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Structured Meditation Before Studying: Its Effects on Focus and Emotion Regulation: Systematic Literature Review (SLR)

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ABSTRACT

Despite the growing implementation of mindfulness-based practices in educational settings, empirical evidence regarding the effectiveness of structured meditation as a pre-learning intervention remains fragmented and lacks comprehensive synthesis. This study aims to analyze and synthesize empirical findings on the effects of structured meditation before learning activities on students' learning focus and emotional regulation. A Systematic Literature Review following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) protocol was conducted using Scopus, Semantic Scholar, and PubMed databases. From 1,097 initially identified records, 49 studies met the inclusion criteria and were analyzed through thematic synthesis and bibliometric mapping. The findings reveal that meditation and mindfulness interventions lasting 5–15 minutes per day for at least eight weeks consistently improve sustained attention, working memory, executive functioning, and adaptive emotional regulation across educational levels. The reported effects are generally small to moderate and are influenced by participant age, intervention duration, and facilitator competence. Bibliometric mapping identified five major thematic clusters, with mindfulness emerging as the central research node. These findings provide robust evidence supporting the integration of structured meditation as a pre-learning practice and contribute to the development of evidence-based educational models, particularly within Buddhist-oriented educational contexts in Indonesia, where empirical studies remain limited.

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Introduction

The declining quality of students' attentional focus and emotion regulation has emerged as a critical issue in contemporary education. A growing body of research indicates that cognitive distraction and emotional pressure have intensified in tandem with increasing academic demands and pervasive exposure to digital technology. Mrazek et al. (2022), found that approximately 77% of secondary school students reported lower levels of attentional focus than they considered ideal during the learning process, a pattern closely associated with elevated mind-wandering and diminished academic engagement. Beyond its consequences for academic achievement, this attentional deficit reflects a broader

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disruption to the quality of students' cognitive involvement in learning. Concurrently, difficulties in emotion regulation represent a significant and distinct challenge, particularly among adolescents navigating a psychosocially vulnerable stage of development. Altinyelken (2018), demonstrated that university students frequently experience a range of maladaptive emotional states including anxiety, loneliness, and academic stress that are difficult to manage in adaptive ways. Taken together, these findings suggest that deficits in attentional focus and emotion regulation are not merely individual-level concerns, but rather constitute a systemic challenge that is deeply embedded in the structural and pedagogical conditions of modern educational practice.

Effective learning, from a normative standpoint, presupposes stable attentional capacity and adaptive emotion regulation. Within the framework of educational psychology, attentional focus constitutes a core component of executive functioning, enabling individuals to process and retain information optimally, while emotion regulation serves to maintain affective stability throughout the learning process. Empirical evidence, however, reveals a substantial gap between this ideal and actual classroom realities. Magalhães et al. (2022), demonstrated that a considerable proportion of students exhibit markedly low levels of attention and emotion regulation prior to any intervention, with direct consequences for suboptimal academic performance. This gap is further compounded by prevailing instructional approaches that remain predominantly oriented toward cognitive outcomes, to the neglect of students' affective development and self-awareness dimensions that are increasingly recognized as indispensable preconditions for meaningful and sustained learning.

Against this backdrop, the central research problem addressed in this study concerns the need to identify an intervention capable of simultaneously enhancing students' attentional focus and emotion regulation capacities. Among the approaches gaining increasing scholarly attention is the practice of meditation, particularly mindfulness-based meditation and contemplative traditions such as Vipassana. Conceptually, meditation functions as a systematic training of mindful attention and heightened awareness of internal experiences, including emotional states. In this regard, Mani & Kumar Mishra (2023), provided empirical support for the cognitive and affective benefits of contemplative practice, demonstrating that Vipassana meditation practitioners exhibited significantly higher levels of mindful attention awareness and emotion regulation compared to non-practitioners. These findings underscore the theoretical plausibility of meditation as an integrative psychoeducational intervention capable of addressing both attentional and emotional dimensions of the learning process.

Notwithstanding these promising developments, several significant research gaps remain to be addressed. First, the predominant focus of existing meditation research has been on clinical populations or general psychological well-being, rather than on its systematic integration into formal educational settings. Jobin et al. (2025), noted that school-based meditation interventions remain limited in scope and require further development through contextually grounded and educationally responsive program designs. Second, a substantial proportion of empirical studies approach meditation from a predominantly secular, Western psychological perspective, thereby marginalizing the spiritual and philosophical dimensions that constitute the very essence of meditative practice within specific contemplative traditions, most notably Buddhism. Third, studies that explicitly examine the effects of pre-learning meditation practice on attentional focus and emotion regulation remain comparatively scarce, particularly within the educational contexts of

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developing countries and among communities shaped by local religious and cultural values. Fourth, genuinely multidisciplinary approaches that integrate educational psychology, cognitive neuroscience, and religious studies into a coherent investigative framework have yet to be undertaken in a comprehensive and systematic manner. Collectively, these gaps point to the need for a more contextually sensitive, philosophically inclusive, and methodologically rigorous body of research on meditation in educational settings.

In response to these identified gaps, the present study advances a distinctive contribution to the field by integrating meditation practice particularly that rooted in the Buddhist contemplative tradition into formal educational contexts as a structured pre-learning intervention. Unlike prior studies that have tended to treat cognitive and emotional dimensions of learning as separate outcomes, this research conceptualizes meditation as an integrative mechanism capable of addressing both dimensions simultaneously and synergistically. Furthermore, the study departs from the dominant tendency to frame meditation purely as a relaxation technique, repositioning it instead as a mindfulness practice grounded in the philosophical and ethical teachings of Buddhism an orientation that opens new and underexplored avenues within contemporary educational scholarship. This approach is expected to enrich the ongoing discourse on holistic education by extending its scope beyond academic performance to encompass the cultivation of students' self-awareness, emotional equilibrium, and inner development as foundational dimensions of meaningful learning.

The urgency of this research is grounded in the pressing need to develop adaptive learning models capable of responding to the challenges of the contemporary era, particularly in addressing the escalating crisis of attentional deficits and deteriorating mental health among students. At the theoretical level, this study contributes to the construction of a conceptual framework that systematically integrates meditation, attentional focus, and emotion regulation within an educational perspective, thereby advancing a more holistic understanding of the psychological preconditions for effective learning. At the practical level, the findings of this research hold significant implications for teachers and educational institutions seeking to design accessible yet effective interventions that enhance the overall quality of the learning experience. Converging evidence from recent empirical studies has demonstrated that mindfulness and meditation-based interventions are capable of producing meaningful improvements in students' attentional focus, emotion regulation, and academic engagement (Ghaffar et al., 2024; Hou, 2024). In light of these findings, further systematic exploration of pre-learning meditation practice is both timely and strategically significant in the pursuit of learning environments that are more mindful, cognitively focused, and emotionally balanced.

