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Teacher Perception of a Brief Mindfulness-Based Curriculum and its Impact on the Development  
of Social Skills and Self-Regulation on a Preschool Classroom

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A thesis submitted to the Graduate Faculty of

JAMES MADISON UNIVERSITY

In

Partial Fulfillment of the Requirements

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## **Abstract**

Recent studies on mindfulness and its impact on children have found promising results, especially with social-emotional skill development. A majority of the research on mindfulness applied in educational setting tends to focus on elementary and high school students, and there is limited, but growing research that examines the impact of mindfulness among early childhood students. This current study explored the impact of a brief mindfulness-based curriculum on an intact preschool classroom. Specifically, this study examined if preschool teachers perceive mindfulness practices in the classroom to impact their students' self-regulation skills and social skills and how likely they were to continue using mindful practices in their classroom. The results found no statistical difference in the preschool students' self-regulation and social skills before and after the brief mindfulness intervention, however, the preschool teacher did find the mindfulness practices used in the brief mindfulness curriculum to improve certain areas of her preschoolers' social skills and self-regulation. The preschool teacher's responses to items on an intervention acceptability measure indicated that the brief mindfulness-based curriculum used in this intervention was beneficial, appropriate, and effective in enhancing preschool students' self-regulation and social skills.

## **Teacher Perception of a Brief Mindfulness-Based Curriculum and its Impact on the Development of Social Skills and Self-Regulation on a Preschool Classroom**

As research continues to support its many benefits, there has been a considerable amount of attention on the use of mindfulness-based interventions in school settings. There are many documented benefits from mindfulness, one of which is the improvement of social-emotional skills, two being social skills and self-regulation skills. Self-regulation skills are important for children to learn, as they are increasingly known as key contributors to school success (Flook et al., 2015). Because research reveals that self-regulation skills in early childhood education can notably contribute to school readiness and long-term academic success, it is important to engage students in ways that can assist in this development. Practicing mindfulness with early childhood students has great potential to enhance their ability to self-regulate, improve social skills, and further develop social-emotional skills as a whole.

### **Review of Literature**

#### **Mindfulness and Social Emotional Learning in Early Childhood Education**

Early childhood is a time when the basis of learning is engrained, and lifetime habits are shaped. During this time, basic skills of personal, social, and cognitive functioning are established (Howard & Melhish, 2016). Around age three, cognitive and emotional control systems develop, and while these systems continue to develop up into adulthood, these bases that are laid in early childhood utilize strong impacts in almost every area of psychological functioning and behavior later in life (Crone & Dahl, 2012, as cited in Howard & Melhish, 2016). Early childhood education can provide children with the necessary tools to further develop social, emotional, and academic skills.

Early childhood education (ECE) includes all forms of formal and informal education delivered to young children up to nearly 8 years old (What is Early Childhood Education, 2016), and it can shape the later years of life, as it helps to prepare children to enter and later succeed in school. Early Childhood Education can decrease the risk of social-emotional health problems and increase the sense of self-sufficiency as children mature and enter adulthood (What is Early Childhood Education, 2016). There are five important components of a high-quality early childhood education program, according to the National Education Association (2016), one of which states that programs should provide a well-rounded curriculum that supports all areas of development (2016), and one important area of development for this age group is social-emotional development, including self-regulation and social skills. Early life experiences influence the development of self-regulation, which is why it is important to provide environments where children can develop this skill.

### **Mindfulness**

Mindfulness can be thought of as, “moment-to-moment, non-judgmental awareness, cultivated by paying attention in a specific way, that is, in the present moment, and as non-reactively, as non-judgmentally, and as openheartedly as possible” (Kabat-Zinn, 2015, p.1481). Kabat-Zinn (2015) adds that being mindful means to be aware of what is happening, not with the intention to change the experience, rather, to change the relationship to the experience. Mindfulness helps individuals to truly focus and attend to the present moment. Mindfulness is accessible for children across all aspects of diversity, including age, culture, socio-economic status, gender, language, and learning styles (Erwin et al., 2015). Mindfulness is important for children to practice, as it can help them learn to still their mind to observe their thoughts and feelings, leading to better development of social emotional skills.

### *Benefits of Mindfulness*

There are several advantages to practicing mindfulness. It is beneficial to elementary and preschool children, adolescents, ethnically diverse at-risk adolescents, and children with attention deficit-hyperactivity disorder (ADHD) (Harrison et al., 2004, as cited in Alahari, 2017). Some of the most supported and researched benefits of mindfulness include decreased stress and anxiety, improved academic achievement, enhanced behavioral outcomes, and improved cognitive and social-emotional development.

Mindfulness can reduce stress among students by helping them increase their ability to monitor experiences, particularly by being attentive and empathetically recognizing feelings (Guiteirrez et al., 2019). Academically, practicing mindfulness can improve vocabulary and reading performance among elementary-school students, (Klingbeil et al., 2017 as cited in Guiteirrez et al., 2019), and has been related to better grades, higher standardized test scores in math and English language arts, better attendance and fewer suspensions (Caballero et al., 2019). Mindfulness practices can help decline aggressive behaviors and can enrich resiliency among students (Guiteirrez et al., 2019). Cognitively, mindfulness helps develop flexible thinking (Varra et al., 2008, as cited in Alahari, 2017), integrative decision-making skills, a greater capacity to be fully present during difficult situations, and increased understanding and reasoning (Bishop et al., 2004), which are important skills to have in order to enhance both cognitive and social-emotional development. Because research shows that mindfulness is a way to further develop cognitive and social-emotional skills, it seems imperative to include mindfulness in early childhood education, as children will develop and further enhance these skills.

## **Social-Emotional Learning**

The Collaborative for Academic and Social and Emotional Learning (CASEL, 2021) defines social and emotional learning (SEL) as the development where children and adults obtain and effectively apply knowledge, attitudes, and skills that are essential to understand and manage emotions, set and accomplish positive goals, feel and display empathy for others, establish and keep positive relationships, and make responsible decisions. Social-emotional competence is defined and developed as five major emotional, cognitive, and behavioral competencies: self-awareness, social-awareness, responsible decision-making, self-management, and relationship management (CASEL, 2021).

The roots of social and emotional well-being are firmly established during the early childhood years (Erwin et al., 2015), and it is important to help children develop social and emotional skills to help them become emotionally competent, as it is linked to greater well-being, higher self-esteem (Schutte et al., 2002, as cited in Alahari, 2017), and to better social relationships (Lopes et al., 2004, as cited in Alahari, 2017). With its many short and long-term benefits, social and emotional competence in early childhood is important.

### *Social Skills*

Social skills are the skills that we use daily to interact and communicate with others, non-verbally and verbally (Admin, 2016). Social skills are important, in that they help to develop, form, and maintain positive interactions with others. The foundations necessary to further develop social skills are attention, concentration, executive functioning, play skills, receptive and expressive language, and self-regulation (*Social Skills*, 2016). In order to develop social skills, it is helpful to have strong self-regulation skills.

