Jurnal Pendidikan Islam 12 (2) (2026) 271-286
DOI: https://doi.org/10.15575/jpi.v12i2.55326
http://journal.uinsgd.ac.id/index.php/jpi

p-ISSN: 2355-4339
e-ISSN: 2460-8149

MAPPING THE INTELLECTUAL STRUCTURE OF MINDFULNESS AND ADVERSITY QUOTIENT RESEARCH IN TEACHER EDUCATION: IMPLICATIONS FOR ISLAMIC TEACHER PROFESSIONAL DEVELOPMENT

Jiraporn Chano[1], Archrawadee Srijaroon[1*], Bovornpot Choompunuch[1], Yannapat Seehamongkon[1], Sudares Sirisittanapak[1], Kanokporn Janatkon[1], Bahtiar Mohamad[2]
[1]Mahasarakham University, Maha Sarakham, Thailand
[2]Universiti Utara Malaysia, Kuala Lumpur, Malaysia
[*]Corresponding Email: archrawadee.s@msu.ac.th

Received: December 2025. Accepted: April 2026. Online First: June 2026. Published: December 2026.

ABSTRACT
Teacher burnout, emotional exhaustion, and declining professional well-being have become significant challenges in contemporary education, particularly in the post-pandemic era. Furthermore, these concerns are equally relevant to Islamic educational institutions, where teachers are expected to demonstrate pedagogical competence, moral integrity, emotional maturity, and spiritual responsibility. In response, mindfulness and Adversity Quotient (AQ) have attracted increasing scholarly attention as psychological resources that support teacher resilience and professional sustainability. Consequently, this study aims to map the development of research on mindfulness and AQ in teacher education and examine its educational relevance for teacher professionalism, resilience, and Islamic teacher development. A bibliometric analysis was conducted using publications indexed in ERIC, Scopus, and Google Scholar between 2020 and 2025. Data were retrieved through Publish or Perish and analyzed using VOSviewer to identify publication trends, citation impact, conceptual structures, and thematic evolution. The findings reveal a substantial increase in research output during the study period, alongside a shift from deficit-oriented themes such as emotional exhaustion and stress management toward resilience, self-compassion, reflective awareness, and well-being. Additionally, keyword co-occurrence analysis identified four major thematic domains: stress management and adversity, emotional regulation and self-compassion, resilience and adaptive capacity, and reflective awareness and well-being. Overall, the findings highlight the growing importance of psychological competencies in supporting teacher professionalism and educational sustainability. For Islamic education, mindfulness and AQ provide relevant conceptual foundations for strengthening holistic teacher development that integrates intellectual, moral, emotional, and spiritual dimensions.

Keywords: Adversity Quotient, Islamic Education, Mindfulness, Teacher Professionalism, Teacher Resilience, Well-being

INTRODUCTION
Teachers worldwide are increasingly confronted with professional demands stemming from educational reforms, technological advancements, expanding diversity within classrooms, and the ongoing repercussions of post-pandemic recovery efforts (Alhazmy, 2026; Rana et al., 2026). These compounded challenges have led to heightened workload pressures, emotional exhaustion, burnout, and rising teacher attrition rates across various educational systems (Banal & Ortega-Dela Cruz, 2022; Jennings et al., 2022). Consequently, the importance of teacher well-being and resilience has gained prominence in educational research, as these factors significantly impact instructional quality, professional effectiveness, and student outcomes (Bakker & Demerouti, 2017). Within Islamic educational institutions, these concerns are equally significant. Islamic educational philosophy positions teachers not merely as transmitters of knowledge but as *mu'allim* (teacher), *murabbi* (educator and nurturer), and *muaddib* (character builder) who guide

learners' intellectual, moral, emotional, and spiritual development (Makruf et al., 2022). Such responsibilities require teachers to possess not only pedagogical competence but also emotional resilience, moral integrity, and spiritual maturity. Therefore, strengthening teacher resilience is essential for sustaining educational quality and supporting the broader mission of Islamic education (Flores-Builes & Andrés-Roqueta, 2023).

One psychological construct that has received increasing attention in teacher development research is mindfulness (Teke, 2026). This concept pertains to deliberate awareness of present experiences, characterized by openness and non-judgmental attention. Evidence from previous studies indicates that mindfulness plays a significant role in emotional regulation, stress alleviation, self-awareness, and the enhancement of interpersonal relationships among educators (Jha et al., 2021; Jennings et al., 2022). Furthermore, research suggests that mindfulness fosters resilience and promotes psychological well-being, particularly for individuals confronting educational and professional challenges (Aini et al., 2021; Merdiaty & Aldrin, 2020). As educational contexts become increasingly complex, mindfulness is increasingly recognized as a vital resource that enables teachers to sustain their effectiveness while managing emotional and professional demands (Koçali, & Aşık, 2026).

Although mindfulness is often discussed within contemporary educational psychology, similar reflective and self-regulatory practices have long existed within Islamic intellectual traditions (Latif, 2026). Concepts such as *muraqabah* (awareness of God's presence), *muhasabah* (self-reflection and self-evaluation), *tafakkur* (deep contemplation), and *tazkiyatun nafs* (purification of the self) emphasize conscious awareness, reflection, intentionality, and self-regulation. These practices encourage individuals to develop greater awareness of their thoughts, emotions, and actions while fostering personal growth and spiritual development. Consequently, mindfulness-related competencies are not foreign to Islamic educational thought but can be understood as contemporary psychological expressions of values that have long been embedded within Islamic traditions of learning and character formation (Handayani, 2022).

Alongside mindfulness, the concept of Adversity Quotient (AQ) has emerged as an important framework for understanding how individuals respond to challenges and adversity Baimuldinova et al, 2026). AQ refers to an individual's capacity to withstand difficulties, adapt to changing circumstances, and transform obstacles into opportunities for growth (Stoltz, 2007). Within educational contexts, AQ has been associated with professional competence, perseverance, adaptability, and effective problem-solving among teachers (Sobandi & Siphai, 2021). Similar findings have been reported in studies of leadership, stress management, and career success (Atrizka & Pratama, 2022; Zhao & Sang, 2023). From an Islamic perspective, AQ shares conceptual similarities with values such as *sabr* (patience and perseverance), *istiqamah* (steadfastness and consistency), *tawakkul* (trust in God accompanied by effort), and *jihad al-nafs* (striving against personal weaknesses). These values encourage persistence, resilience, and constructive responses to adversity, suggesting that AQ can be understood not only as a psychological construct but also as a dimension of character development relevant to Islamic teacher professionalism (Alfain et al., 2023).

