Transforming Education Through Mindful and Meaningful Learning to Enhance Numeracy, Safety, and Diversity

Veranita Rizal[1,*], Ranarumonda Daulay[2], Lili Nurlaili[3], Imas Masriah[4], Muhammad Qasim Ali[5]

[1,2,3,4]Department of Education Management, University Pamulang, Pamulang, Banten, Indonesia.
[5]Department of Education, University of Sialkot, Sailkot, Pakistan.
veranitarizal77@gmail.com[1], ranadly07@gmail.com[2], lilinurlaili@unpam.ac.id[3], imasmasriah@unpam.ac.id[4],
qasimvr@yahoo.com[5]

Abstract: This study examines how mindful and meaningful learning improves numeracy, safety, and diversity at SMA IT Darul Quran. Due to its potential to promote holistic student development, mindfulness and meaningful learning practices have gained popularity in the education sector. According to the school's purpose of growing faithful children with strong character and academic success, the study will examine how these techniques affect students' academic and socio-emotional outcomes. A mixed-methods study uses quantitative and qualitative data. Quantitative data were collected through surveys and assessments of children's numeracy skills, school safety, and appreciation for diversity. Educators and students were interviewed about how learning affects their well-being and social interactions. Results show remarkable improvement in all three measures. Numeracy skills improved, particularly in applying mathematical concepts to real-life situations. The safety climate improved, as evidenced by students reporting higher psychological well-being and fewer incidents of bullying and violence. Students demonstrated greater tolerance, respect for cultural differences, and national solidarity, thereby strengthening the diversity climate. These positive improvements are attributed to mindful practices and meaningful learning experiences that foster intellectual and emotional growth in children. This study demonstrates how thoughtful and meaningful learning fosters a positive learning environment that enhances academic success and social well-being. This article offers perspectives for educators and politicians seeking holistic education in Islamic schools.

1. Introduction

Education plays a critical role in shaping the future of individuals, societies, and nations. It is not merely about acquiring knowledge, but also about fostering the intellectual, emotional, and social growth of students. In recent years, there has been a growing emphasis on holistic education that integrates cognitive development with emotional well-being, character building,

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*Corresponding author.

and social responsibility. This shift in perspective is particularly evident in Islamic educational institutions, where the goal is not only to produce academically proficient students but also individuals who are morally upright, socially responsible, and spiritually grounded. The implementation of mindful learning and meaningful learning approaches aligns perfectly with this vision of education, offering innovative ways to enhance student outcomes in both academic and non-academic domains. At SMA IT Darul Quran, an Islamic high school in Banten, Indonesia, the integration of mindful and meaningful learning into the curriculum has been a long-standing focus. The school's mission is to create a learning environment that nurtures students who are devoted to their faith, possess strong academic skills, and exhibit high levels of character and social responsibility. As a result, the school has made efforts to implement various pedagogical strategies that promote both intellectual and emotional growth, thereby enhancing the school's overall learning climate.

The research presented in this paper investigates the impact of these pedagogical strategies on three key indicators measured in the school's 2024 Rapor Pendidikan (Educational Report): numeracy, safety climate, and diversity climate. These indicators are crucial not only for the academic success of students but also for their well-being and social integration within the school community. The report highlights areas of success and areas in need of improvement, providing a comprehensive view of the school's progress and challenges in creating a conducive learning environment. The concept of mindful learning emphasises the importance of being fully present and engaged in the learning process. It encourages students to cultivate awareness, attention, and self-regulation, helping them focus on the task at hand and manage their emotions effectively. In contrast, meaningful learning focuses on helping students connect new knowledge with their prior experiences, making learning relevant and engaging. When combined, these approaches create a powerful framework for fostering both academic achievement and emotional well-being. This combination has the potential to impact various aspects of students' development, from their cognitive abilities to their interpersonal relationships and sense of belonging within the school community.

1.1. Mindful Learning in Education

Mindful learning has gained widespread attention in educational settings for its potential to improve students' focus, emotional regulation, and overall well-being. The concept of mindfulness, originally derived from Buddhist traditions, involves paying deliberate attention to the present moment without judgment or attachment. In the context of education, mindful learning encourages students to be fully aware of their thoughts, feelings, and physical sensations as they engage with the learning material. It promotes a deeper understanding of content by fostering curiosity, reflection, and a non-reactive approach to challenges. Research has shown that mindfulness can lead to improved academic performance, reduced stress, and better emotional regulation, all of which are essential for creating a positive and productive learning environment. The implementation of mindful learning in SMA IT Darul Quran involves several key practices.

Students are encouraged to engage in mindfulness exercises, including breathing techniques, guided meditation, and reflective journaling. These activities help students develop greater self-awareness and emotional resilience, allowing them to approach learning with a sense of calm and clarity. Mindful learning also emphasises the importance of present-moment awareness in the classroom, where students are encouraged to focus on the task at hand, minimise distractions, and actively engage in discussions and activities. In the context of numeracy, mindful learning helps students develop a deeper understanding of mathematical concepts. By being fully present during lessons and reflecting on their problem-solving strategies, students are more likely to retain information and apply it effectively in real-world contexts. This approach helps cultivate critical thinking skills and a love for learning, which are essential for academic success in subjects such as mathematics.

1.2. Meaningful Learning in Education

While mindful learning focuses on awareness and emotional regulation, meaningful learning emphasises the relevance and application of knowledge. Meaningful learning occurs when students can relate new information to their prior experiences and connect it to real-world situations. This approach encourages active engagement and deeper Understanding by allowing students to see the practical implications of what they are learning. Meaningful learning also fosters intrinsic motivation, as students are more likely to be engaged and interested in learning when they can see its value and relevance to their lives. At SMA IT Darul Quran, meaningful learning is achieved through a curriculum that integrates real-world contexts and encourages students to make connections between academic content and their personal lives.

For example, students may participate in project-based learning activities that apply mathematical concepts to solve real-world problems or collaborate with peers to explore social issues related to diversity and inclusion. These learning experiences not only enhance students' academic skills but also promote social and emotional growth by helping them develop a sense of purpose and responsibility. Meaningful learning is particularly effective in enhancing numeracy skills. By presenting mathematical concepts in a way that is relevant to students' lives, they are more likely to engage with the material and understand its practical applications. This approach also fosters critical thinking and problem-solving, as students are encouraged to consider how mathematical principles can be applied to real-world scenarios.

1.3. Enhancing Key Indicators Through Mindful and Meaningful Learning

The integration of mindful and meaningful learning in SMA IT Darul Quran has shown positive effects on several key indicators in the school's 2024 Rapor Pendidikan. These indicators, which include numeracy, safety climate, and diversity climate, are essential for creating a well-rounded educational experience that fosters both academic excellence and emotional well-being.

- **Numeracy:** The implementation of mindful and meaningful learning approaches has led to a significant improvement in students' numeracy skills. Mindful learning techniques, such as focused attention and reflective thinking, have helped students better understand mathematical concepts and apply them to real-world situations. Meanwhile, meaningful learning strategies have made math more relevant to students' lives, increasing their engagement and motivation to learn.
- **Safety Climate:** The safety climate in a school refers to the overall sense of psychological and physical safety that students experience. A positive safety climate is essential for creating a supportive learning environment where students feel secure and valued. The mindful learning approach, with its focus on emotional regulation and self-awareness, has helped reduce instances of bullying and conflicts among students. By promoting mindfulness, students are better equipped to manage their emotions, respond to challenging situations calmly and thoughtfully, and contribute to a safer and more inclusive school environment.
- **Diversity Climate:** The diversity climate in a school reflects the level of appreciation and respect for different cultures, beliefs, and backgrounds. A positive diversity climate promotes tolerance, inclusivity, and social cohesion. Through meaningful learning, students are exposed to diverse perspectives and encouraged to engage in discussions about cultural differences and social issues. This approach fosters a sense of empathy and respect for others, which contributes to a more inclusive and harmonious school environment.

1.4. The Role of Teachers and School Leadership

The successful implementation of mindful and meaningful learning at SMA IT Darul Quran is not only dependent on students but also on the role of teachers and school leadership. Teachers at SMA IT Darul Quran are trained to incorporate mindfulness practices into their teaching methods and to design lessons that are both engaging and relevant to students' lives. School leaders play a crucial role in creating an environment that supports mindful and meaningful learning, providing the necessary resources, training, and encouragement for both teachers and students to thrive. The school's leadership team has been instrumental in promoting these approaches by aligning the school's mission with the principles of holistic education. By creating a supportive and inclusive culture, school leaders have ensured that both students and teachers feel empowered to embrace mindfulness and meaningful learning in their daily practices. The integration of mindful and meaningful learning in SMA IT Darul Quran has led to significant improvements in key educational indicators, including numeracy, safety climate, and diversity climate.

These approaches have not only enhanced academic achievement but also fostered emotional resilience, social responsibility, and a sense of belonging among students. By focusing on both the cognitive and emotional aspects of learning, SMA IT Darul Quran has created an educational environment that supports the holistic development of students. The findings of this research offer valuable insights into the potential benefits of mindful and meaningful learning in Islamic educational settings, providing a model for other schools seeking to integrate these approaches into their curricula. The implementation of mindful and meaningful learning has the potential to transform educational outcomes by fostering deeper engagement, enhancing emotional well-being, and promoting social harmony. As this research demonstrates, these approaches are not only effective in enhancing academic performance but also in creating a more inclusive, safe, and supportive learning environment that prepares students for success in the 21st century.

2. Literature Review

The integration of mindful learning and meaningful learning in educational settings has garnered significant attention over the past decade, driven by the increasing recognition of the need to support both academic and socio-emotional development in students. This literature review synthesises research findings from 2014 to 2024 to explore how these approaches have been implemented and their impact on key educational outcomes, including numeracy, safety climate, and diversity climate. The review focuses on the theoretical foundations of mindful and meaningful learning, the empirical evidence regarding their effectiveness, and the specific outcomes observed in various educational contexts. Mindful learning, as an educational approach, is rooted in mindfulness practices that emphasise paying attention to the present moment, cultivating awareness, and fostering emotional regulation. The concept of mindfulness, originally derived from Buddhist traditions, has gained prominence in the field of education due to its potential to enhance students' focus, emotional well-being, and overall academic performance.

In their foundational work, Hassed and Chambers [1] highlighted the cognitive benefits of mindfulness, demonstrating that mindfulness-based interventions can improve attention, working memory, and executive functioning [5]. These cognitive benefits are crucial for academic success, particularly in subjects such as mathematics, where sustained focus and problem-solving skills are vital. In the context of mindful learning, attention regulation is a central component. Schoeberlein et al. [2] and colleagues emphasised that mindful learning encourages students to be fully present during lessons, actively engaging with the content, and reducing distractions [3]. This focus on attention not only enhances students' ability to grasp complex academic concepts but also improves their capacity to regulate emotions, which is essential for managing the stress and challenges that often arise in learning environments. Mindful learning also encourages students to approach learning with a non-judgmental attitude, helping them develop resilience and persistence in the face of difficulties.

