

An improved internal and external resilience framework for new high school teachers

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ABSTRACT

The concept of resilience gained widespread recognition in the teaching profession as some new high school teachers are confronted with various challenges and pressures, which cause some of them to leave the profession during the first four to five years of their employment. By considering the guidance new high school teachers need to survive and retain their profession, this qualitative study aimed to identify resilient strategies used by new high school teachers. This study focuses on semi-structured interviews with twelve new high school teachers. After performing a thematic analysis, this study found internal and external resilience, with five strategies new high school teachers use to overcome challenges and pressures (internal: professional, emotional, and motivational; external: social and spiritual). This study validates the applicability of Mansfield's four-dimensional teacher resilience frameworks (professional, emotional, motivational, and social resilience) to the resistance of new high school teachers in Malaysia. This study also improved Mansfield's framework through its findings by considering a new dimension, spiritual resilience. The Malaysian Ministry of Education, specifically through public universities that train future high school teachers, can use these resilient strategies to develop intervention programs that enhance their resilience, thereby fulfilling the objectives of the Malaysia Education Development Plan (MEDP) 2013–2025.

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1. INTRODUCTION

McDonald [1] emphasizes the significance of higher education as the foundation for professional diversity and creating a sustainable country. The quality of education must be a primary priority in building a society capable of navigating the challenges of globalization. Following through on the fourth sustainable development goal (SDG) 2030 [2] and the 17 global education for all (EFA) goals, which emphasize high-quality education as a foundation for bettering people's lives and promoting sustainable development, Malaysia's education system has also experienced significant adjustments and reforms. The Malaysia Education Development Plan (MEDP) 2013–2025, for instance, was introduced by the Malaysian Ministry of Education (KPM) to promote a national education transformation that consists of a quality education policy and an action plan that fulfils existing needs [3]. Teachers are responsible for executing the initiatives outlined in the plan to advance this educational transformation and educating and developing students' human capital in schools. Ngui and Lay [4] contend that the teacher is the curriculum executor and pillar of support in the classroom environment. In broad strokes, Akçor and Savaşçı [5] characterize new teachers as

individuals in their profession's nascent stages. According to several literature studies, new teachers are defined as individuals who have worked in the profession for no more than five years [6], [7] and no more than three years [8], [9]. In Malaysia, new teachers have been in the profession for one to three years [10]. They received the best college training at public higher education institutions and practical training to gain early teaching experience [11].

In the meantime, the increasing work-related stress that leads to global mental health has raised concern worldwide [12], [13], including among new teachers [14], [15]. Internationally recognized as a dangerous issue, this mental health problem persists among populations of all ages, genders, and social strata [14]. Pau *et al.* [16] studied the mental health and well-being of secondary school teachers in Malaysia. Their study found that teachers in their 20s had more psychological symptoms than their peers. This situation suggests that new high school teachers in Malaysia are at risk of developing psychological symptoms. These new high school teachers face considerable challenges and pressures as they move from college training to school [17], [18]. Several researches [19], [20] discovered that new high school teachers often faced not only high stress but also emotional stress and depression as they were burdened with nearly the same responsibilities and workloads as more experienced teachers.

Many studies found that new high school teachers faced a variety of challenges and pressures, such as teaching and management of the classroom [21], [22], the challenge of the workload [23], [24], as well as the lack of support from teachers and administrators [24], [25]. In this respect, new high school teachers who fail to prepare themselves with the skills and abilities to cope with change in the world of education tend to feel anxious and depressed [26]. Thus, a new high school teacher needs to be resilient, which is one of the most essential attributes of a new teacher in the face of challenges and pressures in the profession, and they must employ efficient strategies to cope with challenges and pressures [27]. Several researchers [28], [29], defined teacher resilience as the ability of teachers to overcome personal and environmental weaknesses, as well as to maintain a commitment to teaching in the face of various challenges, pressures, and demands in their careers. However, researchers have no consensus or uniform definition of resilience [30]. This confirms the existence of a diversity of resilience strategies that leads to significant differences in terms of the resilience definition [31]. Many scholars [28], [31]–[35] have developed various frameworks to measure the resilience of teachers.

Having taken into account the diversity of resilience frameworks proposed by these scholars, this study agrees with the statements of Wilson [35]. They explained that the diversity of these resilient strategies suggests that resilient factors depend on different social and cultural contexts. While this study believes that there is a possibility that such a resilience strategy will differ from the socio-cultural context in Malaysia, this study aims to identify a more comprehensive resilience strategy in the context of new high school teachers in Malaysia. Therefore, this study has a question: what sustainability strategies do new high school teachers in Malaysia use to deal with the challenges and pressures of their careers? Based on this question, this paper is expected to identify internal and external resilience with some strategies new high school teachers use to overcome challenges and pressures, which can also be referred to by public universities that train future high school teachers, and thus, meeting the objectives of the MEDP 2013–2025 introduced by the Malaysian Ministry of Education.

