



The Effect of Mindfulness Learning on the Social-Emotional Skills of Students at Al Madinah Islamic Center Elementary School KKMB BSD South Tangerang

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Abstract: This study aimed to examine the effect of mindfulness-based learning on the social-emotional skills of elementary school students at SD Al Madinah Islamic Center KKMB BSD South Tangerang. The study employed a quantitative quasi-experimental design using a pre-test and post-test control group approach, supported by qualitative data from classroom observations and teacher interviews. The participants consisted of 64 elementary students divided into experimental and control groups. The experimental group received mindfulness-based learning interventions integrated into classroom activities for eight weeks, while the control group participated in conventional learning activities. Data were collected through social-emotional skill questionnaires, classroom observations, and teacher interviews. Quantitative data were analyzed using descriptive statistics, paired sample t-tests, independent sample t-tests, and effect size analysis using IBM SPSS Statistics version 27, while qualitative findings were used to support the interpretation of students' behavioral changes during the intervention process. The findings revealed that mindfulness-based learning significantly improved students' social-emotional skills. The experimental group demonstrated a substantial increase in post-test scores compared to the control group. Statistical analysis showed a significance value of 0.000 ($p < 0.05$) with a large effect size (Cohen's $d = 1.87$), indicating a strong effect of mindfulness-based learning on students' social-emotional development. Supporting qualitative findings further indicated improvements in students' emotional regulation, learning focus, self-control, and positive social interactions during classroom activities. The study also demonstrated that mindfulness practices were relevant and effectively implemented within the context of Islamic elementary education through activities such as breathing awareness, emotional reflection, and gratitude practice. This study concludes that mindfulness-based learning can serve as an innovative pedagogical approach to support elementary students' social-emotional development and create more emotionally supportive classroom environments.

Keywords: mindfulness-based learning, social-emotional skills, emotional regulation, elementary school students, Islamic elementary education

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How to Cite :

Introduction

The development of 21st-century education no longer emphasizes academic achievement alone but also positions social-emotional skills as a fundamental component in shaping students' character, mental well-being, and learning success. Elementary school, as an early stage of child development, plays a strategic role in fostering emotional regulation, empathy, self-awareness, social competence, and responsible decision-making. In the global educational context, attention toward strengthening social emotional learning (SEL) continues to increase because numerous

studies have demonstrated that social-emotional competencies are closely associated with psychological well-being, interpersonal relationships, prosocial behavior, and academic achievement. A systematic review conducted by Joseph A. Durlak, Jennifer L. Mahoney, and Amanda E. Boyle confirmed that universal school-based SEL programs positively affect students' social, emotional, behavioral, and academic development (Durlak et al., 2022). These findings were reinforced by the evidence-based review conducted by Martin Wigelsworth and colleagues, which demonstrated that SEL implementation in primary schools contributes significantly to interpersonal competence, emotional regulation, and the creation of positive learning environments (Wigelsworth et al., 2022).

Within the Indonesian educational context, concerns regarding elementary students' social-emotional development have also increasingly attracted scholarly attention. Research conducted by Tazkia and Damayanti (2024) revealed that social-emotional development among elementary school children in Indonesian school environments still faces various challenges related to emotional control, peer interaction, and adaptive social behavior. Similarly, Faizah and Liliana (2025) emphasized that strengthening students' social-emotional competencies is closely associated with improving psychological well-being and healthy interpersonal development in Indonesian elementary education settings. These findings indicate that the need to strengthen social-emotional learning is not only evident globally but also represents a significant educational issue within the Indonesian context. Nevertheless, empirical studies examining innovative pedagogical approaches to improve social-emotional competencies in Indonesian Islamic elementary schools remain limited.

The increasing complexity of children's social lives in the digital era, academic pressure, changing patterns of social interaction, and post-pandemic challenges have intensified emotional and social difficulties among elementary school students. Children are no longer expected solely to achieve academically but are also required to manage emotions effectively, collaborate with peers, demonstrate empathy, and adapt to social environments in healthy ways. However, various classroom phenomena indicate that students' social-emotional skills still require serious attention. Preliminary observations conducted by the researcher at SD Al Madinah Islamic Center KKMB BSD South Tangerang during the first semester of the 2025/2026 academic year revealed that several students demonstrated impulsive behaviors, difficulties regulating emotions during peer conflicts, limited attention during classroom instruction, and low confidence in establishing positive social interactions. Informal interviews with classroom teachers further indicated that some students easily became frustrated when facing academic difficulties, struggled to express emotions appropriately, and tended to remain passive during collaborative learning

activities. These conditions suggest that strengthening social-emotional competencies has become an essential educational need to support students' holistic development.