Although previous studies have demonstrated the benefits of meditation for psychological well-being and cognitive functioning, limited research has systematically synthesized its effectiveness as a structured pre-learning intervention in educational settings, particularly within contexts influenced by Buddhist educational values. Furthermore, studies integrating educational psychology, cognitive neuroscience, and contemplative traditions remain scarce. Therefore, this study aims to systematically review and synthesize empirical evidence regarding the effects of structured meditation prior to learning activities on students' attentional focus and emotion regulation. Specifically, this study addresses three research questions: (1) How does structured meditation influence students' attentional focus? (2) How does structured meditation affect students' emotion

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regulation? and (3) What factors moderate the effectiveness of meditation interventions in educational contexts? The findings are expected to contribute to the development of evidence-based educational practices and provide a conceptual foundation for integrating contemplative approaches into holistic learning environments.

Method

This study employed a Systematic Literature Review (SLR) as its primary research design to examine and synthesize empirical evidence concerning the effects of structured meditation on students' attentional focus and emotion regulation. The adoption of an SLR methodology was informed by the need for a systematic, transparent, and replicable procedure capable of generating a valid and comprehensive synthesis of literature dispersed across multiple academic disciplines and research traditions. As emphasized by Liberati et al. (2009), the SLR approach is specifically designed to minimize selection bias through the application of explicit, pre-specified, and structured search protocols, thereby enhancing the reliability and reproducibility of the resulting evidence synthesis.

The literature search was conducted across the Scopus, Semantic Scholar, and PubMed databases using the following Boolean operator strategy: ("meditation" or "mindfulness") and ("learning focus" or "academic attention") and ("emotional regulation" or "emotion self-regulation" or "education" or "learning" or "students"). The search was restricted to publications from 2007 to 2025. The selection of these databases was based on their extensive coverage of educational, psychological, health, and interdisciplinary research. Employing multiple databases enhanced the comprehensiveness of the search process and reduced the likelihood of omitting relevant studies. The search strategy was developed iteratively by refining keywords and Boolean combinations to ensure the retrieval of studies directly related to meditation practices, attentional focus, emotion regulation, and educational contexts.

The inclusion criteria were defined as follows: (1) peer-reviewed journal articles indexed in recognized academic databases; (2) studies examining meditation or mindfulness-based interventions within formal educational settings; (3) studies measuring attentional focus, attention, or emotion regulation as primary outcome variables; (4) studies employing randomized controlled trial (RCT), quasi-experimental, systematic review, or meta-analytic designs; and (5) publications available in either English or Indonesian. Conversely, studies were excluded on the basis of the following criteria: (1) articles lacking an abstract or full-text availability; (2) single-case studies conducted without a control group; (3) studies involving clinical populations with a primary psychiatric diagnosis; and (4) duplicate publications reporting data from the same study sample. To ensure the methodological rigor of the selected literature, a quality assessment process was conducted during the eligibility stage. Each study was evaluated based on the clarity of research objectives, appropriateness of research design, transparency of data collection procedures, validity of outcome measures, and consistency of reported findings. Studies that failed to meet acceptable methodological standards were excluded from the final synthesis. This procedure was implemented to strengthen the credibility, reliability, and trustworthiness of the evidence synthesized in this review.

The selection process followed the PRISMA 2020 flow Kenzie et al. (2021), of the 1,097 identified articles, 397 were excluded due to duplication and the absence of abstracts, resulting in 700 articles proceeding to the screening stage. Following title and abstract

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screening, articles that did not meet the thematic relevance criteria were excluded from further consideration. The remaining studies proceeded to the eligibility assessment stage. Following semantic relevance screening, 617 articles were assessed for eligibility, and after further exclusion based on methodological quality and alignment with the inclusion criteria, a final set of 49 articles was included. Data analysis was conducted using a thematic synthesis approach Thomas & Harden (2008), comprising three stages: (1) free coding of text, (2) development of descriptive themes, and (3) generation of analytical themes. Coding reliability was verified through inter-rater reliability testing, yielding a Cohen's Kappa value of ≥ 0.80, indicating a high level of agreement.

The coding process was independently conducted by two reviewers to enhance analytical consistency. Any discrepancies in coding outcomes were discussed and resolved through consensus until agreement was achieved. In addition to thematic synthesis, a bibliometric analysis was undertaken to identify research trends, thematic clusters, and conceptual relationships among the selected studies. The bibliometric procedure focused on keyword co-occurrence patterns and thematic connections within the literature. This complementary analysis enabled the visualization of dominant research themes and facilitated a broader understanding of the intellectual development of studies concerning meditation, attentional focus, and emotion regulation in educational settings.

