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Resilience of novice teachers: a recent systematic literature review (2023-2024)

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Article Info

ABSTRACT

The beginning of a teaching career is filled with obstacles, requiring new educators to demonstrate significant resilience. This systematic literature review (SLR) investigates the resilience of novice teachers, addressing the challenges they face and the strategies they employ to overcome these obstacles. The primary problem addressed is the need for a comprehensive overview of how various factors and interventions influence the development of resilience in novice teachers. Following the preferred reporting items for systematic reviews and meta-analyses (PRISMA) framework, the study systematically analyzed 22 articles published between 2023 and 2024 from Scopus and ERIC databases. The analysis identified three key themes: i) teacher resilience and coping strategies, ii) resilience during crises and pandemics, and iii) teacher resilience in international and cross-cultural contexts. Findings highlight the importance of effective mentorship, professional development, and self-reflective practices in enhancing novice teachers' coping abilities. Adaptability and innovation are crucial during crises, underscoring the importance of support systems. Additionally, cultural competence and strong support networks are essential for teachers in diverse environments, aiding them in navigating unique challenges and leveraging opportunities. These insights emphasize the need for targeted interventions to strengthen teacher resilience, especially in the face of global challenges. These interventions will ultimately contribute to more effective teaching and improved educational outcomes.

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1. INTRODUCTION

Resilience in novice teachers refers to their ability to adapt, persevere, and thrive despite the challenges and stressors encountered during the early stages of their teaching careers [1], [2]. This resilience necessitates a deep understanding of the demands of the educational environment, the necessary skills and knowledge, and the capacity to respond effectively to changes within the school system. Rapid shifts due to educational reforms and technological advancements have significantly impacted the teaching profession [3]. Innovations such as e-learning platforms, digital resources, and data-driven instruction have transformed traditional teaching roles, necessitating a new set of skills for teachers [4]. Consequently, novice teachers must develop resilience to navigate these evolving demands, encompassing skills like digital literacy, effective communication, creativity, adaptability, and emotional regulation [5], [6]. Educational institutions,

especially universities, play a crucial role in preparing novice teachers to face the complexities of the teaching profession. They are increasingly expected to produce graduates who are not only knowledgeable but also resilient and ready to meet the diverse needs of their future classrooms. However, there is a notable gap between the preparation provided by teacher education programs and the realities of the classroom environment [7]. Many teacher preparation programs fail to equip future teachers with the practical skills and resilience needed to thrive in the profession. This disconnect often leaves novice teachers feeling overwhelmed and underprepared, impacting their effectiveness and job satisfaction [8]. The shift from teaching theory to teaching practice can be quite difficult and often results in a high rate of attrition in the first few years of teaching [9], [10]. Up to 50% of novice educators leave the profession within their first 5 years [11], [12].

The challenge of preparing resilient novice teachers is particularly pressing on a global scale. The world's educational landscape is characterized by diverse student populations, varying school contexts, and ongoing educational reforms aimed at improving quality and equity. Despite these efforts, a significant disparity remains between the skills that novice teachers possess and those required in actual teaching settings. Employers and school administrators frequently report that new teachers lack the resilience and practical skills necessary to handle classroom challenges effectively. This gap underscores the need for teacher education programs to focus more on building resilience alongside academic and pedagogical knowledge [13], [14]. Resilience in novice teachers encompasses cognitive, emotional, and social dimensions that facilitate their transition from preservice training to professional practice. According to the American Psychological Association, resilience involves the processes of adapting well in the face of adversity, trauma, tragedy, threats, or significant sources of stress [15], [16]. For novice teachers, resilience is not just about enduring stress but also about developing the capacity to recover quickly from setbacks, maintain a positive outlook, and continue to grow professionally. This involves a combination of personal traits, supportive relationships, and a conducive work environment.

The importance of resilience is further highlighted by research indicating that resilient teachers are more likely to remain in the profession, exhibit higher levels of job satisfaction, and positively impact student outcomes [17]. Resilience enables teachers to manage classroom dynamics, engage effectively with students, and implement innovative teaching strategies. Furthermore, resilient teachers are better equipped to handle the emotional demands of teaching, including managing student behavior, addressing diverse learning needs, and coping with administrative pressures. Several studies have explored the factors that contribute to resilience in novice teachers. These include personal characteristics such as self-efficacy, optimism, and emotional intelligence, as well as external factors like mentoring, professional development opportunities, and a supportive school culture [18], [19]. Mentoring, in particular, has been identified as a critical support mechanism for building resilience in novice teachers [20]. Effective mentoring relationships provide novice teachers with guidance, feedback, and emotional support, helping them navigate the challenges of their early teaching experiences.

Despite recognizing its importance, there is limited research on the specific strategies that can enhance resilience in novice teachers. Novice teachers often face significant challenges, such as classroom management, workload, and balancing professional and personal demands, impacting their resilience [21], [22]. Understanding how novice teachers develop resilience in this context is crucial for informing teacher preparation programs and support systems. This proves that research using systematic literature review (SLR) methods on enhancing resilience in novice teachers is still minimal, indicating the urgency of conducting more comprehensive research on this theme. Therefore, this study aims to identify the factors that influence the resilience of novice teachers and to examine the strategies that contribute to their development. Utilizing the preferred reporting items for systematic reviews and meta-analyses (PRISMA) guidelines, this paper reviews existing literature to compile and analyze the factors affecting novice teacher resilience. The PRISMA method ensures a comprehensive and systematic approach to literature review, enabling researchers to identify, select, and synthesize relevant studies effectively [23].

The novelty of this research lies in its application of the PRISMA methodology to the study of novice teacher resilience, providing a transparent and rigorous framework for reviewing the existing body of knowledge. By applying PRISMA, this study aims to minimize bias, enhance the quality of the literature synthesis, and offer robust insights into the factors and strategies that support novice teacher resilience. The findings are expected to contribute to both academic understanding and practical applications, guiding the development of teacher education programs and policies that better prepare novice teachers for the challenges of the profession. The current systematic analysis was developed to answer the three main research questions:
− How do different factors and interventions influence the development of emotional resilience and well-being among teachers across various educational contexts?
− What are the key factors influencing teacher resilience during global crises and pandemics, and how do these factors affect teaching practices?

− How do cultural and contextual factors influence the resilience and coping mechanisms of teachers working in international and cross-cultural settings?

Resilience is a critical attribute for novice teachers, enabling them to cope with the demands of the teaching profession and sustain their commitment to student learning. This study focuses on resilience within the context of teacher preparation and early career experiences, offering valuable insights into how novice teachers can be supported to thrive in their roles. By identifying effective strategies for building resilience, this research aims to inform the design of teacher education programs and professional development initiatives that foster resilient, effective, and satisfied educators.

2. METHOD

2.1. Research design

This research on the resilience of novice teachers uses the SLR method to describe the findings and analysis of resilience in novice teachers. The stages of this SLR method begin with identifying the latest articles relevant to the resilience of novice teachers, focusing on individual characteristics, social support systems, and organizational environment in the ERIC and Scopus databases. To facilitate the SLR method, the PRISMA technique is applied to carry out the stages of identification, screening, feasibility testing, data inclusion, and subsequent analysis and presentation in the form of descriptive summaries [24], [25].

2.2. Identification

This study followed several essential steps in the systematic review process to gather a significant amount of relevant literature. First, keywords were chosen, and then related terms were identified using dictionaries, thesauri, encyclopedias, and previous research. After creating search strings for the Scopus and Eric databases, all relevant terms were identified (refer to Table 1). In the initial phase of the systematic review, 1,655 publications relevant to the study topic were successfully retrieved from these two databases.

Table 1. The search string

Database	Search string	Date of access
Scopus	TITLE-ABS-KEY ((resili* AND (novice OR new OR beginning) AND (teacher OR educator OR lecturer))) AND PUBYEAR > 2022 AND PUBYEAR < 2025 AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (SRCTYPE , "j")) AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (PUBSTAGE , "final")) AND (LIMIT-TO (SUBJAREA , "SOCI"))	June 2024
Eric	resilience AND (novice OR new OR beginning) AND (teacher OR educator OR lecturer)	June 2024

2.3. Screening

In the screening phase, potentially relevant research material was gathered to assess its alignment with predefined research questions. The selection criteria at this stage primarily focused research items related to the resilience of novice teachers. Duplicate papers were systematically eliminated from the search results, with 1,699 publications excluded initially. In the subsequent stage, 152 papers were evaluated based on specific exclusion and inclusion criteria detailed in Table 2. The emphasis was on literature, including research papers, reviews, meta-syntheses, meta-analyses, books, book series, chapters, and conference proceedings, especially those not covered in the latest study. The review was restricted to publications in English, concentrating on the years 2023 to 2024. Furthermore, 17 publications were discarded due to issues of duplication.

Table 2. The selection criterion is searching

Criterion	Inclusion	Exclusion
Language	English	Non-English
Timeline	2023-2024	<2023
Literature type	Journal (article)	Conference, book, and review
Publication stage	Final	In press
Subject	Social sciences	Besides social sciences

2.4. Eligibility

In the eligibility assessment phase, 135 articles were initially selected. This phase involved closely examining the articles' titles and content to ascertain their relevance to the study's goals and their compliance with set criteria. Following this review, 113 articles were excluded for reasons such as irrelevance to the

scope, unrelated titles, abstracts not aligning with the objectives, or unavailability of the complete text. Thus, 22 articles remained for further analysis.

2.5. Data abstraction and analysis

In this study, an integrative analysis approach was utilized to explore a range of research designs, with a focus on quantitative methods. The primary goal was to identify important topics and subtopics. The process began with the collection of data, where a careful examination of 22 publications for relevant content to the study's topics was conducted, as depicted in Figure 1. This step was followed by an assessment of significant recent studies concerning the resilience of novice teachers, paying close attention to their methodologies and findings. Collaboration among co-authors led to the developing themes based on the collected evidence, ensuring relevance to the study's context. Throughout this process, a detailed log was maintained to document analyses, thoughts, and any puzzling aspects encountered, aiding in the accurate interpretation of data. A critical part of the study involved contrasting the initial results to identify and resolve any inconsistencies in the development of themes. In instances of conceptual disagreements, discussions were held to reach a consensus. This collaborative effort extended to addressing discrepancies in theme creation, ensuring comprehensive resolution of inconsistencies. As the study neared completion, the developed themes were refined to ensure consistency. To ensure the validity of the problems, the examinations were performed by two experts, one specialising in educational psychology (Mohd Muslim Md Zalli expert in motivation and self-regulated of novice teacher) and the other in resilience (Jusnani Embing expert in resilience of novice teacher). Their review played a crucial role in verifying the clarity, importance, and adequacy of each sub-theme through the establishment of domain validity. Feedback and comments from these experts led to adjustments, as deemed necessary, to further refine the themes. This methodological approach ensured the study remained academically rigorous and produced results that were both accessible and understandable.
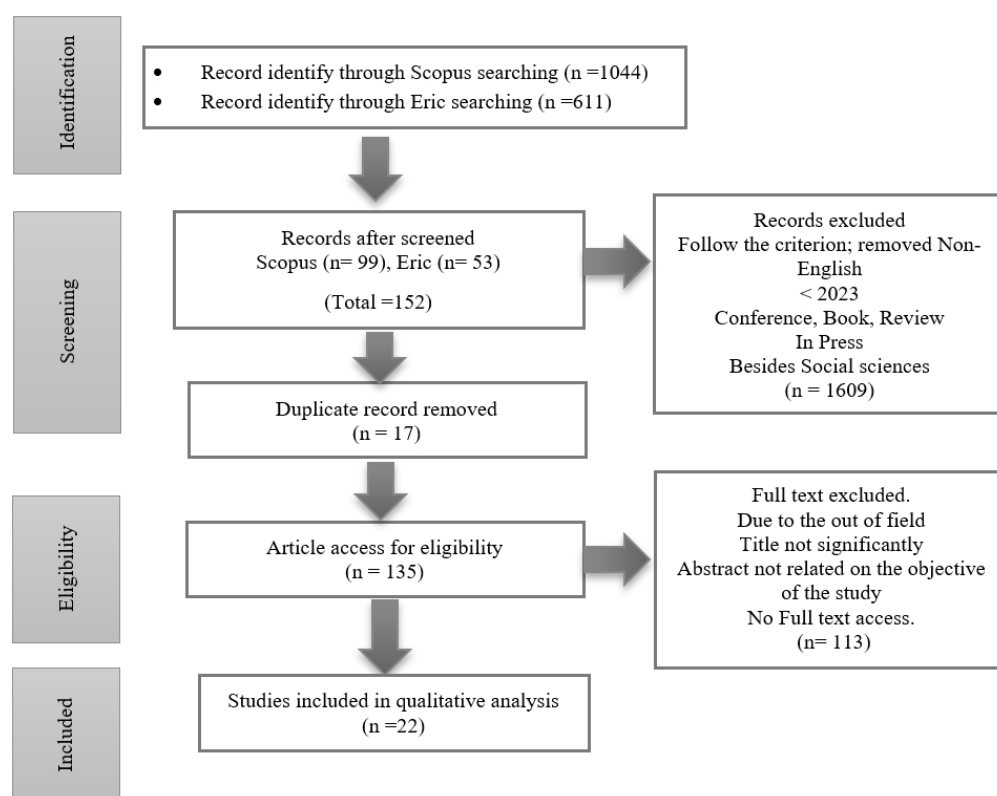

Figure 1. Flow diagram of the proposed searching study [23]

3.   RESULTS AND DISCUSSION

Teacher resilience is a critical factor in educational success, particularly in diverse and challenging environments. The analysis of 22 articles has been categorized based on journal criteria (authors, title and year) as shown in Table 3. All articles were categorised based on three main themes: teacher resilience and

coping strategies (10 articles), resilience during crises and pandemics (7 articles), and teacher resilience in international and cross-cultural contexts (5 articles) (Table 3).

Table 3. Overview of the included studies in the systematic review

No.	Authors	Title	Year
Theme 1: teacher resilience and coping strategies			
1	Sun and Huang [26]	hriving or surviving? emotional resilience development among chinese rural beginning teachers from a social-ecological perspective	2024
2	Lu and Hua [27]	eacher resilience and triple crises: confucius institute teachers' lived experiences during the COVID-19 pandemic	2024
3	Vallés and Clarà [28]	Conceptualizing teacher resilience: a comprehensive framework to articulate the research field	2023
4	Gratacós et al. [29]	he complexity thinking approach: beginning teacher resilience and perceived self-efficacy as determining variables in the induction phase	2023
5	Barnová et al. [30]	Teacher resilience and coping with teacher stress in vocational schools	2023
6	Lacková et al. [31]	romoting the development of resilience in university teachers through the practice of mindfulness	2023
7	Hong [32]	rategies for enhancing the resilience of rural teachers from the erspective of Chinese rural school principals, in the post-pandemic period	2023
8	Farinelli et al. [33]	eachers' challenges and resilience-building teaching activities in condary schools: fundamentals of an exploratory research. introduction to the special section	2023
9	Xu et al. [34]	he effect of Chinese special education teachers' competence on their occupational well-being: the mediating effect of resilience	2023
Theme 2: resilience during crisis and pandemics			
1	Morantes-Africano [35]	eacher identity and pedagogy: strategies and responses of teacher educators during the COVID-19 pandemic.	2024
2	Shah et al. [36]	ow about a round of applause: assets, dispositions and contributions of first-year teachers during parallel pandemics of 2020.	2024
3	Benavot et al. [37]	nould we not be educating for resilience? leveraging SDG4 in times of crisis	2024
4	Kim and Kim [38]	lediating effects of resilience and readiness for change on the growth mindset-depression link among South Korean teachers	2024
5	Simonton et al. [39]	nysical education teacher experiences through the lens of a pandemic: utting a spotlight on teacher beliefs, practices, emotional fragility, and well-being	2023
6	Lachica [40]	lassroom to Class Zoom: lived realities in teaching English as a second language in the Philippine context	2023
7	Beckmann and Klein [41]	esilience in the context of multiple adverse circumstances? leadership pacity and teachers' practice during COVID-19 at schools serving disadvantaged communities	2023
Theme 3: teacher resilience in international and cross-cultural contexts			
1	Bunnell and Poole [42]	he social reality of working overseas in the 'Chinese internationalised school': exploring cliques as a precarity and insecurity coping strategy.	2024
2	Wu et al. [43]	mpowering students to thrive: the role of CT and self-efficacy in building academic resilience	2024
3	Bunnell and Poole [44]	ternational schools in China and teacher turnover: the need for a more nuanced approach towards precarity reflecting agency	2023
4	Poole and Bunnell [45]	' 've become a lot tougher': expatriate teachers' experiences of precarity and resilience in non-traditional international schools in China	2023
5	Nissim and Danial-Saad [46]	he resilient teacher: unveiling the positive impact of the collaborative practicum model on novice teachers	2023
6	Zolkipli and Mohamad [47]	he influence of accepting change, spirituality, and tenacity and competence on authentic leadership among novice teachers in Malaysia	2023

3.1. Theme 1: teacher resilience and coping strategies

Teacher resilience and coping strategies are critical to ensuring educators can effectively manage the diverse challenges they encounter. Sun and Huang [26] explored the emotional resilience of beginning teachers in rural China, identifying relation-related, teaching-related, and role-related emotional tensions. They found that general personal resources, professional support, and supportive policies are essential for developing emotional resilience, which follows three paths: enthusiast, doubter, and survivor. These findings are corroborated by Vallés and Clarà [28], who proposed a theoretical model based on Vygotskian cultural psychology, emphasizing the dialectical relationship between teachers and adverse situations mediated by cultural artifacts. This comprehensive framework provides a new theoretical significance to current research

and facilitates further development in understanding teacher resilience. Gratacós *et al*. [29] highlighted the complexity of educational environments, showing a strong positive correlation between teacher resilience and self-efficacy in beginning teachers. They argued that resilience enhances adaptive skills to face challenging situations, thereby boosting self-efficacy. Lu and Hua [27] added that despite the triple crises faced by Confucius Institute teachers during the pandemic, their resilience was fostered through resourcefulness, mutual support, and pragmatic approaches to depoliticize language teaching. This aligns with Barnová *et al*. [30], who found that vocational school teachers with more teaching experience exhibited higher resilience levels, suggesting that years of teaching experience play a significant role in building resilience through effective coping strategies.

The importance of mindfulness in building resilience among university teachers was demonstrated by Lacková *et al*. [31], who reported that regular mindfulness practice significantly improved teachers' ability to cope with stress. This finding complements Hong's [32] research on rural Chinese teachers, which underscored the exacerbated challenges due to the pandemic and emphasized the need for targeted support and resources to enhance new teachers' resilience. Farinelli *et al*. [33] also discussed the importance of resilience-building activities in secondary schools, addressing the multifaceted challenges teachers face in diverse and sometimes contentious classroom environments. Finally, Xu *et al*. [34] investigated the relationship between competence, resilience, and occupational well-being among Chinese special education teachers. They found that resilience mediates the effect of competence on occupational well-being, highlighting the intricate interplay between these factors. Together, these studies offer a holistic view of the factors influencing teacher resilience and coping strategies across various educational contexts, providing valuable insights for developing effective support mechanisms for educators.

Teacher resilience is shaped by individual traits, social support, and contextual factors [48], [49]. Emotional resilience among rural beginning teachers in China is significantly influenced by community support, personal coping strategies, and the school environment. The COVID-19 pandemic has highlighted how health, professional, and personal crises impact resilience, particularly for Confucius Institute teachers. Understanding resilience as a dynamic process involving individual traits, external support, and adaptive capacities, research underscores the importance of higher self-efficacy and the ability to navigate complex situations for resilience during the induction phase. Effective stress management strategies are crucial for vocational school teachers to sustain resilience. Post-pandemic strategies to enhance resilience include professional development, emotional support, and fostering a positive school climate. Adaptive teaching practices and continuous professional growth are essential in secondary schools, while collaborative practicum models enhance novice teacher resilience through supportive networks and practical coping strategies. For special education teachers, resilience mediates the relationship between competence and occupational well-being, leading to improved job satisfaction and overall well-being. Mindfulness practices among university teachers promote resilience by reducing stress and increasing emotional regulation. Overall, teacher resilience is influenced by a combination of individual attributes, social support systems, and contextual factors. Developing resilience requires a comprehensive approach that includes emotional support, professional development, effective coping strategies, and adaptive practices. Collectively, these insights highlight the critical role of resilience in sustaining teachers' well-being and effectiveness across various educational settings.

As highlighted, teacher resilience, influenced by personal characteristics, social support networks, and environmental circumstances, is crucial for maintaining the well-being and effectiveness of educators worldwide. Building resilience requires a holistic approach encompassing emotional assistance, professional growth, efficient coping mechanisms, and adaptable behaviors. Greater resilience is associated with higher levels of self-efficacy, enhanced stress management through mindfulness, and improved ability to handle a wide range of obstacles. These components collectively emphasize the significance of promoting resilience in educators globally to uphold their well-being and efficacy in diverse educational settings.

3.2. Theme 2: resilience during crisis and pandemics

The COVID-19 pandemic posed significant challenges to educators worldwide, profoundly impacting their professional practices and well-being. A study by Simonton *et al*. [39] explored the experiences of physical education teachers during this period, highlighting themes such as superficial versus tangible support, curricular adjustments, and emotional labor. Findings indicated that teachers who maintained positive emotions, sought student connections, and exhibited resilience and flexibility perceived higher effectiveness and well-being. This aligns with Morantes-Africano's [35] research, which emphasized the critical role of teacher identity as a pedagogical tool during the pandemic, suggesting that teachers' self-perception and professional identity contributed to their adaptive strategies and resilience. Similarly, Lachica [40] examined the realities of English as a second language (ESL) teachers in the Philippines, revealing the complexities of shifting to online platforms. The study found that the challenges of remote teaching required teachers to develop resilience, innovate instructional materials, and adapt to technical

difficulties. These findings echo those of Shah *et al.* [36], who highlighted the strengths and resilience of first-year teachers during the dual crises of the COVID-19 pandemic and the social unrest following George Floyd's murder. Both studies underscore the importance of resilience and adaptability in navigating unprecedented educational disruptions.

In schools serving disadvantaged communities, Beckmann and Klein [41] focused on leadership capacity and its influence on educators' practices during the pandemic. Their research demonstrated that higher leadership capacity at the onset of the crisis predicted better performance orientation during distance learning. However, no significant associations were found between leadership capacity and expectations regarding student performance or staff willingness to innovate. This suggests that while leadership plays a role in fostering resilience, other factors may also be critical. Benavot *et al.* [37] argued for integrating resilience education into sustainable development goal 4 (SDG4), highlighting its importance in addressing global challenges. The study proposed that educating for resilience should be a cornerstone of SDG target 4.7, linking it to sustainable development, global citizenship, and climate change education. This perspective is supported by Kim and Kim [38], whose study on South Korean teachers found that resilience and readiness for change mediated the relationship between a growth mindset and depression. Their findings suggest that enhancing resilience and adaptability is crucial for teacher well-being, particularly in times of crisis. Overall, the various studies analyzed provide a comprehensive understanding of resilience during crises and pandemics. The collective findings emphasize the importance of emotional support, professional identity, leadership, and resilience education in helping educators navigate challenges and maintain their well-being. Addressing these factors can enhance the overall resilience of educational systems, ensuring better preparedness for future crises.

The COVID-19 pandemic significantly disrupted global education, underscoring the essential role of resilience among teachers, especially in physical education. The sudden shift to virtual learning demanded swift adaptation and innovative strategies to keep students engaged, causing heightened emotional stress and emphasizing resilience as crucial for effective teaching. Educator identity and pedagogical approaches underwent major transformations, necessitating the adoption of technology and the development of new skills. This adaptation process was emotionally taxing, further accentuating the need for resilience. For language teachers, particularly in contexts like the Philippines, transitioning to online instruction posed severe challenges, requiring rapid method adjustments and resource management. First-year teachers, confronted with the dual crises of the pandemic and social unrest, had to exhibit resilience by managing remote teaching and attending to students' social and emotional needs, highlighting the importance of supportive leadership and professional development. Leadership played a pivotal role in enhancing teacher resilience, with effective leaders fostering a positive school climate, facilitating professional growth, and providing emotional support. The integration of resilience education into curricula, as advocated by proponents of SDG 4, can fortify the education system against future crises [50], [51]. Studies from South Korea further illuminate that resilience, combined with readiness for change and mental health support, enables teachers to better cope with pandemic-induced stress. Ultimately, the pandemic has highlighted resilience as a cornerstone of educational stability, with effective leadership, professional development, and systemic resilience education being vital components in preparing educators and students for future challenges.

The COVID-19 pandemic has underscored the education sector's fundamental importance of resilience. Teachers faced unprecedented obstacles that necessitated immediate adjustment and remarkable emotional resilience. Robust systemic support targeted professional development, and effective leadership was essential for cultivating this resilience. Integrating resilience education into curricula can enhance the preparedness and adaptability of educators and students in the face of future crises. In the face of unforeseen obstacles, this strategic approach fosters a more adaptable and robust education system that can endure and thrive.

3.3. Theme 3: teacher resilience in international and cross-cultural contexts

The increasing prevalence of international schools, particularly in China, has unveiled unique challenges and opportunities for expatriate teachers. The formation of social cliques, as explored by Bunnell and Poole [42], emerges as a critical strategy for coping with the inherent precarity and insecurity within this environment. Their study of expatriate teachers in Chinese internationalized schools indicates that these cliques provide not just social support but also a means to build resilience, mitigating the negative impacts of high turnover and short-term contracts. This finding aligns with their earlier work [44], which highlights the paradoxical nature of the growth of international schools amidst prevalent instability, suggesting that these coping mechanisms are essential for teacher survival and success in such settings. The concept of "transition capital," introduced by Bunnell and Poole [44], further elucidates how expatriate teachers navigate the precarious landscape of international schools. This notion reflects the strategic planning

and agency teachers employ to manage transitions both within and between schools, viewing turnover not merely as a challenge but as an opportunity for professional growth and resilience accumulation. Similarly, Poole and Bunnell [45] emphasize that despite the negative aspects associated with short-term employment, such as instability and insecurity, these experiences foster resilience, agency, and personal reinvention among teachers. This perspective challenges the traditionally negative lens through which international school employment has been viewed, proposing a more nuanced understanding of resilience development in this context.

The role of specific educational methodologies in enhancing resilience is underscored in the study by Wu *et al.* [43]. Their investigation into the impact of computational thinking (CT) and academic self-efficacy on student resilience demonstrates a positive correlation, highlighting the effectiveness of targeted instructional strategies in fostering resilience. This finding is particularly relevant for educators and policymakers aiming to enhance student outcomes through innovative teaching methods. The empirical evidence provided by Wu *et al.* [43] supports the integration of CT instruction to boost academic self-efficacy and resilience, suggesting broader applications for teacher training programs to cultivate similar skills among educators. Nissim and Danial-Saad [46] provide additional insights into the impact of collaborative practicum models on novice teachers' resilience and professional self-efficacy. Their comparative study reveals that teachers trained within a collaborative practicum framework exhibit higher levels of professional self-efficacy, socio-economic security, and a more positive outlook towards the teaching profession. This model's emphasis on comprehensive and meaningful training appears to foster a sustained commitment to teaching, highlighting the potential for such approaches to enhance teacher retention and resilience over the long term. The findings from this study reinforce the importance of structured support and professional development in building resilient educators capable of thriving in challenging environments.

In the Malaysian context, Zolkipli and Mohamad [47] explore the influence of resilience constructs such as accepting change, spirituality, and tenacity on authentic leadership among novice teachers. Their research indicates that these resilience factors significantly impact authentic leadership, emphasizing the importance of these attributes in guiding and supporting students and colleagues. The study underscores the need for novice teachers to develop resilience to effectively navigate the evolving educational landscape and fulfill their leadership roles. This aligns with the broader understanding of resilience as a critical component of effective teaching and leadership in various educational settings [52]. In summary, the analysis of these studies highlights the multifaceted nature of teacher resilience in international and cross-cultural contexts. The formation of social cliques, strategic transitions, innovative teaching methodologies, collaborative practicum models, and resilience constructs all contribute to building and sustaining resilience among teachers. These findings offer valuable insights for educators, policymakers, and stakeholders aiming to enhance teacher resilience and overall well-being in diverse educational environments.