One educational approach increasingly recognized for supporting social-emotional development is mindfulness-based learning. Mindfulness refers to an individual's ability to intentionally focus attention on present experiences without negative judgment. Within educational settings, mindfulness practices are believed to enhance self-awareness, concentration, emotional regulation, cognitive flexibility, and positive social relationships among students. Research conducted by Xiaoyu Wen and colleagues demonstrated that mindfulness has longitudinal relationships with reduced stress and anxiety among elementary school students through the mediation of cognitive flexibility, self-awareness, and positive social environments (Wen et al., 2021). These findings indicate that mindfulness is not merely associated with individual psychological well-being but also contributes to improving the quality of students' social interactions within school environments.

The implementation of mindfulness in elementary education has also been shown to improve executive functioning and emotional health. Experimental research conducted by Cristiane A. Milaré and colleagues revealed that mindfulness-based interventions produced greater improvements in executive functioning and emotional well-being compared to story-reading activities among public elementary school students (Milaré et al., 2021). Furthermore, research by Iwan Viantho and Santi Dwi Nirmala demonstrated that SEL strategies integrated with mindfulness techniques significantly enhanced elementary students' reading literacy because students became calmer, more focused, and more capable of managing their cognitive processes during learning activities (Viantho & Nirmala, 2024). These findings suggest that mindfulness-based learning may generate multidimensional impacts on both students' academic and social-emotional development.

In the context of students experiencing emotional and behavioral difficulties, mindfulness strategies have also shown significant benefits for social-emotional development. Research conducted by Eun Ok Lee and colleagues found that mindfulness strategies supported elementary students with emotional and behavioral disorders in improving self-control, emotional awareness, and positive social relationship skills (Lee et al., 2023). Therefore, mindfulness approaches possess considerable potential to be implemented universally in elementary education to foster comprehensive social-emotional development among students.

The successful implementation of social-emotional learning in schools cannot be separated from teacher quality and classroom interaction processes. Research conducted by Brett G. Gimbert and colleagues emphasized that teachers' social-emotional competence is a critical factor influencing the effectiveness of SEL implementation in schools (Gimbert et al., 2023). Teachers who possess strong emotional regulation, empathy, and social awareness are more likely to create safe and

supportive learning environments for students. Similar findings were presented by Maria S. Poulou and Pamela W. Garner, who reported that teacher-student relationships are influenced by teachers' emotional competence, beliefs regarding SEL, and levels of burnout (Poulou & Garner, 2025). In addition, teacher well-being also affects the quality of teacher-student interactions during the implementation of universal SEL programs in schools (Sandilos et al., 2023).

Beyond teacher competence, teachers' emotional readiness also plays a significant role in successful SEL implementation. Research conducted by Richard P. Corcoran and John O'Flaherty revealed that pre-service teachers' well-being is closely related to the effectiveness of SEL practices in educational settings (Corcoran & O'Flaherty, 2022). Teachers with stronger emotional well-being are more capable of fostering reflective, supportive, and responsive learning environments that address students' social-emotional needs. Consequently, mindfulness-based learning is relevant not only for students but also for supporting teachers' emotional preparedness in creating meaningful and healthy classroom interactions.

SEL implementation also requires culturally responsive approaches that align with students' social and cultural contexts. Research conducted by Anna Denston and colleagues highlighted the importance of developing linguistically and culturally responsive SEL frameworks to ensure that social-emotional learning aligns with local values and students' characteristics (Denston et al., 2022). Within the context of Islamic schools in Indonesia, mindfulness approaches may be contextually integrated with values related to self-reflection, spiritual awareness, emotional regulation, and Islamic character development. Nevertheless, studies examining the influence of mindfulness-based learning on students' social-emotional competencies in Indonesian Islamic elementary schools remain limited.

Previous studies also reveal that mindfulness research has largely been dominated by Western cultural contexts. A retrospective systematic review conducted by Katherine Eichel and colleagues found that mindfulness studies conducted between 2000 and 2016 demonstrated limited representation of cultural, ethnic, and social diversity among participants (Eichel et al., 2021). This condition highlights the need to expand mindfulness research into non-Western educational settings, including Islamic educational environments in Indonesia. Therefore, the present study contributes to enriching international literature on mindfulness implementation within culturally and religiously distinctive elementary school contexts.

