior score of 126.2. After the intervention, the experimental group had an average problem behavior score of 124 indicating a 2.2-point average decrease in problem behaviors. Results of the *t*-test indicated no significant difference in improvements in the area of social skills across the two intervention conditions. However, the t-test does indicate that there was a statistically significant (< 0.05) decrease in problem behaviors post-intervention for the experimental group when compared to the control group.

Limitations

There are several limitations to the current study. First, the small sample size limits the ability to generalize findings to other settings where contextual and environmental factors may vary. Additionally, limitations in the study's design were encountered. Specifically, it was not feasible to have a truly randomized grouping of participants. Ideally, students would have been randomly placed across both the conditions with similar social skill deficits. Because participants in the study demonstrated a wide array of social skill difficulties, students were grouped together by similar social skill instructional needs. Consequently, lesson plans (specific skills covered) were not identical for both groups. Because of this, it is more difficult to presume that all elements of intervention were identical across groups beyond the inclusion of visual art elements. Furthermore, this makes it difficult to interpret the data, particularly when comparing changes across the two condition groups. Additionally, the two groups differed in their pre-intervention SSIS scores. The control group had higher rates of problematic behaviors and lower overall social skills when compared to the experimental group.

A third limitation to the study was the time of year when the intervention was conducted and potential response bias on the teacher forms. The intervention was implemented during the fourth quarter of the school year. The intervention sessions concluded in the second-to-last week of school for the 2021-22 school year. When teacher DBR data were collected, the researcher observed an overall trend of teacher fatigue that likely impacted DBR ratings. Because this study included students who also demonstrated problematic classroom behaviors, teachers may have been biased in their

DBR responses. In particular, the researcher had conversations with two of the teachers that suggested they were overwhelmed, fatigued, and had potentially biased views of their students. Conducting the intervention during a different time of the school year may have resulted in different outcomes. A final limitation of the studio is that this research was conducted two years into the COVID-19 pandemic. Subsequently, teachers were fatigued and students had additional academic and social emotional concerns due to the impact of the pandemic.

Implications for Practice

Incorporating visual art activities into an SST program provides an opportunity for students to engage with the content in a different, potentially more meaningful way (Lenz et al., 2010). The findings of this study suggest that using visual art to teach social skills can be beneficial when working with some students. This is consistent with previous research that supports the notion that embedding art into a manualized SST program is an effective intervention (Lenz et al., 2010; Pasiali & Clark, 2018). Furthermore, findings from this study fill a gap in the research (Mogro-Wilson & Tredinnick, 2020) by supporting the use of a tier 2 small group SST program taught through visual art to promote social skills for elementary children in the school setting.

This study also supports evidence that students with externalizing vs. internalizing behaviors will likely require different targeted social skills to be explicitly taught (Gresham et al., 2012). By grouping students according to internalizing vs. externalizing difficulties, this researcher was able to target the most common skill deficits presented in each of the groups. However, this impacted the ability to fully compare the interventions presented to the two groups. Although this meant that both condition groups were not

learning the same skills each week, this approach did focus directly on the social skills that most students in each group were having difficulties with. As discussed in the literature review of this paper, interventions may be more effective if adjustments are made in order to target the specific deficit skill areas (Kern et al., 2020).

This research also revealed several helpful strategies to effectively teach social skills in a tier 2 small group setting. Observation of individual and group needs, problem-solving, and positive behavioral plans are all recommended strategies for effective program implementation. In order to be responsive to individual and group needs, the researcher took field notes after each intervention session. Adjustments in the intervention delivery were made after the researcher analyzed field notes. For example, the researcher observed students engaging in off topic conversations and interrupting each other, thus a positive behavior plan was implemented. An example of providing individualized targeted support includes adding positive reinforcement and direct instruction in order to help a student engage more in activities. The researcher added this strategy after observing a student who was reluctant to participate in activities due to shyness. Ongoing troubleshooting was helpful in ensuring that students were highly engaged in the group throughout the intervention period.