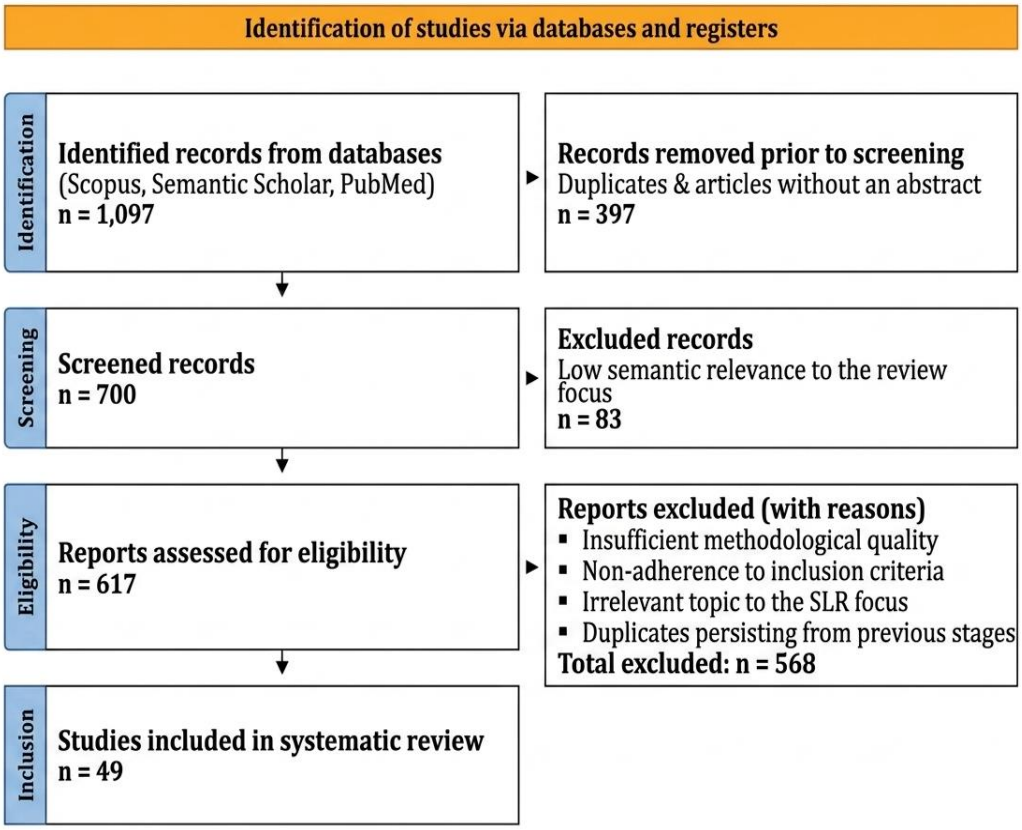

Figure 1. Flowchart of Literature Selection using PRISMA

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Result

Structured meditation practice conducted prior to learning activities has been the subject of extensive investigation across educational levels ranging from primary schooling to higher education. Converging evidence from experimental studies, meta-analyses, and systematic reviews consistently demonstrates that brief mindfulness or meditation-based interventions typically administered for 5 to 15 minutes per day over a period of several weeks produce significant improvements in students' attentional focus, working memory, and executive functioning, as well as enhanced emotion regulation capacity, relative to control conditions (Basso et al., 2019; D'Souza & Smyth, 2025; Feng et al., 2025; García-Rubio et al., 2023; Kander et al., 2024; Phan et al., 2022; Waters et al., 2015). These beneficial effects have been documented across diverse age groups spanning from preschool children to university students, and tend to be more pronounced when practice is conducted on a regular basis and integrated into established classroom routines (Flook et al., 2025; Lin et al., 2025; Waters et al., 2015). Beyond cognitive outcomes, the evidence further indicates that structured meditation is associated with enhanced psychological well-being, reduced academic stress, and improved social-emotional competencies (Bockmann & Yu, 2023; Mettler et al., 2023; Nguyen et al., 2025; Salem et al., 2025). Nevertheless, a number of studies have cautioned that the magnitude of observed effects is generally small to moderate and is substantially contingent upon the quality of program implementation and the degree of participant engagement (D'Souza & Smyth, 2025; Maynard et al., 2017). Taken together, these findings support the conclusion that structured pre-learning meditation constitutes a viable and evidence-informed strategy for fostering attentional focus and emotion regulation within educational environments.

The Effects of Structured Meditation on Learning Focus

Structured meditation practice has demonstrated consistent capacity to enhance multiple dimensions of students' attentional functioning, encompassing sustained attention, working memory, and cognitive flexibility. This pattern has been evidenced across a broad spectrum of research designs, ranging from individual-level randomized controlled trials (RCTs) and cluster-randomized classroom-based trials to large-scale systematic reviews and meta-analyses. Among the most methodologically rigorous experimental contributions to this body of evidence is the study by Basso et al. (2019), which employed an RCT design with novice meditators aged 18 to 45 years. Their findings demonstrated that brief, daily guided meditation sessions of 13 minutes, administered cumulatively over eight weeks but not four weeks produced statistically significant improvements in sustained attention, working memory, and recognition memory relative to an active control group engaged in podcast listening. Critically, this dose-response pattern establishes the existence of a minimum effective dosage threshold that must be met before measurable cognitive benefits can reliably emerge, a finding with important implications for the design and implementation of meditation-based educational interventions (Basso et al., 2019).

The consistency of this pattern is corroborated by several reputable meta-analyses, such as Zenner et al. (2014), which reviewed 24 studies involving a total of 1,348 school students (Grades 1-12). The study reported that the effects of mindfulness-based interventions (MBIs) on cognitive performance primarily operationalized through attention measures yielded an effect size of Hedge's g = 0.80, representing the highest among all measured outcome domains and substantially exceeding the effects on stress (g = 0.39) and resilience (g = 0.36). The overall between-group effect size was reported at g = 0.40, while

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the within-group effect size reached g = 0.41 (p < 0.0001), indicating that cognition, particularly attention, constitutes the most responsive domain to mindfulness interventions in school contexts (Zenner et al., 2014). These meta-analytic findings are further reinforced by a systematic review conducted by Waters et al. (2015), which examined 15 school-based studies encompassing a total of 1,797 participants. Of the 76 calculated effect sizes, 61% were found to be statistically significant, with 24% categorized as moderate effects and 9% as large effects. Moreover, meditation is consistently characterized as an attentional training tool that strengthens the neurological capacity to sustain prolonged attention.

When examined comparatively, cross-population studies demonstrate a highly consistent pattern, albeit with variation in effect sizes. Flook et al. (2025), employing a randomized controlled trial (RCT) design with 292 fifth-grade students (upper elementary level), found that the eight-week intervention group exhibited significant improvements in cognitive flexibility, as measured through computerized tasks, as well as enhanced end-of-year social emotional competence. In line with these findings, García-Rubio et al. (2023), through a cluster-RCT involving 313 primary school students aged 7-12 in Spain using the *GrowingUp Breathing* program, reported that positive changes in dispositional mindfulness served as significant predictors of reduced anxiety and increased academic engagement, with a three-month follow-up confirming the stability of these effects. Furthermore, Lin et al. (2025), conducting a cluster RCT with 281 elementary school students in Taiwan (seven intervention classes versus seven control classes), demonstrated that a four-week mindfulness-based training intervention significantly enhanced students' attentional focus, with several benefits persisting up to eight weeks post-intervention thereby extending evidence on the short-term durability of effects within Asian populations.

From a moderation perspective, cross-study evidence indicates that intervention duration, the type of meditation technique, and population characteristics constitute meaningful moderating factors. The meta-analysis by Kander et al. (2024), which specifically focused on preadolescent children aged 6-12 a group historically underrepresented in prior syntheses identified significant effects on attention and emotional–behavioral regulation, with effect sizes (g) ranging from 0.19 to 0.39. Moreover, the study found that age served as a significant moderator for executive functioning (Q = 5.60, p = 0.018), with older children within this age range demonstrating larger effect sizes. Similarly, Mettler et al. (2023), in a meta-analysis encompassing 38 randomized controlled trials (RCTs) within educational contexts, reported that the effects of mindfulness-based interventions (MBIs) on attention ranged from small to moderate. Importantly, only programs delivered by external facilitators with established mindfulness expertise demonstrated significant effects on overall school adjustment highlighting the critical role of implementation quality as a key moderating factor.

Nevertheless, several substantial limitations warrant careful consideration. D'Souza & Smyth (2025), in the most comprehensive meta-analysis to date encompassing 117 trials and synthesizing 62 of them meta-analytically found that the effects on attention and executive functioning, although statistically significant, were generally small in magnitude, with high between-study heterogeneity (elevated I^2 values across most outcomes). The authors explicitly cautioned that variability in program design, differences in the delivery of mindfulness practices, and divergent expectations across school contexts may account for substantial discrepancies in outcomes. Similarly, Phan et al. (2022), in a systematic review of 77 studies involving 12,358 students across five continents, classified the

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highest-quality evidence (Grade A) as supporting improvements in executive functioning and attention. They concurrently noted that evidence for direct academic achievement remains limited, underscoring that the primary benefits of mindfulness are more strongly associated with foundational cognitive processes than measurable academic outcomes.