2. METHOD

2.1. Research design, data collection method, and sampling technique

According to Brinkmann and Kvale [36], the qualitative research design provided a deeper understanding and insight into the study's life experience. Therefore, this study adopted this research design that focuses on semi-structured interviews to identify the more comprehensive and resilient strategies used by new high school teachers in Malaysia in coping with challenges and pressures. The semi-structured interviews involved 12 new high school teachers from the four main types of high schools in Malaysia: i) National secondary school (*Sekolah Menengah Kebangsaan*–SMK); ii) National-type secondary school (*Sekolah Menengah Jenis Kebangsaan*–SMJK); iii) Full boarding school (*Sekolah Berasrama Penuh*–SBP); and iv) Religion secondary schools (*Sekolah Menengah Kebangsan Agama*–SMKA) in Klang Valley, Malaysia.

The selection of these 12 new high school teachers from these four main types of high schools is crucial in ensuring that the resilient strategies formed are more comprehensive, holistic, and in line with the context of education in Malaysia. A purposive sampling technique was used to select these participants. Participants described the resilient strategies they adopted based on their individual experiences and points of view. The interviews lasted 20 to 30 minutes each and were recorded using an MP3 recording device. Besides, this study also used the 'probing' method, which is questions not in the interview protocol used to help add knowledge and understanding of this study to the experience of new high school teachers [37].

2.1.1. Semi-structured interview questions

The semi-structured interview questions are based on the I AM, I HAVE, and I CAN concepts in Grotberg's resilience theory. The ability of new high school teachers to cope with challenges and pressures is based upon the I AM, I HAVE, and I CAN concepts explored through the semi-structured interview. The concept of I AM refers to the internal strength of an individual to overcome challenges and pressures; the concept of I HAVE refers to external resources and support that support self-resistance; and the concept of I CAN also refers to the individual's specific ability to cope with challenges and pressures [38]. As explained earlier, this study also used probing techniques to gather additional information about a topic, such as asking detailed questions that require more specific information from the study participants [39]. Examples of semi-structured interview questions are as:

- What does it mean for a new teacher's resilience?
- What are the internal/personal strengths that enable new teachers to cope with problems or pressures in their teaching profession? (I AM).
- What external support helps new teachers overcome problems or pressures in their teaching profession? (I HAVE).
- What specific abilities enable new teachers to successfully deal with problems or pressures in their teaching profession? (I CAN).

2.1.2. Data analysis

All qualitative data attained from semi-structured interviews with twelve new high school teachers was analyzed to validate resilient strategies identified in the literature. The steps undertaken are as:

- This study turned the audio recordings of the semi-structured interviews into written transcripts.
- This study checked the accuracy of the written transcripts with the audio recording.
- This study reviewed the written transcripts repeatedly to understand the data better.
- This study performed the encoding process manually to build an existing theme or sub-theme.
- This study performed thematic analysis to determine the themes or sub-themes.
- This study attained the Cohen Kappa credibility index. This study used the interrater reliability index to obtain the level of consensus among experts [40].

2.2. Data source triangulation and qualitative reliability

Triangulations refer to fact-verification using different sources to study social phenomena [41]. Bougie and Sekaran [39] have identified four types of triangulations: methodological triangulation, researcher triangulation, theoretical triangulation, and data source triangulation. Data source triangulation involves different types of people to gain multiple perspectives and data validation, including individuals, groups, families, and communities [42]. The study performed triangulation using different data sources, which are new high school teachers from four types of high schools in Klang Valley, Malaysia: i) National secondary school; ii) National-type secondary school; iii) Full boarding school; and iv) Religion secondary schools.

In addition, this study has implemented several measures to enhance the reliability of its qualitative research. For example, this study hastened reliability at the transcription stage by checking the transcript's accuracy by listening to the audio recording while reading the transcripts. After that, the study validated those transcripts with the participants. In addition, this study has sought to maintain reliability at the data realization stage by reassessing and refining the themes formed. This step aims to establish coherence among the formed themes, ensuring their uniqueness to prevent any similarities or coincidences.

The study also enhanced the reliability of the study data by calculating the Cohen Kappa index analysis. McHugh [43] states that the Cohen Kappa index analysis establishes the level of agreement between the evaluation experts. The experts determined the extent to which the selected analysis unit accurately describes the interview themes. Agreement between the assessors is essential to determining the reliability value of each unit used to describe a topic to be studied [43]. In other words, an expert panel checks the themes generated to ensure the accuracy of the themes and sub-themes built. The selected experts consist of three people with professional expertise in psychology and counselling, as shown in Table 1. According to Holle and Rein [44], Cohen Kappa must represent a standard agreement between two or more assessors, which is more trustworthy. On the other hand, this study analyzed the Cohen Kappa index to determine the trustworthiness of the interview, enlisting the services of three experts for this purpose.