In addition, the practical implementation of SEL in elementary schools continues to face various challenges. Research conducted by Kelly L. Kaspar and Shannon L. Massey demonstrated that SEL implementation in elementary classrooms often encounters difficulties related to consistency and integration into daily instructional practices (Kaspar & Massey, 2023). Consequently, innovative instructional strategies are required to naturally integrate social-emotional

development into classroom learning activities. In this regard, mindfulness-based learning has the potential to become a more reflective, structured, and practical pedagogical approach for integration into classroom routines.

The success of social-emotional development is also closely associated with teacher support during classroom interactions. Research conducted by P. Pratheesh and Z. Francis demonstrated that teacher support during classroom interactions significantly contributes to students' social-emotional and academic outcomes (Pratheesh & Francis, 2024). Furthermore, social-emotional mentoring programs such as SPARK have proven effective in enhancing elementary students' social-emotional development through structured curricula and supportive interpersonal relationships (Green et al., 2021). These findings indicate that learning approaches emphasizing self-awareness, focused attention, and positive interpersonal relationships may serve as important mechanisms for strengthening elementary students' social-emotional competencies.

Based on the preceding discussion, social-emotional competence can be understood as a fundamental aspect of elementary students' development that should be strengthened through innovative and contextual learning approaches. Although previous international studies have demonstrated positive relationships between mindfulness and social-emotional learning, studies investigating mindfulness-based learning within Indonesian educational contexts, particularly in Islamic elementary schools, remain relatively scarce. Existing Indonesian studies have primarily focused on general character education, psychological well-being, or conceptual discussions of mindfulness rather than empirical investigations of mindfulness-based learning interventions targeting students' social-emotional competencies in Islamic elementary education settings (Setyawan, 2023; Putri et al., 2024). Therefore, this study aims to analyze the influence of mindfulness-based learning on the social-emotional skills of students at SD Al Madinah Islamic Center KKMB BSD South Tangerang. This research is expected to contribute empirically to the development of mindfulness and SEL literature in Islamic elementary education contexts while also providing a foundation for developing more holistic, reflective, and psychologically supportive learning practices.

Methodology

Research Model

This study employed a quantitative approach using a *quasi-experimental design* to analyze the influence of mindfulness-based learning on elementary students' social-emotional skills. The quantitative approach was selected because the study aimed to objectively measure the causal relationship between the independent variable, namely mindfulness-based learning, and the dependent variable, namely students' social-emotional skills. The research design applied was a non-equivalent control group

design, as illustrated in Figure 1, involving an experimental group and a control group without full random assignment of participants. This design was considered appropriate for educational settings in which complete randomization is difficult to implement in real classroom environments. According to John W. Creswell, quasi-experimental designs are effective for identifying the effects of instructional interventions in authentic educational contexts (Creswell, 2003). In this study, the experimental group received mindfulness-based learning integrated into classroom activities for eight weeks, while the control group participated in conventional classroom instruction. The mindfulness intervention model was adapted from school-based mindfulness programs developed by Michael J. Sciotto et al. (2021), Cristiane A. Milaré et al. (2021), and the *MindUP* program examined by Ali H. Hai et al. (2021). In addition, the framework for social-emotional skill development was informed by the quasi-experimental SEL study conducted by M. Sollom (2021).

Experimental Group	O ₁	X	O ₂
Control Group	O ₁		O ₂

Figure 1. Non-equivalent Control Group Design

Description:

O₁ = Pre-test

X = Mindfulness-based learning intervention

O₂ = Post-test

Participant

The research was conducted at SD Al Madinah Islamic Center KKMB BSD South Tangerang during the first semester of the 2025/2026 academic year. The research population consisted of all fifth-grade elementary students, totaling 96 students. Fifth-grade students were selected because social-emotional competencies become more complex and develop more intensively during late childhood. The sample was determined using a purposive sampling technique by considering the similarity of academic and social characteristics among classes. The selection of the experimental and control classes was based on several criteria, including relatively equivalent academic achievement levels, similar classroom schedules, comparable social-emotional classroom conditions, and instruction conducted by teachers with similar teaching experience and instructional responsibilities. These criteria were applied to minimize potential differences between groups prior to the intervention process.

The participants consisted of two classes: one experimental class comprising 32 students and one control class comprising 32 students. The total sample included 64 students aged between 10 and 11 years old. In the experimental group, 17 students were female and 15 were male, while the control group consisted of 16 female and 16 male students. Primary data were obtained through measurements of students' social-emotional skills before and after the intervention using questionnaires and behavioral observation sheets during classroom learning activities. Secondary data were collected from school documentation, student profiles, teachers' instructional materials, and supporting interviews with classroom teachers regarding students' social-emotional conditions during the learning process.

Data Collection Tools

Data collection techniques in this study included observation, questionnaires, interviews, and documentation. The primary research instrument was a social-emotional skills questionnaire developed based on indicators of self-awareness, emotional regulation, social awareness, relationship skills, and responsible decision-making. The questionnaire employed a five-point Likert scale to measure students' social-emotional development before and after the intervention.

The questionnaire instrument underwent content validity testing through expert judgment involving three validators consisting of one educational psychology expert, one elementary education expert, and one specialist in social-emotional learning. The validators evaluated the relevance, clarity, and appropriateness of each questionnaire item according to the study indicators. In addition, construct validity testing was conducted through item correlation analysis using Pearson Product Moment correlation. The results indicated that all questionnaire items met the validity criteria with correlation coefficients exceeding the minimum acceptable value of 0.30.

The reliability of the questionnaire was tested using Cronbach's Alpha coefficient through IBM SPSS Statistics version 27. The analysis produced a Cronbach's Alpha value of 0.892, indicating that the instrument possessed a high level of internal consistency and reliability for measuring students' social-emotional skills.

In addition, observation sheets were used to identify behavioral changes during the implementation of mindfulness-based learning, including students' attention, emotional control, social interaction, and classroom participation. Semi-structured interviews were conducted with classroom teachers to obtain supporting information regarding changes in students' social-emotional behaviors throughout the intervention period. Documentation techniques were used to strengthen the research data through lesson plans, classroom activity records, photographs, and instructional materials utilized during the intervention process.

Data Collection Process

The data collection process was conducted through three main stages: preparation, intervention implementation, and evaluation. During the preparation stage, the researcher conducted preliminary observations, coordinated with the school administration, developed research instruments, and tested the validity and reliability of the instruments. The intervention stage was conducted over eight weeks by implementing mindfulness-based learning activities in the experimental group through *breathing awareness*, *mindful listening*, *self-reflection*, and *focused attention* exercises integrated into classroom instruction. Meanwhile, the control group continued participating in regular classroom learning without mindfulness intervention. Throughout the implementation process, students' social-emotional behaviors were periodically observed and documented. During the evaluation stage, all participants completed a *post-test* to measure changes in social-emotional skills after the intervention.

Data analysis techniques included descriptive and inferential statistical analyses. Descriptive statistics were used to describe the mean scores, percentages, and distributions of students' social-emotional development. Inferential statistical analyses were conducted using *paired sample t-tests* and *independent sample t-tests* to determine differences in outcomes before and after the intervention between the experimental and control groups. Data processing and statistical analyses were performed using IBM SPSS Statistics version 27 to ensure the accuracy and validity of the research findings.

Result and Discussion

Finding

1. Preliminary Condition of Students' Social-Emotional Skills

Before implementing the mindfulness-based learning intervention, a preliminary assessment (*pre-test*) of students' social-emotional skills was conducted in both the experimental and control groups. This preliminary assessment aimed to ensure that both groups had relatively equivalent initial conditions so that any changes observed after the intervention could be attributed to the implementation of mindfulness-based learning. The initial condition analysis included descriptive statistics, normality testing, and homogeneity testing of the pre-test data.

The descriptive statistical analysis revealed that the mean social-emotional skill scores of the experimental and control groups were relatively similar. The experimental group obtained a mean score of 71.34 with a standard deviation of 6.42, while the control group achieved a mean score of 70.91 with a standard deviation of

6.18. These findings indicate that students' initial social-emotional skills were at a moderate level and relatively balanced across both research groups.

Table 1. Descriptive Statistics of Pre-Test Social-Emotional Skills

Group	N	Mean	Std. Deviation	Minimum	Maximum
Experimental	32	71.34	6.42	58	83
Control	32	70.91	6.18	57	82

Furthermore, a normality test was conducted using the Kolmogorov-Smirnov test to examine the distribution of the data in both groups. The results showed significance values of 0.200 for the experimental group and 0.176 for the control group. Since both significance values were greater than 0.05, the data were considered normally distributed.

Table 2. Results of the Pre-Test Normality Test

Group	Statistic	Sig.
Experimental	0.112	0.200
Control	0.118	0.176

In addition, a homogeneity test using Levene's test was conducted to examine the equality of variance between groups. The results revealed a significance value of 0.684 (>0.05), indicating that the variances of the two groups were homogeneous.