Recent scholarship suggests that mindfulness and AQ function as complementary rather than independent capacities. Mindfulness primarily supports emotional awareness, self-regulation, and reflective practice, whereas AQ strengthens perseverance, adaptability, and effective responses to adversity (Merdiaty & Aldrin, 2020; Sobandi & Siphai, 2021). Together, these capacities contribute to teacher resilience, professional sustainability, and effective educational practice. Despite growing research on mindfulness and AQ, little is known about how these constructs collectively contribute to teacher resilience, professional sustainability, and character formation within educational contexts, including Islamic educational institutions. Existing studies largely focus on intervention effectiveness, psychological outcomes, or specific

educational settings, while broader patterns of knowledge development remain insufficiently explored.

To address this gap, this study conducts a bibliometric analysis of mindfulness and Adversity Quotient research in teacher education published between 2020 and 2025. Using data retrieved from ERIC, Scopus, and Google Scholar and analyzed through Publish or Perish (Harzing, 2007) and VOSviewer (Van Eck & Waltman, 2010), the study maps publication trends, influential contributions, conceptual structures, and thematic evolution within the field. By examining the intellectual development of mindfulness and AQ research, this study provides evidence-based insights into teacher professionalism, resilience development, educational sustainability, and Islamic teacher development. The findings are expected to contribute to the design of teacher education programs and professional development initiatives that support resilient, reflective, and holistic educators in both general and Islamic educational contexts.

METHOD

This study employed a bibliometric analysis to systematically examine the development of research on mindfulness and Adversity Quotient (AQ) in teacher education between 2020 and 2025. The study was guided by an integrated conceptual framework combining teacher resilience theory, mindfulness, AQ, and Islamic educational values. Teacher resilience is viewed as the capacity to adapt to professional challenges, maintain well-being, and sustain effectiveness in demanding educational environments (Bakker & Demerouti, 2017; Pozo-Rico et al., 2023). Within this framework, mindfulness contributes through self-awareness, emotional regulation, and reflective practice (Jha et al., 2021; Jennings et al., 2022), whereas AQ strengthens perseverance, adaptability, and constructive responses to adversity (Stoltz, 2007; Sobandi & Siphai, 2021). These constructs were interpreted through the perspective of Islamic education, which emphasizes the development of teachers as *mu'allim*, *murabbi*, and *muaddib* who embody intellectual competence, moral integrity, emotional maturity, and spiritual responsibility (Makruf et al., 2022).

Bibliographic data were then collected from ERIC, Scopus, and Google Scholar using Publish or Perish software (Harzing, 2007). These databases were selected because they provide broad coverage of educational, psychological, and interdisciplinary scholarship relevant to mindfulness, AQ, and teacher education. The search strategy employed combinations of the keywords "mindfulness in education," "mindfulness and teachers," "adversity quotient," "teacher education," and "teaching profession," with publications limited to the period 2020–2025. The initial search yielded approximately 420 records. Duplicate entries were removed, and the remaining publications were screened based on titles, abstracts, keywords, and metadata completeness. Whilst, the publications unrelated to teacher education, mindfulness, or AQ were excluded. Following the screening and data-cleaning procedures, a final dataset of 200 publications was retained for analysis.

The dataset was analyzed using VOSviewer version 1.6.19 (Van Eck & Waltman, 2010) to examine publication trends, citation impact, conceptual structures, and thematic evolution within the literature. Keyword co-occurrence analysis was conducted to identify dominant thematic domains and conceptual relationships, while overlay visualization was employed to examine temporal shifts and emerging research themes. To enhance interpretability, only keywords appearing at least five times were included in the analysis. Although the dataset was not restricted to Islamic education publications, the findings were interpreted through an educational relevance framework emphasizing teacher professionalism, teacher resilience, educational sustainability, and Islamic teacher development. This interpretive approach enabled the bibliometric findings to be examined not only as indicators of scholarly development but

also as evidence relevant to strengthening resilient, ethical, and sustainable teacher development within contemporary educational and Islamic educational contexts.

RESULTS AND DISCUSSION

Publication Trends in Mindfulness and Adversity Quotient Research (2020–2025)

Table 1 and Figure 1 present the annual publication trends in research on mindfulness and Adversity Quotient (AQ) in teacher education between 2020 and 2025. Following the screening and data-cleaning process, a total of 200 publications were identified from ERIC, Scopus, and Google Scholar. The results indicate a consistent increase in scholarly output throughout the study period, reflecting growing academic interest in psychological factors that support teacher well-being, resilience, and professional effectiveness.

Table 1. Annual Publications on Mindfulness and Adversity Quotient Research in Teacher Education (2020–2025)

Year	Documents	Percentages (%)
2020	10	5.00
2021	21	10.50
2022	32	16.00
2023	40	20.00
2024	54	27.00
2025	43	21.50
Total	200	100

Table 1 shows that in 2020, only 10 publications were identified, representing 5% of the total dataset. Publication output increased to 21 studies (10.5%) in 2021 and continued to rise to 32 studies (16%) in 2022. Then, the upward trend persisted in 2023 with 40 publications (20%), reaching its highest level in 2024 with 54 publications (27%). Although the number of publications decreased slightly to 43 (21.5%) in 2025, the volume of research remained substantially higher than that observed during the early years of the period under review.

The sustained growth in publication output suggests that mindfulness and AQ have become increasingly important areas of inquiry within teacher education research. The most pronounced increase occurred between 2021 and 2024, a period marked by global educational recovery following the COVID-19 pandemic. During this period, concerns regarding teacher burnout, emotional exhaustion, occupational stress, and professional sustainability prompted greater scholarly attention toward psychological resources that enable educators to adapt effectively to changing educational environments.

Figure 1 further illustrates the upward trajectory of research activity across the six-year period. The pattern indicates that mindfulness and AQ have evolved from relatively specialized topics into established areas of educational research. The slight decline observed in 2025 may reflect a period of consolidation rather than decreasing interest, as scholars increasingly focus on theoretical refinement, intervention effectiveness, and practical applications within teacher development programs.