Future Research

This study aimed to fill the gap in current research supporting the use of a tier-2 visual art social skill intervention in the school setting. Future research should utilize a larger sample size to increase statistical power when evaluating the effectiveness of a social skills intervention. Furthermore, future research should implement a truly randomized study, wherein it can match based on age, gender, grade, and type of skill

deficit so as to equally compare interventions and provide results that can be further generalized to the broader elementary school population. Future research should also be conducted at varying points in the school year to limit the effects of end of year teacher fatigue. Including data from multiple informants (i.e., teacher, parent, and student) could also reduce potential informant bias. Future researchers and practictioners may also wish to collaborate with art educators in the school setting to further emphasize the utilization of the studio habits of mind as a vehicle to strengthen broader social emotional competence in children. By partnering with art educators and school administration, researchers may be able to conduct a semester-long project during the school day by creating a class that focuses on both visual art and social emotional competence.

Conclusion

The present study examined if a visual art social skills intervention would help improve perceived social skills for students. The findings indicate that the intervention demonstrates effectiveness as a tier-2 intervention in an elementary school setting, and with a unique population of participants. Both quantitative and anecdotal evidence suggest that social skills can be developed by strategically encouraging students to cultivate their studio habits of mind during visual art projects. In this research, participants utilized observation, exploration, confidence, self-expression, and reflection as processes to strengthen social skills. Additionally, the study examined if participants' social skills would improve more in the experimental group that included strategic visual art activities than in the control group that did not. Although the experimental group improved slightly more than the control group, the results were not statistically significant and differences across groups cannot be attributed solely to the intervention.

REFERENCES

Bandura, A. (1997). *Self-efficacy: The exercise of control*. W H Freeman/Times Books/Henry Holt & Co.

Beauchamp, M. H., & Anderson, V. (2010). SOCIAL: An integrative framework for the development of social skills. *Psychological Bulletin, 136*(10), 39-64. http://dx.doi.org/10.1037/a0017768

Bornstein, M. H., Hahn, C. S., & Haynes, O. M. (2012). Social competence, externalizing, and internalizing behavioral adjustment from early childhood through early adolescence: Developmental cascades. *Developmental Psychopathology, 22*(4), 717-735. doi.org/10.1017%2FS0954579410000416

Briesch, A. M., Chafouleas, S. M., & Riley-Tillman, T. C. (2010). Generalizability and dependability of behavior assessment methods to estimate academic engagement: A comparison of systematic direct observation and direct behavior rating. *School Psychology Review*, *39*, 408–421. http://dx.doi.org/10.1080/02796015.2010.12087761

Brouillette, L. (2010). How the arts help children to create healthy social scripts: Exploring the perceptions of elementary teachers. *Arts Education Policy Review, 111* (1), 16-24. http://dx.doi.org/10.1080/10632910903228116

Cacioppo, J. T., & Cacioppo, S. (2014). Social relationships and health: The toxic effects of perceived social isolation. *Social and Personality Psychology Compass, 8*(2), 58-72. https://doi.org/10.1111/spc3.12087

Caldarella, P., & Merrell, K. W. (1997). Common dimensions of social skills of children and adolescents: A taxonomy of positive behaviors. *School Psychology Review 26*(2), 264-278. https://doi.org/10.1080/02796015.1997.12085865

Cervantes, P. E., Matson, J. L., Adams, H. L., Williams, L. W., Goldin, R. L., & Jang, J. (2013). Comparing social skill profiles of children with autism spectrum disorders versus children with attention deficit hyperactivity disorder: Where the deficits lie. *Research in Autism Spectrum Disorders, 7*(9), 1104-1110. http://dx.doi.org/10.1016/j.rasd.2013.05.008

de Mooij, B., Fekkes, M., Scholte, R. H. J. & Overbeek, G. (2020). Effective components of social skills training programs for children and adolescents in nonclinical samples: A multilevel meta-analysis. *Clinical Child and Family Psychology Review, 23*, 250-264. https://doi.org/10.1007/s10567-019-00308-x

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*(1), 405-432. https://doi.org/10.1111/j.1467-8624.2010.01564.x

Eisner, E. J. (2002). *The arts and the creation of the mind.* Yale University Press.

