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Adaptation and Psychometrics Properties of Multidimensional Teachers Resilience Scale Indonesian Version (MTRS-I)

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Abstract: This study aims to adapt and examine the psychometric properties of the Multidimensional Teachers Resilience Scale Indonesia Version (MTRS-I). The study about teacher resilience in Indonesia is still limited and uses the general resilience scale. There is no measurement that is specific to teacher resilience that can be used. This study used a quantitative research approach with a cross-sectional design for adapting the Multidimensional Teachers Resilience Scale (MTRS). Participants were obtained by convenience sampling. A total of 408 teachers in Indonesia participated in this study. Data was collected through a survey method using Google Forms, distributed through social media and the nearest school whose teachers were willing to participate. Data was analyzed using confirmatory factor analysis to confirm the validity and internal consistency for reliability. The result demonstrated that MTRS-I has a good-fit model. All items have factor loading of greater than 0.6, which are well-defined factors. The reliability study showed good results, either for the total score or the score of each dimension. Therefore, MTRS-I had met adequate validity and reliability. There were 13 items which were divided into four dimensions, namely emotional resilience, motivational resilience, professional resilience, and social resilience. Thus, MTRS-I is beneficial to measure teacher resilience in Indonesia.

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Introduction

Resilience refers to individual positive adaptation in encountering risk and adversity in life (Cutuli & Masten, 2009). Smith et al. (2008) defined resilience as the ability of individuals to bounce back or recover from stress. The study about resilience focused on three different situations, namely how individuals are able to function well during significant adversity (stress resistance), how individuals return to previous good functioning after traumatic experiences (bouncing back), and how individuals adapt to their new positive level when the situation enhanced (normalization) (Cutuli & Masten, 2009). Apparently, this ability did not protect individuals from negative life events, but individuals who maintain resilience seem to deal with stress more functionally and flexibly (Friborg et al., 2003). It is also directly linked with health outcomes (Smith et al., 2008).

Evidence shows that resilience is related to protective and risk factors, in both individual and contextual contexts. Protective factors are viewed as positive adaptation or development, while risk factors are individual attributes or situations that predict the latter issues (Cutuli & Masten, 2009). Risk factors, such as repeated traumatic circumstances or challenges, will cause enormous problems when it is accumulated. On the other hand, protective factors are associated with good outcomes and moderate risks, increasing

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resilience when the risk is low or protecting self when the risk is high (Cutuli & Masten, 2009). It can be concluded that resilience is one of the important abilities that individuals should have.

In everyday life, teachers often encounter multiple ongoing challenges. Hence, they ought to be resilient to handle the challenges over time, bounce back from particular difficulties, and continue to thrive professionally (Mansfield et al., 2016). Resilience plays a significant role for teachers, providing meaning so they can utilize it as a mediator in managing situations or being the arena, through social interaction, which can modify the way they interact with adverse situations in the environment (Vallés & Clarà, 2023). Therefore, teacher resilience refers to the extent to which teachers are capable of maintaining their own positive attributes while handling various challenges, pressures, and job-related demands (Beltman et al., 2011; Daniilidou & Platsidou, 2018). Mansfield et al. (2012, 2016) defined teacher resilience as capacities, processes, and results that are multidimensional, dynamic, and developing over time, causing teachers' personal characteristics to interact with contextual resources so they can decide their responses in challenging or stressful events.

In applying resilience, teachers use specific beliefs, capacities, skills, and a set of strategies that allow them to cope with challenging situations they may encounter, especially in a new context (Peixoto et al., 2018). Usually, their positive experiences in school and with students, encourage teachers to get through the negative experiences (Beltman et al., 2011). Teachers who exhibit resilience are more likely to persevere in challenging situations, find it easier to adapt, and are less likely to leave their profession (Mansfield et al., 2012). They are also more prepared to adjust themselves and find the positive sides of adaptations so they can share meaningful impact on students (Easterly & Meyers, 2017). Moreover, teacher resilience helps maintain teachers' stability in life, a sense of commitment to their daily work, and the capacity to manage unavoidable uncertainties in teaching (Peixoto et al., 2018). It also decreases teachers' stress and fatigue (Zhang & Luo, 2023).

Previous studies identified some risk factors and protective factors in teachers that could happen on a personal or contextual level (Beltman et al., 2011; Daniilidou & Platsidou, 2018; Peixoto et al., 2019). Personal risk factors usually include low self-esteem, conflict between personal beliefs and practices, and difficulties in seeking help when needed. Meanwhile, contextual risk factors typically include disruptive student behavior, lack of social support in school, especially from administrators and heavy workload. Factors considered personal protectors are intrinsic motivation, optimism, humor, emotional intelligence, and self-efficacy. Meanwhile, contextual protective factors include school support for teachers' professional learning, family and colleagues support and working with students (Beltman et al., 2011; Daniilidou & Platsidou, 2018; Peixoto et al., 2019). Previous studies showed the importance of personal protective resources in a resilient teacher and concluded four dimensions of resilience: emotional resilience, motivational resilience, professional resilience and social resilience (Mansfield et al., 2012).

Teacher resilience becomes essential to learn because resilience has not merely identified individual capacities but also coping strategies in responding to challenging situations with satisfying, acceptable and manageable results (Peixoto et al., 2018). Based on previous research, teacher resilience had negative correlations with stress, burnout, anger, and anxiety (Daniilidou et al., 2020; Gan et al., 2022). Otherwise, it had positive correlations with hope, quality of work life, enjoyment, well-being, emotion regulation, success, teacher competence, teacher self-efficacy, work engagement, and meaningful work (Abdullah et al., 2019; Baguri et al., 2022; Brouskeli et al., 2018; Daniilidou et al., 2020; Gan et al., 2022; Li & Lv, 2022; Van Wingerden & Poell, 2019; Xie, 2021). Resilience also had an impact on

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anxiety, psychological well-being, personal accomplishment, and happiness (Daniilidou et al., 2020; Gan et al., 2022; Yirci et al., 2022). Hence, various things are beneficial for teachers who possess resilience.

To measure resilience, several recognizable instruments are usually used. There are Connor-Davidson Resilience Scale (CD-RISC) to measure resilience levels and evaluate individuals' responses to managing anxiety, depression and stress (Connor & Davidson, 2003); Resilience Scale for Adults (RSA) to determine general characteristics of resilience in adults and measure their protective factor facing social and emotional challenges (Friborg et al., 2003); and Brief Resilience Scale (BRS) to measure resilience, especially how individuals bounce back or recover from stress (Smith et al., 2008). These instruments had been adapted into Bahasa and included for teachers. However, these are more suitable for measuring resilience in the clinical area rather than in the teaching context.

In the teaching context, Mansfield and Wosnitza (2015) developed the Multidimensional Teachers Resilience Scale (MTRS) based on the dimensions from a study by Mansfield et al. (2012) about teacher resilience. MTRS consists of 26 items that measure four dimensions: emotional resilience, motivational resilience, professional resilience, and social resilience. It has been administered to Australian teachers (Mansfield & Wosnitza, 2015) and European teachers (Peixoto et al., 2018), for which MTRS has been validated. It also has been adapted to Portuguese (Peixoto et al., 2018) and Greek (Daniilidou et al., 2020). Those studies found different models than the teacher resilience model by Mansfield et al. (2012). A study by Mansfield and Wosnitza (2015) leads to a version of MTRS with three dimensions: motivation/emotion resilience, professional resilience, and social resilience. Meanwhile, a study by Daniilidou et al. (2020) leads to four dimensions: motivational resilience, social-professional resilience, emotional resilience, and adaptability. Studies by Peixoto et al. (2018, 2019) show the same model structure with four dimensions of the inner structure of teacher resilience by Mansfield et al. (2012). Alternatively, a study by Peixoto et al. (2019) leads to the short version with 13 items that measure the exact four dimensions with factor loadings higher than 0.58.

In Indonesia, there have yet to be recognizable instruments that measure teacher resilience for Indonesian teachers. Therefore, the study aims to adapt and analyze the psychometric properties of the Multidimensional Teachers Resilience Scale in the Indonesian version. This was decided to adapt MTRS in a short version that is already a good-fit model with good psychometric properties. Previous study in Indonesia was rarely focused on teacher resilience. Hence, this is going to be the first study using the MTRS Indonesian version (MTRS-I). The hypothesis of this study is that MTRS-I would have a similar model to the original one with good validity and reliability. Thus, it will enrich the knowledge and studies regarding teacher resilience.

Research Method

This study used a quantitative research approach with a cross-sectional research design. Then, data was collected through the survey method. The adaptation of the Multidimensional Teachers Resilience Scale (MTRS) was conducted following the procedures contained in The International Test Commission Guidelines for Translating and Adapting Test (International Test Commission [ITC], 2017). The procedure was begun by corresponding through email with Caroline F. Mansfield, who developed MTRS, to obtain permission for adaptation in Bahasa Indonesia. Second, the forward and backward translation were conducted to strengthen the test adaptation quality (ITC, 2017). Each process was translated by a translator with an educational background in psychology, a work

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background in education, and an adequate understanding of English (TOEFL score above 550), so they have adequate knowledge of test principles, language, and cultures. The result of forward-backward translation was reviewed by an expert, who is an educational psychologist, to see whether or not the items fit the context and have correct grammar. Then, the results of the translation were reconsidered by selecting the vocabulary that was easier to comprehend and better fit the definition. After that, a readability test was conducted with two teachers to explore participants' understanding of items. Then, try out of the pre-final versions was performed before data collection. Also, this study has received ethical approval from the Research Ethics Committee Universitas Indonesia with the number of approvals being 242/FPsi.Komite Etik/PDP.04.00/2023.

A total of 408 Indonesian teachers participated in this study. Participants were obtained through convenience sampling, in which participants were chosen based on their availability and willingness to be involved in this study (Gravetter & Forzano, 2018). The questionnaire was prepared in Google Forms and distributed through social media such as WhatsApp, Twitter, and Instagram in a month. Moreover, the questionnaire was also prepared in hardcopy for the nearest teachers who wanted to participate. Most participants are women (72.5%), while there are 27.5% men. They are between 19 and 64 years old (M = 34.89, SD = 8.39). Most of them teach elementary school (41.2%), followed by senior high school (19.9%), junior high school (19.8%), vocational school (14.5%) and the rest teach double level. In terms of years of experience, there are 27.7% that have 0-3 years of experience, 24.46% for 4-7 years, 28.7% for 8-15 years, 14.5% for 16-23 years, 4.4% for 24-30 years and 0.5% for more than 31 years. In terms of domicile, most of the participants live in Java Island (74,75%), the most populous island in Indonesia, and the rest 25.25% spread across the other islands in Indonesia.

The instrument used in this study is the MTRS short version (Peixoto et al., 2019). MTRS is a self-report scale using a 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree). There are 13 items that represent four dimensions of teacher resilience, namely: (1) emotional resilience, which refers to emotional responses in daily teaching experiences, emotional and coping stress; (2) motivational resilience, which refers to the features that demonstrate teachers' motivation, such as optimism, enthusiasm, positive attitude, persistence, self-efficacy, goal setting, focus on learning and perseverance; (3) professional resilience, which refers to teaching skills that enable teachers to deal with adversity and challenges in school; and (4) social resilience, which refers to strong interpersonal skills that facilitate the development of social support, such as communication skill, problem-solving, and capacity for seeking help when required. This scale already had good reliability scores ranging from 0.72-0.86 and factor loadings of more than 0.58 for each item (Peixoto et al., 2019). A higher score indicates a higher level of teacher resilience.

Data was analyzed using confirmatory factor analysis (CFA), which tests how well a prespecified measurement theory formulated of variables and factors fits reality as captured by data (Hair et al., 2019). It was analyzed using Jamovi 2.4.8 software. Some of the fit index criteria that are acceptable for N > 250 are chi-square is p> .05 even with a good fit, Root Mean Square Error of Approximation (RMSEA) < .08, Standardized Root Mean Square Residual (SRMR) ≤ .08, Comparative Fit Index (CFI) ