

DEVELOPMENT OF EMOTION REGULATION BY INTEGRATING MINDFULNESS PRAXIS IN EARLY CHILDHOOD EDUCATION

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ABSTRACT

Rapid technological development and information overload has shaped the identity of the 21st Century and has had an immense impact on many social aspects of human life including education systems and children across the world. In their early years, children experience rapid flows of information and a vast range of emotional stimuli every day which, without the ability to effectively self-regulate the emotional responses to these stimuli, can cause anxiety, cognitive overload, socialisation problems and uncontrollable emotional release, resulting in psychological distress for everyone involved – children, parents, and educators. Furthermore, in early childhood education long-term implications must always be considered as, during such overwhelming moments, a child is not able to effectively engage in socialisation or learning processes and subsequently, this can have a negative effect on overall long-term development and the life of a child. This research confirms that, in the past decade, social emotional learning has, for many education institutions across the world and systems worldwide, become an integral part of learning. Nevertheless, in early childhood education research, there remains a notable knowledge gap concerning the lack of systematized knowledge and practical tools to support the development of emotion regulation skills in early childhood education. This paper presents a theoretical and qualitative multi-method study, including a pedagogical intervention, providing scientifically grounded answers and practical advice for educators and early childhood education institutions on how to integrate mindfulness praxis to promote emotion regulation skills of children aged five to six. The results of the research show that meaningful and qualitative support of emotion regulation skills development are provided, through the inclusion of mindfulness praxis as a purposeful and systematic part of early childhood education.

Keywords: early childhood education, education, emotion regulation, mindfulness, social emotional learning

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INTRODUCTION

Rapid socio-economic shifts and technological development have changed and, in fact, shaped the framework and expectations of the education system and the actual skills a child needs to be successful in life. Recent studies (World Economic Forum, 2020, Kenworthy & Kielstra, 2015) show clear evidence that the skills needed to prepare a child for successful future life are not limited to just academic knowledge. In the World Economic Forum 2020 report emotional intelligence is defined as one of the top ten skills for employee success (World Economic Forum, 2020, Benko, 2020).

Furthermore, when considering the quality of life, mental health, sociological perspective, and educational achievements, it should be noted that all these areas are influenced by the emotional, psychological, and social well-being experienced in childhood (Amundsen et al., 2020). Thus, social emotional skills have been recognized as essential when discussing, practicing, and researching educational outcomes (Kenworthy & Kielstra, 2015, Chernyshenko et al., 2018). Social emotional skills have been defined as “the abilities to regulate one’s thoughts, emotions and behavior” (Chernyshenko et al., 2018, p.10). One of the most renowned frameworks in the field of social and emotional skills is the Big Five model (Digman, 1990, John et al., 1991), which categories the social emotional skills into five categories:

1. openness to experience (open-mindedness),
2. conscientiousness (task performance),
3. emotional stability (emotional regulation),
4. extraversion (engaging with others) and
5. agreeableness (collaboration).

One of the social emotional skills that plays a basic role in a child’s ability to learn, socialise, develop cognitively, and integrate into society is emotion regulation skill (Gunter et al., 2012). Especially in early childhood education (3-6), children experience many social and emotional difficulties. When considering these problems, emotion regulation skills can help children to deal with social, emotional, and behavioural difficulties (Liman & Tepeli, 2019). By enabling a child to develop these skills, the child’s emotional, behavioural and socialization difficulties decrease, while the child’s overall well-being increases, which in the long-term results in the healthy development of the child, as well as the more qualitative learning experiences and early academic success (Amundsen et al., 2020, Nieminen & Sajaniemi, 2016).

As this research confirms, in the past decade social emotional learning for many education institutions and systems worldwide has become an integral part of learning. Nevertheless, in early childhood education research, there remains a notable knowledge gap concerning the lack of systematized knowledge and practical tools required to support the development of emotion

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regulation skills in early childhood education. This study presents a theoretical and qualitative multi-method study, including a pedagogical intervention, in order to provide scientifically grounded answers and practical advice for educators and early childhood education institutions on how to integrate mindfulness praxis to promote emotion regulation skills of children aged five to six.

Noting the importance of these skills in supporting healthy development and the learning process of a child, this study has focused on the concept of emotion regulation (Gross, 2015). Gross defined emotion regulation as “the process of shaping which emotions a person has, when he has them and how a person experiences or expresses these emotions” (2015, p. 6). As highlighted in the definition, in order to effectively regulate emotions, a child has to be able to recognise, identify, understand, disclose and guide his or her emotions. Emotions have a major role in the life of a child, as children learn to recognise and interpret different situations, estimate verbal and non-verbal communication, build awareness about causes and consequences and note changes in their bodies and feelings (Colverd & Hodgkin, 2011). Gross also emphasized that emotion regulation skills aid in developing a child’s ability to display empathy, to build social relationships and communication skills, as well as supporting cognitive functions and helping to pay attention to important information and stimuli (2015). In addition, emotion regulation skills aid in the development of a child’s self-awareness, which is a key skill needed to provide a self-regulated learning process (Nieminen & Sajaniemi, 2016, Gross, 2015).