This study used Cohen Kappa's analysis to obtain a credibility ratio among expert panels for each topic arising from the interview that was accurate and relevant. Table 2 displays the interpretation scale. Based on interview analysis, five themes, and 30 sub-themes are derived from interview data analysis. The Cohen

Kappa value is the confidence value between expert panels, representing the correlation of scores between examiners [40]. The Cohen Kappa formula to calculate the agreement value between expert panels is in (1).

$$K = \frac{\text{Pr}(a) - \text{Pr}(e)}{1 - \text{Pr}(e)} \tag{1}$$

Where, Pr(a) is the relative observed agreement among raters and Pr(e) is the hypothetical probability of chance agreement, using the observed data to calculate the probabilities of each observer randomly by each category.

Table 3 displays the results of the Cohen Kappa equivalent values from three experts summarized in Table 1. The analysis found that all themes and sub-themes had values above 0.81, which is a perfect stage. Overall, the Cohen Kappa values prove that experts agree with the themes and sub-themes of this study.

Table 1. Experts involved in determining the Cohen Kappa index

Expert	Position	Expertise	Organization
1	Chief assistant secretary	Counselling psychology	Psychology and Counseling Division, Ministry of Education Malaysia
2	Education counsellor	Counselling psychology	Federal Territory of Kuala Lumpur Education Department
3	School counsellor	Guidance and counselling	Seri Bintang Selatan National Secondary School

Table 2. Cohen’s Kappa equivalent values [45]

Indicator	Value of K
None	<0.00
Slight	0.00–0.20
Fair	0.21–0.40
Moderate	0.41–0.60
Substantial	0.61–0.80
Perfect	0.81–1.00

Table 3. Cohen’s Kappa equivalent values from experts

Themes	Sub-themes	Expert 1	Expert 2	Expert 3	Overall Cohen’s Kappa equivalent values
Professional resilience	1. Effective teaching preparation	1	1	1	1
	2. Systematic in executing tasks	1	1	1	1
	3. Effective time management	1	1	1	1
	4. Diversifying effective teaching and learning methods	1	1	1	1
	5. Reflecting on teaching and learning	1	1	1	1
	6. High commitment to students	1	1	1	1
	7. Flexible working practices	1	1	1	1
	8. Adaptability in the workplace	1	1	1	1
Emotional resilience	1. Bouncing back	1	1	1	1
	2. Overcoming pressure to meet professional demands	1	1	1	1
	3. Having a good sense of humor	1	1	0.93	0.98
	4. Positive emotional management	1	1	1	1
	5. Practicing self-care for our well-being	1	1	1	1
	6. Enjoying teaching	1	1	1	1
	7. Not taking things personally	1	1	1	1
Motivational resilience	1. Practicing an optimistic attitude	1	1	1	1
	2. Strong determination	1	1	1	1
	3. Focus on learning and improvement	1	1	1	1
	4. Enjoy challenges	1	1	1	1
	5. Stay motivated and spirited	1	1	1	1
	6. Having belief and self-confidence	1	1	1	1
	7. Setting realistic expectations and goals	1	1	1	1
Social resilience	1. Excellent interpersonal and communication skills	1	1	1	1
	2. Good problem-solving skills	1	1	1	1
	3. Supportive networking	1	1	1	1
	4. Seeking assistance and accepting advice	1	1	1	1
Spiritual resilience	1. Strong religious faith	1	1	1	1
	2. Acceptance	1	1	1	1
	3. Trustworthy	1	1	1	1
	4. Patience	1	1	1	1

3. RESULTS AND DISCUSSION

3.1. Demographic profile of the participants

As mentioned earlier, this study conducted semi-structured interviews among 12 new high school teachers, and Table 4 summaries their brief demographic profiles. There are five males and seven females,

three representing each type of high school. Seven have two to three years of teaching experience, while three have between one and two years of teaching experience. The remaining two of them have less than one year of teaching experience.

Table 4. Demographic profile of the participants

Demographic profile	Number of participants (N)
Gender	
Male	5
Female	7
Types of high schools	
National secondary school (<i>Sekolah Menengah Kebangsaan</i>)	3
National-type secondary school (<i>Sekolah Menengah Jenis Kebangsaan</i>)	3
Full boarding school (<i>Sekolah Berasrama Penuh</i>)	3
Religion secondary schools (<i>Sekolah Menengah Kebangsan Agama</i>)	3
Years of teaching experience	
≤1 year	2
1–2 years	3
2–3 years	7

3.2. Resilient strategies adopted by new high school teachers

According to thematic analysis, new high school teachers have used five resilient strategies to face the challenges and pressures of their teaching careers. As shown in Table 5, these five resilient strategies have been translated into five main themes: i) professional resilience; ii) emotional resilience, iii) motivational resilience; iv) social resilience; and v) spiritual resilience.