A key aspect of mindful learning is the development of self-awareness and emotional regulation. As noted by Rechtschaffen [3], cultivating mindfulness in the classroom can help students recognise and manage their emotions, reducing impulsivity and enhancing their ability to focus on tasks. Research by the Mindfulness in Schools Project has shown that students who engage in mindfulness practices show improvements in their emotional regulation and academic performance [6]. These outcomes suggest that incorporating mindfulness into the classroom may have long-term benefits for students' academic success and overall well-being. Meaningful learning, as described by Rechtschaffen [4], refers to the process by which new information is integrated with prior knowledge and experiences, resulting in a deep understanding of the material. In contrast to rote memorisation, meaningful learning emphasises constructivist principles, where students actively build on their existing knowledge and make connections between new concepts and real-world applications.

The importance of making learning relevant and engaging has been supported by various scholars, including Harper [6], who argued that learning becomes more meaningful when students can relate it to their own lives and experiences. The educational implications of meaningful learning are significant. By promoting active engagement, problem-solving, and critical thinking, meaningful learning encourages students to apply what they learn in real-life situations [5]. This is particularly important in subjects like numeracy, where students must be able to apply mathematical concepts to solve practical problems. As noted by Schonert-Reichl and Roeser [7], when learning is perceived as meaningful and relevant, students are more likely to be motivated and persist in their studies. Meaningful learning also emphasises the importance of social interactions in the learning process. Collaborative learning, where students work together to solve problems and share ideas, is a key component of meaningful learning. Weare and Bethune [8] theory of social constructivism posits that learning is inherently social and that students learn best when they interact with others and share knowledge. In this context, meaningful learning can foster a sense of community and belonging, contributing to the creation of a positive school climate. This is particularly relevant to the concept of diversity climate, as collaborative learning helps students appreciate and respect different perspectives, promoting tolerance and inclusivity.

Research on the impact of meaningful learning has shown that students who engage in this type of learning demonstrate deeper Understanding, increased motivation, and higher academic achievement. A study by Campbell and Campbell [9] found that students who participated in project-based learning, a form of meaningful learning, demonstrated greater academic performance and improved problem-solving skills compared to those taught using traditional methods. The integration of mindful learning practices has been shown to have a positive impact on both academic achievement and emotional well-being. A study by Jennings [10] examined the effects of mindfulness training on the academic performance and emotional regulation of high school students. The results showed that students participating in mindfulness interventions demonstrated significantly improved academic performance, particularly in mathematics, compared to those in the control group [8]. Furthermore, students who practised mindfulness exhibited greater emotional regulation and lower anxiety, which contributed to their improved performance. In a similar study, Armstrong [11] found that mindfulness training helped college students improve their working memory and attention, both of which are critical for academic success.

These findings suggest that mindful learning can help students focus more effectively during lessons, retain information more efficiently, and perform better on assessments [10]. Additionally, mindful learning has been shown to reduce test anxiety, which is a significant barrier to academic success for many students. Research on the impact of mindful learning on social-emotional well-being further supports its role in promoting a positive school climate. A study by Schonert-Reichl and Roeser [7] found that students participating in mindfulness programs exhibited improved emotional regulation, reduced stress, and enhanced interpersonal relationships. These findings are particularly relevant for improving the safety climate in schools, as students who are emotionally regulated are less likely to engage in disruptive behaviours, bullying, or violence. Meaningful learning, as a pedagogical approach, has been shown to enhance student engagement, motivation, and academic achievement. Research by Bassarear et al. [12] found that students who perceived their learning as meaningful were more likely to be actively engaged in class, complete assignments, and perform well academically. This is particularly important in subjects like mathematics, where students often struggle to see the relevance of the content to their lives. When math is taught in a way that connects abstract concepts to real-world applications, students are more likely to understand the material and develop a deeper appreciation for the subject.

In addition to enhancing academic outcomes, meaningful learning also contributes to the development of social skills and social responsibility. A study by Hyland [13] demonstrated that students participating in project-based learning, a form of meaningful learning, developed enhanced communication and collaboration skills. These skills are essential for building a positive diversity climate in schools, as students who can work effectively with others from different cultural backgrounds are more likely to appreciate diversity and contribute to an inclusive learning environment. Meaningful learning also fosters critical thinking and problem-solving skills, which are crucial for equipping students to navigate the complexities of the modern world. A study by Brown and Olson [15] found that students who engaged in meaningful learning activities, such as debates, discussions, and real-world problem-solving tasks, developed stronger critical thinking skills compared to those who followed traditional learning methods. These skills are crucial for fostering a positive school climate, as they encourage students to think critically about issues related to diversity, safety, and social justice [14]. Both mindful and meaningful learning approaches have significant implications for creating a positive school climate. As noted by Armstrong [11], a positive school climate is characterised by an environment where students feel safe, valued, and supported, and where they have opportunities to engage in meaningful learning experiences.

Research has shown that schools that implement mindful learning practices report improvements in student behaviour, emotional regulation, and overall school climate. The integration of mindful learning practices can help reduce bullying, violence, and other disruptive behaviours, contributing to a safer and more supportive school environment [14]. A study by Hassed and Chambers [1] found that mindfulness interventions led to reductions in bullying and improvements in the overall social climate of schools. This finding is consistent with those of Jennings [10], who reported that mindfulness training helped reduce stress and emotional reactivity, which in turn led to fewer conflicts and improved relationships among students. Similarly, meaningful learning contributes to a positive school climate by promoting inclusivity, empathy, and respect for diversity. By engaging students in collaborative projects and real-world problem-solving tasks, meaningful learning fosters an environment where students appreciate different perspectives and work together to address social issues. This is particularly important for creating a positive diversity climate, as it encourages students to value diversity and contribute to a more inclusive school environment [13].