Studies within this corpus collectively indicate that structured meditation, when implemented consistently over a minimum duration of eight weeks as evidenced by Basso et al. (2019) and corroborated by meta-analyses Kander et al. (2024); Zenner et al. (2014), can yield measurable improvements in students' attentional capacity and cognitive functioning across age groups and cultural contexts. This general pattern appears robust, particularly within high-quality randomized controlled trial (RCT) designs. However, the small to moderate magnitude of effects suggests that structured meditation is best conceptualized as a supportive, preparatory component rather than a substitute for more comprehensive pedagogical strategies. This positioning is consistent with the concept of a *pre-learning ritual*, which underpins the conceptual framework of the present study namely, meditation as a preparatory intervention that systematically conditions students' attentional capacity prior to the commencement of formal learning activities.

Effects on Emotional Regulation

Emotional regulation is defined as the process of monitoring, evaluating, and adaptively modifying emotional responses to support goal attainment, particularly within learning contexts that require affective stability. Within the framework of structured meditation, mindfulness and reflective practices function as primary mechanisms that enhance awareness of negative emotional patterns and facilitate a shift from expressive suppression strategies toward cognitive reappraisal. The reviewed studies consistently position emotional regulation as a core component of self-regulation that can be enhanced through meditation-based interventions implemented prior to learning activities, both among early childhood populations and university students (Bockmann & Yu, 2023; Feng et al., 2025; Salem et al., 2025).

The positive effectiveness of structured meditation on emotional regulation, particularly when reflectively integrated, has been shown to significantly increase cognitive reappraisal scores while reducing expressive suppression among nursing students, with statistically significant between-group differences observed post-intervention. Similarly, an eight-week mindfulness training program among undergraduate students resulted in increased reappraisal and decreased suppression, with these effects persisting at follow-up, and post-intervention mindfulness functioning as a partial mediator. Among primary school children, school-based mindfulness programs have also been found to significantly enhance teacher-rated emotional regulation compared to health education control groups (Feng et al., 2025; Magalhães et al., 2022; Salem et al., 2025). The variation in research approaches reflects the diversity of designs and target populations, thereby enriching contextual understanding. The body of evidence includes randomized controlled trials (RCTs) employing mixed-method designs among nursing students, purely quantitative RCTs involving undergraduate and school-aged populations, as well as systematic literature reviews on mindfulness-based interventions in preschool children. In addition, qualitative analyses of student reflections from meditation seminars grounded in historical–cultural contexts further contribute to this corpus. Intervention durations typically range from six to ten weeks, with structured weekly sessions, while emotional regulation is measured using instruments such as the *Emotion Regulation Questionnaire* alongside teacher-based assessments (Bockmann & Yu, 2023; Feng et al., 2025; Magalhães

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et al., 2022; Salem et al., 2025; Sensiper, 2023).

Comparative analysis across studies reveals a consistent pattern of positive findings across age groups and educational contexts. Studies involving adult university students demonstrate direct changes in emotion regulation strategies as measured quantitatively, whereas in early childhood populations, stronger effects are observed among groups requiring additional support, such as children with initial difficulties in emotional regulation. Qualitative analyses among higher education students complement these quantitative findings by providing subjective reports of increased emotional acceptance and reduced reactivity, thereby reinforcing the evidence that structured meditation supports emotional regulation both cognitively and affectively across different levels of education Although the overall findings are positive, several minor inconsistencies and methodological limitations warrant careful consideration. A literature review focusing on preschool children reported mixed effects on overall self-regulation, although the impact on emotional regulation was more pronounced among at-risk children. Common limitations include small sample sizes, the absence of full blinding procedures, and limited generalizability due to implementation within a single institution or the lack of long-term longitudinal follow-up. Moreover, reliance on self-report measures and teacher-based assessments introduces the potential for response bias (Bockmann & Yu, 2023; Feng et al., 2025; Magalhães et al., 2022; Salem et al., 2025; Sensiper, 2023).

Recent evidence from the reviewed studies supports the positive effects of structured meditation on emotional regulation within educational contexts. The consistent pattern of findings indicates an increase in adaptive strategies alongside a reduction in maladaptive strategies, with stronger evidence observed among populations facing greater emotional challenges. Nevertheless, further research employing larger sample sizes and longitudinal designs is required to strengthen the generalizability of these findings, particularly in relation to the routine implementation of pre-learning meditation practices. Overall, these results underscore the potential of meditation as an evidence-based intervention to support students' emotional well-being.

Moderating Variables: Age and Intervention Duration

Moderating variables play a crucial role in explaining the heterogeneity of empirical findings related to emotional regulation and attentional focus. Participant age and intervention duration function as key factors influencing both the magnitude and stability of effects, due to differences in neurocognitive maturation and the cumulative practice required for adaptive change. Evidence from the three reviewed studies indicates that these moderators operate independently while also potentially interacting within educational contexts. Consequently, the design of meditation-based interventions should be carefully calibrated to optimize their benefits for both emotional regulation and attentional focus (Basso et al., 2019; Kander et al., 2024; Magalhães et al., 2022).

The age moderator reveals a tendency for the effects of meditation on emotional regulation to be more pronounced among preadolescent populations compared to more heterogeneous or young adult groups. Among third-grade primary school children (approximately 8–9 years old), age functions as a significant moderator of improvements in teacher-rated emotional regulation, with younger children within this range demonstrating more adaptive responses, likely attributable to heightened neuroplasticity. Meta-analytic evidence on preadolescent populations consistently supports this pattern, indicating stronger benefits for emotional regulation and attentional processes within this

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age group compared to older populations. However, comparative analyses across studies suggest that, among young adults, the effects tend to be more limited, primarily manifesting in cognitive reappraisal strategies (Kander et al., 2024; Magalhães et al., 2022).

The intervention duration moderator reveals a clear distinction between short- and medium-term programs. Brief daily interventions conducted over eight weeks significantly enhance emotional regulation and attentional capacity, while also reducing negative mood, whereas a four-week duration does not yield meaningful changes in the same outcomes. Similarly, eight-week programs implemented among primary school children result in significant improvements in teacher-rated emotional regulation and attention. These findings underscore that a minimum duration of eight weeks, coupled with structured practice, is more effective in producing proximal changes in emotional regulation and attentional focus compared to shorter intervention periods (Basso et al., 2019; Magalhães et al., 2022).