As already other countries, also Latvian competence-based curriculum model Skola2030 emphasises self-regulated learning process as one of the transversal skills essential for the development of a child’s emotion regulation skills (Vanags, 2019, Oates, 2019). Moreover, neuroscience research, as well as the 21st Century understanding of child’s brain development, emphasises the importance and connection between emotions and the learning process (Davis & Levine, 2013). As already highlighted, the necessity and importance of teaching social emotional skills are emphasised both in the scientific literature, as well as the practical guidelines of the European curricula frameworks. However, on the practical side, there is still a notable lack of structured guidelines providing the necessary knowledge and practical tools for educators on how to, based on the scientific evidence, promote, and support the development of a child’s emotion regulation skills meaningfully and systematically.

Using the scientific evidence which emphasises the potential of structured tools and engaging training routines for the development of emotion regulation skills, this study proposes mindfulness praxis as a tool to promote the development of these skills in early childhood education. Mindfulness praxis in education system is used as different actions and practices used in the pedagogical tradition. Mindfulness as a praxis has already been practised and reported in early writings for over two thousand years (Baminiwatta & Solangaarachchi, 2021). Its roots can be found in different religious practices

such as Christianity, Buddhism, and Islam (Giang, 2020). But its rise in the Western world came about at the end of the 20th Century, when Professor Kabat-Zinn reported using it in the field of medicine (Kabat-Zinn, 1982). Kabat-Zinn defined mindfulness as an “awareness that arises through paying attention, on purpose, in the present moment, non-judgmentally” (2012, 40:10).

In the second decade of the 21st Century, mindfulness praxis had gone far beyond religious practices or even the medical field. In the 2010s, mindfulness integration into the education system became more and more prevalent worldwide through different programs, such as Inner Resilience, Mindful Schools, MindUp, Learning to Breath (Sciutto et al., 2021). Researchers have emphasized the ability to increase persistence of attention, concentration, and self-regulation skills to develop empathy, kindness, compassion, and social skills. As well as to provide tools to help overcome cognitive overload as the most important reasons why mindfulness is being integrated into education practices (Guendelman et al., 2017, Siegel, 2007). In addition, Rix and Bernay have highlighted that mindfulness helps children to have more meaningful involvement in the learning process (2014).

Mindfulness praxis as a concept helps to explore the world through feelings and senses, which is very appropriate for early childhood education. It includes different breathing techniques, imagination, and a range of methods to relax the body and mind (Viglas, 2015). The main elements used during mindfulness exercises are mindful body, breathing techniques, mindful movement, mindful looking and listening, mindful eating, mindful emotions, mindful heart, which involves kind thoughts, generosity, and thankfulness (Perrier et al., 2020). All the elements are included in abundance of exercises which can be also used and adapted for children. These mindfulness techniques and core elements help children to get a better knowledge and understanding of themselves,

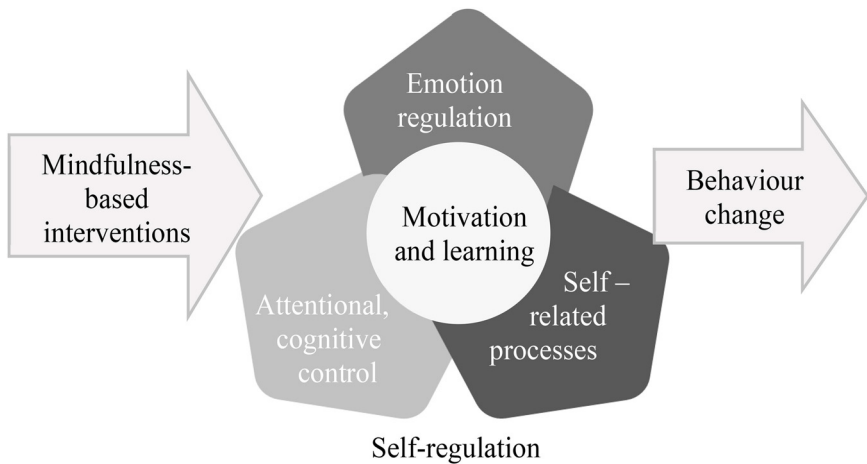


Figure 1. Researcher’s concept based on Schuman-Olivier et al., 2020

including their emotions, through different practical activities, feedback and discussions about their experiences and feelings (Viglas, 2015). Although most of the mindfulness exercises are not directly linked to emotions, they aid in the development of skills needed for emotion regulation. As well as support of the learning process, motivation, attention, and self-awareness, which as a result help in the development of self-regulation skills, which, in the long term, results in behaviour changes (see Figure 1).