### *Self-Regulation*

Self-regulation is an important skill to develop and acquire in early childhood, as it is recognized as a key factor for children's overall well-being. Self-regulation is the ability to have control over one's thoughts, actions, and emotions (Zelazo & Lyons, 2012). The ability to self-regulate develops quickly in the first 5 years of life (Galinsky, 2010), and has extensive implications for later development. Young children who engage in intentional self-regulation tend to learn more and go further in their education (Blair & Diamond, 2008) compared to children who are not able to self-regulate, as those children tend to avoid engaging in challenging learning activities (Howard & Melhish, 2016). Self-regulation is vital for building early skills leading to independence and a sense of control over one's life (Erwin et al., 2015); it is frequently connected to successful outcomes across many developmental domains, including achievements in school (Blair & Razza, 2007, as cited in Willis & Dinehart, 2014); and is highly linked to academic skills, specifically, literacy, vocabulary, and math skills (NICHD Early Childhood Care Research Network, 2006). The ability to regulate attention and emotions are forms of self-regulation that provide a basis for school readiness by supporting qualities helpful to learning and upholding positive social relationships (Blair, 2002, as cited in Flook et al., 2015). Classrooms that allow students to practice and develop self-regulation skills could have long, positive, effects on their school achievement (Viglas & Perlman, 2017).

Research emphasizes the importance of self-regulation skills and its relation to academic success, but these skills are not often taught in school settings. Class instruction seems to highlight academic knowledge and performance on standardized tests, leaving less time to focus on social and emotional learning. Because there are many benefits associated with self-

regulation; it is important for educators to support, develop, and strengthen this skill in young children.

### **Mindfulness-Based Interventions Used in Early Childhood Education**

While mindfulness programs with a focus towards early childhood education has increased, there is still more to be learned. It is important to review what previous research has found and what future areas need to be examined. The studies reviewed for the purpose of this current study include children in preschool or kindergarten classrooms who have participated in a mindfulness program or curriculum.

In a study conducted with preschool students, they received a version of the YogaKids program, daily, which is demonstrated to improve children's ability to self-regulate, for about 25 weeks (Razza et al., 2013). Two preschool classrooms within the same urban elementary school participated. One classroom was the intervention group and the other was the control group. In the control group, the students did not engage in mindfulness practices. In the intervention group, the students engaged in a daily practice that was incorporated into the curriculum and was used throughout the school day. Some of the practices included breathing exercises, sun salutations, and yoga postures. Parents and children both completed outcome assessments at the beginning and at the end of the school year. Children's self-regulation was directly assessed by several tasks that looked at executive control (EC), executive functioning (EF), and attention. The results showed that mindful yoga can certainly be used in order to improve self-regulation among preschool students (Razza et al., 2013).

In a study conducted by Flook et al., (2015) the effects of a mindfulness-based prosocial skills training curriculum examined cognitive and behavioral outcomes in preschool children. Preschool children participated in the Kindness Curriculum (KC) Intervention, a 12-week

mindfulness-based prosocial skills training intended for preschool-age children. At the basis of this program is mindfulness practice, which aims to promote attention and emotion regulation, with a combined emphasis on kindness practices, such as empathy, gratitude, and sharing. This curriculum is gradual, and includes children's literature, music, and movement to teach and stabilize concepts related to kindness and compassion. In this study, the curriculum was taught by proficient mindfulness instructors to students as part of their regular classroom instruction during school hours. The curriculum includes two 20-30 minutes lessons each week over a 12-week period, resulting in about 10 hours of training (Flook et al., 2015). The students who participated in this program showed an increase in teacher-reported social competence, improved with learning, social-emotional development, and health. Overall, this study validated the ability of including mindfulness-based training into an early education curriculum, and the results suggest that a reasonably brief mindfulness-based curriculum can improve a variety of academic and prosocial outcomes in young children (Flook et al., 2015).

Two years later, Viglas and Perlman (2017) examined the effects of a mindfulness-based program on 4-to-6-year old's self-regulation, prosocial behavior, and hyperactivity. Children across 8 kindergarten classrooms were randomly assigned to a mindfulness group or a control group. The mindfulness program consisted of 20-minute lessons, 3 times a week, for 6 weeks. To directly measure the children's self-regulation, the Head-Toes-Knees-Shoulders (HTKS) measure was used. The teacher version of the Strengths and Difficulties Questionnaire (SDQ) was used in order to assess prosocial behavior and hyperactivity among the students. The children who participated in the mindfulness practices had greater improvement in their self-regulation, were more prosocial, and less hyperactive. The results from this study emphasize potential benefits of mindfulness in an educational setting (Viglas and Perlman, 2017).

Torres (2019) studied the impact of a mindfulness program on preschool children's self-regulation and social skills. Preschool students were randomly assigned to a mindfulness-based intervention or a control group. The mindfulness program used in this study consisted of 15 – 20-minute lessons, twice a week, for 8 weeks. The mindfulness instructor led the mindfulness lessons, which consisted of games with a goal to increase the children's mindful awareness, emotion regulation, and prosocial skills. The activities in the mindfulness program were selected from *Mindful Games* (Kaiser-Greenland, 2016), *Kindness Curriculum* (Flook et al., 2015), and from the instructor's personal collection of lessons. Themes throughout this curriculum included mindful listening, mindful seeing, mindful smelling, mindful movement, mindful eating, mindful feelings and emotions, gratitude, and kindness. Pretest and posttest assessments of the student's self-regulation and pro-social skills were collected, and teacher interviews were analyzed. Results found that teachers did find value and saw benefits of mindfulness for preschool students, but no significant differences were found between the two groups (Torres, 2019).

Berti and Cigala (2020) explored a mindfulness-based intervention for preschoolers and its effect on prosocial behavior, self-regulation, and perspective taking. Children in this study who engaged in the mindfulness practices showed significant improvements in prosocial behavior, in inhibitory processes of self-regulation, and in their ability of perspective taking. The researchers noted that future research should further investigate larger samples and encourage the use of mindfulness-practices in preschool-age children in order to enhance social emotional competence.

Most recently, in 2021, a study was conducted to look at the use of mindfulness practices to increase self-regulation in pre-kindergarten and kindergarten-aged children (Cullota, 2021). For this study, students were selected based on teacher recommendations of who lacked self-

regulation skills in combination with results from the Ages and Stages Questionnaire (Squires & Bricker, 2009, as cited in Cullota, 2021). A mindfulness intervention was applied across two classrooms, with three children. The mindfulness intervention included yoga poses and guided meditation. To collect the data, the researcher used interval recording for a 10-minute observation each day over six to nine weeks. To record the children's self-regulatory behaviors, modifications were made to the Regulation-Related Skills Measure (RRSM) (McCoy et al., 2017, as cited in Cullota, 2021). Results showed that the three children in this study showed an increase in their self-regulation after engaging in the mindfulness practices, suggesting that teachers should consider incorporating mindfulness into their daily classroom routine, as it has positive benefits towards children's self-regulation skills.

Research suggests that the use of age-appropriate mindfulness practices are realistic with young children, including preschoolers, in that these practices can promote the development of self-regulation and social skills.