Evans, V. & Bond, C. (2020). Characteristics of effective small group social skill interventions in mainstream primary education: a systematic literature review. *Journal of Special Educational Needs, 20*(4), 331-342. http://dx.doi.org/10.1111/1471-3802.12493

Farrington, C. A., Maurer, J., McBride, M. R. A., Nagaoka, J., Puller, J. S., Shewfelt, S., Weiss, E. M., & Wright, L. (2019). *Arts education and social-emotional learning*

outcomes among K-12 students: Developing a theory of action. Ingenuity and the University of Chicago Consortium on School Research. https://consortium.uchicago.edu/sites/default/files/2019-05/Arts%20Education%20and%20Social-Emotional-June2019-Consortium%20and%20Ingenuity.pdf

Goforth, A. N., Rennie, B. J., Hammond, J., & Schoffer Clossen, J. K. (2016). Strategies for data collection in social skills group interventions: A case study. *Interventions in School and Clinic, 51*(3), 170-177. https://doi.org/10.1177/1053451215585806

Gresham, F. M., Sugai, G., & Horner, R. H. (2001). Interpreting outcomes of social skills training for students with high-incidence disabilities. *Exceptional Children, 67*(3), 331-344. http://dx.doi.org/10.1177/001440290106700303

Gresham, F., & Elliott, S. N. (2008). *Social Skills Improvement Rating System* (SSIS) Rating Scales. Pearson Assessments.

Gresham, F. M. (2010). Data-based decision making for students' social behavior. *Journal of Evidence-Based Practices for Schools*, *11*, 149–168.

Gresham, F. M., Cook, C. R., Collins, T., Dart, E., Rasetshwane, K., Truelson, E., & Grant, S. (2010). Developing a change-sensitive brief behavior rating scale as a progress monitoring for social behavior: An example using the social skills rating system-teacher form. *School Psychology Review, 39*(3), 364-379. http://dx.doi.org/10.1080/02796015.2010.12087758

Gresham, F., Elliott, S., Vance, M. J., & Cook, C. R. (2011). Comparability of the social skills rating system to the social skills improvement system: Content and

psychometric comparisons across elementary and secondary age levels. *School Psychology Quarterly 26*, 27-44. https://doi.org/10.1037/A0022662

Gresham, F. M., Robichaux, N., York, H. & O'Leary, K. (2012). Issues related to identifying and implementing evidence-based social skills interventions for students with high-incidence disabilities. *Advances in Learning and Behavioral Disabilities, 25*(1), 23-45. doi.org/10.1108/S0735-004X(2012)0000025005

Gresham, F. (2016). Social skills assessment and intervention for youth. *Cambridge Journal of Education, 46*(6), 319-332. doi.org/10.1080/0305764X.2016.1195788

Hetland, L., Winner, E., Veenema, S., & Sheridan, K. M. (2007). *Studio thinking: The real benefits of visual arts education.* Teachers College Press.

Holochwost, S. J., Palmer Wolf, D., Fisher, K. R., & O'Grady, K. (2017). *The socioemotional benefits of the arts: A new mandate for arts education.* Report from William Penn Foundation. https://williampennfoundation.org/what-we-are-learning/socioemotional-benefits-arts-new-mandate-arts-education

Hunley, S., & McNamara, K. (2010). *Tier 3 of the RTI model: Problem solving through a case study approach*. National Association of School Psychologists. https://dx.doi.org/10.4135/9781452219028

IBM Corp. (2020). IBM SPSS Statistics for Windows (Version 27.0) [Computer software].

Kavale, K. A., & Mostert, M. P. (2004). Social skills interventions for individuals with learning disabilities. *Learning Disability Quarterly 27*(1), 31-43. https://doi.org/10.2307/1593630

Kern, L., Gaier, K., Kelly, S., Nielsen, C. M., Commisso, C. E., & Wehby, J. H. (2020). An evaluation of adaptations made to tier 2 social skill training programs. *Journal of Applied School Psychology, 36*(2), 155-172. https://doi.org/10.1080/15377903.2020.1714858