METHODOLOGY

To answer the research question – how to use mindfulness praxis to develop emotion regulation skills in early childhood education? – a systematic literature review and empirical research were conducted. The participant sample of the research was a group (No.13) of five-to six-year-old children, at Riga private early childhood education institution, whose parents agreed to be part of the research. This sample consisted of seven children aged five and six children aged six years, what was chosen because of the social setting this age group children are part of – the preparation to start to attend the school and need to develop skills for this process.

The study design aimed to observe and evaluate the emotion regulation skills of the participants, based on ten skills used as criteria which were defined based on an analysis of the scientific literature and early childhood education curriculum (in Latvia). The criteria included such skills as the ability to name emotions, recognise emotions and emotion management skills (see Table 2). During the study there were two evaluations carried out prior to the pedagogic intervention – the participants were introduced to the mindfulness praxis and involved in practising it, as well as post-pedagogic intervention, to observe and analyse the impact of mindfulness praxis. The research was implemented in five stages, some of which were implemented consecutively, and some were implemented in parallel (see Figure 2). Research was undertaken during a period of five months in 2021 in person.

The first stage of the research involved an analysis of the scientific literature. It included analysis of theories and a description of core concepts and ideas of emotion regulation and mindfulness praxis. The systemic literature analysis was conducted using the Web of Science database and an additional online search for policy reports and case studies. The literature selection search focused on five main keywords: *emotion regulation skills*, *social emotional learning*, *early childhood education*, *mindfulness praxis*, and *mindfulness in education* from the period 2000-2021. As a result, a total of 2,563 sources were pre-selected for analysis, but only forty-eight publications were directly relevant to the scope of the study.

In order to identify ways by which integration of mindfulness praxis in the learning process promotes development of emotion regulation skills, empirical research was conducted consisting of four stages. The second stage of the

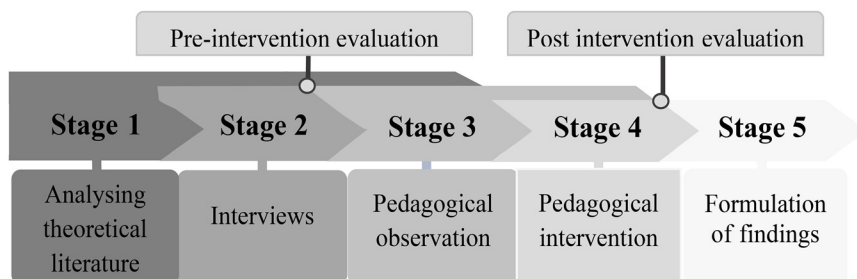


Figure 2. Methodology scheme

research involved two interviews with early childhood education teachers who utilise mindfulness praxis in their everyday pedagogic practices, and one director of an early education institution who teaches mindfulness lessons to children at the institution.

The third stage included evaluation of the participant sample, implemented by the sample group participating in a total of ten mindfulness lessons (pedagogical observation), which were implemented once a week for approximately forty minutes each. During those lessons pedagogical observations were transcribed for further analysis. These lessons were prepared based on the School of silence materials (www.klusumaskola.lv) which is a Latvian non-governmental organisation rooted into the Mindful school's curriculum (www.mindfulschools.org). Through it children are introduced to the mindfulness praxis and apply it through different exercises and experiences.

Stage four included another five weeks of the lessons – functioning as a pedagogical intervention - when mindfulness exercises were integrated into the everyday learning process (a total of twenty-four days). This continued for another five weeks, and after that the post-pedagogic intervention evaluation was undertaken. During the pedagogical intervention, each morning started with the sample group participating in one to three mindfulness exercises, such as listening to the bell, a breathing ball, describing what a child experienced with each sense or observing an hourglass. In addition, every week during the pedagogic intervention ended with belly breathing exercises and a reflection on the participants' feelings and experiences during the week. Exercises were also incorporated during other times of the day; for example, whilst waiting for the other child to finish their work or to calm down after intense emotional moments. In the classroom of the sample group, a special area was set up which reminded and helped children to keep the mindfulness praxis alive during the times free from the organised exercises. This area included different posters with reminders of mindfulness exercises and different tools and toys to be used for the exercises.

At the end of the research, a post-pedagogic evaluation was undertaken. Addition to that 'one-to-one' conversations with children were organised, to learn about their experiences and the benefits of practising mindfulness.

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For the use of the intervention, mindfulness exercises were compiled, which are presented in Table 1. The exercises have been compiled from the School of silence lesson plans, and the book “Cultivating Mindfulness in the Classroom” (Iberlin & Ruyle, 2017). They were chosen considering the adequacy of the age and also to include wide diversity of exercises.