Table 5. Resilient strategies (internal and external) adopted by new high school teachers (themes and sub-themes)

Resilient strategies	No.	Strategies (themes)	Sub-themes
Internal resilient	1	Professional resilience	1. Effective teaching preparation
			2. Systematic in executing tasks
			3. Effective time management
			4. Diversifying effective teaching and learning methods
			5. Reflecting on teaching and learning
			6. High commitment to students
			7. Flexible working practices
	2	Emotional resilience	8. Adaptability in the workplace
			1. Bouncing back
			2. Overcoming pressure to meet professional demands
			3. Having a good sense of humor
			4. Positive emotional management
3	Motivational resilience	5. Practicing self-care for our well-being	
		6. Enjoying teaching	
		7. Not taking things personally	
		1. Practicing an optimistic attitude	
		2. Strong determination	
External resilient	4	Social resilience	3. Focus on learning and improvement
			4. Enjoy challenges
			5. Stay motivated and spirited
			6. Having belief and self-confidence
			7. Setting realistic expectations and goals
	5	Spiritual resilience	1. Excellent interpersonal and communication skills
			2. Good problem-solving skills
			3. Supportive networking
			4. Seeking assistance and accepting advice
			1. Strong religious faith
2. Acceptance			
3. Trustworthy			
4. Patience			

3.2.1. Professional resilience (internal): eight strategies

By referring to the new high school teachers from four types of high schools in Klang Valley, Malaysia, this study concluded that their primary internal resilience is professional resilience, with eight strategies applied. These strategies are: i) effective teaching preparation; ii) systematic in executing tasks;

iii) effective time management; iv) diversifying effective teaching and learning methods; v) reflecting on teaching and learning; vi) high commitment to students; vii) flexible working practices; and viii) adaptability in the workplace. Table 6 provides a detailed explanation of these participants. In other words, these new high school teachers adopted these eight strategies as their professional resilience when facing related challenges and pressures. This table provides explanations from participants P2, P4, P5, P6, P7, P8, P9, P11, and P12.

Table 6. Professional resilience: sub-themes and quotes

No.	Sub-themes	Quotes
1	Effective teaching preparation	P2: <i>"From a mental perspective, we need to be well-prepared with our classes; we need to organize each of our classes."</i> P4: <i>"Before teaching students, we need to be prepared. It means I need to learn first; I do all the exercises first to teach them."</i> P12: <i>"So in the class, we need to be prepared because students will ask; they will ask out of the box or something related but not in the syllabus. For example, we teach Shariah if it is only in the syllabus up to that point, but their questions are more, but still related, so we need to study early, we need to study more like that."</i>
2	Systematic in executing tasks	P2: <i>"I already have timing; okay, what work needs to be done? For example, I will prepare my lesson plans early so I do not rush later. I have scheduled when I will do it for class and when I will do it for my side job. I have determined that."</i> P5: <i>"We prioritize what is most important first so that we will be less stressed when these important things are done."</i>
3	Effective time management	P5: <i>"So we need to be good at managing time. It means we need to know that being a teacher; what is important is being in class, so we need to handle time well, do what is important, and then distribute work; for example, divide work into what is important and not important."</i> P9: <i>"When I do work quickly, I do not need to wait for instructions from the administrator. So, when work is done quickly, it reduces my pressure on that workload even more."</i>
4	Diversifying effective teaching and learning methods	P2: <i>"I use various methods in teaching. I use demonstrations, experiments, and technological methods like games, and quizzes."</i> P7: <i>"Incorporating technology into my teaching approach. When we integrate technology, children's attention spans increase. So, with a larger attention span, I can provide more input to them. So, I feel technology helps reduce my teaching burden as well."</i>
5	Reflecting on teaching and learning	P2: <i>"I like to find the root cause of a problem. For example, in terms of students' learning levels, whether they are advanced or behind, I will look for it. Like, if a student is lagging, I will find where their weaknesses lie. So, I will focus more on them in that weak area. I will prepare suitable materials according to the learning problems they face."</i> P8: <i>"Then, I think if a student here does not want to learn, they have a communication problem; they do not understand what we teach, so we have to try to talk to them about what their problems are, so they try to get closer to us."</i>
6	High commitment to students	P4: <i>"I prioritize students. Before teaching students, we need to be prepared. It means I need to learn first and do exercises to teach them. I think about the students themselves; how will they do it if I can't do something?"</i> P12: <i>"So, I prioritize students in any case, and when sharing during teaching and spare time, I will share things that should be shared with students. So, indirectly, I let other challenges wait. That is it. The important thing is that my students get what they should."</i>
7	Flexible working practices	P5: <i>"One special ability I have is to adhere to adaptability or flexibility. So, teachers need to instil in me that in my first posting, I may not necessarily get the option that I studied at university or the subject I wanted. So, teachers need to have the ability to be flexible."</i> P6: <i>"We will follow the syllabus until it is finished, but some parts of the syllabus can be boring. For me, I like to create new things. If it does not work out, we need to change it. We need to figure out what can attract kids because, in the syllabus, some boys do not like things like dancing."</i>
8	Adaptability in the workplace	P4: <i>"I feel I am a quick learner, which I think, in terms of the school environment and system, I need to adapt quickly."</i> P11: <i>"The gap between seniors and juniors exists. So, that is a challenge for us. At first, we cannot adapt to dealing with seniors. However, eventually, it is okay."</i>

3.2.2. Emotional resilience (internal): seven strategies

The second internal resilience practiced by these new high school teachers is emotional resilience, with seven strategies applied. Among the strategies adopted by them in strengthening their emotional resilience are i) bouncing back; ii) overcoming pressure to meet professional demands; iii) having a good sense of humor; iv) positive emotional management; v) practicing self-care for our well-being; vi) enjoying teaching; and vii) not taking things personally. The explanations from these participants are summarized in Table 7. This table provides explanations from participants P1, P2, P4, P5, P6, P7, P8, P10, P11, and P12.

3.2.3. Motivational resilience (internal): seven strategies

The third internal resilience new high school teachers have adopted is motivational resilience, which has seven strategies. They adopted seven strategies for strengthening their motivational resilience:

i) practicing an optimistic attitude; ii) strong determination; iii) focusing on learning and improvement; iv) enjoying challenges; v) staying motivated and spirited; vi) having belief and self-confidence; and vii) setting realistic expectations and goals. The participants' explanations about these strategies are shown in Table 8. Table 8 provides explanations from participants P2, P5, P6, P7, P8, P9, P11, and P12.

Table 7. Emotional resilience: sub-themes and quotes

No.	Sub-themes	Quotes
1	Bouncing back	P1: <i>"We cannot dwell too long on our downfall, sadness, or the pressures we face because we have bigger responsibilities. From that awareness, we cannot linger; we need to move on, rise, and open new chapters because whatever we go through in our daily lives is full of challenges, right?"</i> P12: <i>"Rising from the challenges faced. Rising means when we face any challenge, we seek its solution, and we rise by looking back, by solving the problems we have been thinking about."</i>
2	Overcoming pressure to meet professional demands	P5: <i>"I can handle problems well. For example, if there is much work at once, I handle the problem by prioritizing what is important first. For example, if I ignore or let go of what is less important, I still do it but prioritize what needs to be done first."</i> P11: <i>"Challenges will, of course, bring problems or obstacles. So, these obstacles all give me pressure like that, but I can work under pressure, meaning I can work under pressure. It does not matter what kind of pressure; I can handle it."</i>
3	Having a good sense of humor	P8: <i>"I take the initiative not to be too strict with strong-willed students in class. Like other teachers always say, when you enter the class, you have to be strict; you have to show the kids to fear us, so I did that, and then the more we are strict with them, the less they respect us. So, I try to be close to them, make jokes, and make friends; that works better."</i>
4	Positive emotional management	P2: <i>"We need to control every emotion of ours; we should not show it in class; we should not bring it to the workplace. So, we need to control our emotions because we fear we might hurt the students."</i> P10: <i>"If we are the type to panic, get very angry, or tend to overthink too much, in the end, it will eat us up. So, whether we like it or not, we must keep calm and think positively, as people say. Stay calm and relax first. Take a breath, and then think about the best action."</i>
5	Practicing self-care for our well-being	P4: <i>"In dealing with these challenges, another important thing to do is mental management. Maybe from external aspects. Like me, for example, I like to exercise. Okay, from that perspective, I feel like if we are too stressed, we will go to the park; that is for me."</i> P6: <i>"For example, if I have a problem and I want to let go or relax, I will either sleep, jog, or ride a bike. I like jogging and biking."</i>
6	Enjoying teaching	P1: <i>"I'm interested in this teaching career. I do like anything related to education. We make an effort to help students; we also make an effort to find materials."</i> P7: <i>"If you ask me, teaching is not a problem because, well, if you ask me, I like teaching."</i>
7	Not taking things personally.	P7: <i>"I do not take everything too seriously. So, if we want to win over everyone, whether we hear from kids or whatever from our surroundings, it will affect my teaching."</i>

3.2.4. Social resilience (external): four strategies

Besides adopting internal resilience, this study also found that the new high school teachers also strive to empower their external resilience through four strategies for their social resilience. As listed in Table 9, these strategies are: i) excellent interpersonal and communication skills; ii) good problem-solving skills; iii) supportive networking; and iv) seeking assistance and accepting advice. In other words, these new high school teachers adopted these four strategies to embrace their social resilience. Table 9 provides explanations from participants P1, P2, P4, P7, P8, P9, and P12.

3.2.5. Spiritual resilience (external): four strategies

This study found that new high school teachers strive to empower their external resilience through four strategies focused on spiritual resilience. These strategies include strong religious faith, acceptance, trustworthiness, and patience. Besides adopting social resilience, these teachers also emphasize these spiritual strategies. Table 10 provides explanations from participants P2, P3, P5, P10, and P12. Their insights highlight the importance of these strategies in building resilience.