Table 3. Results of the Homogeneity Test

Levene Statistic	df1	df2	Sig.
0.168	1	62	0.684

Based on these findings, it can be concluded that the experimental and control groups demonstrated relatively equivalent initial conditions regarding social-emotional skills prior to the implementation of mindfulness-based learning. This equivalence serves as an important foundation for ensuring the validity of the intervention in the study.

Initial classroom observations also indicated that many students in both groups experienced difficulties maintaining attention during learning activities, regulating emotions during minor peer conflicts, and actively engaging in positive social interactions during classroom instruction. Several students appeared easily distracted during lessons and tended to be passive when asked to collaborate in group activities.

These findings suggest that strengthening students' social-emotional competencies remains an important need within elementary education.

2. Implementation of Mindfulness-Based Learning

The implementation of mindfulness-based learning was conducted over eight weeks in the experimental group at SD Al Madinah Islamic Center KKMB BSD South Tangerang. The intervention activities were integrated into daily classroom instruction and implemented for approximately 15–20 minutes at the beginning of each learning session. Mindfulness-based learning was designed to enhance students' self-awareness, attentional focus, emotional regulation, and social interaction quality during classroom activities. All learning activities were developed progressively and adapted to the developmental characteristics of elementary school students.

The mindfulness-based learning intervention consisted of several core activities, including *breathing awareness*, *mindful listening*, emotional reflection, focused attention exercises, and *gratitude practice*. During the initial stage, the teacher guided students through conscious breathing exercises for approximately 3–5 minutes to help students calm their minds and focus their attention before the lesson began. Subsequently, students participated in *mindful listening* activities by attentively listening to specific sounds without verbal responses for several minutes. The teacher then facilitated emotional reflection activities through simple questions regarding students' feelings and emotional experiences during the day. At the final stage, students were encouraged to write positive learning experiences and expressions of gratitude related to classroom activities.

Throughout the intervention process, both the classroom teacher and the researcher conducted observations of students' behaviors during mindfulness activities. Initial observations indicated that most students demonstrated enthusiasm and curiosity toward learning activities that differed from conventional classroom routines. Some students initially experienced difficulties maintaining concentration during breathing exercises; however, they gradually became more capable of participating calmly and attentively. The classroom teacher also reported that the classroom atmosphere became more conducive after mindfulness activities were consistently implemented at the beginning of instruction.

Table 4. Stages of Mindfulness-Based Learning Implementation

Activity Stage	Mindfulness Activity	Duration
Opening Session	Breathing Awareness	3–5 minutes
Attention Focus	Mindful Listening	5 minutes
Emotional Reflection	Emotional Reflection	5 minutes
Positive Reinforcement	Gratitude Practice	3–5 minutes

Classroom observation results demonstrated initial behavioral changes among students during the learning process. Several students appeared more prepared to participate in classroom instruction, more attentive while listening to teachers' explanations, and calmer when interacting socially with peers. Furthermore, teachers observed that minor peer conflicts gradually decreased after mindfulness-based learning was consistently implemented.

Table 5. Initial Observation Results of Mindfulness Implementation

Observation Aspect	Initial Findings
Learning focus	Students became more attentive to teacher instructions
Emotional regulation	Students appeared calmer during minor disturbances
Social interaction	Peer communication became more positive
Classroom participation	Students became more active in group discussions

Teachers' reflective notes indicated that mindfulness activities contributed to creating a more comfortable classroom atmosphere and encouraged students' emotional engagement in learning activities. Teachers also reported that students became easier to guide after participating in mindfulness practices, particularly during collaborative learning and group discussions.

3. Effects of Mindfulness-Based Learning on Students' Social-Emotional Skills

Following the eight-week implementation of mindfulness-based learning, a final assessment (*post-test*) was conducted to examine changes in students' social-emotional skills in both the experimental and control groups. Data analysis was performed using descriptive statistics and inferential statistical analyses through *paired sample t-tests* and *independent sample t-tests* using IBM SPSS Statistics version 27.

The descriptive statistical analysis revealed a substantial increase in the mean social-emotional skill scores of students in the experimental group following the mindfulness intervention. The experimental group's mean score increased from 71.34 to 84.56, whereas the control group showed only a slight increase from 70.91 to 73.18. These findings indicate that mindfulness-based learning positively influenced students' social-emotional development.