Table 1. Mindfulness exercises utilised in the study

Type, name, and goal of exercise		Description	Requirements for effective implementation
Mindful breathing	Breathing ball Goal: to learn, observe and pay attention to the breath	The teacher starts and shows the exercise, then each child follows - breathing in and slowly expanding the Hoberman Sphere for the duration of inhale. Once the inhale is complete, stop expanding the Hoberman Sphere and notice the natural pause between inhale and exhale. As the exhale begins, collapse the Hoberman Sphere until the exhale is complete. Each child inhales and exhales three times in a row.	1) Hoberman Sphere is needed 2) For an effective result, one ball should be used for no more than ten children
	Infinity breath Goal: to learn to breath in different speeds	The teacher gives each child a paper with an infinity sign. At the beginning the teacher explains the task and invites children to join – drawing the infinity sign with a finger, while taking an inhale moving to one side of a sign, moving to the other side with an exhale. Repeat this for as many times as necessary.	1) An infinity sign can be made of paper or wood, at least 14 × 21cm size 2) There are no exact limitations to the size of the group
	Breathing rainbow Goal: to observe body sensations while breathing	The teacher invites children to imagine a rainbow in the air, explains and guides the process - placing arms at one side of the body and moving both arms from left to right to trace the rainbow while inhaling slowly through the nose - then moving arms back from right to left to trace the rainbow while exhaling slowly through the mouth. Repeat as many times as necessary.	1) Educator guides the process 2) No more than fifteen children in a group
	Belly breathing Goal: to learn diaphragmatic breathing	Each child lies on the floor on his or her back. The teacher places a lightweight toy on each child's belly. The teacher guides children to breathe with the belly slow or fast and invites children to pay attention to the movement in their belly. It is possible to put some relaxing music on in the background. Depending on the age of the children in the group, the exercise should be continued for at least five minutes. After the exercise, children should share their experiences with the group.	1) A space for every participant to lie on the floor and a small lightweight toy (for example a rubber duck) for each participant 2) To provide qualitative time for feedback, suggested no more than fifteen children in a group

Table 1. Continued

Type, name, and goal of exercise		Description	Requirements for effective implementation
Mindful listening	The bell Goal: to improve attention and listening skills	This exercise can be done with eyes open, or eyes closed. The teacher presents children with a bell and explains that when the teacher is going to ring the bell, children must be attentive and listen to the sound fade until it cannot be heard anymore. When the sound stops, the child must raise his or her hand.	1) A bell, made of metal, that makes a sound after ringing it at least for ten seconds 2) There are no exact limitations to the size of the group
	Silence Goal: to improve attention and listening skills	This exercise must be done with closed eyes. The teacher explains that children must close their eyes, listen, and pay attention when they hear a sound of a bell, they must open their eyes. This exercise should be done starting with a period of twenty seconds, increasing the time when children are ready.	1) A bell, made of metal, that makes a sound after ringing it at least for ten seconds 2) There are no exacte limitations to the size of the group
Mindful body	Body scan Goal: to pay attention and sense feelings in the body	The teacher invites children to lie down on their back or sit down comfortably and close their eyes. The children are invited to contract every muscle in their body as tight as they can, starting from the feet and moving up. The teacher tells them to squish their toes and feet, clench their hands into fists, and make their legs and arms 'as hard as stone'. After a few seconds, have them release all their muscles and relax for a few minutes. The teacher encourages children to think about how their body is feeling throughout the activity. When all the body parts have been contracted, children inhale three deep breaths, and share their experience with the group. This exercise lasts for approximately eight minutes.	1) The teacher guides and observes the process 2) To provide qualitative time of feedback, suggested no more than fifteen children in a group
	5, 4, 3, 2, 1 Goal: to acknowledge and verbalise sensations with all senses	The teacher invites children to sit still and acknowledge five things that they can see around, four things they can touch, three things they can hear, two things they can smell and one thing they can taste. After they have acknowledged these objects, the teacher leads a discussion about the group's experience.	1) The teacher guides and observes the process 2) To provide qualitative time of feedback, suggested no more than fifteen children in a group