## **Conclusion**

Evolving evidence supports the instruction of self-regulatory skills in children through a range of modalities including mindfulness-based practices (Diamond & Lee, 2011, as cited in Flook et al., 2015). Previous research on mindfulness with early childhood students have found promising results, yet current research offers limited information and understanding on the impact of mindfulness among early childhood students. There is still more to be learned regarding the delivery of a mindful intervention in a school setting with this age group. Existing research on mindfulness interventions in an early childhood setting either compared two classrooms (control and experimental) or included specific students from a classroom for participation in the intervention. Very few studies have implemented a mindfulness curriculum

in an intact preschool classroom. The aim of this current study was to further examine how preschool teachers perceive a mindfulness curriculum to impact their student's self-regulation and social skills and how applicable the mindful practices will be for further use within the classroom.

### **Purpose**

The purpose of this study was to examine how a preschool teacher perceives their students' self-regulation and social skill development before and after a brief mindfulness-based curriculum that was implemented in the classroom, and how applicable they perceived the mindfulness practices to be for future use in their classroom.

### **Research Questions**

1. Will the teacher perceive their students' self-regulation to improve after engaging in mindfulness practices over a 6-week period?
2. Will the teacher perceive their students' development of social skills in the classroom to improve after engaging in mindfulness practices over a 6-week period?
3. Will the teacher perceive mindfulness practices as acceptable, practical, and beneficial for future use in their classroom?

### **Methodology**

#### **Participants**

Preschool students ( $n = 13$ ) and their teacher ( $n = 1$ ) in an intact preschool classroom at a Title 1 elementary school located in an urban school district in Southwest Virginia participated in this study. The school district does not currently have a mindfulness curriculum in place; however, the school district is in the early stages of incorporating social-emotional learning into the schools. Teachers in this school district are invited to attend and participate in professional

development workshops on social-emotional learning, including mindfulness trainings.

Providing professional learning opportunities, such as mindfulness training, to teachers allows them to learn how they can better meet SEL needs of the community.

The teacher participating in this current study received prior training in mindfulness, incorporated some mindfulness, as well as self-regulation skills, into the classroom routine, and was familiar with mindfulness. For this current study, the preschool classroom was chosen based on finding a teacher with experience and training in mindfulness. Teacher consent to participate was obtained. The preschool students were between the ages of four and five years old. Of the thirteen preschool students, four were female (30.8%), and nine were male (69.2%).

The classroom teacher participated in this study through the completion of a paper and pencil questionnaire on her perceptions of students' self-regulation and social skills, overall, before and after the mindfulness practices were implemented. The teacher completed a questionnaire on her perception of the mindfulness practices and the practicality of them at the end of the 6 weeks. The teacher participated in this study through a brief interview before and after the mindfulness practices, as well, to further discuss her perceptions of the mindfulness curriculum and her student's self-regulation and social skills.

### **Materials and Measures**

As noted in the review of literature on mindfulness interventions used in early childhood education, there is little research conducted with this age group. Therefore, one challenge in this current study was the development of an age-appropriate mindfulness curriculum. The mindfulness practices used for this study used resources from the Kindness Curriculum (KC) (Flook et al., 2015) and from the MindUp Curriculum (2011). The researcher chose to utilize practices from these resources, as they are specifically developed for preschool age children and

are developmentally appropriate for them to engage in. The lessons chosen for this study were relevant to both self-regulation and social skills and were modified by the researcher for this study. See Table 1 below for an overview of the mindfulness practices used for this study.

*Table 1: Mindfulness Practices Lessons*

<b>Lesson #</b>	<b>Lesson Title</b>	<b>Curriculum Source</b>
Lesson 1	Mindful Bodies and Awareness of Attention and Breath	Kindness Curriculum
Lesson 2	Mindful Listening	MindUp
Lesson 3	Mindful Movement	Kindness Curriculum
Lesson 4	Gratitude for People or Things in my Life	Kindness Curriculum
Lesson 5	Perspective Taking	MindUp
Lesson 6	Choosing Optimism	MindUp
Lesson 7	I can Notice Things When I'm Quiet on the Inside	Kindness Curriculum
Lesson 8	Emotions on the Inside Show on the Outside	Kindness Curriculum
Lesson 9	Performing Acts of Kindness	MindUp
Lesson 10	Mindfulness Jars	Kindness Curriculum
Lesson 11	Connections with Others	Kindness Curriculum
Lesson 12	Bringing it All Together	Kindness Curriculum

#### *Social Competence Scale – Teacher Version*

A modified version of the Teacher Social Competence Scale (Fast Track Project) was used to measure teacher ratings of students' social competence, specifically measuring their social skills (Appendix A). For the purpose of this current study, this measure was modified to measure classroom-wide behaviors, rather than behaviors of individual students. Items are rated on a 6-point Likert-type scale. The classroom teacher completed this measure before and after the mindfulness intervention for the class as whole rather than for each individual student.

#### *Behavioral Regulation Questionnaire*

A behavioral regulation questionnaire was developed by the researcher to measure students' behaviors in the classroom (Appendix B). Some items on this questionnaire were modified from the Strengths and Difficulties Questionnaire (Goodman, 1997). The classroom teacher completed this measure before and after the mindfulness intervention for the class as whole, rather than for each individual child in the classroom.

### *Semi-Structured Teacher Interview*

A semi-structured teacher interview was conducted before and after the mindfulness intervention, consisting of scaling questions, as well as open-ended questions. (Appendix C). This allowed the researcher to obtain quantitative and qualitative data.

### *Intervention Acceptability Measure*

After the mindfulness intervention was completed, the preschool teacher completed an intervention acceptability measure created by the primary researcher, which gathered information on the teacher's thoughts, feelings, and perception of the mindfulness practices used in this study. (Appendix D).

## **Procedures**

The researcher partnered with the preschool classroom teacher to introduce and engage the students in mindfulness practices over 6 weeks. The students' participated in the mindfulness practices twice a week for 6 weeks and with a designated 10 – 15 minutes for each mindfulness lesson. The researcher had prior experience with mindfulness and had received training in mindfulness. The classroom teacher had received training on mindfulness through the school district.

Prior to engaging in mindfulness practices with preschool students, the preschool teacher completed questionnaires and participated in the semi-structured interview. The preschool students in the intact preschool classroom then engaged in mindfulness practices twice a week, for 10 – 15 minutes, over 6 weeks, which were facilitated by the researcher. The preschool teacher was given a copy of the mindfulness practices that the students engaged in to ensure that the researcher implemented the practices with fidelity. After the 6-week brief mindfulness curriculum, the preschool teacher completed post-intervention questionnaires. Additionally, the

preschool teacher completed an informal, brief, semi-structured interview with the researcher to discuss her perception of the mindfulness curriculum and of her students' social emotional skill development. Additionally, the preschool teacher completed the intervention acceptability measure to provide her perception, thoughts, and usefulness of the mindfulness practices used in this study with her preschool students.

### **Data Analysis**

The teacher's pre- and post-questionnaire data were analyzed with SPSS software (version 28). A paired t-test was used to analyze the results and data before and after the intervention. With teacher consent, the teacher questionnaire responses were audio recorded and then transcribed, coded, and analyzed by the researcher.