3.3. An improved resilience framework for new high school teachers

Based on the findings from 12 new high school teachers, this study concludes that they adopted both internal and external resilience in facing challenges and pressures in their teaching profession. Figure 1 illustrates three types of internal resilience and two types of external resilience. Internal resilience includes professional, emotional, and motivational resilience. External resilience includes social and spiritual resilience. The discussion section elaborates on all the types of resilience illustrated in Figure 1.

Table 8. Motivational resilience: sub-themes and quotes

No.	Sub-themes	Quotes
1	Practicing an optimistic attitude	P7: "Positive energy is beneficial. A positive outlook. This is due to the perception that entering the classroom with a negative attitude disrupts the PDPC and administrative tasks. Therefore, regardless of the situation, we must handle it positively." P8: "After listening to the anecdotes of teachers from the neighboring school, we realized that there was a more significant issue than our own. We are concentrating on children with difficulty learning and communicating, as we believe they represent a smaller group. I realized that if the child is unwilling to learn, it may be due to a communication issue or a lack of understanding of the material being taught. Therefore, we should try to connect with him, understand his difficulties, and establish a closer relationship to facilitate his learning." P12: "Positive thinking is like helping me be more positive about the people around me. I mean positive thinking; for example, if I feel hard, I think positive thinking; maybe from that hardship, I can learn something from that difficulty."
2	Strong determination	P6: "Every task I undertake, I will complete it. Being a teacher involves much work, not one-dimensional like our job. It is multipurpose and extensive. So, here, we need to be determined to complete everything." P12: "I am not easily giving up. As I mentioned earlier, when I first entered as an educator and did not have any... education-related knowledge, I would find a solution to the problem. For example, I would watch YouTube videos or learn about effective teaching methods. Then, I would meet more senior teachers, find exercise books for students, and so on, or effective teaching guidebooks."
3	Focus on learning and improvement.	P5: "New teachers must enhance their diligence to increase their knowledge. For example, like me, I am more related to the subject I teach, unlike the options. So, we need to increase our knowledge; we need to diligently read again like we used to learn and search for the information we want to teach." P9: "I am easily able to learn something new. So, if there is anything that I do not understand, if there is anything that I do not know, I ask, then I learn, and I get some new input."
4	Enjoy challenges	P2: "I like to seek out and try new methods. Even in my teaching, I enjoy using various methods." P11: "So when I have a passion, I do not feel like I am forced to work, and I do not feel burdened. It becomes a challenge, so when faced with it, whether we like it or not, we have to think about solving it."
5	Stay motivated and spirited.	P5: "For me, my inner strength or personal spirit matters. Because my desire to become a teacher was my childhood ambition. So, when I think like that, I need to strengthen my spirit." P12: "It means that when we have the enthusiasm to help students when we face any challenges, that enthusiasm enables us to face any challenges or pressures as new teachers."
6	Having belief and self-confidence	P5: "When someone assigns a subject to us, we must believe that we need to master the new subject that we have to teach. So far, alhamdulillah (praise be to God), even though various subjects—four or five subjects I have managed to grasp—I try to improve my skills." P7: "I believe in myself."
7	Setting realistic expectations and goals	P7: "I can conduct a lesson without expecting the students to perform as we want them to. I mean that we want to set expectations for the kids, but if we set them too high and the kids cannot meet them, I feel disappointed, at least at the beginning. So, I think if we are disappointed, our resilience decreases." P11: "The challenge is the expectations from external parties, such as parents, right? So, my strategy is to have many discussions with parents. By having these discussions, we understand their expectations and can sometimes clarify when they are not quite accurate."

Table 9. Social resilience: sub-themes and quotes

No.	Sub-themes	Quotes
1	Excellent interpersonal and communication skills	P7: "When we are good at communicating with children, they lighten our burden." P9: "Indeed, there needs to be a positive attitude, which is friendliness, towards others. When we are friendly with others, if we have any problems, we can refer to others and indirectly reduce our challenges and pressures; especially if we have problems, we can share our problems."
2	Good problem-solving skills	P1: "I am the type who quickly seeks solutions. So, if any problem arises, I will try to find a solution as quickly as possible so that it does not burden me with other tasks. For example, when we have a problem with students not bringing their school books, we try to find a solution as quickly as possible so that it does not affect our work."
3	Supportive networking	P1: "I have good networking with friends outside and inside the school. When we have good networking, we can share and ask." P7: "So I try to network or communicate with teachers outside my school. So, when I communicate with maybe teachers from other national-type schools, I get feedback or approaches that I can apply to my students because the environment is the same, but the schools are different." P8: "Usually when I am stressed, um... now I sit with a friend, so it is just the two of us. After school, we have a venting session. He expresses what he feels at school and what I feel at school. So, it helps reduce stress a little." P12: "So these coworkers, um, usually, any pressure we go through, we get support from them at that time too. Any pressure is the same as with our family venting to coworkers indirectly; coworkers each help me through experience, giving encouragement, and so on."
4	Seeking assistance and accepting advice	P2: "When I have a problem, I will rearrange, I will look back at what caused my problem, and I will solve my problem myself first. When I cannot solve it, I will ask my friends for help because they are close to us." P4: "Like my challenge at school, I am the only teacher who teaches the GKT (Technical Communication Graphics) subject; I have no reference. So, I ask for help from trainers from other states." P9: "My parents also give much advice on how to handle stress with students, how to handle that stress, and how to control my temper."