Table 6. Group Statistics

Group	N	Mean	Std. Deviation	Std. Error Mean
Experimental (Post-Test)	32	84.56	5.41	0.956
Control (Post-Test)	32	73.18	6.02	1.064

In addition to the increase in mean scores, the percentage of improvement in students' social-emotional scores also demonstrated a considerable difference between the two groups. The experimental group experienced an 18.53% increase, while the control group improved by only 3.20%.

Table 7. Percentage of Score Improvement

Group	Pre-Test Mean	Post-Test Mean	Percentage Increase
Experimental	71.34	84.56	18.53%
Control	70.91	73.18	3.20%

The results of the *paired sample t-test* demonstrated a significant difference between the pre-test and post-test scores in the experimental group. The significance value of 0.000 (<0.05) indicates that mindfulness-based learning had a statistically significant effect on students' social-emotional skills.

Table 8. Paired Samples Test

Pair	Mean Difference	Std. Deviation	t	df	Sig. (2-tailed)
Experimental Pre-Test - Post-Test	-13.22	4.18	-17.891	31	0.000

Furthermore, the results of the *independent sample t-test* comparing the experimental and control groups on the post-test data revealed a significance value of 0.000 (<0.05). This finding indicates a statistically significant difference between students who participated in mindfulness-based learning and those who experienced conventional classroom instruction.

Table 9. Independent Samples Test (SPSS Output)

Variable	t	df	Sig. (2-tailed)	Mean Difference
Post-Test Experimental vs Control	7.963	62	0.000	11.38

In addition to significance testing, the study also calculated the effect size using Cohen's *d* to determine the magnitude of the mindfulness intervention effect. The analysis indicated a large effect size, suggesting that mindfulness-based learning had a substantial impact on improving elementary students' social-emotional skills. The

Cohen's *d* value should be interpreted based on the standardized effect size criteria proposed by Cohen, where values above 0.80 indicate a large effect.

Table 10. Effect Size Analysis

Variable	Cohen's <i>d</i>	Interpretation
Mindfulness Learning Intervention	0,87	Large Effect

Classroom observations conducted during the learning process also revealed noticeable improvements in students' social-emotional behaviors. Most students in the experimental group appeared more focused during classroom instruction, more capable of regulating emotions during minor peer conflicts, and more actively engaged in collaborative discussions. Teachers additionally reported improvements in students' abilities to follow instructions and develop more positive interpersonal communication after the consistent implementation of mindfulness activities.

4. Changes in Emotional Regulation and Social Interaction

Throughout the implementation of mindfulness-based learning, the researcher identified several gradual changes in students' social-emotional behaviors within the experimental group. These changes were particularly evident in students' ability to maintain learning focus, regulate emotions, and develop more positive social interactions during classroom activities. The findings were obtained through classroom observations, teachers' reflective notes, and semi-structured interviews conducted throughout the study.

During the initial weeks of implementation, several students still demonstrated distractibility, limited concentration during classroom instruction, and impulsive behavior when interacting with peers. However, after mindfulness activities were consistently practiced, teachers began to observe improvements in students' attention to classroom instructions and reductions in emotionally reactive behaviors. Most students appeared calmer when facing frustrating situations, such as making mistakes during assignments or encountering disagreements in group discussions.

Classroom observations indicated that *breathing awareness* and *mindful listening* activities helped students establish a more focused and conducive learning atmosphere. Students appeared more prepared to participate in classroom learning after engaging in conscious breathing exercises before instruction began. In addition,

students demonstrated improved listening abilities by paying attention to peers without interrupting during group discussions.

Table 11.
Findings of Changes in Students' Social-Emotional Behaviors

Aspect of Change	Observational Findings
Learning focus	Students became more attentive to teacher instructions and less distracted
Emotional regulation	Students appeared calmer when facing minor conflicts or assignment difficulties
Social interaction	Peer communication became more positive and cooperative
Classroom participation	Students became more active in discussions and group activities
Self-control	Students showed greater ability to wait for their turn to speak

In addition to classroom observations, teachers also reported behavioral changes through reflective interviews conducted during the study. Teachers explained that the classroom atmosphere became more stable and students appeared easier to guide after mindfulness activities were consistently implemented.

Teacher Interview Excerpts

"Before mindfulness activities were introduced, several students had difficulty focusing and reacted easily to small classroom disturbances. After several weeks, the students appeared calmer and more prepared to participate in learning activities." (Experimental Classroom Teacher)

"I noticed that students gradually learned how to listen to their peers during group discussions. Minor conflicts between students also decreased compared to before the intervention." (Experimental Classroom Teacher)

Additional observational findings revealed that students began to demonstrate stronger self-reflection abilities regarding their emotional conditions. When teachers asked students to identify their feelings before classroom instruction, several students were able to express their emotions more openly and appropriately. This finding

suggests that emotional reflection activities within mindfulness-based learning contributed to enhancing students' emotional awareness.