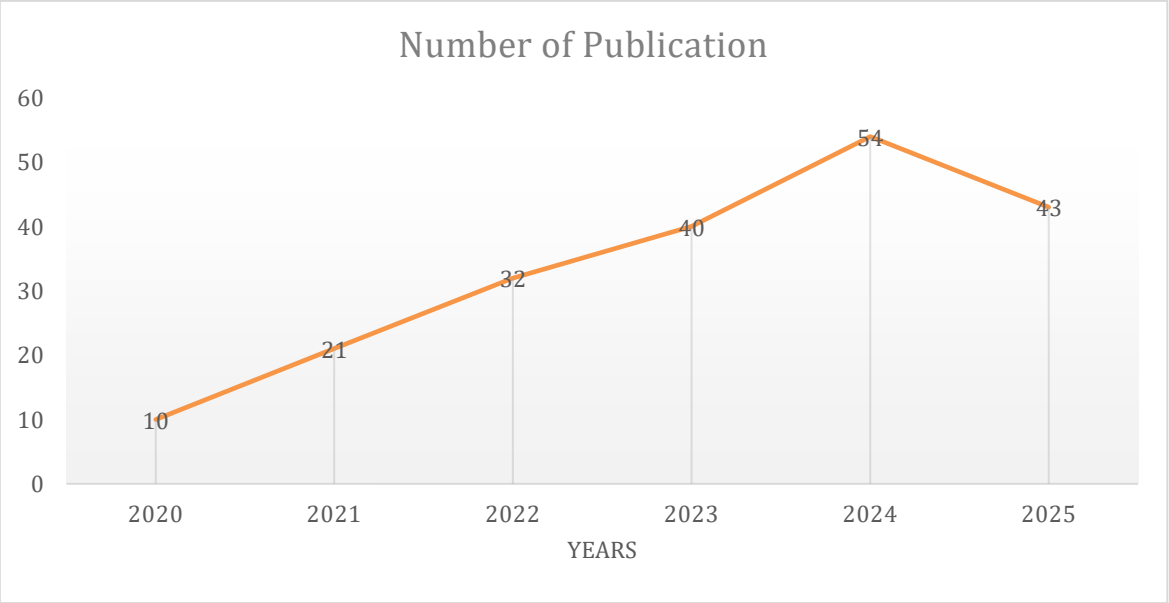


Figure 1. Annual report of publications

Overall, the publication trend, captured in Table 1 and Figure 1, demonstrates growing recognition of the importance of resilience-related competencies in contemporary education. The increasing volume of research suggests that teacher effectiveness is being understood not only in terms of pedagogical expertise but also through psychological capacities such as emotional regulation, adaptability, perseverance, and well-being. These developments provide a strong foundation for subsequent analyses of the intellectual structure, conceptual domains, and educational relevance of mindfulness and AQ research in teacher education.

Influential Publications and Citation Impact

Table 2 presents the most influential publications identified in the bibliometric dataset on mindfulness, Adversity Quotient (AQ), resilience, and teacher development between 2020 and 2025. Citation analysis provides insight into the studies that have exerted the greatest influence on scholarly discourse and contributed significantly to the development of knowledge within this field. The distribution of citations indicates growing scholarly attention to AQ, mindfulness, emotional resilience, and professional competence as important dimensions of educational practice and teacher development.

Table 2. Most Influential Publications in Mindfulness, Adversity Quotient, and Teacher Resilience Research (2020–2025)

Rank	Author(s)	Year	Research Focus	Total Citations
1	Atrizka & Pratama	2022	Adversity Quotient and adaptive performance	145
2	Sobandi & Siphai	2021	AQ and teacher professional competence	50
3	Sharma & Singh	2021	Emotional intelligence and adaptability	46
4	Banal & Ortega-Dela Cruz	2022	Teacher resilience during adversity	27
5	Juanamasta et al.	2022	Well-being and resilience	26
6	Aini et al.	2021	Mindfulness and resilience	23

Rank	Author(s)	Year	Research Focus	Total Citations
7	Alfain et al.	2023	Patience and resilience from Islamic perspective	22
8	Zhao & Sang	2023	AQ and career success	19
9	Handayani	2022	Mindfulness, religiosity, and stress	17
10	Khan	2024	Mindfulness and emotional exhaustion	14
11	Somaratne et al.	2020	AQ and perceived stress	12
12	Merdiaty & Aldrin	2020	Mindfulness, resilience, and burnout	10

In Table 2, among the most influential publications, the study by Atrizka and Pratama (2022) received the highest number of citations, highlighting the growing recognition of AQ as an important predictor of adaptive performance and resilience. Similarly, the work of Sobandi and Siphai (2021) has become a foundational reference within educational research by demonstrating that AQ contributes significantly to teachers' professional competence. Other highly cited studies emphasize mindfulness, emotional regulation, resilience, and coping strategies in response to educational and psychological challenges. Collectively, these publications indicate increasing scholarly interest in identifying psychological resources that support professional effectiveness and well-being.

The citation patterns further reveal the interdisciplinary nature of the field. Influential studies originate not only from teacher education but also from organizational psychology, leadership studies, health sciences, and positive psychology. Publications examining emotional intelligence, adaptability, career success, stress management, and well-being suggest that mindfulness and AQ are increasingly understood as transferable competencies that contribute to resilience and effective performance across professional contexts. This interdisciplinary expansion demonstrates that research on mindfulness and AQ has evolved beyond isolated psychological constructs and has become integrated into broader discussions of human development, adaptability, and professional sustainability.

From an intellectual perspective, three major strands of scholarship emerge from the most influential publications. The first strand focuses on mindfulness, emotional regulation, and psychological well-being, emphasizing the role of self-awareness and reflective practice in supporting individual functioning. The second strand centers on resilience and adaptive coping, examining how individuals respond to adversity, stress, and professional challenges. The third strand highlights AQ as a determinant of perseverance, problem-solving ability, and professional competence. Together, these strands form the intellectual foundation of contemporary research on teacher resilience and well-being.

Although several influential publications originated from domains beyond teacher education, including organizational leadership, sports psychology, and health sciences, the underlying constructs of mindfulness, AQ, resilience, and emotional regulation remain highly relevant to educational settings. The prominence of these studies demonstrates the broad applicability of resilience-related competencies and reinforces their significance for understanding teacher development and professional effectiveness.

Overall, the most influential publications identified in this study provide important intellectual foundations for contemporary research on mindfulness, AQ, and teacher resilience. Their citation impact reflects sustained scholarly interest in psychological resources that support adaptability, well-being, and long-term professional sustainability, thereby establishing a foundation for the conceptual and thematic developments examined in the following sections.