Kilgus, S. P., Riley-Tilman, T. C., Stichter, J. P., Schoemann, A. M., & Bellesheim, K. (2016). Reliability of Direct Behavior Ratings – Social Competence (DBR-SC) data: How many ratings are necessary? *School Psychology Quarterly, 31*(3), 431-442. http://dx.doi.org/10.1037/spq0000128

Kratochwill, T. R., Hitchcock, J., Horner, R. H., Levin, J. R., Odom, S. L., Rindskopf, D. M., & Shadish, W. R. (2010). *Single-case designs technical documentation.* What Works Clearinghouse. https://ies.ed.gov/ncee/wwc/docs/referenceresources/wwc_scd.pdf

Kupersmidt, J., Coie, J., & Dodge, K. (1990). The role of peer relationships in the development of disorder. In S. Asher & J. Coie (Eds.), *Peer rejection in childhood* (p. 274-308). New York: Cambridge University Press.

Lenz, A. S., Holman, R. L., & Dominguez, D. L. (2010). Encouraging connections: Integrating expressive art and drama into therapeutic social skills training with adolescents. *Journal of Creativity in Mental Health, 5*(2), 142-157. http://dx.doi.org/10.1080/15401383.2010.485086

Malecki, C. K. & Elliott, S. N. (2002). Children's social behaviors as predictors of academic achievement: A longitudinal analysis. *School Psychology Quarterly, 17*(1), 1-23. http://dx.doi.org/10.1521/scpq.17.1.1.19902

McCollow, M. M., & Hoffman, H. H. (2019). Supporting social development in young children with disabilities: Building a practitioner's toolkit. *Early Childhood Education Journal, 47*(2), 309-320. https://link.springer.com/article/10.1007/s10643-019-00930-y

McGinnis, E. (2012). *Skillstreaming the elementary school child: A guide for teaching prosocial skills* (3rd ed.). Research Press.

McGinnis, E., & Goldstein, A. (1997). *Skillstreaming the elementary school child: New strategies and perspectives for teaching prosocial skills* (Rev. ed.). Research Press.

Mogro-Wilson, C., & Tredinnick, L. (2020). Influencing social and emotional awareness and empathy with a visual arts and music intervention for adolescents. *Children and Schools, 42(*2), 111-119. http://dx.doi.org/10.1093/cs/cdaa008

Morizio, L. J., Cook, A. L., Troeger, R., & Whitehouse, A. (2020). Creating compassion: Using art for empathy learning with urban youth. *Contemporary School Psychology*. https://doi.org/10.1007/s40688-020-00346-1

Nunally, J., & Kotsche, W. (1983). Studies of individual subjects: Logic and methods of analysis. *British Journal of Clinical Psychology, 22*, 83-93. https://psycnet.apa.org/doi/10.1111/j.2044-8260.1983.tb00582.x

Pasiali, V., & Clark, C. (2018). Evaluation of a music therapy social skills development program for youth with limited resources. *Journal of Music Therapy, 55*(3), 280-308. http://dx.doi.org/10.1093/jmt/thy007

Posner, M. I. & Patoine, B. (2009). How arts training improves attention and cognition. *Cerebrum: The Magazine that can Change your Mind.* Online publication from

the Dana Foundation. https://www.dana.org/article/how-arts-training-improves-attention-and-cognition/

Ravid, R. (2015). *Practical Statistics for Educators: Fifth Edition*. Rowan & Littlefield.

Segrin, C. (2019). Indirect effects of social skills on health through stress and loneliness. *Health Communication, 34(1*), 118-124. https://doi.org/10.1080/10410236.2017.1384434

Sheridan, B. A., McDonald, D. A., Donlon, M., Kuhn, Bl, McGovern, K., & Friedman, H. (2011). Evaluation of a social skills program based on social learning theory, implemented in a school setting. *Psychological Reports, 108*(2), 420-436. https://doi.org/10.2466%2F10.11.17.PR0.108.2.420-436

Springham, N. & Huet, V. (2018). Art as relational encounter: An ostensive communication theory of art therapy. *Journal of the American Art Therapy Association, 35*(1), 4-10. https://doi.org/10.1080/07421656.2018.1460103