### **Results**

#### *Self-Regulation Results using the Behavior Regulation Questionnaire*

No significant difference was found between the preschoolers' overall self-regulation skills before and after the brief mindfulness curriculum  $t_{13} = 1.47, p > 0.05$ . (Table 2). While there was not a significant difference in the preschoolers' overall self-regulation, teacher ratings on the Behavior Regulation Questionnaire indicated that her students' self-regulation skills did improve, based on the mean scores of the pre- and post-questionnaire results. The mean score for teacher responses to the Behavior Regulation Questionnaire prior to the mindfulness intervention was 2.19 ( $M = 2.19$ ), and the mean for the teacher's post-intervention responses to the questionnaire were 2.29 ( $M = 2.29$ ). Specifically, the preschool teacher's ratings on the questionnaire indicated that her preschool students were less distracted, less hyperactive, and showed an increased overall mood of happiness.

### *Social Skills Results Using the Social Competence Questionnaire*

No significant difference was found between the preschoolers' overall social skills before and after the brief mindfulness curriculum  $t_{14} = 2.81, p > 0.05$ . (Table 2). While no significant difference was found before and after the intervention, the preschool teacher's ratings on the Social Competence Questionnaire indicates that social skills among her students' have improved in some areas after engaging in the brief mindfulness curriculum, based on the mean scores. The mean score of the teacher's responses to the Social Competence Questionnaire before the mindfulness intervention was 2.53 ( $M = 2.53$ ), and the post-intervention mean of the teacher responses to the questionnaire was 3.13 ( $M = 3.13$ ). Specifically, teacher ratings on the questionnaire indicate that, the preschool classroom as a whole, showed improvement with expressing needs and feelings appropriately, awareness of how behavior affects others, sharing, cooperating with others, understanding others' points of view, being kind outside of the classroom, playing well without adult support, and with listening to adults.

### *Semi-Structured Interview Scaled Questions Results*

The preschool teacher completed the Semi-Structured Interview, which included scaled questions and open-ended questions to gather information on her comfortability and knowledge of mindfulness, mindfulness as a personal practice, and her perception of her students self-regulation and social skills. Please refer to the preschool teacher's responses to the open-ended questions. (Appendix F).

**Teacher Comfortability with Practicing Mindfulness.** Based on the preschool teacher's responses to the pre and post scaled questions, she indicated that after the mindfulness intervention used with her classroom, she had a better sense and comfortability with practicing mindfulness. As a personal practice, the preschool teacher indicated that after the mindfulness

intervention, she felt more familiar with mindfulness and indicated that she felt better able to practice mindfulness more regularly.

**Preschooler’s Social Skills.** The preschool teacher perceived her preschool students to improve with their overall social skills after receiving the mindfulness intervention.

**Preschooler’s Self-Regulation Skills.** The preschool teacher did not perceive a difference in her preschooler’s self-regulation skills, as she perceived them to stay the same before and after the mindfulness intervention. However, she did indicate in her open-ended response, that she noticed specific improvements with the students’ ability to help others regulate their behaviors.

*Table 2. Pre- and Post-Intervention Results on the Measures of Self-Regulation and Social Skills using a Paired T-Test*

<b>Measure</b>	<b>Pre-Test</b>	<b>Post-Test</b>	<b>df</b>	<b>F-value</b>	<b>p-value</b>
	<i>M(SD)</i>	<i>M(SD)</i>			
<b>Behavioral Regulation Questionnaire</b>	2.14(.663)	2.29(.726)	13	1.47	0.16
<b>Social Competence Questionnaire</b>	2.53(.834)	3.13(.640)	14	2.81	0.14

#### *Intervention Acceptability Measure*

After the 6-week brief mindfulness curriculum, the preschool teacher completed the Intervention Acceptability Measure, which provided feedback about the acceptability of the intervention regarding self-regulation and social skill enhancement, and if she perceived it to be appropriate for further use in the classroom. Overall, the preschool teacher’s responses to each item on this scale (Appendix D) indicate that this mindfulness intervention is an acceptable and effective way to target students’ self-regulation and social skills. Her responses indicated that this would be useful for other teachers and that most preschool teachers would find the mindfulness practices appropriate for further developing students social-emotional competence.

Her responses indicated that a willingness to use these practices in the classroom setting, practices did not result in any negative side-effects for her students, and that the mindfulness practices would improve students' behavior in the classroom and in other settings. The overall feedback and responses to this measure indicate that the preschool teacher finds the brief mindfulness curriculum used in this intervention to be beneficial, appropriate, and effective in enhancing preschool students' self-regulation and social skills.

## **Discussion**

### **Student Participation and Receptivity to the Brief Mindfulness Curriculum**

The preschool students were, overall, receptive to the mindfulness activities and mostly participated. Some students consistently participated in each activity, while others had some difficulties participating fully. This group of preschoolers were very curious and a happy group, so they were always receptive to the activities. Because the mindfulness practices were short (approximately 10 – 15 minutes), the students were able to participate and focus for the majority of each lesson. Towards the end of the 10 minutes, they began to lose focus. When the activities included visuals, manipulatives, and movement, participation and receptivity was much higher compared to the activities that did not include visuals, manipulatives, or movement. Some of the activities were challenging for the preschoolers, such as gratitude, perspective taking, and kindness. To help the preschoolers have a better understanding of these concepts, the researcher and the preschool teacher reframed those concepts into simpler terms, which appeared to help them respond better to those activities. While some of the activities were easier than others, it was still important to introduce gratitude, kindness, and perspective taking in the curriculum, as these are important concepts and getting them thinking about these concepts early on is

beneficial for them. A summary of each mindfulness lesson and activity are provided, please see Appendix E.

### **Collaboration with Preschool Teachers**

Collaborating with the preschool teacher was important in conducting this research. Because the preschool teacher knew her students well and the students knew and were comfortable with their teacher, they appeared more comfortable engaging in the activities with the researcher. The preschool teacher was able to engage in the mindfulness practices with the students and the researcher. It is important to note that because the teacher had prior training with mindfulness, she was able to help the researcher with the mindfulness activities, as well as carry out and incorporate the activities or main concepts used in each mindful practice in the classroom with the students. This allowed the preschool students to practice mindfulness throughout the day, opposed to just the time spent with the researcher. Collaborating with a teacher who has mindfulness training was beneficial in this study, both for the students and to the researcher. In general, collaboration with teachers is vital within the school building, as it can contribute to their well-being, job satisfaction, and it can provide a social support system (Kolleck, 2019). With the benefits that collaboration with teachers brings into the school and their classroom, it can certainly benefit the students, as well.

### **Fidelity Check**

The researcher informed the preschool teacher about each mindfulness activity ahead of time. This allowed the researcher to stay on track with each lesson and activity and it ensured that the researcher carried out each lesson and activity as planned. The fidelity checks also allowed the preschool teacher to know what her students would be doing allowed her to better collaborate with the researcher in completing each activity and lesson. Incorporating a fidelity

check was beneficial in this study, as it held the researcher accountable for providing the activities ethically and properly.

### **Self-Regulation Skills**

Although there were no significant changes in the perceived preschoolers' self-regulation, based on teacher responses from the semi-structured interview, students did improve in some areas of self-regulation. The preschool teacher reported that students noticed when other students needed help regulating and that they were able to help each other out with this. She reported that, despite higher energy levels due to end of the year excitement, her students were able to use developmentally expected self-regulation skills to help them control their energy. The preschool teacher also reported that she noticed improvement in her preschoolers behavioral and emotional self-regulation skills. It is important to emphasize that despite no significant change in measures used in this study, the teacher's perception of change was positive.