Conceptual Structure of Research

Figure 2 presents the network visualization generated through VOSviewer based on keyword co-occurrence analysis. The analysis identified 21 frequently occurring keywords organized into six interconnected clusters, revealing the conceptual structure of research on mindfulness, Adversity Quotient (AQ), and teacher development between 2020 and 2025. The network illustrates how major concepts are related and highlights the dominant themes that have shaped scholarly discourse within the field.

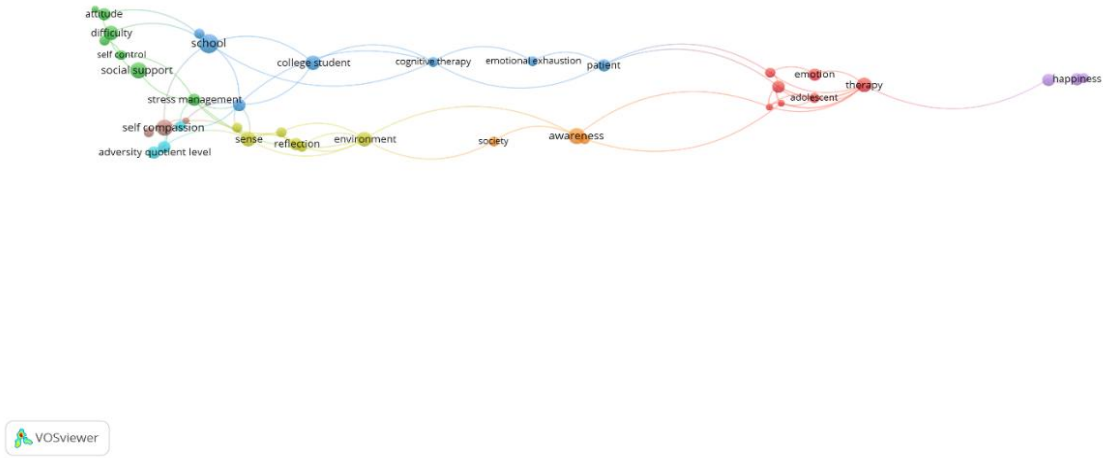


Figure 2. Network visualization

Figure 2 presents the network visualization generated through VOSviewer based on keyword co-occurrence analysis. The analysis identified 21 frequently occurring keywords organized into several thematic clusters, revealing the conceptual structure of research on mindfulness, Adversity Quotient (AQ), and teacher development. The network illustrates how major concepts are interconnected and highlights the dominant themes that have shaped scholarly discourse between 2020 and 2025.

The first thematic domain centers on stress management and adversity, represented by keywords such as *emotional exhaustion*, *cognitive therapy*, *stress management*, *school*, and *adversity quotient level*. This cluster reflects a substantial body of literature concerned with understanding psychological challenges experienced by educators and learners, particularly during periods of uncertainty and educational disruption. The close association between AQ and stress-related concepts suggests that resilience and adaptive capacity are frequently examined as mechanisms for coping with professional and academic pressures.

The second thematic domain focuses on emotional regulation and self-compassion, encompassing keywords such as *emotion*, *self-compassion*, and *therapy*. The strong connections among these concepts indicate growing scholarly interest in emotional awareness, self-care, and psychological support as foundations for well-being. This cluster highlights the increasing recognition that effective educational practice requires not only technical competence but also the capacity to regulate emotions and maintain psychological balance.

The third thematic domain emphasizes resilience and adaptive capacity, represented by keywords including *self-control*, *social support*, *difficulty*, and *adolescent*. This cluster reflects research examining how individuals respond to challenges and develop coping mechanisms that strengthen perseverance and adaptability. The presence of social support within this domain further suggests that resilience is viewed not only as an individual characteristic but also as a product of supportive interpersonal and professional environments.

The remaining clusters relate to reflective awareness and well-being, represented by keywords such as *awareness*, *reflection*, *happiness*, *environment*, and *society*. These concepts indicate an expanding interest in mindfulness, reflective practice, and positive psychological functioning. Their interconnectedness suggests that recent scholarship increasingly emphasizes long-term well-being, personal growth, and flourishing rather than focusing exclusively on stress reduction and burnout prevention.

Taken together, the identified clusters reveal three overarching conceptual orientations within the literature. The first concerns psychological challenges and coping strategies, including stress management, emotional exhaustion, and adversity. The second focuses on resilience development through emotional regulation, self-compassion, self-control, and social support. The third emphasizes positive psychological growth through awareness, reflection, and well-being. These thematic domains collectively demonstrate that research on mindfulness and AQ has evolved toward a multidimensional understanding of resilience that integrates emotional, cognitive, social, and developmental perspectives.

The overall conceptual framework of the field indicates that contemporary scholarship increasingly perceives teacher development as a multifaceted process that extends beyond mere pedagogical knowledge. It encompasses psychological adaptation, resilience, emotional regulation, and well-being. The strong interconnections among these themes serve as the foundational basis for understanding the subsequent thematic evolution of mindfulness and AQ research, which will be examined in the following section.

The keyword co-occurrence analysis revealed four major thematic domains that characterize research on mindfulness, Adversity Quotient (AQ), and teacher development. The first thematic domain centers on stress management and adversity, represented by keywords such as emotional exhaustion, cognitive therapy, stress management, and adversity quotient. This cluster reflects a substantial body of literature concerned with understanding the psychological challenges experienced by educators and the strategies used to cope with occupational stress, burnout, and adverse professional conditions.

The second thematic domain centers on emotional regulation and self-compassion. It includes keywords such as emotion, self-compassion, and therapy. The close interrelationship among these concepts indicates a growing scholarly interest in emotional awareness, self-care, and psychological support, recognizing these areas as fundamental to teacher well-being. Furthermore, this focus underscores an increasing emphasis on fostering emotional resilience through therapeutic and self-compassionate practices.

In contrast, the third thematic domain highlights resilience and adaptive capacity. This domain is represented by keywords like self-control, social support, and difficulty. It reflects research dedicated to understanding how individuals respond to various challenges and develop coping mechanisms. These mechanisms, in turn, play a critical role in enhancing an individual's adaptability and perseverance amidst adversity.

Lastly, the fourth thematic domain pertains to reflective awareness and overall well-being. Keywords such as awareness, reflection, and happiness characterize this cluster. It demonstrates a rising interest in mindfulness, reflective practice, and positive psychological functioning. These areas highlight the growing recognition of the importance of self-awareness and introspection as essential tools for fostering mental health, emotional resilience, and overall life satisfaction. Emphasizing that regular reflection can facilitate personal growth, reduce stress, and enhance emotional balance, this domain underscores the central role of mindful awareness in achieving a balanced and fulfilling life.