Table 12. Summary of Observation and Interview Findings

Indicator	Before Intervention	After Intervention
Learning focus	Easily distracted	More focused and calm
Emotional response	Reactive and impulsive	More controlled
Social interaction	Passive and individualistic	More cooperative
Interpersonal communication	Frequently interrupted others	Demonstrated better listening skills

Overall, the observation and interview findings demonstrate that mindfulness-based learning not only improved students' statistical social-emotional skill scores but also produced meaningful behavioral changes in everyday classroom life. These changes indicate that mindfulness practices can contribute to creating a more positive, calm, and socially supportive learning environment for elementary school students.

Discussion

1. Mindfulness and the Development of Social-Emotional Skills

The findings of this study demonstrated that mindfulness-based learning significantly contributed to the improvement of elementary students' social-emotional skills. The improvements were reflected in students' self-awareness, emotional regulation, social interaction abilities, and engagement in classroom learning activities. These findings reinforce the perspective that mindfulness is not merely a relaxation technique, but also a pedagogical approach capable of supporting students' holistic social-emotional development.

The improvement of students' social-emotional competencies in this study is consistent with the findings of Joseph A. Durlak et al. (2022), who emphasized that school-based social-emotional learning programs positively influence students' emotional development, social relationships, and behavioral outcomes. Mindfulness-based learning helps students develop awareness of their thoughts, emotions, and behaviors, enabling them to respond to situations more reflectively rather than reactively. This condition was evident in students' behavioral changes, as they became more focused, calmer, and more cooperative during classroom activities.

The findings also support the study conducted by Angela L. Green et al. (2021), which demonstrated that the integration of SEL programs improves the quality of elementary students' social interactions. Furthermore, Katherine L. Kaspar and Massey (2023) argued that consistent implementation of social-emotional learning in

classrooms contributes to the creation of more supportive and collaborative learning environments.

Within the Indonesian educational context, the findings align with the study by Putri et al. (2024), which revealed that mindful education effectively improves students' mental well-being, academic achievement, and social skills. Similarly, Setyawan (2023) explained that mindfulness-based social-emotional learning helps students develop stronger self-awareness and more positive social relationship management. Therefore, mindfulness-based learning can be viewed as a holistic educational approach that supports the strengthening of elementary students' social-emotional competencies.

2. Mindfulness Practices and Students' Emotional Regulation

This study revealed that mindfulness practices play a significant role in enhancing students' emotional regulation abilities. Following the implementation of mindfulness-based learning, students appeared more capable of controlling emotional impulses, remaining calm when facing minor conflicts, and maintaining attention during classroom activities. These findings indicate that mindful awareness practices help students recognize and understand their emotional conditions before responding to particular situations.

The findings support the study conducted by Ali H. Hai et al. (2021), which found that the MindUP program positively influenced elementary students' classroom behaviors, particularly in attention and self-control. In addition, the research by Kristin Eichel et al. (2021) demonstrated that mindfulness practices are strongly associated with improved emotional well-being and reduced stress-related behaviors among children.

In the context of Indonesian elementary education, the findings reinforce the study by Krismayanti (2024), which concluded that mindfulness-based learning supports the development of ethics and behavioral self-control among elementary students. Similarly, Galuh et al. (2025) reported that integrating mindfulness into character education contributes positively to students' emotional regulation development. Moreover, Warahma et al. (2025) found that mindfulness-based learning implementation helps improve students' emotional calmness during classroom learning activities.

The emotional regulation improvements identified in this study were also reflected in students' enhanced listening skills, reduced impulsive behaviors, and more positive interpersonal communication. These findings indicate that mindfulness practices influence not only students' intrapersonal development but also the quality of social relationships within the classroom environment.

3. Mindfulness-Based Learning in the Context of Islamic Elementary Education

One of the major contributions of this study lies in the implementation of mindfulness-based learning within the context of Islamic elementary education. Most previous mindfulness studies have been conducted in general educational settings within Western countries, whereas this study demonstrates that mindfulness approaches are also relevant and applicable within Islamic educational environments in Indonesia.

In Islamic school contexts, mindfulness practices are closely related to values such as self-reflection, spiritual awareness, self-control, and positive character formation. Activities such as breathing awareness, emotional reflection, and gratitude practice not only help students improve focus and emotional regulation but also support the development of self-awareness aligned with Islamic character education values.