### **Social Skills**

Based on the preschool teacher's ratings on the Social Competence Questionnaire, the class improved in further developing social skills. The preschool teacher's ratings indicated that she perceived her students to show improvement in their ability to express both their needs and feelings in a developmentally appropriate way. Additionally, she perceived students to be more aware of how their behavior affects others. She saw students sharing more and cooperating with others better than before the intervention. She perceived that students were better able to understand the point of view of another person and that they were kind both inside and outside of the classroom. Lastly, she perceived that her students were able to play well without adult support and that they improved with listening to adults.

## **Intervention Acceptability**

The preschool teacher's ratings on the Intervention Acceptability Measure, which was completed at the end of the 6-week brief mindfulness curriculum, indicate that she perceived the mindfulness practices used with her preschool students to be beneficial for her students' enhancement of self-regulation and social skills.

Overall, the purpose and goal of this research was to examine teacher perception of a brief mindfulness curriculum on preschoolers' self-regulation and social skill development. Measures of the preschoolers' self-regulation and social skills did not yield statistically significant differences before and after the mindfulness intervention. It is important to note that, based on the qualitative data provided by the preschool teacher via the pre- and post-intervention interviews, as well as the intervention acceptability measure, suggest that the mindfulness practices used in the brief mindfulness curriculum were perceived to be beneficial and helpful for the enhancement of her preschooler's social skills and self-regulation.

## **Implications for School Psychologists**

### ***Mindfulness Training***

The primary researcher in this study is a third-year school psychology student. Before beginning this research, it was important and crucial to complete mindfulness training to gain knowledge and understanding on mindfulness, and to become comfortable practicing it before practicing it with others. The training lasted for one month and was an online course through Mindful Schools. This training provided the foundations of mindfulness and its different practices. Not only was the training helpful for conducting this research, but it has been helpful to use in different areas of the profession, as practicing mindfulness has many benefits. Mindfulness training can help one become educated and knowledgeable on the concept and

meaning but engaging in mindfulness training also allows one to participate and engage in different mindfulness practices, creating a comfortability and confidence in it, gaining personal growth in this area. After gaining familiarity and embodying mindfulness within, it is much easier to practice mindfulness with others. Having training in mindfulness can be beneficial in practicing school psychology. Practicing mindfulness helps one obtain a better, overall well-being, which is important to have personally and professionally.

### ***Supporting Preschool Classrooms***

Early childhood education is important for young children, as it helps them to develop critical social, emotional, and cognitive skills (Howard & Melhish, 2016). Oftentimes, school psychologists are not always utilized for the expansiveness of training that they receive. School psychologists do not always have the time or opportunity to support classrooms in the school building. The reality is school psychologists have a primary role of assessment, which is an important part of the profession, however, supporting classrooms is important as well. With a school psychologists' training, they have tremendous resources to support classrooms.

Supporting preschool classrooms with young, curious children, is important because, at a young age and early on, these children carry what they learn throughout the rest of their lives. Making time to support preschool classrooms can give preschool teachers better resources to help their students develop socially, emotionally, physically, and cognitively.

### ***Collaborating with Teachers***

When school psychologists collaborate with teachers and educators, it helps to improve not only individual, but also outcomes for the school, as a whole. School psychologists have the training, knowledge, and skills to effectively join teaching, learning, and social-emotional wellbeing altogether to enhance individual students and the school climate. One of the essential

domains of practice for school psychologists includes family, school, and community collaboration. Building strong, trusting, working relationships with teachers is important in collaborating with them. With school psychologists' expansive training and skills, it is important to provide help, guidance, and assistance to teachers to use within their classroom with their students. Working together within the school building is very important for individuals and the school climate.

### ***Assisting with Social Emotional Learning and Mindfulness Initiatives***

School psychologists have knowledge and training in social emotional learning, which allows them to teach and educate others in this area. While the research conducted in this study did not yield significant results from the brief mindfulness curriculum, mindfulness and social emotional learning are still beneficial to students. In assisting with social emotional learning and mindfulness initiatives in the school building, and even in the school system, teachers and students can receive the benefits and obtain a better well-being. Putting initiatives using mindfulness and SEL in place in schools can yield many positive results.

### **Limitations**

#### ***Developmentally Appropriate Curriculum***

While both curriculums used for this research were designed for the same age group as used in this research, some activities were difficult for the preschool students to understand. As noted in the teacher interview, many of these preschool students who participated in this study had limited social interactions before entering preschool this school year, therefore, they had little social skills. The curriculums used in this research were created before a pandemic and did not take into consideration the lack of social skills this age group may have had. Because of that, some of the activities used in this research may not have been fully understood by the

preschoolers, or may have been more advanced, which may have impacted the outcome of this research.

### ***Sample Size***

The participants in this research included one preschool teacher and one preschool classroom. The small sample size used in this research may have yielded difficulty in determining if the outcomes were completely accurate. With a smaller sample size, the results may not be representative of all preschool classrooms. It would be beneficial in the future, to conduct this research with a larger sample size, as that may allow for a better representation of how preschool teachers perceive a brief mindfulness intervention to impact their class's overall self-regulation and social skills.

### ***Dosage***

The brief mindfulness curriculum was used for 6 weeks, twice a week, with 12 overall mindfulness lessons used with the preschool classroom. The duration of the individual mindfulness lessons appeared appropriate for the age group used in this research, however, there is a possibility that with a longer lasting curriculum (>6 weeks), or more frequent mindfulness lessons during the week (>2 lessons per week), the results may be different.

### **Further Research**

With limitations and challenges, it is still encouraging that the preschool teacher perceived her students to benefit from the brief mindfulness curriculum in that she noticed a positive change in her students' self-regulation and social skills. She also found the intervention to be acceptable and promising in its impact. Because limited research has been conducted with mindfulness and preschoolers, it would be beneficial to ~~for~~ further expand the research with this age group in order to obtain more information. For future research, completing mindfulness

practices with this same age population over a long period of time (i.e., beginning to end of a school year), would be beneficial to see if the results of teacher perception show an increase in social skills and self-regulation among an intact preschool classroom. Additionally, it would be important to consider conducting this research with more than one preschool classroom and receiving input from more than one teacher on their perception of the mindfulness intervention. Comparable to a similar study conducted by Torres (2019) on self-regulation and social skill development among preschool students, the results from this current study found that the preschool teacher did see an improvement in her students' self-regulation and social skills,. While practicing mindfulness with preschool students is beneficial to their social-emotional development, this emphasizes the need for future research in this area, perhaps considering and implementing new programs with a goal to improve self-regulation and behavioral skills within preschool classrooms.