Teacher resilience in international and cross-cultural settings encompasses cultural adaptation, professional instability, and personal coping strategies. Working overseas, particularly in Chinese internationalized schools, presents unique challenges for expatriate teachers, who often form cliques to cope with precarity and insecurity. These social networks provide emotional and professional support, fostering a sense of belonging and stability. High turnover rates in international schools, especially in China, highlight the instability faced by expatriate teachers. Addressing issues such as cultural dissonance, professional dissatisfaction, and personal challenges through comprehensive support systems, professional development opportunities, and cultural sensitivity training can enhance resilience and reduce turnover rates. Experiences of precarity in non-traditional international schools in China lead to increased resilience among expatriate teachers, who adapt by developing greater emotional toughness and practical coping mechanisms. This underscores the necessity of institutional support and community networks in fostering resilience. Resilience is not merely an individual trait but is significantly influenced by the surrounding environment and support structures [53], [54]. Empowering students to build academic resilience also plays a crucial role in the broader educational context. CT and self-efficacy play a significant role in fostering academic resilience among students, with resilient teachers better able to instill these qualities in their students. The bidirectional relationship between teacher and student resilience creates a robust educational environment. In Malaysia, accepting change, spirituality, and tenacity significantly impact the development of authentic leadership qualities among novice teachers. These factors highlight the cultural context's role in shaping resilience and leadership styles, suggesting that support programs should be culturally tailored to be effective. In conclusion, teacher resilience in international and cross-cultural contexts is influenced by social networks, professional stability, cultural adaptation, and personal coping strategies. Effective institutional support, professional development, and culturally sensitive approaches are crucial in fostering resilience among teachers, creating a holistic educational environment that benefits all stakeholders.

Social networks, professional stability, cultural adaptation, and personal coping strategies ultimately shape teacher resilience in international and cross-cultural contexts. Practical institutional support and

targeted professional development are essential in fostering this resilience. Additionally, culturally sensitive approaches address educators' unique challenges in diverse settings. The interplay between teacher and student resilience contributes to a holistic educational environment, benefiting all stakeholders by enhancing overall educational outcomes and fostering a supportive learning atmosphere. This comprehensive approach ensures educators can effectively navigate and thrive amidst the complexities of global educational landscapes.

4.   CONCLUSION

Resilience in novice teachers is a multifaceted attribute that requires a comprehensive approach, including emotional support, professional development, effective coping strategies, and adaptive practices. The findings from various studies underscore the importance of resilience in sustaining teachers' well-being and effectiveness, particularly in challenging environments. By addressing these factors, educational institutions can better prepare novice teachers for the complexities of the profession, ultimately contributing to SDG4 of ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all. Future research should continue exploring specific strategies that can enhance resilience in novice teachers, informing the design of teacher education programs and policies that foster resilient, effective, and satisfied educators. Effective institutional support, professional development, and culturally sensitive approaches are crucial in fostering resilience among teachers. Additionally, the interplay between teacher and student resilience creates a holistic educational environment that benefits all stakeholders. Integrating resilience education into curricula can fortify the education system against future crises, ensuring a robust and adaptable education system.

AUTHOR CONTRIBUTIONS STATEMENT

This journal uses the Contributor Roles Taxonomy (CRediT) to recognize individual author contributions, reduce authorship disputes, and facilitate collaboration.

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C : **C**onceptualization	I : **I**nvestigation	Vi : **Vi**sualization
M : **M**ethodology	R : **R**esources	Su : **Su**pervision
So : **So**ftware	D : **D**ata Curation	P : **P**roject administration
Va : **Va**lidation	O : Writing - **O**riginal Draft	Fu : **Fu**nding acquisition
Fo : **Fo**rmal analysis	E : Writing - Review & **E**diting	

CONFLICT OF INTEREST STATEMENT

The author has no conflicts of interest to declare.

INFORMED CONSENT

As this research involves publicly available secondary data, informed consent was not required.

ETHICAL APPROVAL

As a review of research using publicly available secondary data, this research was exempt from Human Subjects approval.

DATA AVAILABILITY

The data that support the findings of this study are available from the corresponding author, [MMMZ], upon reasonable request.

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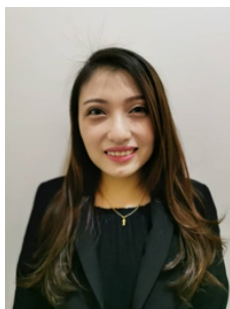
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