Collectively, these thematic areas demonstrate that current research on mindfulness and AQ has expanded beyond merely addressing psychological distress. Instead, it increasingly emphasizes resilience building, reflective awareness, and long-term well-being. Furthermore, the

interconnectedness among these clusters suggests that teacher development should be viewed as a multidimensional process, encompassing emotional regulation, adaptive capacity, self-awareness, and professional sustainability.

Thematic Evolution of Research

Figure 3 presents the overlay visualization of keyword co-occurrence in mindfulness and Adversity Quotient (AQ) research related to teacher education between 2020 and 2025. The visualization reveals the temporal development of research themes by displaying keywords according to their average year of occurrence. Earlier themes are represented by darker colors, whereas more recent themes appear in lighter colors, enabling the identification of shifts in scholarly attention and emerging research directions. The results indicate a dynamic evolution of the field from problem-oriented concerns toward more developmental and strengths-based approaches to teacher well-being and resilience.

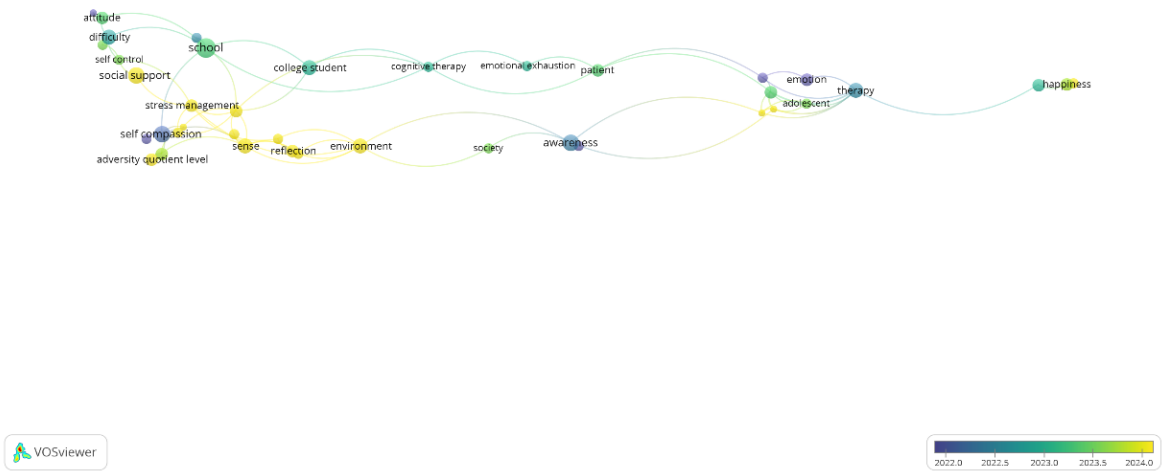


Figure 3. Overlay Visualization of Thematic Evolution in Mindfulness and Adversity Quotient Research (2020–2025)

Based on Figure 3, in the early phase of the study period (2020–2022), research was primarily associated with keywords such as *emotional exhaustion*, *stress management*, *school*, *difficulty*, and *adversity quotient*. These themes reflect a strong focus on understanding psychological distress, occupational stress, and the challenges faced by educators in demanding educational environments. The prominence of these concepts suggests that early studies were largely concerned with identifying the causes and consequences of adversity as well as strategies for mitigating burnout and emotional strain.

As the field developed, scholarly attention expanded toward themes related to resilience development and adaptive functioning. Keywords such as *emotion*, *self-control*, *social support*, and *reflection* became increasingly prominent, indicating growing interest in the psychological and interpersonal resources that enable individuals to respond effectively to challenges. This transition suggests a conceptual shift from examining the effects of adversity toward understanding the processes through which resilience can be cultivated and sustained.

The most recent phase of research (2023–2025) is characterized by the emergence of keywords such as *awareness*, *self-compassion*, *happiness*, and *well-being*. These themes reflect increasing scholarly attention to positive psychological development, reflective practice, and sustainable well-being. Rather than focusing exclusively on stress reduction and burnout prevention,

contemporary studies increasingly explore how mindfulness and AQ contribute to flourishing, professional effectiveness, and long-term adaptive capacity. The growing prominence of self-compassion and awareness further indicates recognition of reflective self-regulation as an important component of personal and professional development.

Overall, the thematic evolution revealed in Figure 2 demonstrates a clear progression from deficit-oriented perspectives centered on stress and adversity toward strengths-based approaches emphasizing resilience, well-being, and flourishing. This pattern suggests that the field has matured from addressing immediate psychological challenges to exploring broader developmental processes that support long-term adaptability and sustainable professional growth. The findings also indicate increasing conceptual integration between mindfulness, resilience, emotional regulation, and AQ as complementary resources for navigating contemporary educational challenges

Educational Relevance of Mindfulness and AQ Research

The bibliometric findings demonstrate that mindfulness and Adversity Quotient (AQ) have become increasingly important constructs in contemporary discussions of teacher development and educational effectiveness. The steady growth in publications, the prominence of resilience-related themes, and the emergence of well-being-oriented research collectively indicate increasing scholarly recognition of psychological competencies as essential components of teacher professionalism. Beyond pedagogical knowledge and instructional skills, contemporary research emphasizes the importance of emotional regulation, adaptability, reflective awareness, and resilience in supporting professional effectiveness within complex educational environments.

A second important finding concerns the central role of resilience within the conceptual structure of the field. Across the identified keyword clusters and thematic evolution patterns, resilience emerged as a connecting concept linking mindfulness, emotional regulation, adversity management, and well-being. The progression from themes such as emotional exhaustion and stress management toward self-compassion, awareness, and adaptive coping reflects a broader shift in scholarly attention from deficit-oriented perspectives to resilience-building approaches. This pattern suggests that resilience is increasingly viewed as a dynamic capacity that supports adaptation, recovery, and sustained professional functioning.

The findings also highlight the growing relevance of educational sustainability. The increasing prominence of themes related to well-being, resilience, and adaptive competence indicates that contemporary scholarship is concerned not only with immediate teacher performance but also with the long-term sustainability of the teaching profession. Within the literature, mindfulness and AQ are frequently associated with psychological resources that contribute to professional longevity, adaptability, and continuous professional growth. These themes suggest that teacher well-being is increasingly recognized as an important dimension of educational quality and sustainability.