## References

- Admin, K. S. W. (2016, November 27). *Social skills*. Kid Sense Child Development. Retrieved from <https://childdevelopment.com.au/areas-of-concern/play-and-social-skills/social-skills/>.
- Alahari, U. (2017). Supporting socio-emotional competence and psychological well-being of school psychologists through mindfulness practice. *Contemporary School Psychology, 21*(4), 369–379. <https://doi.org/10.1007/s40688-017-0154-x>
- Berti, S., & Cigala, A. (2020). Mindfulness for Preschoolers: Effects on Prosocial Behavior, Self-Regulation and Perspective Taking. *Early Education and Development, 1*-20.
- Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., ... & Devins, G. (2004). Mindfulness: a proposed operational definition. *Clinical psychology: Science and practice, 11*(3), 230.
- Blair, C. & Diamond, A. (2008). Biological processes in prevention and intervention: The promotion of self-regulation as a means of preventing school failure. *Development and Psychopathology, 20*, 899–911. doi: 10.1017/S0954579408000436
- Collaborative for Academic, Social, and Emotional Learning (CASEL). (2021). <https://casel.org/>.
- Caballero, C., Scherer, E., West, M. R., Mrazek, M. D., Gabrieli, C. F., & Gabrieli, J. D. (2019). Greater mindfulness is associated with better academic achievement in middle school. *Mind, Brain, and Education, 13*(3), 157-166.

Culotta, E. (2021). *Using Mindfulness Practices to Increase Self-Regulation in Pre-Kindergarten and Kindergarten-Aged Children* (thesis). LSU Digital Commons.

Erwin, E. J., Robinson, K. A., McGrath, G. S., & Harney, C. J. (2015). "It's like breathing in blue skies and breathing out stormy clouds." *Young Exceptional Children*, 20(2), 69–85.  
<https://doi.org/10.1177/1096250615593326>

Flook, L., Goldberg, S. B., Pinger, L., & Davidson, R. J. (2015). Promoting prosocial behavior and self-regulatory skills in preschool children through a mindfulness-based kindness curriculum. *American Psychological Association*, 51(1), 44–51.

Galinsky, E. 2010. *Mind in the Making: The Seven Essential Life Skills Every Child Needs*. NAEYC special ed. New York: HarperCollins.

Goodman. (1997). *The Strengths and Difficulties Questionnaire*. Retrieved from  
<https://www.sdqinfo.org>.

Greenland, S. K., & Harris, A. (2017). *Mindful games activity cards: 55 fun ways to share mindfulness with kids and teens*.

Gutierrez, A. S., Krachman, S. B., Scherer, E., West, M. R., & Gabrieli, J. D. (2019). Mindfulness in the classroom: Learning from a school-based mindfulness intervention through the Boston Charter Research Collaborative. *Transforming Education*.

Howard, S. J., & Melhuish, E. (2016). An early years toolbox for assessing early executive function, language, self-Regulation, and social Development: Validity, Reliability, and Preliminary Norms. *Journal of Psychoeducational Assessment*, 35(3), 255–275.  
<https://doi.org/10.1177/0734282916633009>

The Hawn Foundation. (2011). **MindUP curriculum**: Brain-focused strategies for learning - and living. Grades Pre-K-2. New York, NY: Scholastic Inc.

Kabat-Zinn, J. (2015). Mindfulness. *Mindfulness*, 6(6), 1481-1483.

Kolleck, N. (2019, October). Motivational aspects of teacher collaboration. In *Frontiers in Education* (Vol. 4, p. 122). Frontiers Media SA.

NICHD. (2006). *The NICHD Study of Early Child Care and Youth Development*. National Institutes of Health.

[https://www.nichd.nih.gov/sites/default/files/publications/pubs/documents/seccyd\\_06.pdf](https://www.nichd.nih.gov/sites/default/files/publications/pubs/documents/seccyd_06.pdf).

Razza, R. A., Bergen-Cico, D., & Raymond, K. (2013). Enhancing preschoolers' self-regulation via mindful yoga. *Journal of Child and Family Studies*, 24(2), 372–385.

<https://doi.org/10.1007/s10826-013-9847-6>

*Teacher-Social Competence Scale*. Retrieved from the Fast Track Project Website,

<https://fasttrackproject.org>

Torres, R. (2019). *The impact of a mindfulness program on preschool children's self-regulation and prosocial skills* (thesis). California Digital Library, Los Angeles.

Viglas, M., & Perlman, M. (2017). Effects of a mindfulness-based program on young children's self-regulation, prosocial behavior and hyperactivity. *Journal of Child and Family Studies*, 27(4), 1150–1161. <https://doi.org/10.1007/s10826-017-0971-6>

Willis, E., & Dinehart, L. H. (2014). Contemplative practices in early childhood: Implications for self-regulation skills and school readiness. *Early Child Development and Care, 184*(4), 487–499.

Zelazo, P. D., & Lyons, K. E. (2012). The potential benefits of mindfulness training in early childhood: A developmental social cognitive neuroscience perspective. *Child Development Perspectives, 6*(2), 154–160. <https://doi.org/10.1111/j.1750-8606.2012.00241.x>

*What Is Early Childhood Education?* Early Childhood Education Degrees. (2016, May 20).

<https://www.early-childhood-education-degrees.com/what-is-early-childhood-education/>.

## *Appendix A*

### *Social Competence Teacher Rating Scale – Modified*

Directions: Please rate each of the listed behaviors according to how well it describes your class, overall.

*0 = Not at all    1 = A little    2 = Moderately Well    3 = Well    4 = Very Well*

	<i>Not at all</i>	<i>A little</i>	<i>Moderately Well</i>	<i>Well</i>	<i>Very Well</i>
My students can accept when things do not go their way.	0	1	2	3	4
My students can express their needs and feelings appropriately.	0	1	2	3	4
My students can resolve problems with peers on their own.	0	1	2	3	4
My students are good at understanding other people's feelings.	0	1	2	3	4
My students are aware of the effect their behavior has on others.	0	1	2	3	4
My students can work well in a group.	0	1	2	3	4
My students share with others (toys, snacks, materials).	0	1	2	3	4
My students cooperate with peers without being prompted to do so.	0	1	2	3	4
My students are helpful in the classroom.	0	1	2	3	4
My students can listen and understand others' point of view.	0	1	2	3	4
My class is friendly towards others.	0	1	2	3	4
My class is considerate of other people's feelings.	0	1	2	3	4
My class is kind to other students in and outside of the classroom.	0	1	2	3	4
Students in my classroom can play well together without adult support.	0	1	2	3	4
My students are generally well-behaved and listen to adults.	0	1	2	3	4

*\*Modified from the Fast Track Project*

## *Appendix B*

### *Behavioral Regulation Questionnaire – For Overall Classroom*

Directions: For each item, please mark the box for Not True, Somewhat True, or Certainly True. Please think about your class as a whole and respond to each question to the best of your ability, even if you are not certain.