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Table 1. Continued

Type, name, and goal of exercise		Description	Requirements for effective implementation
Mindful looking	Hourglass Goal: to develop persistence of attention	The teacher asks children to sit down comfortably in a circle and places the hourglass in the middle. Children must observe and listen to the falling sand. When the last grain of sand falls, children must raise their hand or stand up. Depending on the age of the children in the group, the educator can choose for how long to hold the exercise.	1) An hourglass is needed 2) Depending on the size of hourglass the number of children participating can vary but it is important that all the children can sit around and see it
	Guess what I am looking at Goal: to develop observation skills	The teacher focuses his or her attention to some object close by. The children must observe the teacher and guess what she is looking at. After that, each child does the same.	1) The teacher guides and observes the process 2) To provide qualitative time of feedback, suggested no more than ten children in a group
Mindful eating	Glass of water Goal: to notice and verbalise different senses	Each child is given a cup with water or another drink. The teacher guides the process, when children start by taking a small sip of a drink, and paying attention to each moment, starting from the drink being in the cup, to the moment it goes down into their stomach. Children describe their feelings after the exercise.	1) Cups for each child and any kind of child-friendly drink 2) To provide qualitative time of feedback, suggested no more than fifteen children in a group
	Orange Goal: to develop skills to verbalise different senses and feelings	The teacher gives each child an orange, and guides children to mindful eating. The children must eat the orange slowly, without rushing. It can also be done with eyes closed. It starts by holding the orange, rolling it in hands, noticing how it feels, smelling the orange, peeling it, and smelling again. Noticing how it looks and feels by hands. Peeling and noticing the sensations. When it's done, the teacher guides the children to pay attention to what is happening in their mouth while they are doing all these things. After that, slowly starting to eat and noticing the flavours and textures. The whole process is guided by the educator, and children express and reflect on their experiences.	1) Oranges or any other fruit or vegetable for each child 2) To provide qualitative time of feedback, suggested no more than fifteen children in a group

RESULTS

Before the pedagogic intervention, emotion regulation skills of the sample group participants were evaluated based on ten skills criteria, which were observed in both daily life actions and specifically the organized learning activities. Criteria were developed based on theoretical research on the emotion regulation skill development and Latvian preschool education curriculum and there included skills. The ten criteria were:

1. The ability to assign names to basic emotions,
2. The ability to describe basic emotion bodily expressions,
3. Understanding that emotions are connected with actions,
4. Recognising and wording the causes of emotions,
5. Recognising and describing one's emotions,
6. Choosing an adequate solution on how to deal with intense emotions,
7. Recognising emotions in others,
8. Acting according to other people's emotions,
9. Evaluating own actions and finding solutions, and
10. Applying and practising mindfulness exercises.

The pre-pedagogic intervention evaluation results are presented in Table 2. Children were evaluated at five levels (0-4) depending on the proficiency level of the ten skills criteria: 0 – not possessing a certain skill, 1 – starting to develop (use) a certain skill, 2 – using a certain skill with an educator's support, 3 – using the skill, but lacking confidence, 4 – using a certain skill with confidence. Table 2 is organised in four categories: A presents results on each child in the sample group and their age, B lists the ten skill criteria (derived from the scientific literature and curriculum), while C differentiates the stage at which that evaluation was conducted – prior to the pedagogic intervention or after the intervention, and D presents the levels of evaluated proficiency for each child.

One of the criteria on which sample participants were evaluated was the ability to choose the appropriate solution on how to deal with intense emotions. In the first evaluation (prior to the pedagogic intervention) four of the sample participants showed significantly lower results, compared to the rest of the sample participants' result. Throughout the initial evaluation the most notable observation was the lack of skills on how to control and deal with intense emotions from two participants (No.3 and No.11), because of that, their results were highlighted. Child No.3 and No.11 also experiences behavioural problems, socialisation issues and engagement problems during learning activities. At the final evaluation (post-pedagogic intervention), it was noted that the skills of these two participants had improved (see Figures 3 and 4). Moreover, the study observed that post the pedagogic intervention, most participants demonstrated better engagement in the learning activities, fewer behavioural issues, and a better ability to engage in socialisation.

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Table 2. Summarized evaluation