What Works Clearinghouse. (2020). *What Works Clearinghouse standards handbook (Version 4.1).* National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. https://ies.ed.gov/ncee/wwc/handbooks

Yazici, E. (2017) The impact of art education program on the social skills of preschool children. *Journal of Education and Training Studies, 5*(5), 17-26. http://dx.doi.org/10.11114/jets.v5i5.2231

APPENDIX A

Parent Consent Letter

UNIVERSITY OF DAYTON

Parent Consent for Minor/Child to Participate in a Research Project

Project Title:	The Efficacy of a Visual Art Small Group Social Skills Intervention for Elementary Children
Investigator:	Rebecca Sargent
Description of Study:	The purpose of the study is to evaluate the impact of a small group social skills intervention that utilizing visual art components on elementary school students. The intervention will be implemented once a week for 30 minutes for eight weeks during a predetermined intervention period. Students will learn skills to improve their friendship skills, empathy, assertion, and social engagement.
Adverse Effects and Risks:	There are no reasonable foreseeable (or expected) risks. Students may withdraw from the study at any point.
Duration of the Study:	The social skills intervention will take place over the course of an eight-week period. A pre-intervention scale and post-intervention scale will be sent home before and after the intervention period for a parent/guardian to complete.
Confidentiality of Data:	Student's identifying information will be used when collecting data, however, identifying information will be removed when analyzing and reporting the data. The records will be kept in a locked file. We will not include any information in any report we may publish that would make it possible to identify your child.
Contact Person:	Parents or guardians of participants may contact: Rebecca Sargent, rsargent1@udayton.edu, 937-361-5671 Dr. Elana Bernstein, ebernstein1@udayton.edu, 937-229-3624 If you have any questions about your rights as a research participant you may also contact the co-chairs of University of Dayton's Institutional Review Board, Matt Day and Kurt Jackson, 937-229-3515, IRB@udayton.edu

Student Full Name (please print): _____

Parent's Full Name (please print): _____

Parent or Guardian Signature: _____ Date: _____

APPENDIX B

Direct Behavior Rating

Student: _____ Teacher: _____

Date Range: _____ to _____

Behavior Definitions:

1. **Assertiveness** is the ability to communicate feelings, thoughts, opinions, and beliefs in a respectful, clear, and honest manner. For example, expressing feelings in a respectful manner, speaking up for themselves, asking for help when needed, and joining in on class discussions.
2. **Friendship skills** are the behaviors needed to initiate and maintain friends. For example, sharing, offering help to a classmate, playing a game, joining in, giving and accepting a compliment, beginning and ending a conversation, and apologizing.
3. **Empathy** is the ability to discern another's emotional state and includes seeing a situation from another person's point of view and acting on what you see, understand, and feel. For example, recognizing another's feelings, expressing concern for another student, and showing understanding of another's feelings.
4. **Social engagement** is the interactions between a student, peers, and teachers. For example, participating in recess activities with peers, talking with peers before or after school, and participating in extracurricular activities with peers.
5. **Self-management** is the ability to manage one's thoughts, emotions, and behaviors effectively in different situations. For example, attending to instruction, regulating frustration, and staying calm in a disagreement.

Behavior: *Assertiveness*

*Circle the number that best reflects the frequency that the student demonstrated the target behavior.

LOW			**MEDIUM**					**HIGH**		
0	1	2	3	4	5	6	7	8	9	10
Never	Occasionally		Less than half the time		Sometimes	More than half the time		Very frequently		Always

Behavior: *Friendship Skills*

*Circle the number that best reflects the frequency that the student demonstrated the target behavior.

LOW			MEDIUM					HIGH		
0	1	2	3	4	5	6	7	8	9	10
Never	Occasionally		Less than half the time		Sometimes	More than half the time		Very frequently		Always

Behavior: *Empathy*

*Circle the number that best reflects the frequency that the student demonstrated the target behavior.

LOW			MEDIUM					HIGH		
0	1	2	3	4	5	6	7	8	9	10
Never	Occasionally		Less than half the time		Sometimes	More than half the time		Very frequently		Always

Behavior: *Social Engagement*

*Circle the number that best reflects the frequency that the student demonstrated the target behavior.

LOW			MEDIUM					HIGH		
0	1	2	3	4	5	6	7	8	9	10
Never	Occasionally		Less than half the time		Sometimes	More than half the time		Very frequently		Always

Behavior: *Self-Management*

*Circle the number that best reflects the frequency that the student demonstrated the target behavior.

LOW			MEDIUM					HIGH		
0	1	2	3	4	5	6	7	8	9	10
Never	Occasionally		Less than half the time		Sometimes	More than half the time		Very frequently		Always

APPENDIX C

Sample Lesson Plan

Joining In Lesson Plan with Art Activity (30 minutes)

Pulled from Skillstreaming Lesson #17 Joining In (a Friendship-Making Skill). The skill gives students the opportunity to join in with peers in an ongoing activity. The collaborative art project will provide students an opportunity to practice asking to join in and will allow them to use their collaboration skills (sharing, vocalizing their point of view, understanding the point of view of others, compromising, etc.).

Materials: long sheets of white paper folded into sections, pencils, pens, markers, skill cards for each student

SKILL STEPS (presented on skill cards for students):

1. **Decide if you want to join in**. Students should decide if they really want to participate.
2. **Decide what to say.** Suggest possible things to say: "Can one more person play?"; "Can I play too?"
3. **Choose a good time**. Discuss how to choose a good time: during a break in the activity or before the activity has begun.
4. **Say it in a friendly way.** Discuss the body language and nonverbal communicators that show a friendly attitude.

Step 1: I define the skill: Explain to students what joining in is, and have the group discuss examples of what joining in looks like (joining a game during recess, playing a game with your family, working on a group project in class, etc.). Discuss each step of the skill and give each student a skill card. (5 minutes)

Step 2: Model the skill. The modeling scenario will be asking to join in a group game at recess. Have 2-3 students pretend to be playing a kickball game during recess that I want to play too. I verbalize my thoughts: "I really wish I could join in. I should ask if I could play too. Maybe I should wait to ask when they have a break in playing". "Hi, Sarah! I would love to play too. Can I play too?" Other students say, "Sure!". Model each step clearly. Ask the students if I modelled each step clearly. (3 minutes)

Step 3: Ask students for more examples of when they think this skill would be helpful. (2 minutes)

Step 4: Introduce art activity (Monster *Exquisite Corpse* Drawing) and hand out materials. Have each student practice joining in skill steps by asking if they can join in the activity. Have all students work on their first section of their drawing (head and neck). Next, one-by-one, each student will participate in the role-play activity by

choosing another student to ask if they can draw on the other student's monster drawing next. Students will be provided encouragement and performance feedback. Students will continue drawing the second section once everyone has appropriately asked to join in. This will continue until all four sections of the drawings have been complete. (15 minutes)