*1 = Not True    2 = Somewhat True    3 = Certainly True*

	<i>Not True</i>	<i>Somewhat True</i>	<i>Certainly True</i>
My class functions well even with distractions.	1	2	3
My class copes well with failure.	1	2	3
My class pays attention.	1	2	3
My students tend to think before acting.	1	2	3
My class can stay on task.	1	2	3
My students can calm down when they are excited or wound up.	1	2	3
My students can patiently wait in line.	1	2	3
My students follow the rules.	1	2	3
My students can control their temper when there is a disagreement.	1	2	3
My students follow verbal directions.	1	2	3
My student easily lose their temper.	1	2	3
My students are often squirming around and fidgety.	1	2	3
My classroom environment is often happy.	1	2	3
My students often lie or cheat.	1	2	3

## *Appendix C*

### *Pre-Intervention Teacher Questionnaire*

Teacher name: \_\_\_\_\_

Date: \_\_\_\_\_

**Please circle the relevant number for each question.**

**1 = Strongly Disagree   2 = Disagree   3 = Neither Agree or Disagree   4 = Agree   5 = Strongly Agree**

---

1. I am familiar with mindfulness as a personal practice.

**1      2      3      4      5**

2. I feel comfortable practicing mindfulness with my class.

**1      2      3      4      5**

3. My students' exhibit strong self-regulation skills.

**1      2      3      4      5**

4. My students' exhibit strong social skills.

**1      2      3      4      5**

5. The mindfulness practices would quickly improve my students' self-regulation skills.

**1      2      3      4      5**

6. The mindfulness practices would quickly improve my students' social skills.

**1      2      3      4      5**

**Semi-Structured Interview:**

1. Describe the overall climate of your classroom.
2. What training(s) have you had in mindfulness?
3. What is your familiarity with the Kindness Curriculum?
4. What is your familiarity with the MindUp Curriculum?
5. Tell me about how you integrate mindfulness currently. How often?
6. Please describe your students' emotional self-regulation skills overall, as a class.
7. Please describe your students' behavioral self-regulation skills overall, as a class.
8. Please describe your students' social skills overall, as a class.

*Post-Intervention Teacher Questionnaire*

Teacher name: \_\_\_\_\_

Date: \_\_\_\_\_

**Please circle the relevant number for each question.**

1 = Strongly Disagree   2 = Disagree   3 = Neither Agree or Disagree   4 = Agree   5 = Strongly Agree

1. I am familiar with mindfulness as a personal practice.

1      2      3      4      5

2. I feel comfortable practicing mindfulness with my class.

1      2      3      4      5

3. My students' exhibit strong emotional self-regulation skills.

1      2      3      4      5

4. My students' exhibit strong behavioral social skills.

1      2      3      4      5

5. The mindfulness practices would quickly improve my students' self-regulation skills.

1      2      3      4      5

6. The mindfulness practices would quickly improve my students' social skills.

1      2      3      4      5

**Please comment on the questions below:**

1. Describe the overall climate of your classroom.
2. What is your familiarity with the Kindness Curriculum?
3. What is your familiarity with the MindUp Curriculum?
4. Tell me about how you integrate mindfulness currently. How often?
5. Please describe your students' emotional self-regulation skills overall, as a class.
6. Please describe your students' behavioral self-regulation skills overall, as a class.
7. Please describe your students' social skills overall, as a class.
8. What are your thoughts on the mindfulness practices we did with your students?
9. What mindfulness practices do you think your students enjoyed most?
10. What mindfulness practices do you think were the most beneficial to your students?
11. What parts of the program do you think your students' found challenging/struggled with?

### *Appendix D*

#### *Intervention Acceptability Measure: Mindfulness Intervention Rating Scale for Teacher*

Please evaluate the mindfulness intervention completed with your students by circling the number which best describes your agreement or disagreement with each statement. Please answer each question.

**1 = Strongly Agree    2 = Agree    3 = Neutral    4 = Disagree    5 = Strongly Disagree**

1. The mindfulness practices used would be an acceptable way to target students' self-regulation.

**1                      2                      3                      4                      5**

2. The mindfulness practices used would be an acceptable way to target students' social skills.

**1                      2                      3                      4                      5**

3. The mindfulness practices were effective in enhancing my students' self-regulation.

**1                      2                      3                      4                      5**

4. The mindfulness practices were effective in enhancing my students' social skills.

**1                      2                      3                      4                      5**

5. I would suggest the use of mindfulness practices in the classroom to other teachers.

**1                      2                      3                      4                      5**

6. Most pre-school teachers would find these mindfulness practices appropriate for further developing students social-emotional competence.

**1                      2                      3                      4                      5**

7. I would be willing to use mindfulness practices in the classroom setting.

**1                      2                      3                      4                      5**

8. The mindfulness practices would not result in negative side-effects for my students.

**1                      2                      3                      4                      5**

9. The mindfulness practices would be appropriate for a variety of students.

**1                      2                      3                      4                      5**

10. The mindfulness practices used are consistent with those I have used in my classroom.

1                      2                      3                      4                      5

11. Using the mindfulness practices would improve my students' behavior in the classroom, and also in other settings.

1                      2                      3                      4                      5

## *Appendix E*

### *Summary of Each Mindfulness Lesson and Practice*

*#1: Mindful Bodies and Awareness of Attention and Breath* (Kindness Curriculum). This practice targeted self-regulation, as it focused on mindful breathing. The objective was to learn to pay attention on the inside and on the outside. For the activity, the researcher introduced balloon breathing to the children. After taking five deep breaths using the visual of the belly being a balloon, the researcher asked the children how focusing on breathing made them feel.

*#2: Mindful Listening* (MindUp). This practice targeted self-regulation and social skills. The objective was for children to direct their attention on specific sounds and try to identify the sounds. Overall, the goal was for them to learn how mindful listening skills can help with communication. For the lesson, the children closed their eyes, while the researcher made sounds with different objects. The children guessed what each sound was afterwards.

*#3: Mindful Movement* (Kindness Curriculum). This practice targeted self-regulation. The objective was to show how moving helps us to feel our bodies and that it can help calm our emotions, overall, helping them students understand how calming down can be easier after moving around. For the activity, the researcher introduced and did animal movements with the students. The researcher created pictures for each animal movement and used them during the activity as a visual for the students. The researcher left the animal movement pictures with the preschool teacher to put on the board to be a reminder to the children of mindful moving.

*#4: Gratitude for People or Things in my Life* (Kindness Curriculum). This practice targeted social skills and self-regulation. The main topic of this activity was gratitude, specifically teaching the preschoolers that there are people or things to be grateful for and that it feels good to be grateful. For the activity, each preschool student named something or someone that they were

grateful for. As a follow up, they were each asked to explain how it feels to be grateful. To help them with this activity, the preschool teacher asked them, instead, “What do you love or like?”. Reframing this question seemed helpful to the students.

*#5: Perspective Taking (MindUp).* This practice targeted social skills. The objectives were for the children to recognize different perspectives of characters in a story read by the researcher and to apply open-minded perspective taking to social situations in their own lives. For the activity, the researcher read “Three Little Pigs” and followed up asking reflection questions regarding the characters viewpoints within the story.

*#6: Choosing Optimism (MindUp).* This practice targeted social skills and self-regulation. The objectives were for the children to define attitudes (optimism and pessimism) to think about, react to, and approach a problem. The goal was for them to practice strategies that help them to develop and maintain optimism in their own lives. Optimism and pessimism are large words for four- and five-year-olds, so after introducing these words, the researcher also said that they can be called happy and sad. For the activity, the researcher created happy and sad faces on paper for each student. The researcher gave scenarios to the students that they could relate to and asked the preschoolers to see it from an optimistic/happy, and pessimistic/sad point of view.