A - Child and age	C - Stage of evaluation ↓										13. 6 y.			
	1. 5 y.	2. 6 y.	3. 5 y.	4. 5 y.	5. 6 y.	6. 5 y.	7. 5 y.	8. 6 y.	9. 6 y.	10. 5 y.		11. 5 y.	12. 6 y.	
↓ B - Skills	↓ D - levels of evaluated proficiency for each child (0-4) ↓													
1. Ability to assign names to basic emotions	Prior to the intervention	3	3	1	1	3	1	2	3	4	3	1	4	1
	Post the intervention	3	4	3	3	3	1	3	4	4	3	3	4	1
2. Ability to describe basic emotion bodily expressions	Prior to the intervention	1	3	0	1	2	0	1	3	3	2	0	3	1
	Post the intervention	2	3	1	1	3	1	1	3	4	3	1	4	1
3. Understanding that emotions relate to actions	Prior to the intervention	2	3	1	1	3	0	1	3	3	3	1	3	1
	Post the intervention	2	3	1	2	4	1	2	3	4	3	1	4	1
4. Recognising and wording the causes of emotions	Prior to the intervention	2	3	0	1	3	0	1	1	3	1	0	3	0
	Post the intervention	2	3	0	1	4	1	2	2	3	2	1	3	1
5. Recognising and describing one's emotions	Prior to the intervention	2	3	1	2	2	0	1	3	3	1	1	3	1
	Post the intervention	2	4	2	2	3	1	1	4	4	2	1	4	2
6. Choosing an adequate solution on how to deal with intense emotions	Prior to the intervention	1	4	1	1	3	0	1	3	3	0	0	3	1
	Post the intervention	1	3	1	2	3	1	1	3	4	1	1	4	2
7. Recognising emotions in others	Prior to the intervention	2	2	0	1	3	0	1	3	3	1	0	4	0
	Post the intervention	2	3	1	2	3	1	1	4	4	2	1	4	1
8. (re)Acting according to other people's emotions	Prior to the intervention	1	2	1	1	1	1	1	3	3	0	1	3	0
	Post the intervention	1	3	1	1	2	1	1	4	3	1	2	3	0
9. Evaluating own actions and finds solutions	Prior to the intervention	2	3	0	1	3	0	1	3	3	1	2	3	1
	Post the intervention	2	3	1	1	3	1	1	3	3	1	2	3	1
10. Applying and practicing mindfulness exercises	Prior to the intervention	0	1	0	0	0	0	0	0	0	0	0	0	1
	Post the intervention	1	2	1	1	1	1	1	2	2	1	2	1	1

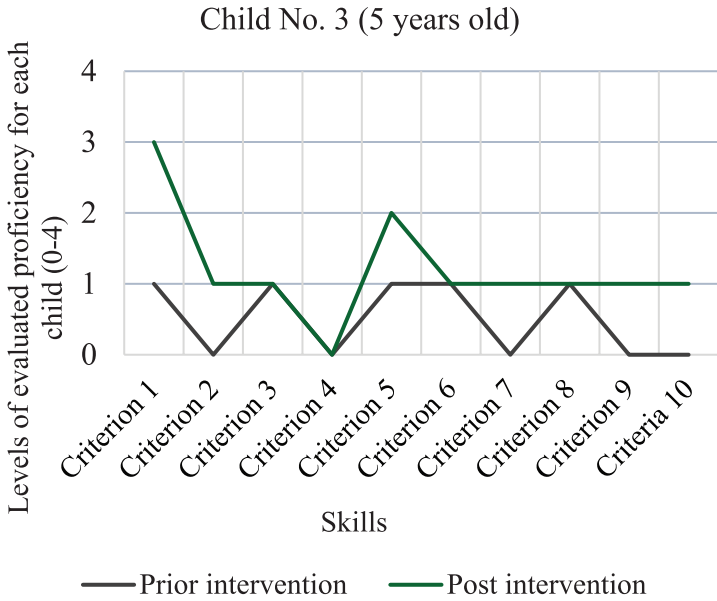


Figure 3. Comparison of prior and post intervention evaluation results of participant No. 3

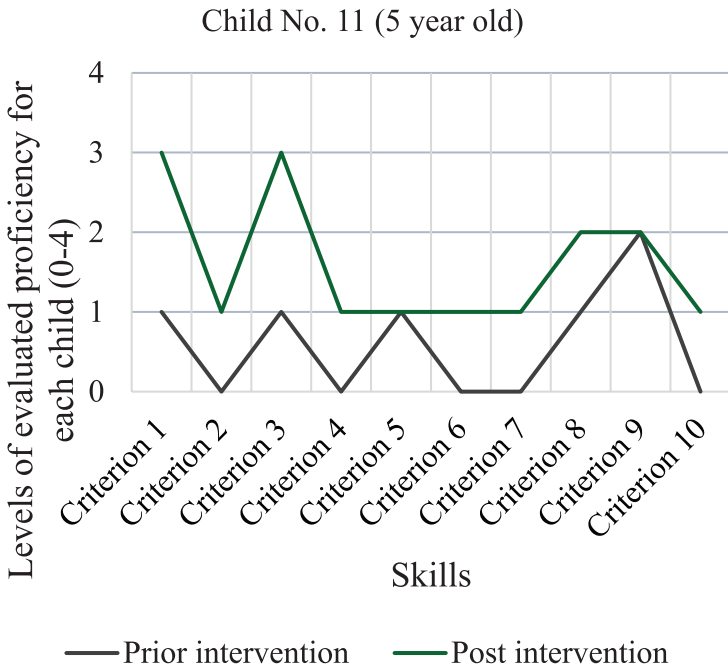


Figure 4. Comparison of prior and post intervention evaluation results of participant No. 11

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During the final stage of this study, a final evaluation (post-intervention) was conducted, as well as individual discussions with the sample participants about their experience with mindfulness exercises and their perceived benefits of practicing them. The key benefits that children emphasised were that exercises helped them to calm down, manage anger and overcome anxiety, worry, or fear, and also to be more aware of their own feelings and surroundings.