From the perspective of Islamic teacher development, the identified themes demonstrate strong conceptual alignment with the holistic aims of Islamic education. The prominence of self-awareness, reflection, perseverance, emotional regulation, and resilience reflects qualities that support the development of educators who are capable of fulfilling intellectual, moral, emotional, and spiritual responsibilities. Although the analyzed publications were not limited to Islamic educational contexts, the bibliometric evidence indicates that mindfulness and AQ provide relevant conceptual foundations for understanding teacher development within educational settings that emphasize both professional competence and character formation.

The findings of this bibliometric study reveal a substantial increase in scholarly attention to mindfulness and Adversity Quotient (AQ) within teacher education between 2020 and 2025. The upward trend in publication output reflects growing recognition that teacher effectiveness depends not only on pedagogical competence but also on psychological resources that enable educators to respond effectively to increasingly complex educational demands. This development is consistent with growing concerns regarding teacher burnout, emotional exhaustion, and professional sustainability reported in contemporary educational research (Banal & Ortega-Dela Cruz, 2022; Jennings et al., 2022). More broadly, the growing attention to psychological well-being reflects broader societal concerns about mental health in the digital era and rapidly changing educational environments (Boguszewicz et al., 2021).

The citation analysis further demonstrates that mindfulness, AQ, resilience, and emotional regulation have emerged as influential areas of inquiry across multiple disciplines. Highly cited studies emphasize the importance of adaptive capacity, perseverance, and emotional competence in maintaining professional effectiveness under challenging conditions (Atrizka & Pratama, 2022; Sobandi & Siphai, 2021; Widodo et al., 2022). The interdisciplinary nature of these influential publications suggests that resilience-related competencies are increasingly viewed as essential dimensions of professional development rather than supplementary personal attributes. Similar patterns can be observed in studies of leadership, management, and career development, where AQ has been associated with adaptability and professional success (Zhao & Sang, 2023).

The conceptual structure of the field indicates that teacher professionalism has become closely associated with psychological competencies. The strong relationships among mindfulness, emotional regulation, self-control, adaptability, and professional competence suggest that contemporary scholarship increasingly conceptualizes teaching as a multidimensional profession requiring cognitive, emotional, and behavioral capacities. These findings support previous research demonstrating that mindfulness enhances self-awareness and emotional regulation, thereby strengthening classroom management, interpersonal relationships, and professional decision-making (Jha et al., 2021; Jennings et al., 2022). Similarly, AQ contributes to professional competence by strengthening perseverance, problem-solving abilities, and adaptive responses to professional challenges (Sobandi & Siphai, 2021; Widodo et al., 2022).

The first thematic domain identified in the study, namely stress management and adversity, reflects the continuing importance of understanding the psychological challenges experienced by educators. The prominence of concepts such as emotional exhaustion, stress management, and adversity quotient suggests that concerns regarding occupational stress remain central to teacher education research. This finding aligns with evidence indicating that teaching is increasingly characterized by emotional labor and workload pressures that place educators at risk of burnout and professional disengagement (Banal & Ortega-Dela Cruz, 2022). Similar concerns have also been documented in broader discussions of workplace well-being and mental health under conditions of technological and societal transformation (Boguszewicz et al., 2021).

The second thematic domain, emotional regulation and self-compassion, demonstrates a growing shift toward understanding how educators cultivate psychological well-being. The increasing prominence of self-compassion, emotional awareness, and therapeutic approaches reflects recognition that teacher effectiveness depends partly on the ability to regulate emotions and maintain psychological balance. Previous studies have similarly shown that mindfulness-based practices contribute to reduced stress and improved emotional functioning among educators (Jennings et al., 2022; Khan, 2024). This finding is also consistent with research

demonstrating the importance of emotional intelligence and self-concept for academic achievement and personal development across diverse cultural contexts (Javaid et al., 2024).

The third thematic domain highlights resilience and adaptive capacity as central components of teacher development. The relationships among self-control, social support, and adaptability suggest that resilience is increasingly viewed as both an individual and social process. This interpretation is consistent with resilience theory, which emphasizes the interaction of personal resources and environmental supports in enabling adaptive functioning (Pozo-Rico et al., 2023). The findings further support studies demonstrating that resilience contributes to professional persistence and effective coping in educational settings (Aini et al., 2021; Merdiaty & Aldrin, 2020). Research on AQ in educational and professional settings similarly indicates that individuals with stronger adaptive capacities are better equipped to overcome obstacles and sustain performance under pressure (Neikirk et al., 2023).

The fourth thematic domain, reflective awareness and well-being, reveals an emerging emphasis on flourishing and positive psychological development. The growing prominence of awareness, reflection, happiness, and well-being suggests that recent research extends beyond preventing burnout to promoting sustainable professional growth. This shift reflects broader developments within positive psychology, which emphasize flourishing, meaning, and long-term well-being as indicators of professional success (Seligman, 2011). Such developments are also consistent with Buetow's (2020) argument that flourishing requires psychological capacities that enable individuals to transform adversity into opportunities for growth and development.

The thematic evolution analysis provides further evidence of a significant transformation within the field. Earlier studies focused primarily on emotional exhaustion, stress management, and coping with adversity, whereas more recent studies increasingly emphasize self-compassion, awareness, happiness, and well-being. This transition reflects a movement from deficit-oriented perspectives toward strengths-based approaches that seek to cultivate resilience and adaptive capacity. Such developments suggest that contemporary teacher education research is increasingly concerned with enabling educators to thrive rather than merely survive professional challenges.

The findings also reinforce the central role of teacher resilience within the educational relevance framework adopted in this study. Across publication trends, conceptual structures, and thematic evolution patterns, resilience consistently emerged as a connecting concept linking mindfulness, AQ, emotional regulation, and well-being. This result supports the argument that resilience functions as a foundational resource enabling educators to adapt to uncertainty, maintain professional commitment, and sustain effectiveness in demanding educational contexts (Pozo-Rico et al., 2023; Sobandi & Siphai, 2021). Furthermore, resilience appears closely linked to the development of professional competence, reinforcing previous findings that AQ may contribute more strongly to teacher performance than emotional intelligence alone (Widodo et al., 2022).