Table 10. Spiritual resilience: sub-themes and quotes

No.	Sub-themes	Quotes
1	Strong religious faith	P2: “We bring ourselves closer to God; we always pray; we pray when we are in trouble; that is what we will do.” P5: “It means that external support is most important to me—our relationship with our creator, Allah SWT. Every problem has a solution, right? Allah has promised that every problem has a solution. When we are very stressed, then after prayer, we pray to Him to ease our affairs.” P12: “Like us as Muslims, all challenges are... our source of strength is prayer. When we pray indirectly, our hearts will be calmer, and we will be stronger to face the challenges we will face.”
2	Acceptance	P10: “For me, everything that happens in this world has its wisdom. Sometimes, we feel like we do not want something, but if Allah has said it is okay and that thing is the best for us, we have to accept it. We have always believed that Allah knows best what is good for us. Moreover, I think that is what I hold on to, making me rise above all the challenges I face.”
3	Trustworthy	P3: “Hold the trust responsibility because you will be asked about the trust as a teacher hereafter.” P12: “If there are problems or challenges that I feel are quite... or if there are tasks that I feel I am not capable of or are quite heavy for me to carry out, I will meet with the administrators and be honest with them. Indirectly, they will listen... and help me to face work pressures.”
4	Patience	P3: “For example, like my problem with friends who talk behind my back, I must be patient. Even with students who like to argue, we have to be patient; we have to tell them what is right and the right way.” P10: “Have much patience. Even though we are new, any job has its challenges and pressures, and the key to those challenges and pressures is to have much patience. If we were not patient, I would have stopped being a teacher long ago.” P12: “So when we have the attribute of patience towards the students, indirectly, it helps us to... teach more sincerely for those students.”

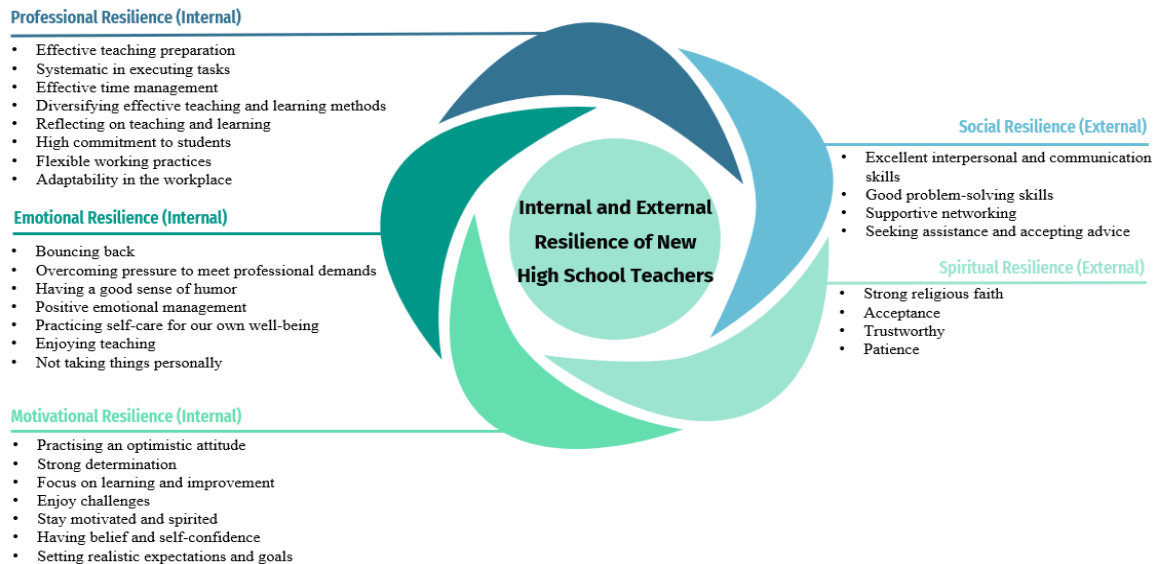


Figure 1. An improved resilience framework for new high school teachers

As has been discussed in the previous section, several resilience frameworks have been produced by previous researchers [28], [31]–[34]. In this regard, the findings of this study have confirmed a four-dimensional framework of teacher resilience produced by Mansfield *et al.* [31], which supports the context of the resilience of new high school teachers in Malaysia. The four-dimensional framework of teacher resilience by Mansfield *et al.* [31] consists of four dimensions: professional resilience, emotional resilience, motivational resilience, and social resilience. However, this study improved the framework through its findings by considering a new resilient dimension, spiritual resilience. In other words, a new high school teacher's resilient strategies have four dimensions: professional, emotional, motivational, and social resilience. They also have an additional dimension: spiritual resistance. Thus, the findings of this study prove that the concept of durability as a multidimensional construction involves a dynamic relationship between personal and contextual factors [31], [46].