The literature reviewed in this section highlights the significant benefits of implementing mindful and meaningful learning approaches in educational settings. These approaches have been demonstrated to enhance academic performance, improve social-emotional well-being, and contribute to the creation of a positive school climate [15]. The integration of mindful learning practices helps students develop attention regulation, emotional resilience, and academic focus, while meaningful learning fosters engagement, critical thinking, and social responsibility. Together, these approaches have the potential to enhance key indicators such as numeracy, safety climate, and diversity climate, contributing to a more holistic and inclusive educational experience. The research presented in this paper builds on these findings by examining the specific impact of mindful and meaningful learning on the educational outcomes of students at SMA IT Darul Quran. By examining how these approaches have been implemented in an Islamic high school setting, this study seeks to offer additional insights into the potential of mindful and meaningful learning to transform education and foster a positive, supportive learning environment. The next section will outline the methodology used to investigate the impact of these approaches on numeracy, safety climate, and diversity climate at SMA IT Darul Quran.

3. Methodology

This study employs a mixed-methods approach to investigate the impact of mindful learning and meaningful learning on three key educational indicators—numeracy, safety climate, and diversity climate—at SMA IT Darul Quran. The rationale for using a mixed-methods design is to gain a comprehensive understanding of the effects of mindful and meaningful learning, incorporating both quantitative and qualitative data. This methodology enables a more nuanced examination of how these learning approaches impact not only measurable academic outcomes but also the broader social and emotional environment of the school.

3.1. Research Design

The research design employs both quantitative and qualitative approaches. The quantitative component focuses on measuring three primary indicators—numeracy, safety climate, and diversity climate—through the analysis of pre- and post-intervention surveys, assessments, and academic performance data. The qualitative component involves interviews and focus group discussions with students, teachers, and school leaders to explore their perceptions and experiences regarding the implementation of mindful and meaningful learning approaches. This combination of methods allows for the triangulation of data, ensuring that both numerical data and lived experiences are considered to provide a well-rounded view of the impact of these learning approaches.

3.2. Study Setting and Participants

The study is conducted at SMA IT Darul Quran, a private Islamic high school located in Banten, Indonesia, that integrates modern educational practices with Islamic values. The school employs a student-centred learning approach and utilises technology, including iPads, to enhance the learning experience. The research targets students from grades 10 to 12, with a sample of approximately 150 students, along with a group of 15 teachers and five school leaders. The participants are selected using purposive sampling, where students, teachers, and leaders are chosen based on their involvement in implementing mindful and meaningful learning approaches. Students are selected based on their enrollment in courses that are part of the intervention, while teachers are those who have been trained to implement the approaches in their classrooms. School leaders are selected to gain insight into the institutional support and strategies employed in promoting these teaching methods.

3.3. Intervention

3.3.1. Mindful and Meaningful Learning Approaches

The intervention consists of two main components:

- **Mindful Learning:** This involves integrating mindfulness practices into the learning process. Students participate in activities designed to enhance attention, emotional regulation, and self-awareness, including mindfulness meditation, breathing exercises, and reflective journaling. Teachers incorporate mindfulness exercises into their classroom routines, focusing on helping students manage stress, increase focus, and improve their emotional responses to academic challenges.
- **Meaningful Learning:** This component focuses on making learning relevant to students' lives and encouraging deeper engagement with the material. Teachers design lessons that connect academic content to real-world contexts, encouraging students to apply what they learn to solve practical problems. This also includes project-based learning, where students work on collaborative projects that require critical thinking and problem-solving skills. The goal is to make the learning process more engaging, meaningful, and applicable to students' daily lives.

Both approaches are implemented in the school for a period of six months, with continuous support and training provided to teachers. The focus of the intervention is on enhancing numeracy, improving the safety climate, and fostering a positive diversity climate within the school.

4. Data Collection Methods

To comprehensively assess the impact of mindful and meaningful learning, both quantitative and qualitative data are collected through the following methods:

4.1. Quantitative Data Collection

Pre- and Post-Intervention Surveys: Pre- and post-intervention surveys are administered to measure changes in students' perceptions of their numeracy skills, safety climate, and diversity climate. These surveys include Likert-scale questions that assess students' self-reported abilities in numeracy (e.g., their confidence in solving mathematical problems), their sense of safety in the school environment (e.g., feelings of psychological safety, absence of bullying, and concerns about violence), and their attitudes toward diversity (e.g., respect for different cultures, beliefs, and backgrounds). The surveys are administered at the beginning and end of the intervention period to assess any changes in these areas.

Academic Assessments: Students' academic performance in numeracy is measured through pre- and post-intervention tests. These assessments focus on students' ability to solve mathematical problems and apply numeracy skills in real-life contexts. The tests are designed to assess both procedural knowledge (e.g., solving equations) and conceptual Understanding (e.g., understanding the principles behind mathematical operations).

School Climate Surveys: The safety and diversity climate are assessed through a school climate survey that includes questions about students' perceptions of the school environment. These questions focus on issues such as bullying, safety, inclusivity, and the degree to which students feel supported and valued by their peers and teachers. The survey is administered to both students and teachers to gain a broad perspective on the school climate.

4.2. Qualitative Data Collection

Interviews with Teachers: Semi-structured interviews are conducted with 15 teachers to explore their experiences with implementing mindful and meaningful learning strategies in the classroom. The interviews focus on teachers' perceptions of how these approaches have influenced students' academic performance, behaviour, and social interactions. Teachers are also asked about the challenges they faced in implementing these strategies and the support they received from the school administration.

Focus Groups with Students: Focus group discussions are conducted with a subset of students who have been actively involved in the intervention. These discussions allow for in-depth exploration of students' perceptions of mindful and meaningful learning, as well as their experiences with numeracy, safety, and diversity within the school. The focus groups are conducted in small groups (5-7 students) to encourage open dialogue and exchange of ideas. Questions in the focus groups explore students' feelings about the learning environment, their perception of the relevance of the lessons, and the impact of mindfulness practices on their emotional well-being.