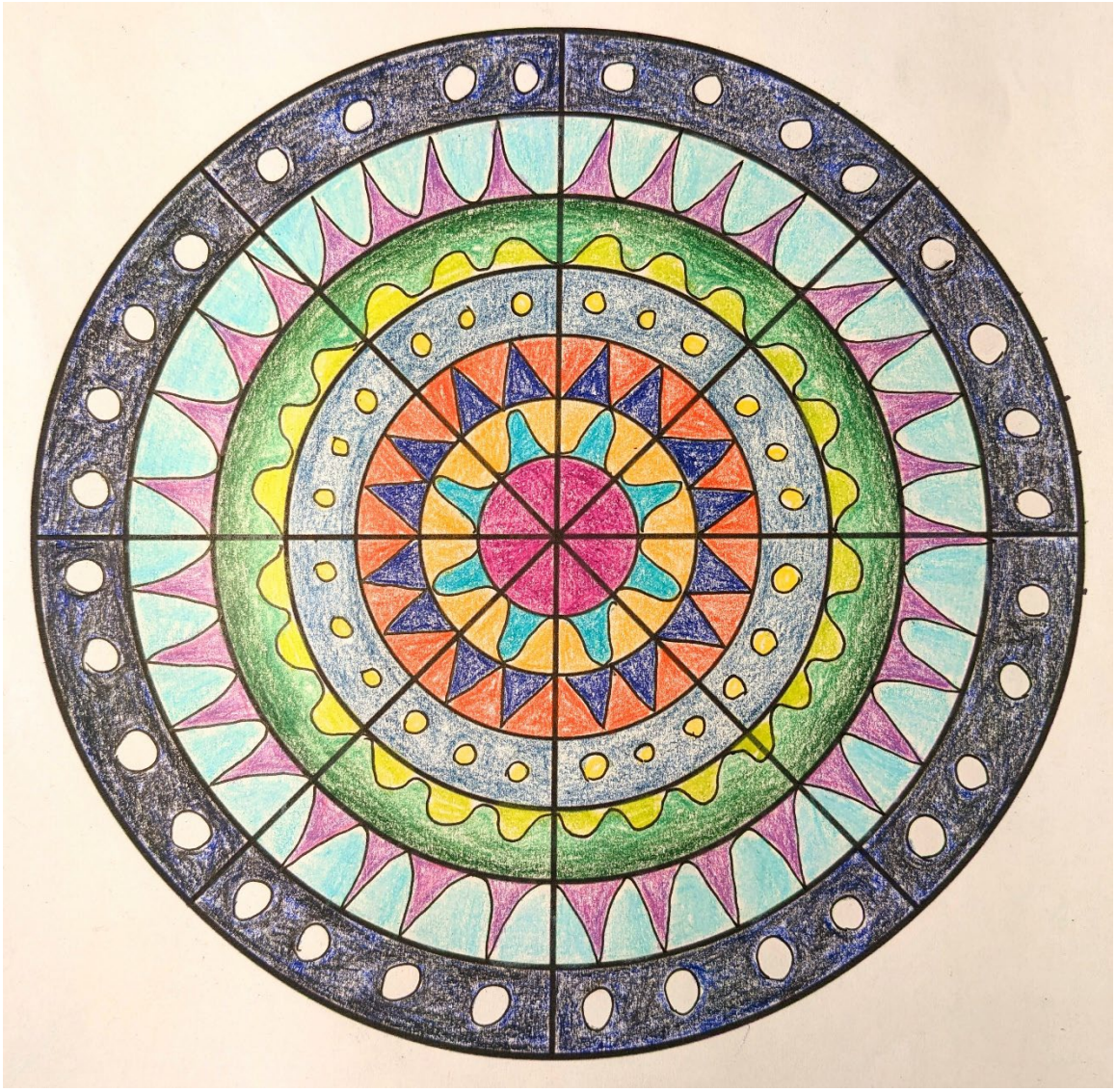
Step 5: Assign skill homework (for students to generalize the skill): joining-in journal activity (pg. 84 in *Skillstreaming* lesson plan & activities book. (5 minutes)

Art Activity: Monster *Exquisite Corpse* Drawings, which encourages collaboration. The final drawing is only possible by joining in and collaborating. And each person's one unique hand or style emerges as part of the whole. For this each student draws the head and neck in the first folded section. The next person draws the torso and arms using the neck lines to help them get started. The third person draws from waist to knees, and the fourth person draws from knees to feet. The long strip of paper stays folded until the very end so that the person drawing only sees their small section. It is important that students draw a few millimeters over the folded line and into the next section so that the next person knows where to begin their drawing (so that the neck or legs line up, for example).