A further implication concerns educational sustainability. The growing prominence of resilience, well-being, and adaptive competence suggests increasing scholarly recognition that educational quality depends on the long-term sustainability of the teaching profession. Mindfulness and AQ are increasingly positioned as protective resources that support professional longevity, reduce vulnerability to burnout, and enhance teachers' capacity to navigate change and uncertainty (Jennings et al., 2022; Khan, 2024). Consequently, teacher well-being is becoming an important dimension of discussions concerning educational effectiveness and sustainability. The growing use of digital and interactive learning environments further reinforces the need for psychologically resilient educators capable of adapting to evolving educational contexts (Janah et al., 2022).

The findings are particularly significant when interpreted within the context of Islamic teacher development. Islamic educational philosophy envisions teachers not merely as transmitters of knowledge but also as *mu'allim, murabbi*, and *muaddib* who guide intellectual, moral, emotional, and spiritual growth (Makruf et al., 2022). The identified themes of self-awareness, reflection, emotional regulation, perseverance, and resilience align closely with Islamic concepts such as muraqabah, muhasabah, sabr, istiqamah, and tazkiyatun nafs. These conceptual parallels suggest that mindfulness and AQ can be interpreted as contemporary psychological expressions of values that have long been embedded within Islamic educational traditions.

Furthermore, the resilience-oriented themes identified in this study resonate strongly with Islamic perspectives on coping and character formation. Research within Islamic psychology highlights the importance of religiosity, reflective awareness, and patience in maintaining psychological well-being and responding constructively to adversity (Handayani, 2022; Alfain et al., 2023). Studies on spirituality and psychological well-being similarly emphasize the role of inner awareness and spiritual development in fostering resilience and human flourishing (Trijayanti et al., 2022). Consequently, integrating insights from mindfulness and AQ research into Islamic teacher education may contribute to the development of educators who possess not only professional competence but also emotional maturity, moral integrity, and spiritual resilience necessary to fulfill their educational responsibilities. Overall, the findings suggest that mindfulness and AQ provide valuable conceptual foundations for strengthening teacher professionalism, resilience, educational sustainability, and holistic teacher development within both general and Islamic educational contexts.

CONCLUSION

This bibliometric study demonstrates that research on mindfulness and Adversity Quotient (AQ) in teacher education has expanded considerably between 2020 and 2025, reflecting growing scholarly recognition of the importance of psychological resources in supporting teacher development and professional effectiveness. The findings reveal a clear evolution of the field from an initial focus on stress management and burnout prevention toward broader concerns with resilience, self-compassion, reflective awareness, and sustainable well-being. The identified conceptual structure further indicates that mindfulness and AQ function as complementary capacities that strengthen emotional regulation, adaptive coping, perseverance, and professional resilience. Interpreted through the educational relevance framework adopted in this study, these findings suggest that teacher professionalism increasingly depends on psychological competencies that enable educators to respond effectively to adversity while sustaining long-term well-being and commitment. Moreover, the prominence of themes such as self-awareness, reflection, resilience, and character development demonstrates strong alignment with the holistic aims of Islamic education, which emphasize the formation of educators who possess intellectual competence, moral integrity, emotional maturity, and spiritual responsibility. Consequently, mindfulness and AQ provide valuable conceptual foundations for strengthening teacher resilience, promoting educational sustainability, and supporting the development of holistic educators in both general and Islamic educational contexts. Future research may further explore how these constructs can be integrated into teacher education curricula and professional development programs to enhance resilience and well-being across diverse educational settings.

ACKNOWLEDGMENT

This research was financially supported by Mahasarakham University, Thailand, through the Research Unit on Interdisciplinary and Lifelong Learning.

BIBLIOGRAPHY

Aini, D. K., Stück, M., Sessiani, L. A., and Darmuin, D. (2021). How do they deal with the Pandemic? The effect of secure attachment and mindfulness on adolescent resilience. *Psikohumaniora: Jurnal Penelitian Psikologi, 6*(1), 103-116. https://doi.org/10.21580/pjpp.v6i1.6857

Alhazmy, E. A. (2026). Education reform and Vision 2030 in Saudi Arabia: Challenges and pathways. *Discover Education, 5*, 40. https://doi.org/10.1007/s44217-025-01005-4

Alfain, S. N. I., Soleh, A. K., and Yamani, M. R. (2023). The role of patience in coping mental problems: A Quranic perspective. *Tribakti: Jurnal Pemikiran Keislaman, 34*(2), 195–212. https://doi.org/10.33367/tribakti.v34i2.3633

Atrizka, D., and Pratama, I. (2022). The Influence of Organizational Leadership and Coaches on Indonesian Athletes' Adversity Quotient (Intelligence). *Revista de Psicología del Deporte (Journal of Sport Psychology)*, *31*(1), 88-97. Retrieved from https://rpd-online.com/article-view/?id=649

Baimuldinova, G. K., Saliyeva, A. Z., Kosmaganbetova, G. K., Seitova, Z. A., Darmenova, A. E., & Mammadov, R. (2026). Pedagogical foundations of first-year student adaptation in universities under the conditions of mass higher education. *Frontiers in Education, 10*, 1702542. https://doi.org/10.3389/feduc.2025.1702542

Bakker, A. B., and Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology, 22*(3), 273–285. https://doi.org/10.1037/ocp0000056

Banal, C. L., and Ortega-Dela Cruz, R. A. (2022). Teachers' resilience in facing workload adversities in times of pandemic: The case of the private school teachers in a developing country. *Indonesian Journal of Social Science*, *14*(1). https://doi.org/10.20473/ijss.v14i1.35946

Boguszewicz, C., Boguszewicz, M., Iqbal, Z., Khan, S., Gaba, G. S., Suresh, A., & Pervaiz, B. (2021). *The fourth industrial revolution-cyberspace mental wellbeing: Harnessing science & technology for humanity*. Washington, D.C.: Global foundation for cyber studies and research.

Buetow, S. A. (2020). Psychological preconditions for flourishing through ultrabilitation: a descriptive framework. *Disability and rehabilitation, 42*(11), 1503-1510.