*#7: I Can Notice Things When I Am Quiet on the Inside (Kindness Curriculum).* This practice targeted self-regulation and social skills. The objective was to show that we can notice things when we are quiet and that being quiet allows us to notice sounds and feelings. For the activity, the researcher played a song, and the preschoolers were asked to quietly listen, while walking in place at the carpet, for certain noises within the song. The goal of this activity was for the students to notice how they felt when they heard the noises in the song. This activity incorporated mindful listening.

*#8: Emotions on the Inside Show on the Outside* (Kindness Curriculum). This practice targeted self-regulation and social skills. The objective was to demonstrate how our face and body can show how we feel and that we do not always know how someone else is feeling. The goal of the activity was to be able to show different emotions in their faces and in their bodies. For this activity, we played charades. The researcher created emotion cards to use for the activity and two students at a time demonstrate an emotion, while the rest of the class had to guess the emotion.

*#9: Performing Acts of Kindness* (MindUp). This practice targeted social skills. The objective was to teach different ways we can be kind to ourselves and to others. For this activity, the researcher created a kindness web on a piece of paper and had each student share with the class one way they can be kind. Answers included sharing toys and playing with others. As each child answered, the researcher added their response to the kindness web. At the end of the activity, the kindness web was filled with ways to be kind. The researcher left the kindness web with the preschool teacher to leave in the classroom and put on the board as a reminder to be kind and how to be kind. This activity appeared challenging to some of the students. Their responses were very simple; however, this activity was able to help them think about ways they can be kind.

*#10: Mind Jars* (Kindness Curriculum). This activity targeted self-regulation, as it taught that waiting and being patient is important and helpful. Specifically, this lesson introduced a new way to cope when feeling upset. The researcher brought a mind jar in for the lesson to use as a group for the activity. The researcher introduced the mind jar by telling the students we were going to play the quiet game – she explained that she was going to shake the mind jar, set it in the center of the carpet, and while watching the glitter go down, everyone had to be quiet. The goal of playing the quiet game was to keep the students quiet while simultaneously paying attention to the mind jar. Doing this worked well because none of the students wanted to lose the quiet game.

After about 5 minutes of quietly paying attention to the mind jar, the researcher asked the students how using the mind jar might be helpful to them if they are upset. They responded well to this question by saying it can be used to feel better. The students engaged in this activity and appeared to enjoy it. The researcher left the mind jar in the preschool classroom for the students to use when they feel upset. Because they enjoyed the mind jar so much, the researcher made individual mind jars for each student to take home with them, which they enjoyed.

*#11: Connections with Others (Kindness Curriculum).* This activity targeted social skills by teaching and emphasizing the concept of kindness. The goal of the activity was to teach how kindness comes back to you and that being kind and caring for other feels good. For this activity, the students shared how it feels when other people are kind to them. This activity was similar to an activity we did earlier on, however, as the concept of kindness seemed challenging for them, in terms of different things to do to be kind, the researcher introduced this activity to help them better grasp this concept.

*#12: Bringing it all Together (Kindness Curriculum).* For the last activity, the researcher's aim was to briefly review and summarize the main concepts that the students had been introduced to and learned over the 6-week period during the brief mindfulness curriculum. When the researcher asked the students what they have learned during our time together, they responded, animal movements, breathing, being nice, and the mind jar. They did well recalling the main concepts learned, which were paying attention, breathing, kindness, emotions, and gratitude. While they did not explicitly state each concept, they remembered the different activities they did that were used to teach the concepts.

## *Appendix F*

### *Pre- Intervention Semi-Structured Interview Results*

**Describe the overall climate of your classroom.** *“Right before Christmas break, we were seeing collaboration and social skills, and their self-regulation had really improved from the beginning of the year. It feels like after coming back from winter break, we got a couple of new students and went backwards a little bit, but they definitely still have good social interactions ... they are able to get help from a teacher or remove themselves from a situation where they are struggling socially or behaviorally, but the self-regulation piece has been a struggle lately. They get more irritated and frustrated with each other more quickly than they were before.”*

When asked about their familiarity with the Kindness Curriculum and the MindUp curriculum, the teacher reported not being familiar with the Kindness Curriculum and that she had heard of MindUp but is not very familiar with it.

**Tell me about how you integrate mindfulness currently and how often.** *“My classroom incorporates self-regulation, and it is very play-based. Small group, whole group, and play are all very collaborative and we try to encourage them with a lot of ways to work through situations and gain some skills regulating their behavior and emotional self.”*

**Please describe your students’ emotional self-regulation skills overall, as a class.** *“They do pretty well with it ... their self-regulation 80% of the day is pretty on point, and it is more in play where they struggle the most because they do not have as much access to a teacher to help them. It is good, not great.”*

**Please describe your students’ behavioral self-regulation skills overall, as a class.** *“It is also pretty good ... There are particular students ... 2 or 3, who have behavioral problems that we see frequently, but on the whole, the other children don’t struggle as much with those behavioral challenges, and they are able to manage it knowing that the others don’t manage it as well.”*

**Please describe your students’ social skills overall, as a class.** *“They have improved a lot from the beginning of the year. At the beginning, we noticed that they truly did not have exposure to a lot of other kids because of Covid, and so they did not know how to use words to*

*initiate play or get anyone's attention, so they have grown a lot in that area and are forming friendships and they know how to use their words to get someone to play with them and to get their attention. It is much more appropriate now than it was at the beginning of the year. They have made a lot of progress within that area."*

### *Post-Intervention Interview Results*

**Describe the overall climate of your classroom.** *"They are a very happy class. I do think that they have learned a bit about how to regulate each other ... they are reminding each other to do more breathing and calming down. They point to the visuals of the animal movements and the kindness web, which have been a really nice reminder for them to regulate each other or to point to ... they can tell when they need it. They have been much more independent in their self-regulation without needing a teacher to regulate them as much."*

**Tell me about how you integrate mindfulness currently and how often.** *"I feel like we do it more regularly. Before, I did it more just when we were transitioning to whole group sessions or at certain times of the day, but I think we now have learned more skills so that we are able to do it when we need a break or during small groups. We are using it more frequently."*

**Please describe your students' self-regulation skills, overall, as a class.** *"Since beginning the mindfulness practices, it has been hard because we are now getting toward the end of the year and the energy level is rising, but despite their energy level being higher, I do feel like their self-regulation has improved ... they notice others needing help regulating too, and they are able to help each other out with that more. It has improved, but they are much higher energy than they were before. The skills have helped them through their end of the year energy. Both behavioral and emotional self-regulation skills have improved on the whole."*

**Please describe your students' social skills, overall, as a class.** *"It's the same thing with self-regulation ... there has been a little bit of improvement."*

**What are your thoughts on the mindfulness practices we did with your students/what did they enjoy the most/what were the most beneficial?** *"The ones that got them moving and came with a visual were really helpful. The others were helpful, as well, it's just different levels with these little guys. The ones that they kept asking for were the ones with visuals and body movements at the same time."*

**What parts of the program do you think your students found challenging?** *“This crew has been really interesting because they hadn’t had much social interaction before coming in. It has been a different year with different growth, but with a lot of improvement. When they had to think of things, they were grateful for, those kinds of concepts are so tricky for them to understand, but they are really important, as well. I think they were good challenges. It’s still good to even break it down, asking ‘what do you love – toys, people, to do?’ ... those are the beginnings of it. But, yes, it was a good challenge for them.”*