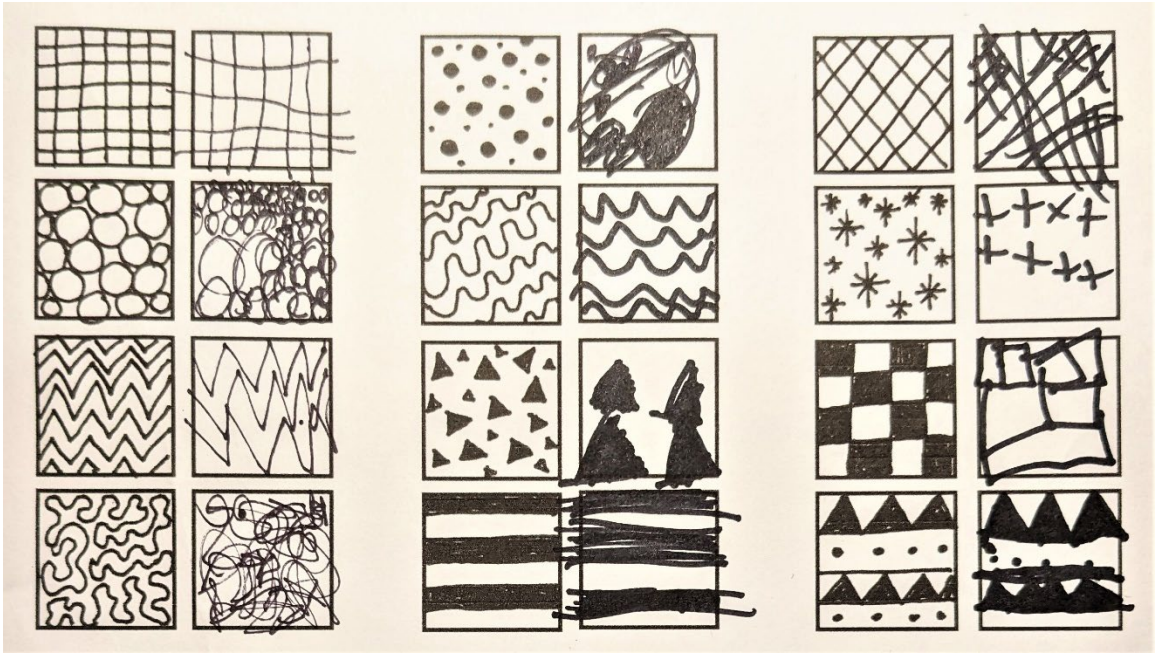
Drawing courtesy of the primary researcher (Rebecca Sargent).

APPENDIX D

Sample Art Activities



Mandala art project sample, drawing courtesy of the primary researcher.



Zentangle mindfulness art activity sample; drawing courtesy of the primary researcher.

Artist trading card featuring 2 favorite things about self (color and animal); drawing courtesy of the primary researcher.

APPENDIX E

Intervention Adherence Checklists

For Experimental Group:

Session Number: _____

STEPS	YES	NO
Interventionist leads the group in a discussion related to the social skill being covered.		
Interventionist answers student questions about the social skill being covered.		
Interventionist defines steps necessary for the social skill.		
Interventionist models the social skill for students.		
Students participate in an art activity that cultivates the specific social skill being taught (see session lesson plan for more details).		
Students rehearse the social skill via roleplay while participating in the art activity.		
Homework is given related to the social skill being covered.		

_____/_____

Signature: _____ Date: _____

For Control Group:

Session Number: _____

STEPS	YES	NO
Interventionist leads the group in a discussion related to the social skill being covered.		
Interventionist answers student questions about the social skill being covered.		
Interventionist defines steps necessary for the social skill.		
Interventionist models the social skill for students.		
Students rehearse the social skill via roleplay.		
Students participate in an activity related to social skill being covered.		
Homework is given related to the social skill being covered.		

_____/_____

Signature: _____ Date: _____

APPENDIX F

Student Intervention Acceptability Measure

Respondent: _____

Date: _____

	STRONGLY DISAGREE 1	DISAGREE 2	NEUTRAL 3	AGREE 4	STRONGLY AGREE 4
I enjoyed participating in this group.					
The group sessions helped improve my social skills.					
I would suggest this small group to others.					
I understood what was required during the sessions.					
I learned something new in each of the group sessions.					
I learned how to speak up more in class and with friends.					
I learned how to have more self-control.					
I learned how to understand my own and other's emotions.					
I learned how to get along better with other kids.					
I learned how to handle tough emotions like anger or being left out.					
I will carry things learned from the group on with me in the future.					

**Adapted from Kratochwill, T. R., Elliott, S. N., & Callan-Stoiber, K. (2002). Best practices in school-based problem-solving consultation. In A. Thomas & J. Grimes (EdS.) Best practices in School Psychology IV, (p. 603-604), NASP.*