DISCUSSION

This study investigated the effects of a mindfulness practice as a tool to support emotion regulation skill development for children aged five to six. After the literature analysis, as well as expert interviews, observations and most importantly consistent pedagogic intervention the findings have shown that out of the ten skills the participants were evaluated on, performance of thirteen sample participants had improved in many of those skills' criteria, including emotion regulation skills.

Sample children were more able to recognise, describe, express, and manage their emotions, especially the improvements observed in children whose skills in the beginning were quite low. In addition, children showed higher levels of engagement in the learning process, the attention improved and their ability to verbalize and explain themselves were better, which was a great benefit for the development of their socialisation skills.

Based on the complexity of the child development and difficulty to measure and evaluate social emotional skills, there can be a variety of reasons why the measured skills of the children were improving. Also, it is important to mention that the personality of the teacher and teachers own emotion regulation skills, ability of being mindful and engaged into the learning process impact each child and their ability to develop emotion regulation skills. For the future success of mindfulness practice integration in to learning process and better student outcomes, more support and training for the teachers should be provided. Also, for the further research, it would be important to include more children into research and observe the changes over a longer period, including more people who could observe and collect data.

However, based on the research question, mindfulness practice improved the skills of children. This research brought a contribution in to Latvian early childhood education field, introducing the use of mindfulness practice into daily learning process, what can be developed into methodological material for early childhood education teachers. When considering the benefits which were observed during the research, mindfulness practice is a considerable tool for teachers to integrate into their teaching process. In addition, the mindfulness practice with its wide range of exercises is a relatively easy way for teachers to teach children different skills. Exercises are simple and easy to adjust to the needed setting and easily integrated into the regular learning process, therefore a usable tool to implement in to learning process.

CONCLUSIONS

Emotion regulation skills are essential skills for a child's ability to learn, manage their behaviour, develop self-regulation and to establish meaningful socialisation with others. In the mindfulness praxis teachers are provided with practical tools that they can incorporate in their setting, and which helps children to develop emotion regulation skills, and cope with difficult emotional experiences. Mindfulness not only aids in the development of emotion regulation skills but has proven to be also a considerable tool to help teachers to promote social emotional learning in the classroom.

It is important to emphasise that mindfulness must be practised consistently and, in the long term, to gain the most benefits. Although the mindfulness praxis is not a direct way to teach about emotions, it provides a child with the skills needed for emotion regulation and helps to calm down their brain and body, so they would be able to take personal control over themselves. When children exercise this personal control, they are more able to take control over their learning process too.

Therefore, this study concluded that mindfulness praxis has proved itself as an effective tool to provide meaningful and qualitative support of emotion regulation skill development. In addition, emotion regulation skills of the sample participants were improved, and the group's overall dynamics were improved. Participants also improved their communication skills and skills necessary to verbalise their emotions and experiences. The goal of a teacher is to prepare a child for life, not only for academic achievements, and mindfulness praxis has demonstrated the potential to be an effective tool for educators and children to be more connected and in peace with themselves, to recognise and control their own learning process and emotional responses and that creates a firm foundation for their further development.

REFERENCES

- Amundsen, R., Riby, L. M., Hamilton, C., Hope, M., McGann, D. (2020). Mindfulness in Primary School Children as a Route to Enhanced Life Satisfaction, Positive Outlook and Effective Emotion Regulation. *BMC Psychol* 8, 71.
- Baminiwatta, A., Solangaarachchi, I. (2021). Trends and Developments in Mindfulness Research over 55 Years: A Bibliometric Analysis of Publications Indexed in Web of Science. *Mindfulness* 12, 2099–2116. <https://doi.org/10.1007/s12671-021-01681-x>
- Benko, I. (2020). Research Paper: Emotional Intelligence in the Workplace. *International Coach Academy*. Retrieved: 10.10.2021. <https://coachcampus.com/coachportfolios/research-papers/ildiko-benko-emotional-intelligence-in-the-workplace/>