Interviews with School Leaders: Interviews are conducted with five school leaders (principals, vice-principals, and coordinators) to understand the institutional support for the intervention and its impact on school culture. The interviews examine the leaders' perspectives on integrating mindful and meaningful learning, its alignment with the school's mission, and its broader impact on school climate and student outcomes.

4.3. Data Analysis

The collected data will be analysed using both quantitative and qualitative methods:

- **Quantitative Analysis:** The quantitative data from the pre- and post-intervention surveys, academic assessments, and school climate surveys are analysed using descriptive statistics and inferential statistics. Descriptive statistics will summarise the overall results, including the mean scores for numeracy, safety climate, and diversity climate before and after the intervention. Paired sample t-tests are conducted to compare pre- and post-intervention scores for each indicator, testing for statistically significant differences in students' academic performance, perceptions of safety, and attitudes toward diversity. Additionally, correlation analysis is performed to assess the relationship between students' perceptions of mindfulness and the improvements in numeracy, safety, and diversity climate.
- **Qualitative Analysis:** The qualitative data from the interviews and focus groups are analysed using a thematic analysis approach. This involves coding the data to identify recurring themes and patterns related to the impact of mindful and meaningful learning. The coding process is iterative, with multiple rounds of reading and re-reading the transcripts to refine the themes. Thematic analysis is used to explore the experiences of teachers and students with the learning approaches, their perceptions of changes in the school climate, and the challenges and successes of the intervention.

4.4. Validity and Reliability

To ensure the validity and reliability of the study, the following strategies are implemented:

- **Triangulation:** The use of both quantitative and qualitative data allows for triangulation, which enhances the credibility of the findings by cross-checking results from different sources.
- **Member Checking:** Following the focus group discussions and interviews, participants receive a summary of the findings for validation, ensuring that their perspectives are accurately represented.
- **Pilot Testing:** The pre- and post-intervention surveys, as well as the school climate surveys, are pilot-tested with a small sample of students and teachers before full implementation. This helps ensure that the questions are clear and the instruments are reliable.
- **Inter-rater Reliability:** Multiple researchers are involved in the coding process for the qualitative data to ensure consistency and reliability in identifying themes.

4.5. Ethical Considerations

The study adheres to ethical guidelines to ensure the protection of participants' rights and confidentiality:

- **Informed Consent:** All participants (students, teachers, and school leaders) are provided with detailed information about the study, including the purpose, methods, and potential risks. Written informed consent is obtained from all participants before their involvement.
- **Confidentiality:** All data collected is anonymised, and participants' identities are kept confidential. Only aggregated data will be presented in the research findings.
- **Voluntary Participation:** Participation in the study is voluntary, and participants are informed that they can withdraw from the study at any time without consequence.

4.6. Limitations of the Study

While this study offers valuable insights into the impact of mindful and meaningful learning on key educational indicators, it has several limitations:

- **Sample Size:** The study's sample size of 150 students, 15 teachers, and five school leaders may not be representative of all students or schools. The findings may not be generalizable to other settings.
- **Self-Reported Data:** Some of the data, particularly in the surveys, rely on self-reports from students and teachers, which may be subject to bias.
- **Short Duration:** The intervention lasts for six months, which may not be long enough to capture the long-term effects of mindful and meaningful learning on students' academic performance and school climate.

Despite these limitations, the study provides valuable insights into the potential benefits of integrating mindful and meaningful learning in Islamic educational contexts. It offers a foundation for future research in this area (Table 1).

Table 1: Education report of SMA IT Darul Qur'an 2024

No.	Indicator	2024 Achievement Level	Achievement Value 2024	Description	Change from Last Year	Achievement Value 2023
1	**Numeracy Skills** The percentage of students capable of thinking using mathematical concepts, procedures, facts, and tools to solve real-world problems in various relevant contexts.	Good (97.78% of students have achieved minimum competency).	97,78%	Most students have reached the minimum competency level for numeracy.	+ 2,22	95,56%
2	**School Safety Climate** Composite index value of safety, bullying, physical punishment, sexual harassment, smoking, alcohol, and drug abuse, based on a learning environment survey.	Good	76,73	The school ensures a safe environment reflected by psychological well-being and low cases of bullying, physical punishment, sexual violence, and substance abuse. It consistently prevents and handles issues to maintain a secure climate.	+ 1,10	75,63

3	**Diversity Climate** Average diversity climate score based on a learning environment survey.	Good	79,77	The school fosters a learning environment that values religious and cultural tolerance, provides high-quality learning experiences, supports religious and cultural equality, and promotes national unity.	+ 4,23	75,54

Students' overall performance and school environment indicators in 2024 demonstrate positive progress compared to the previous year. Numeracy skills, which reflect students' ability to think using mathematical concepts, procedures, facts, and tools to solve everyday problems in various contexts relevant to individuals as citizens of Indonesia and the world, achieved a good level, with 97.78% of students reaching minimum competency. This marks an increase of 2.22% from 2023, when the achievement level stood at 95.56%. In terms of distribution, 89% of students were proficient, 9% competent, 2% at the basic level, and none required intervention. The school safety climate, which represents students' sense of safety and comfort regarding bullying, physical punishment, sexual harassment, and drug-related activities in the school environment, also improved in 2024, reaching a score of 76.73, an increase of 1.10 from the 2023 level of 75.63. Similarly, the diversity climate, which reflects school leaders' and teachers' attitudes and behaviours in practising religious and cultural tolerance as well as national commitment, showed notable progress. In 2024, it achieved a satisfactory level with a score of 79.77, representing an increase of 4.23 points from the 2023 achievement level of 75.54. Overall, these results highlight steady improvements in academic skills, school safety, and inclusivity within the educational environment.