Flores-Builes, R., & Andrés-Roqueta, C. (2023). Coping with the Stress through Individual and Contextual Resilient Factors in Primary School Settings. *Behavioral Sciences*, *13*(11), 880. https://doi.org/10.3390/bs13110880

Handayani, H. H. H. (2022). Mindfulness sebagai moderator pada hubungan religiusitas dengan stress. *Jurnal Psikologi Islam, 9*(1). https://doi.org/10.47399/jpi.v9i1.134

Harzing, A. W. (2007). *Publish or perish* [Software]. Retrived from https://harzing.com/resources/publish-or-perish

Janah, A. D., Ma'rufah, D. W., & Mualim, M. (2022). The use of interactive formative assessment in an EFL class through the comment column of google classroom. *Tarling: Journal of Language Education, 6*(1), 21-48. Retrieved from http://ejournal.uinsaizu.ac.id/index.php/tarling/index

Javaid, Z. K., Mubashar, M., Mahmood, K., Noor, A., Javed, N., Akhtar, K., & Ali, A. L. (2024). Effect of Emotional Intelligence and Self-concept on Academic Performance: A Systematic Review of Cross-Cultural Research. *Bulletin of Business and Economics (BBE), 13*(2), 189-199. https://doi.org/10.61506/01.00315

Jennings, P. A., Frank, J. L., Snowberg, K. E., Coccia, M. A., and Greenberg, M. T. (2022). Mindful practice for teachers: Relieving stress and enhancing positive mindsets. *Frontiers in Education, 7*, 954098. https://doi.org/10.3389/feduc.2022.954098

Jha, A. P., Stanley, E. A., and Musci, R. J. (2021). Mindfulness training and reductions in teacher stress and burnout: Results from randomized field trials. *Journal of Educational Psychology, 113*(4), 785–800. https://doi.org/10.1037/edu0000612

Juanamasta, I. G., Aungsuroch, Y., Gunawan, J., and Fisher, M. L. (2022). Postgraduate and undergraduate student nurses' well-being: A scoping review. *Journal of Professional Nursing, 40*, 57-65. Retrieved from https://pubmed.ncbi.nlm.nih.gov/35568460/

Khan, A. N. (2024). Students are at risk? Elucidating the impact of health risks of COVID-19 on emotional exhaustion and academic performance: Role of mindfulness and online interaction quality. *Current Psychology, 43*(13), 12285-12298. https://doi.org/10.1007/s12144-023-04355-0

Koçali, Z., & Aşık, A. (2026). Exploring mindfulness and language learning: EFL students' journey coping with speaking anxiety. *BMC Psychology, 14*, 370. https://doi.org/10.1186/s40359-026-04161-w

Latif, M. A. (2026). Religious identity formation and urban Islamic sociability through learning motivation and social cohesion in Majelis Taklim in Indonesia. *Discover Education, 5*, 448. https://doi.org/10.1007/s44217-026-01456-3

Makruf, S. A., Sutrisno, S., and Nuryana, Z. (2022). Islamic Education for Women in Madrasah Mu'allimat. *Jurnal Pendidikan Islam, 8*(2), 191-206. https://doi.org/10.15575/jpi.v8i2.19452

Pozo-Rico, T., Poveda, R., Gutiérrez-Fresneda, R., Castejón, J. L., & Gilar-Corbi, R. (2023). Revamping Teacher Training for Challenging Times: Teachers' Well-Being, Resilience, Emotional Intelligence, and Innovative Methodologies as Key Teaching Competencies. *Psychology Research and Behavior Management, 16*, 1–18. https://doi.org/10.2147/PRBM.S382572

Merdiaty, N., and Aldrin, N. (2020). Analyzing the effect of resilience on burnout with mindfulness as a mediator. *International Journal of Research in Business and Social Science, 9*(5), 109-115. https://doi.org/10.20525/ijrbs.v9i5.820

Neikirk, K., Barongan, T., Rolle, T., Garza Lopez, E., Marshall, A., Beasley, H. K., Crabtree, A., Spencer, E. C., Shuler, H., Martinez, D., Murray, S., Vang, C., Jenkins, F., Damo, S., & Vue, Z. (2023). Using quotients as a mentor to facilitate the success of underrepresented students. *Pathogens and disease*, 81, ftad008. https://doi.org/10.1093/femspd/ftad008

Rana, M., Abdelwaheb, S., Islam, H., et al. (2026). Enhancing educational accessibility and efficiency in Bangladesh: A study on technology acceptance and digital solutions. *Discover Education, 5*, 260. https://doi.org/10.1007/s44217-025-01025-0

Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being.* Washington D. C.: Free Press.

Sharma, T., and Singh, S. (2021). Relationship of emotional intelligence with cultural intelligence and change readiness of Indian managers in the service sector. *Journal of Organizational Change Management*, *34*(7), 1245-1256. https://doi.org/10.1108/JOCM-05-2017-0193

Sobandi, R., and Siphai, N. (2021). Adversity quotient promotes teachers' professional competence more strongly than emotional intelligence: Evidence from Indonesia. *Journal of Intelligence, 10*(3), 44. https://doi.org/10.3390/jintelligence10030044

Somaratne, C. S. N., Jayawardena, L. N. A. C., and Perera, B. M. K. (2020). Role of Adversity Quotient (AQ) on Perceived Stress of Managers: with specific reference to AQ Dimensions. *Kelaniya Journal of Management, 8*(2). Retrieved from https://kjm.sljol.info/articles/10.4038/kjm.v8i2.7603

Stoltz, P. G. (2007). *Adversity quotient: Turning obstacles into opportunities*. New Jersey: John Wiley & Sons.

Teke, E. (2026). Mindfulness and life satisfaction in post-earthquake young adults: Longitudinal mediation by psychological adjustment. *BMC Psychology, 14*, 297. https://doi.org/10.1186/s40359-026-04081-9

Trijayanti, U., Gunawan, G., Savitri, J., Gunawan, G. Y. C., Satyawan, L. I., Bawazier, B. A., ... & Adelina, I. (2022). *Diseminasi Penelitian Spiritualitas dan Kesejahteraan Psikologis*. Yogyakarta: Zahir Publishing.

Van Eck, N. J., and Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics, 84*(2), 523–538. https://doi.org/10.1007/s11192-009-0146-3

Widodo, W., Gustari, I., & Chandrawaty, C. (2022). Adversity quotient promotes teachers' professional competence more strongly than emotional intelligence: Evidence from Indonesia. *Journal of Intelligence*, *10*(3), 44. https://doi.org/10.3390/jintelligence10030044

Zhao, Y., and Sang, B. (2023). The role of emotional quotients and adversity quotients in career success. *Frontiers in Psychology, 14*, 1128773. https://doi.org/10.3389/fpsyg.2023.1128773

Zupic, I., and Čater, T. (2015). Bibliometric methods in management and organization. *Organizational Research Methods, 18*(3), 429–472. https://doi.org/10.1177/1094428114562629