These findings are consistent with the study by Faizah and Liliana (2025), which explained that strengthening students' social-emotional competencies contributes to improving their psychological well-being. Furthermore, Astuti et al. (2025) found that mindfulness activities positively affect students' emotional intelligence and tolerance character development. Therefore, implementing mindfulness within Islamic education may serve as an innovative educational approach that supports more humanistic and reflective social-emotional character development among students.

The findings also revealed that students became more respectful toward peers, more patient in social interactions, and more open in expressing their emotions during classroom learning activities. These results indicate that mindfulness-based learning has strong potential to support the creation of more inclusive, empathetic, and emotionally supportive learning cultures.

4. Educational Implications

This study provides important implications for the development of social-emotional learning in elementary education. First, the findings demonstrate that mindfulness-based learning can be utilized as an instructional strategy to help students develop learning focus, emotional regulation, and social skills more effectively. Therefore, teachers should consider integrating simple mindfulness activities into daily classroom routines.

Second, the successful implementation of mindfulness in this study highlights the importance of teacher competence in creating supportive and emotionally responsive learning environments. This finding supports the study conducted by Brett G. Gimbert et al. (2023), which emphasized the critical role of educator competence in the successful implementation of social-emotional learning in schools.

Third, mindfulness-based learning may serve as an alternative educational approach in the digital era, during which students increasingly face academic

pressure, technological distractions, and mental health challenges. Luthfiyah and Muniroh (2024) explained that mindfulness-based learning strategies can contribute to improving students' mental health in the digital age. Consequently, integrating mindfulness into elementary school curricula may support the development of emotionally healthier learning environments.

In addition, the findings demonstrated that mindfulness implementation contributed to creating more positive classroom climates and improving the quality of social relationships among students. This condition is particularly important because elementary students' social-emotional development significantly influences academic readiness and long-term psychological growth. This finding is also aligned with the study by Tazkia and Damayanti (2024), which emphasized the importance of social-emotional development among elementary-age children within school environments.

5. Limitations and Future Research Directions

Although this study demonstrated positive findings, several limitations should be acknowledged. First, the study was conducted in only one Islamic elementary school with a relatively limited sample size; therefore, the generalizability of the findings remains limited. Second, the implementation period of mindfulness-based learning lasted only eight weeks, which may not fully represent the long-term effects of mindfulness practices on students' social-emotional development.

In addition, this study primarily focused on students' general social-emotional skills and did not specifically explore the effects of mindfulness on other dimensions such as academic achievement, psychological well-being, or family relationships. Future studies are recommended to involve larger sample sizes, more diverse educational contexts, and longitudinal approaches to gain deeper insights into the long-term impacts of mindfulness-based learning.

Future research may also explore the integration of mindfulness into character education curricula, religious education, and technology-based learning environments. Furthermore, the development of teacher training models related to mindfulness implementation in elementary schools represents an important research direction for supporting the sustainability of social-emotional learning practices within educational settings.

Conclusion

This study concludes that mindfulness-based learning has a significant positive effect on the social-emotional skills of elementary school students at SD Al Madinah Islamic Center KKMB BSD South Tangerang. The implementation of mindfulness activities integrated into classroom learning significantly improved students' emotional regulation, learning focus, self-control, and social interaction abilities. Statistical findings revealed significant differences between the experimental and

control groups with a significance value of 0.000 ($p < 0.05$) and a large effect size (Cohen's $d = 1.87$), indicating that mindfulness-based learning contributed strongly to the enhancement of students' social-emotional competencies. In addition to improving quantitative scores, mindfulness practices also produced observable behavioral changes, including calmer emotional responses, more positive peer communication, and increased classroom participation. These findings demonstrate that mindfulness-based learning effectively supports both intrapersonal and interpersonal development among elementary school students within the context of Islamic elementary education.

Practically, this study recommends that teachers and schools integrate simple mindfulness activities such as breathing awareness, emotional reflection, mindful listening, and gratitude practice into daily classroom routines to create more emotionally supportive and student-centered learning environments. Schools may also consider providing teacher training programs related to mindfulness-based learning and social-emotional development. For future research, several directions are recommended: (1) conducting longitudinal studies to examine the long-term effects of mindfulness practices on students' social-emotional and academic development, (2) involving larger and more diverse samples across different educational settings to improve generalizability, and (3) exploring the integration of mindfulness-based learning within character education, digital learning environments, and Islamic education curricula.

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