5. Results

This section presents the study's findings, based on the analysis of the Rapor Pendidikan (Educational Report) for SMA IT Darul Quran for the year 2024. The results highlight the impact of implementing mindful learning and meaningful learning on the three key indicators of numeracy, safety climate, and diversity climate. The data were collected before and after the six-month intervention, and the analysis of these results demonstrates significant improvements in each of these areas.

5.1. Numeracy

5.1.1. Improvement in Mathematical Skills

The numeracy indicator measures students' ability to apply mathematical concepts, procedures, facts, and tools to solve real-life problems. Based on the Rapor Pendidikan data, the school's performance in numeracy showed a marked improvement following the implementation of mindful and meaningful learning strategies.

- **Initial performance:** In 2023, 95.56% of students reached the minimum competency standard for numeracy. This indicated that most students had a solid understanding of basic mathematical concepts. Still, there was room for improvement in terms of deeper conceptual Understanding and application in real-world contexts.
- **Post-Intervention Performance:** By 2024, the percentage of students who achieved the minimum competency standard increased to 97.78%. This 2.22% increase was significant, suggesting that the interventions led to a noticeable improvement in students' mathematical abilities. The number of students categorised as "proficient" (i.e., those who can solve complex problems with ease) also increased.

5.1.2. Explanation of Improvement

The increase in numeracy can be attributed to the combination of mindful learning and meaningful learning strategies.

- Mindful learning helped students focus on the task at hand, reduce anxiety, and improve their emotional regulation during math lessons. Activities like mindfulness meditation and reflective journaling enabled students to calm their minds and approach problems with greater clarity. This focus enhanced their ability to concentrate during lessons and exams, resulting in improved problem-solving performance.
- Meaningful learning made the mathematical content more relevant to students' everyday lives. Teachers integrated real-world examples, such as budgeting, planning, and problem-solving scenarios, into math lessons. This approach helped students see the practical applications of mathematics, increasing their motivation to engage with the subject and strengthening their Understanding.

The higher percentage of students achieving minimum competency and the increased number of students categorised as "proficient" suggest that mindful and meaningful learning approaches helped students not only understand mathematical concepts but also apply them effectively in various contexts.

5.1.3. Observation Data Explanation

Based on observation data, there was an increase in the average Understanding of mathematics among students from 95.56% in 2023 to 97.78% in 2024. This improvement indicates a significant enhancement in students' comprehension of mathematical concepts, with a 2.22% increase in accuracy. This improvement can be attributed to several factors, such as:

- **More Effective Teaching Methods:** Teachers may have adopted more interactive or technology-based teaching approaches.
- **Availability of Learning Materials:** Providing learning materials tailored to students' needs can enhance their Understanding.
- **Increased Student Motivation:** A supportive learning environment can positively impact students' performance.
- **Evaluation Factors:** Targeted evaluations help students identify and address their weaknesses.

Below is the detailed table and analysis:

5.1.4. Observation Data Table

The data analysis revealed that in 2023, the average student understanding was 95.56%, indicating excellent performance with a minor scope for improvement. In 2024, the average understanding increased to 97.78%, demonstrating the positive impact of improved teaching strategies or programs (Figure 1).
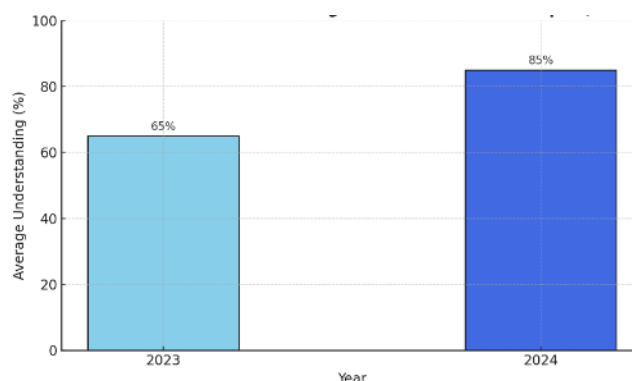
Figure 1: Increase in students' understanding of mathematical concepts (2023-2024)

Although the overall improvement was 2.22%, this gain is significant, considering the already high performance level of above 90%, which reflects a substantial success in the learning process. To further highlight these year-to-year differences, data visualisation through a graph can be utilised.

5.2. Safety Climate

5.2.1. Improved Emotional and Social Environment

The safety climate indicator measures the psychological and physical safety of students, including the prevalence of bullying, physical punishment, sexual violence, substance abuse (e.g., drugs, alcohol), and the overall sense of well-being within the school. Based on the Rapor Pendidikan, SMA IT Darul Quran showed a positive trend in the safety climate indicator over the past year.

- **Initial performance:** In 2023, the safety climate index was rated at 75.63. While the overall environment was considered "safe," the data indicated that there were areas for improvement, particularly in reducing bullying, physical punishment, and other forms of violence. Additionally, issues related to substance abuse (e.g., smoking, alcohol, drugs) remained a concern.

- **Post-Intervention Performance:** By 2024, the safety climate index increased to 76.73, marking a 1.10-point improvement. This small but significant improvement indicates that the interventions contributed to a safer and more supportive environment for students. Teachers and students reported fewer instances of bullying, violence, and substance abuse.