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- Chernyshenko, O., Kankaraš, M., Drasgow, F. (2018). Social and emotional skills for student success and well-being: Conceptual framework for the OECD study on social and emotional skills, *OECD Education Working Papers*, No. 173, OECD Publishing, Paris. <https://doi.org/10.1787/db1d8e59-en>
- Colverd, S., & Hodgkin, B. (2011). *Developing Emotional Intelligence in the Primary School*. Taylor & Francis Group.
- Davis, L. E., Levine, L. (2013). Emotion regulation strategies that promote learning: Reappraisal enhances children's memory for educational information. *Child Development*, 84(1), 361–374. <https://doi.org/10.1111/j.1467-8624.2012.01836.x>
- Digman, J. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology*, Vol. 41, pp. 417–440.
- Giang, C. H. M. (2020, 30. 11). What are the Origins of Mindfulness? *Thrive Global*. Retrieved 10.11.2021. <https://thriveglobal.com/stories/what-are-the-origins-of-mindfulness/>
- Gross, J. J. (Ed.). (2015). *Handbook of Emotion Regulation* (second edition). The Guilford Press, New York, London, p. 669.
- Guendelman, S., Medeiros, S., Rampes, H. (2017). Mindfulness and Emotion Regulation: Insights from Neurobiological, Psychological, and Clinical Studies. *Front. Psychol.* <http://dx.doi.org/10.3389/fpsyg.2017.00220>
- Gunter, L., Caldarella, P., Korth, B., & Young, K. (2012). Promoting Social and Emotional Learning in Preschool Students: A Study of Strong Start Pre-K. *Early Childhood Education Journal*, 40(3), 151–159.
- Iberlin, J. M., Ruyle, M. (2017). *Cultivating Mindfulness in the Classroom*. Solution Tree.
- John, O. P., Donahue, E. M., Kentle, R. L. (1991). The “Big Five” Inventory: Versions 4a and 54, University of California, Berkeley, Institute of Personality and Social Research, Berkeley.
- Kabat-Zinn, J. (1982). An outpatient program in behavioral medicine for chronic pain patients based on the practice of mindfulness meditation: theoretical considerations and preliminary results. *Gen Hosp Psychiatry*. 1982 Apr;4(1), 33–47. doi: 10.1016/0163-8343(82)90026-3. PMID: 7042457.
- Kabat-Zinn, J. (2012). Dr. John Kabat – Zinn's Benefit for Mindful Schools: The Role of Mindfulness in Education. [Video]. YouTube, MindfulSchools. Retrieved 05.09.2021. <https://www.youtube.com/watch?v=fEINtdXIqns>
- Kenworthy, L., Kielstra, P. (2015). *Driving the skills agenda: preparing students for the future*, Economist Intelligence Unit, [New York]. <http://hdl.voced.edu.au/10707/444932>
- Liman, B., Tapeli, P. (2019). A study on the effects of self-regulation skills education program on self-regulation skills of six-year-old children. *Educational Research and Reviews*, 14(18), 647–654.

- Nieminen, S. H., Sajaniemi, N. (2016). Mindful Awareness in Early Childhood Education. *South African Journal of Childhood Education* 6(1), a399. <http://dx.doi.org/10.4102/sajce.v6i1.399>
- Oates, S. (2019). The Importance of Autonomous, Self-Regulated Learning in Primary Initial Teacher Training. *Front. Educ.* 4:102. <https://doi.org/10.3389/educ.2019.00102>
- Perrier, M. F., Gurgel-Juarez, N., Flowers, H.L., McCormick, A., & Short, S.J. (2020). Mindfulness-based Interventions for Children and Adolescents Across all Settings: A Scoping Review Protocol. *Systematic Reviews*, 9, 286. <https://doi.org/10.1186/s13643-020-01548-7>
- Rix, G., Bernay, R. (2014). A Study of the Effects of Mindfulness in Five Primary Schools in New Zealand. *Teachers Work* 11(2):201–220.
- Schuman-Olivier, Z., Trombka, M., Lovas, D. A., Brewer, J. A., Vago, D. R., Gawande, R., Dunne, J. P., Lazar, S. W., Loucks, E. B., & Fulwiler, C. (2020). Mindfulness and Behavior Change. *Harvard review of psychiatry*, 28(6), 371–394. <https://doi.org/10.1097/HRP.0000000000000277>
- Sciutto, M. J., Veres, D. A., Marinstein, T. L., Bailey, B. F., Cehelyk, S. K. (2021). Effects of a school - based mindfulness program for yong children. *Journal of Child & Family Studies*, 30(6), 1516–1527.
- Siegel, D. J. (2007). Mindfulness training and neural integration: differentiation of distinct streams of awareness and the cultivation of well-being. *Social Cognitive and Affective Neuroscience*, 2(4), 259–263. <http://dx.doi.org/10.1093/scan/nsm034>
- Vanags, E. (2019). Pašvadīta mātīšanās - kas tas ir? *Skola2030*. <https://www.skola2030.lv/lv/jaunumi/blogs/pasvadita-macisanas-kas-tas-ir>
- Viglas, M. (2015). *Benefits of a Mindfulness-Based Program in Early Childhood Classrooms*. [PhD Thesis, University of Toronto]. TSpace Repository. https://tspace.library.utoronto.ca/bitstream/1807/69055/3/Viglas_Melanie_201503_PhD_thesis.pdf
- World Economic Forum (2020). The Future of Jobs 2020. https://www3.weforum.org/docs/WEF_Future_of_Jobs_2020.pdf