Professional resilience is related to the practices of new high school teachers that can help them cope with the challenges and pressures of teaching. The strategies include: i) adequate teaching preparation; ii) systematic execution of tasks; iii) effective time management; iv) diversifying effective teaching and learning methods; v) reflecting on teaching and learning; vi) high commitment to students; vii) flexible

working practices; and viii) adaptability in the workplace. According to Mansfield *et al.* [31], efficient and effective teacher teaching is often identified as the basis for improving teacher resilience. In addition, previous studies [32], [47] have found that resilient teachers have a variety of teaching strategies that can help them cope with various challenges in teaching. Other literature studies also found that persistent teachers have a sense of satisfaction and commitment to the profession of courtesy [48], [49].

Emotional resilience refers to the emotional response of new high school teachers to challenges and pressures. The strategies adopted are i) bouncing back; ii) overcoming pressure to meet professional demands; iii) having a good sense of humor; iv) positive emotional management; v) practicing self-care for our well-being; vi) enjoying teaching; and vii) not taking things personally. The importance of the emotional aspect in the stress profession has been emphasized by several researchers [19], [50], who explained that the element of emotion could help teachers avoid experiencing stress and burnout on the job. In addition, the findings of this study found that teachers used the element of humor as a strategy to establish relationships with students. This is supported by Galea [51], who explains that humor can ease the situation and avoid conflict with students at school.

Motivational resilience is related to the inner impulse that makes new high school teachers profoundly qualified to pursue a career of resilience. Among the strategies adopted are: i) practicing an optimistic attitude; ii) strong determination; iii) focusing on learning and improvement; iv) enjoying challenges; v) staying motivated and spirited; vi) having belief and self-confidence; and vii) setting realistic expectations and goals. Gu and Day [52] explained that the motivation factor for teaching is essential as a professional asset for teachers. However, students' ability to learn and academic achievement are also linked to the motivation of teachers [53]. Social resilience involves: i) excellent interpersonal and communication skills; ii) good problem-solving skills; iii) supportive networking; and iv) seeking assistance and accepting advice. Past studies have confirmed the importance of social resilience, which is the quality of relationships that affect a new teacher's resiliency [49], [54]. Studies have found that interpersonal skills and seeking help are essential in improving teacher resilience [31]. Spiritual resilience refers to an individual's personality that has a strong religious faith, acceptance, trustworthiness, and patience. Recent studies have found that the spiritual factor has been identified as one of the most prominent protectors of resilience [55], [56]. Spirituality has also been recognized as an essential factor in resilience, based on the individual's effort to understand life issues and meaning [56], [57].

4. CONCLUSION

This research aims to identify the resilient strategies that new high school teachers employ when confronted with challenges and pressures during their early professional careers. This study found three internal resilience (professional, emotional, and motivational) and two external resilience (spiritual and social) applied by new high school teachers' resilient strategies. Thus, this study enhanced the resilience model by integrating a new spiritual resilience strategy into the four-dimensional framework of teacher resilient strategies, whereby their framework comprised only four factors representing resilient strategies: professional, emotional, motivational, and social.

The findings of this study enhance the literature on resilience frameworks and strategies, particularly as they pertain to new high school teachers in Malaysia. In terms of practical implications, the Malaysian Ministry of Education, mainly through public universities that trained these new high school teachers, is suggested to employ the highlighted internal and external resilient strategies to create intervention programs that improve their internal and external resilience, aligning with the goals of the MEDP 2013–2025. The findings of this study could be used as a foundation to build a new instrument for measuring resilience among new high school teachers.

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C : **C**onceptualization

M : **M**ethodology

So : **S**oftware

Va : **V**alidation

Fo : **F**ormal analysis

I : **I**nvestigation

R : **R**esources

D : **D**ata Curation

O : **O**riting - **O**riginal Draft

E : **E**riting - **R**eview & **E**ditng

Vi : **V**isualization

Su : **S**upervision

P : **P**roject administration

Fu : **F**unding acquisition

CONFLICT OF INTEREST STATEMENT

The authors state there is no conflict of interest.

INFORMED CONSENT

The authors have obtained informed consent from all individuals included in this study.

ETHICAL APPROVAL

This study has received ethical approval from the USM Human Research Ethics Committee (*Jawatan Kuasa Etika Penyelidikan Manusia*, JEPeM-USM) with reference number USM/JEPeM/PP/24040289.

DATA AVAILABILITY

The data that support the findings of this study are available on request from the corresponding author [LHL]. The data, which contain information that could compromise the privacy of research participants, are not publicly available due to certain restrictions.

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