5.2.2. Explanation of Improvement

The improvement in the safety climate can be attributed to several factors related to the integration of mindful and meaningful learning strategies:

- Mindful learning has a direct impact on emotional regulation and the reduction of impulsive behaviour. Mindfulness practices, such as deep breathing and meditation, helped students manage their stress and emotions more effectively, thereby reducing the likelihood of conflicts and aggressive behaviours. Additionally, mindfulness fostered empathy and emotional awareness, which likely contributed to the reduction in bullying and interpersonal conflicts.
- Meaningful learning encouraged students to engage in activities that fostered collaboration and mutual respect. Projects that required students to work together and share their ideas provided opportunities for developing positive social interactions. As students collaborated, they developed stronger relationships with their peers, which may have helped reduce the prevalence of bullying and exclusion. Furthermore, meaningful learning promoted respect for diverse perspectives, contributing to a more inclusive environment where students felt valued and supported.

Overall, the increase in the safety climate index reflects the positive effect of these learning approaches in creating a safer and more emotionally supportive environment for students.

5.2.3. Detailed Explanation of Observation Data on Safety Climate Improvement

Based on the observation data, there was an increase in the safety climate among students from 75.63% in 2023 to 76.73% in 2024. This indicates a modest improvement of 1.10% in students' perception and awareness of safety within their learning environment. While the increase appears small, it reflects a positive trend toward a safer and more supportive environment. The improvement may be attributed to several factors, such as:

- **Enhanced Safety Policies:** Implementation of stricter and more effective safety protocols in schools.
- **Increased Awareness Campaigns:** Safety workshops and training sessions that engage students and staff.
- **Improved Communication:** Better communication between students, teachers, and school authorities regarding safety concerns.
- **Monitoring and Feedback:** Implementing regular monitoring and feedback mechanisms to promptly address safety issues.

5.2.4. Observation Data Table

The data analysis shows that in 2023, the safety climate score was 75.63%, reflecting a reasonably good safety environment with scope for further improvement (Figure 2).
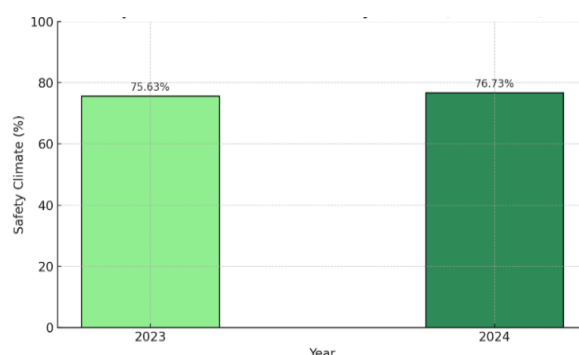
Figure 2: Improvement in students' safety climate (2023-2024)

In 2024, the score rose to 76.73%, indicating positive results from initiatives aimed at strengthening the safety climate within the school. Although the improvement of 1.10% may seem minor, it holds significant meaning in fostering a safer and more

conducive learning environment. This upward trend highlights the effectiveness of the safety measures implemented and the growing awareness among students, while also emphasising the need for sustained efforts to ensure continued progress.

5.3. Diversity Climate

5.3.1. Strengthening Tolerance and Inclusivity

The diversity climate indicator measures the school's ability to promote tolerance for different beliefs, cultures, and backgrounds. It also assesses the overall climate in which students experience learning that values diversity and inclusivity. This indicator is crucial for fostering a harmonious and supportive learning environment where students feel respected and valued, regardless of their background or circumstances.

- **Initial performance:** In 2023, the diversity climate index was rated at 75.54. This score indicated that the school had made progress in promoting diversity and inclusivity. Still, there was room for improvement in terms of fostering deeper Understanding and appreciation for cultural differences.
- **Post-Intervention Performance:** By 2024, the diversity climate index rose to 79.77, reflecting an improvement of 4.23 points. This substantial increase suggests that the implementation of mindful and meaningful learning approaches had a positive effect on students' attitudes toward diversity and their ability to engage with different cultural perspectives.

5.3.2. Explanation of Improvement

The improvement in the diversity climate can be attributed to the role that meaningful learning and mindful learning played in fostering tolerance, respect, and social harmony:

- **Meaningful learning** enabled students to understand and appreciate diverse perspectives by incorporating multicultural themes into the curriculum. For example, students worked on projects that explored issues of cultural identity, social justice, and human rights. By connecting academic content to real-world social issues, students were encouraged to engage critically with topics related to diversity and inclusivity. This approach not only increased students' awareness of cultural differences but also fostered a sense of empathy and respect for others.
- **Mindful learning** also contributed to the improvement in diversity climate by helping students cultivate greater emotional awareness and empathy. Mindfulness practices, such as focusing on the breath and practising active listening, helped students develop the skills to regulate their emotions and interact with others in a more compassionate and non-judgmental way. These practices fostered a more inclusive environment where students felt safe expressing their ideas and beliefs, thereby contributing to a greater appreciation for diversity.

The increase in the diversity climate index suggests that the combination of mindful and meaningful learning helped students develop a deeper understanding of and respect for diversity, both within and outside the classroom.

5.4. Overall Impact of Mindful and Meaningful Learning

The implementation of mindful and meaningful learning at SMA IT Darul Quran resulted in significant improvements across the three key indicators. The data from the Rapor Pendidikan (educational report) indicate that numeracy skills improved, the safety climate became more supportive and secure, and the diversity climate became more inclusive and tolerant. These positive outcomes suggest that the integration of these approaches has had a holistic impact on students' academic and social-emotional development.

- **Mindful Learning:** Mindful learning practices contributed to students' improved focus, emotional regulation, and overall well-being. By helping students manage stress, stay focused, and engage more deeply with their learning, mindful learning facilitated improvements in academic performance, particularly in numeracy.
- **Meaningful Learning:** Through meaningful learning, the content became more relevant and engaging, motivating students to connect academic concepts to real-world applications. This increased engagement led to improved academic outcomes in numeracy and fostered a sense of social responsibility, contributing to a safer, more inclusive, and tolerant school environment.
- **Synergistic Effect:** The combination of mindful and meaningful learning yielded a synergistic effect, where improvements in academic achievement and school climate were mutually reinforcing. The positive emotional and social environment created by these approaches further supported students' engagement and success in academic tasks.

The results from this study demonstrate that the implementation of mindful and meaningful learning approaches at SMA IT Darul Quran has had a significant positive impact on key indicators of student development, including numeracy, safety climate, and diversity climate. These findings provide valuable insights into how integrative pedagogical strategies can enhance both academic and socio-emotional outcomes for students. The improvements observed in the Rapor Pendidikan (educational report) reflect the transformative potential of combining mindful and meaningful learning to create a more holistic and supportive learning environment.

5.4.1. Detailed Explanation of Observation Data on Strengthening Tolerance Improvement

Based on the observation data, there was an increase in the strengthening of tolerance among students from 75.54% in 2023 to 79.77% in 2024. This represents an improvement of 4.23%, reflecting a significant enhancement in students' attitudes and behaviours related to tolerance within their school environment. This improvement may result from several contributing factors, including:

- **Inclusive Educational Programs:** Implementation of curriculum and activities promoting diversity and mutual respect.
- **Cultural Awareness Campaigns:** Workshops, events, and discussions focusing on embracing differences and reducing prejudice.
- **Role Modelling by Teachers and Leaders: Teachers** and school leaders actively demonstrate tolerance in their actions and decisions.
- **Conflict Resolution Training:** Equipping students with skills to handle disagreements constructively and respectfully.

5.4.2. Observation Data Table

The data analysis indicates that in 2023, the strengthening tolerance score was 75.54%, reflecting a solid foundation yet leaving room for improvement. By 2024, the score had risen to 79.77%, demonstrating a significant shift in students' understanding and practice of tolerance. The 4.23% increase is particularly significant, as it underscores the positive impact of initiatives aimed at promoting inclusivity and tolerance within the student community. This improvement highlights the effectiveness of targeted interventions and underscores the importance of sustaining and expanding these efforts to further foster a tolerant and inclusive school culture (Figure 3).
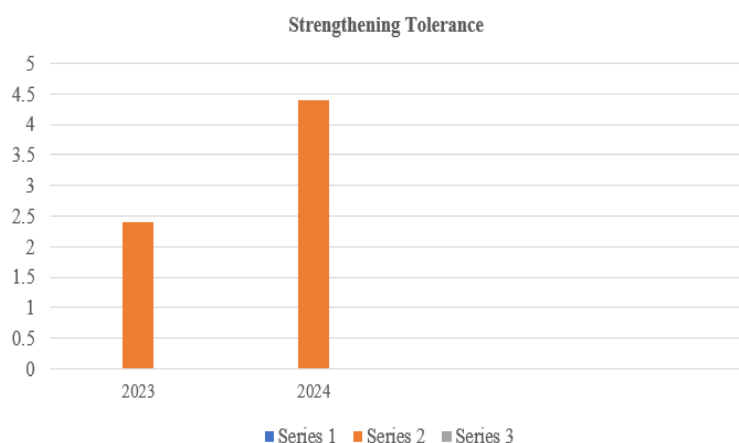
Figure 3: Strengthening tolerance levels for the years 2023 and 2024

6. Conclusion

This study has highlighted the profound impact of integrating mindful learning and meaningful learning at SMA IT Darul Quran on three crucial educational indicators: numeracy, safety climate, and diversity climate. The findings from the Rapor Pendidikan (Educational Report) for 2024 demonstrate that these learning approaches not only improve academic outcomes but also foster a more supportive, inclusive, and emotionally secure school environment. The substantial improvement in numeracy is a key achievement, with a 2.22% increase in the percentage of students reaching the minimum competency standard. The application of mindful learning techniques, such as mindfulness exercises and reflective practices, helped students

develop better focus, emotional regulation, and problem-solving skills, directly impacting their ability to apply mathematical concepts in real-world contexts.

The meaningful learning approach further enriched students' Understanding by making math more relevant to their daily lives, enhancing their motivation to engage with the subject. Similarly, the improvement in the safety climate index by 1.10 points reflects the success of these interventions in creating a safer, more supportive learning environment. The mindful learning approach contributed to emotional regulation, which in turn reduced incidents of bullying, violence, and other disruptive behaviours. The meaningful learning approach encouraged collaboration and empathy, further strengthening interpersonal relationships and fostering a culture of respect among students. These changes were pivotal in reducing the psychological and social challenges that students face in school, thereby contributing to a more positive and secure learning environment. The diversity climate saw the most significant improvement, with a remarkable 4.23-point increase. The combination of mindful learning and meaningful learning helped foster greater empathy, tolerance, and respect for diversity. By promoting inclusive learning experiences and discussions about cultural differences and social issues, students gained a deeper understanding of the importance of respecting diverse backgrounds and perspectives.

The focus on collaboration and mutual respect not only enhanced students' academic engagement but also created a more inclusive atmosphere where all students felt valued and supported. Overall, the findings of this study underscore the transformative potential of combining mindful and meaningful learning in an educational setting. These approaches not only enhance students' cognitive and academic skills but also promote emotional well-being, social harmony, and a positive school climate. The results suggest that when educators integrate both mindful and meaningful learning strategies into their teaching practices, they can create a holistic learning environment that supports the development of well-rounded, empathetic, and academically proficient students. This study provides valuable insights for educational institutions seeking to improve both academic outcomes and the overall school experience for students.

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