The integrative synthesis underscores that age and intervention duration interact in moderating the outcomes of structured meditation. Optimal effects on emotional regulation and attentional focus are achieved among primary school–aged children with intervention durations of approximately eight weeks, wherein developmental maturity facilitates the rapid internalization of pre-learning mindfulness practices. From an educational intervention design perspective, these findings imply the necessity of calibrating dosage and frequency according to age groups to maximize sustained benefits for emotional well-being and concentration. At the same time, they reinforce the evidentiary basis for integrating meditation within learning contexts grounded in Buddhist spirituality (Basso et al., 2019; Kander et al., 2024; Magalhães et al., 2022).

Limitations and Variability of Findings

The most salient methodological limitations identified across the two systematic reviews include a moderate to high risk of bias in the majority of primary studies, particularly performance and detection biases arising from the lack of blinding of participants and personnel, as well as allegiance bias due to researchers' direct involvement in the development and implementation of mindfulness interventions. Additionally, the inclusion of non-randomized designs, restriction to English-language publications, and the predominance of samples from Western countries introduce unmeasured confounding and limit the generalizability of findings across diverse educational contexts. The relatively short duration of interventions, heterogeneity in mindfulness components, and variations in control group conditions (class-as-usual versus active comparators) further weaken both the internal and external validity of the evidence concerning emotional regulation and attentional focus in learning contexts (D'Souza & Smyth, 2025; Maynard et al., 2017).

Variability in findings across studies is reflected in low heterogeneity for cognitive and socioemotional outcomes in one review, contrasted with high heterogeneity for mindfulness (I^2 = 91%), emotional regulation (I^2 = 57%), and stress (I^2 = 78%) in another. This variability is largely attributable to differences in intervention characteristics, instructor profiles, and participant attributes, the majority of whom were drawn from non-clinical populations with emotional and cognitive functioning within normative ranges. Consistently small effects are observed for emotional regulation and attentional focus; however, notable inconsistencies emerge for anxiety and behavioral outcomes, where proximal effects tend to be stronger than distal outcomes such as academic achievement. These discrepancies indicate that variations in learning contexts and intervention dosage

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constitute primary sources of outcome heterogeneity (D'Souza & Smyth 2025; Maynard et al., 2017).

Although both reviews support modest benefits of structured meditation for emotional regulation and attentional focus, the methodological limitations and persistent variability necessitate a highly cautious interpretation of the systematic review findings. The implications for educational practice point to the need for further research employing more rigorous randomized controlled trial (RCT) designs, more representative samples, and longitudinal measurements to ensure the reliability of evidence for the routine implementation of pre-learning meditation practices. This condition underscores the imperative to enhance methodological quality in order to strengthen the generalizability of findings to contexts of Buddhist spirituality and education (D'Souza & Smyth, 2025; Maynard et al., 2017).

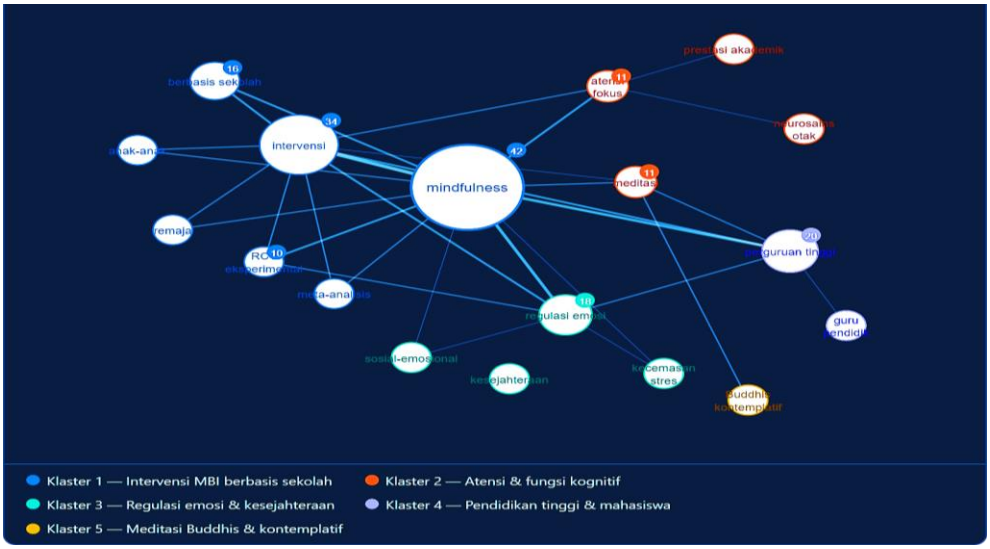

Figure 1 Network map of co-citation and co-authorship analysis

Bibliometric Analysis

The co-occurrence analysis of keywords, based on 49 articles in RIS file format, generated a network visualization comprising 18 core concepts with a minimum occurrence frequency of two, which were subsequently distributed across five primary thematic clusters. Through a data cleaning process encompassing the normalization of synonyms, such as consolidating the terms "mindfulness-based intervention," "MBI," and "mindfulness program" into a single conceptual entity, as well as merging "emotion regulation," "self-regulation," and "emotion self-regulation" a standardized network map was produced, rendering it suitable for rigorous academic interpretation.

Within the network structure, the concept of mindfulness occupies the position of a central hub, exhibiting the highest frequency of occurrence 42 out of 49 articles (85.7%) and the greatest number of connections, with 16 significant co-occurrence pairs. This position indicates that mindfulness functions as a bridging concept that integrates all clusters within the network. In the second position, the concept of intervention serves as a key node, with a frequency of 34 and 14 connections, thereby underscoring the dominance of a practical and application-oriented focus across the analyzed body of literature.

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https://ejournal.stiab-jinarakkhita.ac.id/index.php/joeri

Cluster by Cluster Analysis

Cluster 1 (Blue) identifies school-based mindfulness interventions as the largest cluster, with a total cumulative frequency of 126. The dominant concepts within this cluster include mindfulness, intervention, school-based approaches, children, adolescents, RCT/experimental designs, and meta-analysis. The strongest co-occurrence pairs across the entire network are also located within this cluster, particularly between mindfulness and intervention (32 co-occurrences), as well as school-based mindfulness (14). This cluster represents the mainstream research trajectory focused on evaluating Mindfulness-Based Interventions (MBIs) within formal educational contexts through quasi-experimental and randomized controlled trial (RCT) designs, which are subsequently synthesized cumulatively in the form of meta-analyses. Representative studies within this cluster include (Kander et al., 2024; Maynard et al., 2017; Mettler et al., 2023; Zenner et al., 2014).

Cluster 2 (Red) encompasses the domain of attention and cognitive functioning, with a total frequency of 30. The primary concepts within this cluster include attention or focus, meditation, academic achievement, and neuroscience or brain-related constructs. The most prominent co-occurrence pairs are observed between mindfulness and attention/focus (9), as well as between attention/focus and intervention (8). This cluster represents a neuropsychological perspective in meditation research, particularly concerning how meditative practices influence measurable cognitive capacities. Representative studies within this cluster include Basso et al. (2019), which examined the effects of brief daily meditation on attention and working memory, and Tang et al. (2007), which investigated short-term meditation training and self-regulation.

Cluster 3 (Green) groups concepts related to emotional regulation and well-being, with a cumulative frequency of 32. The primary concepts within this cluster include emotional regulation, anxiety or stress, well-being, and socio-emotional dimensions. The strongest co-occurrence pairs are observed between mindfulness and emotional regulation (15), as well as between emotional regulation and intervention (12). This cluster holds direct relevance to the main dependent variables of the present study. The consistent findings within this cluster indicate that meditation-based interventions contribute to reductions in academic anxiety, improvements in adaptive emotional regulation strategies (such as cognitive reappraisal and self-compassion), and enhancements in students' psychological well-being.

Cluster 4 (Purple) focuses on the higher education context and student populations, with the concept of higher education or university students reaching a frequency of 20 one of the highest values in the overall network alongside the additional concept of teachers or educators (2). The co-occurrence pair between mindfulness and higher education (17) represents the second strongest connection in the network, indicating that research on Mindfulness-Based Interventions (MBIs) within student populations constitutes a highly productive research stream. The density of this cluster also reflects a shift in research focus from primary and secondary education levels toward higher education contexts.

Cluster 5 (Orange) represents the smallest cluster in size; however, it holds significant conceptual relevance to the present study. This cluster encompasses Buddhist or contemplative concepts (7) alongside meditation (11), with the co-occurrence between meditation and Buddhist/contemplative constructs (5) serving as a primary indicator of conceptual linkage. Representative studies within this cluster include Khanal (2025),

Journal of Education, Religious, and Instructions (JoERI)
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Volume 4 Number 1, June 2026, page 33-51
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https://ejournal.stiab-jinarakkhita.ac.id/index.php/joeri

which examines Buddhist meditation and cognitive abilities; focusing on Jyothilatha & Prasad (2025); Sensiper (2023), which explores the teaching of meditation within historical and cultural contexts. The peripheral position of this cluster within the network indicates that spiritual and religious perspectives remain relatively underrepresented within the mainstream global literature.

Table 1. Research Trends Based on Temporal Analysis

Period	Number of Articles	Dominant Characteristics
2007-2017	7	Pioneering studies; neuropsychological foundations; early meta-analyses
2018-2021	11	Expansion to school populations; diversification of RCT designs
2022-2023	13	Proliferation of studies across diverse contexts; systematic syntheses
2024-2025	18	Significant acceleration; inclusion of non-Western populations; multivariate approaches

Table 1 presents the temporal distribution of the selected studies, highlighting the progressive evolution and increasing publication trends in meditation research within educational contexts over the past two decades. Temporal trends indicate a marked acceleration in the past two years, with 18 out of 49 articles (36.7%) published during 2024–2025. This pattern confirms that meditation in educational contexts is currently in an exponential growth phase, characteristic of an emerging field. Notably, this development is accompanied by the increasing presence of studies from Asian contexts (e.g., Taiwan, Indonesia, India, and Nepal), which address the prior underrepresentation of non-Western populations in the literature.

Table 2. Summary of Each Cluster

No.	Cluster	Color	Core Concepts	Cumulative Frequency	Strongest Co-occurrence
1	School-Based MBI	Blue	Mindfulness, intervention, school, RCT, meta-analysis	126	Mindfulness with intervention (32)
2	Attention & Cognitive	Red	Attention, meditation, academic, neuroscience	30	Mindfulness with attention (9)
3	Emotional Regulation	Green	Emotional regulation, anxiety, well-being	32	Mindfulness with emotional regulation (15)
4	Higher Education	Purple	Higher education, students, teachers	28	Mindfulness with higher education (17)
5	Buddhist/ Contemplative	Orange	Buddhist meditation, contemplative, yoga	18	Meditation with Buddhist (5)

Journal of Education, Religious, and Instructions (JoERI)
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Doi: 10.60046/joeri.v4i1.311
https://ejournal.stiab-jinarakkhita.ac.id/index.php/joeri

Discussion

Structured Meditation and Learning Focus

The findings of this review indicate that structured meditation conducted before learning activities contributes positively to students' attentional focus. Across the studies reviewed, improvements were consistently reported in sustained attention, working memory, executive functioning, and cognitive flexibility. These findings suggest that meditation helps students enter a learning condition that is more cognitively prepared and less vulnerable to distraction.

One possible explanation for this finding is that meditation trains the ability to consciously direct and maintain attention. According to theories of executive functioning, effective learning requires individuals to regulate attention, inhibit irrelevant stimuli, and sustain cognitive engagement with academic tasks. Through repeated practice, meditation encourages learners to recognize distractions and redirect attention toward a chosen focus. This process may gradually strengthen attentional control, which subsequently supports concentration during classroom learning.

The present findings are consistent with previous studies reporting that attention-related outcomes are among the strongest effects produced by mindfulness-based interventions. Several meta-analyses have shown that improvements in attention tend to be more consistent than improvements in academic achievement. This distinction is important because meditation does not directly increase academic performance; rather, it appears to improve the cognitive processes that support learning. In this regard, meditation can be understood as a preparatory activity that creates favorable conditions for learning rather than as a substitute for instructional strategies.

Nevertheless, the reviewed studies also demonstrate that the magnitude of the effect is generally small to moderate. Such findings indicate that meditation should not be viewed as a universal solution to learning difficulties. Its effectiveness is likely influenced by implementation quality, participant engagement, and consistency of practice. Therefore, meditation may be most beneficial when integrated into broader educational approaches aimed at improving students' cognitive readiness and learning engagement.

Structured Meditation and Emotional Regulation

This review also found consistent evidence supporting the positive influence of structured meditation on emotional regulation. Students participating in meditation or mindfulness programs generally demonstrated greater emotional awareness, increased use of adaptive emotional regulation strategies, and reduced emotional reactivity. These outcomes were observed across different age groups and educational contexts, suggesting that the emotional benefits of meditation are not limited to a particular population. The relationship between meditation and emotional regulation can be understood through self-regulation theory. Meditation encourages individuals to observe their thoughts and emotions without immediately reacting to them. Such awareness enables students to respond to emotional experiences more deliberately and constructively. As a result, they may become less likely to engage in maladaptive responses such as emotional suppression and more capable of using adaptive strategies such as cognitive reappraisal.

The findings correspond with previous research demonstrating that mindfulness interventions contribute to reductions in stress, anxiety, and emotional distress. However, the reviewed studies also reveal variations in outcomes across age groups. Among

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university students, improvements were commonly reflected in cognitive reappraisal and emotional awareness, whereas among younger learners, benefits were often observed through behavioral indicators reported by teachers. These differences suggest that emotional regulation develops differently across developmental stages and may therefore require different forms of assessment.

The educational implications of these findings are significant. Emotional regulation plays an important role in supporting academic engagement, classroom participation, and interpersonal relationships. Students who are able to manage emotions effectively are generally better prepared to cope with academic challenges and learning pressures. Consequently, meditation may serve not only as a tool for improving well-being but also as a strategy for creating more supportive learning environments.

The Importance of Age and Intervention Duration

The findings further indicate that age and intervention duration influence the effectiveness of meditation programs. Several studies reported stronger effects among primary school students compared with older learners. This pattern may be associated with developmental factors, particularly the greater neuroplasticity observed during childhood. At this stage, cognitive and emotional regulation systems are still developing, making them more responsive to interventions that promote self-awareness and attentional control.

Intervention duration also emerged as an important factor. Across the reviewed studies, programs lasting approximately eight weeks consistently produced more substantial improvements than shorter interventions. This finding suggests that meditation functions as a learned skill that requires regular practice and gradual development. Similar to other educational competencies, the benefits of meditation appear to accumulate over time rather than emerge immediately after brief exposure.

These findings highlight the importance of designing meditation programs that are developmentally appropriate and implemented consistently. Educational institutions seeking to adopt meditation practices should therefore pay attention not only to the content of the intervention but also to its duration, frequency, and suitability for the target age group.

Implications for Buddhist Education

One notable finding of the bibliometric analysis is the limited presence of Buddhist perspectives within the broader literature on meditation in education. Although mindfulness emerged as the dominant concept, studies explicitly connecting meditation with Buddhist educational philosophy remained relatively scarce. This observation confirms the research gap identified in the introduction and suggests that the spiritual and philosophical foundations of meditation have received less attention than their psychological applications.

The present review contributes to addressing this gap by highlighting the relevance of Buddhist contemplative practices within educational settings. While contemporary research frequently approaches meditation from a secular perspective, the findings suggest that its educational value extends beyond stress reduction or cognitive enhancement. Meditation may also support the development of self-awareness, ethical reflection, emotional balance, and personal growth, all of which are central elements of Buddhist educational thought. Another contribution of this review lies in its integrative perspective. Rather than examining attentional focus and emotional regulation as separate

outcomes, the findings indicate that both dimensions are closely interconnected. Improvements in attention may facilitate emotional awareness, while enhanced emotional regulation may support sustained concentration during learning. This reciprocal relationship suggests that meditation contributes to holistic student development by simultaneously influencing cognitive and affective domains.

In summary, the evidence synthesized in this review supports the use of structured meditation as a meaningful educational intervention. Although the effects reported across studies are generally moderate, the consistency of the findings indicates that meditation can contribute to improved attentional focus, emotional regulation, and overall learning readiness. Future research should continue exploring meditation within diverse educational and cultural contexts, particularly those grounded in Buddhist educational traditions, to strengthen the evidence base for its implementation in formal learning environments.

Conclusion

This systematic literature review confirms that structured meditation implemented prior to learning activities contributes positively to enhancing students' attentional focus and emotional regulation across educational levels. Evidence synthesized from 49 selected studies indicates that regular meditation practices, particularly those conducted for at least eight weeks, improve sustained attention, working memory, cognitive flexibility, emotional awareness, and adaptive emotional regulation strategies. These findings suggest that meditation functions effectively as a pre-learning intervention that supports students' cognitive and affective readiness for learning. This study contributes to the existing literature by integrating findings from educational psychology, mindfulness research, and contemplative traditions while highlighting the interconnected relationship between attentional focus and emotional regulation within educational settings. Furthermore, the review identifies a significant research gap concerning the integration of Buddhist contemplative values into formal education, particularly in the Indonesian context, where empirical evidence remains limited. Practically, the findings support the incorporation of brief and structured meditation practices into educational routines as a complementary strategy to promote learning readiness, emotional well-being, and classroom engagement. Nevertheless, the variability of intervention designs and methodological limitations across studies indicate the need for more rigorous longitudinal and experimental research in diverse cultural contexts. Future studies are encouraged to develop and evaluate educational models that integrate psychological, pedagogical, and Buddhist contemplative perspectives in a more comprehensive and contextually relevant manner.

References

Altinyelken, H. K. (2018). Promoting the psycho-social well-being of international students through mindfulness: a focus on regulating difficult emotions. *Contemporary Buddhism*, *19*(2), 185–202. https://doi.org/10.1080/14639947.2019.1572306

Basso, J. C., McHale, A., Ende, V., Oberlin, D. J., & Suzuki, W. A. (2019). Brief, daily meditation enhances attention, memory, mood, and emotional regulation in non-experienced meditators. *Behavioural Brain Research*, *356*, 208–220. https://doi.org/10.1016/j.bbr.2018.08.023

Bockmann, J. O., & Yu, S. Y. (2023). Using Mindfulness-Based Interventions to Support Self-regulation in Young Children: A Review of the Literature. *Early Childhood Education Journal*, *51*(4), 693–703. https://doi.org/10.1007/s10643-022-01333-2

D'Souza, F., & Smyth, L. (2025). The Array of Outcomes Associated with Mindfulness Interventions in Schools: A Systematic Review and Meta-analysis. *Mindfulness*, *16*(8), 2132–2155. https://doi.org/10.1007/s12671-025-02627-3

Feng, Y., Wang, X., Di, B., Wan, F., Guo, Z., Zhang, H., & Cheng, L. (2025). The Effects of Mindfulness Training on Emotion Regulation Among Undergraduates: A Randomized Controlled Trial. *Journal of Posthumanism*, *5*(6), 4964–4971. https://doi.org/10.63332/joph.v5i6.2711

Flook, L., Hirshberg, M. J., Gustafson, L., McGehee, C., Knoeppel, C., Tello, L. Y., Bolt, D. M., & Davidson, R. J. (2025). Mindfulness training enhances students' executive functioning and social emotional skills. *Applied Developmental Science*, *29*(2), 141–160. https://doi.org/10.1080/10888691.2023.2297026

García-Rubio, C., Herrero, M., Luna-Jarillo, T., Albert, J., & Rodríguez-Carvajal, R. (2023). Effectiveness and mechanisms of change of a mindfulness-based intervention on elementary school children: A cluster-randomized control trial. Journal *of School Psychology*, *99*, 101211. https://doi.org/10.1016/j.jsp.2023.04.001

Ghaffar, S. A., Nawaz, Q., Shaheen, Z., Andleeb, M., Subuktageen, B., & Khan, J. S. (2024). The Role of Mindfulness in Improving Focus and Learning Outcomes. *Pakistan Journal of Medical & Health Sciences*, *18*(01), 296–297. https://doi.org/10.53350/pjmhs02024181296

Hou, X. (2024). The Impact of Mindfulness Training in Music Education on Students' Emotional Regulation and Mental Health: An Empirical Study Based on Instrument Sounds, Rhythm, and Movement. *Advances in Humanities Research*, *10*(1), 9–13. https://doi.org/10.54254/2753-7080/2024.18120

Jobin, K., Ashok, L., Munivenkatappa, M., Andrews, J. J. T., Lakshmi, R. V., & John, S. (2025). Development of a school-based mindful yoga and meditation intervention module for enhancing adolescents' emotion regulation and well-being. *Journal of Education and Health Promotion*, *14*(1). https://doi.org/10.4103/JEHP.JEHP_408_25

Jyothilatha, P., & Prasad, Dr. G. V. V. P. (2025). Study the Influence of Rajayoga Meditation on Learning Abilities among High School Students. *International Journal For Multidisciplinary Research*, *7*(4). https://doi.org/10.36948/ijfmr.2025.v07i 04.54739

Kander, T. N., Lawrence, D., Fox, A., Houghton, S., & Becerra, R. (2024). Mindfulness-based interventions for preadolescent children: A comprehensive meta-analysis. *Journal of School Psychology*, *102*(1), 101261. https://doi.org/10.1016/j.jsp.2023.101261

Khanal, D. R. (2025). Impact of Buddhist Meditation and Mindfulness on Cognitive Ability of Students. *SMC Journal Shadananda Multiple Campus*, *1*, 26–45. https://doi.org/10.3126/smcjsmc.v1i1.78632

Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P. A., Clarke, M., Devereaux, P. J., Kleijnen, J., & Moher, D. (2009). The PRISMA Statement for Reporting Systematic Reviews and Meta-Analyses of Studies That Evaluate Health Care Interventions: Explanation and Elaboration. *PLoS Medicine*, *6*(7), e1000100. https://doi.org/10.1371/journal.pmed.1000100

Lin, L.-J., Lin, Y.-H., Yu, S.-P., Liu, T.-H., & Chen, Y.-L. (2025). A cluster randomized controlled trial examining the effects of a four-week mindfulness-based practice on primary school students' interpersonal mindfulness, emotional intelligence, and attentional focus. *Frontiers in Psychology*, *16*. https://doi.org/10.3389/fpsyg.2025.1539962

Magalhães, S., Nunes, T., Soeiro, I., Rodrigues, R., Coelho, A., Pinheiro, M., Castro, S. L., Leal, T., & Limpo, T. (2022). A Pilot Study Testing the Effectiveness of a Mindfulness-Based Program for Portuguese School Children. *Mindfulness*, *13*(11), 2751–2764. https://doi.org/10.1007/s12671-022-01991-8

Mani, S., & Kumar Mishra, P. (2023). A Focused Approach to Mindful Attention Awareness and Emotion Regulation: Vipassana Meditation. *Mind and Society*, *11*(04), 75–84. https://doi.org/10.56011/mind-mri-114-20229

Maynard, B. R., Solis, M. R., Miller, V. L., & Brendel, K. E. (2017). Mindfulness-based interventions for improving cognition, academic achievement, behavior, and socioemotional functioning of primary and secondary school students. *Campbell Systematic Reviews*, *13*(1), 1–144. https://doi.org/10.4073/CSR.2017.5

Mettler, J., Khoury, B., Zito, S., Sadowski, I., & Heath, N. L. (2023). Mindfulness-based programs and school adjustment: A systematic review and meta-analysis. *Journal of School Psychology*, *97*, 43–62. https://doi.org/10.1016/j.jsp.2022.10.007

Mrazek, A. J., Mrazek, M. D., Brown, C. S., Karimi, S. S., Ji, R. R., Ortega, J. R., Maul, A., Carr, P. C., Delegard, A. M., Kirk, A. C., & Schooler, J. W. (2022). Attention Training Improves the Self-Reported Focus and Emotional Regulation of High School Students. *Technology, Mind, and Behavior*, *3*(4). https://doi.org/10.1037/TMB0000092

Nguyen, V. T. T., Chen, H., & Nguyen, V. T. K. (2025). Integrating Social–Emotional Learning Into Gamified Flipped Classrooms: Impacts on Emotion Regulation, Achievement and Communication Tendency. *Journal of Computer Assisted Learning*, *41*(1), e13109. https://doi.org/10.1111/jcal.13109

Kenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., … Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*, *372*, n71. https://doi.org/10.1136/bmj.n71

Phan, M. L., Renshaw, T. L., Caramanico, J., Greeson, J. M., MacKenzie, E., Atkinson-Diaz, Z., Doppelt, N., Tai, H., Mandell, D. S., & Nuske, H. J. (2022). Mindfulness-Based School Interventions: a Systematic Review of Outcome Evidence Quality by Study Design. *Mindfulness*, *13*(7), 1591–1613. https://doi.org/10.1007/s12671-022-01885-9

Salem, G. M. M., Hashimi, W., & El-Ashry, A. M. (2025). Reflective mindfulness and emotional regulation training to enhance nursing students' self-awareness, understanding, and regulation: a mixed method randomized controlled trial. *BMC Nursing*, *24*(1), 478. https://doi.org/10.1186/s12912-025-03086-w

Sensiper, S. (2023). Teaching meditation to college students within an historical and cultural context: A qualitative analysis of undergraduate reflections on contemplative practice. *Current Psychology*, *42*(18), 15356–15367. https://doi.org/10.1007/s12144-022-02811-x

Tang, Y.-Y., Ma, Y., Wang, J., Fan, Y., Feng, S., Lu, Q., Yu, Q., Sui, D., Rothbart, M. K., Fan, M., & Posner, M. I. (2007). Short-term meditation training improves attention and self-regulation. *Proceedings of the National Academy of Sciences*, *104*(43), 17152–17156. https://doi.org/10.1073/pnas.0707678104

Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology*, *8*(1), 45. https://doi.org/10.1186/1471-2288-8-45

Waters, L., Barsky, A., Ridd, A., & Allen, K. (2015). Contemplative Education: A Systematic,

Journal of Education, Religious, and Instructions (JoERI)
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Doi: 10.60046/joeri.v4i1.311
https://ejournal.stiab-jinarakkhita.ac.id/index.php/joeri

Evidence-Based Review of the effect of Meditation Interventions in Schools. *Educational Psychology Review*, *27* (1), 103–134. https://doi.org/10.1007/s10648-014-9258-2

Zenner, C., Herrnleben-Kurz, S., & Walach, H. (2014). Mindfulness-based interventions in schoolsâ€": a systematic review and meta-analysis. *Frontiers in Psychology*, *5*(JUN). https://doi.org/10.3389/fpsyg.2014.00603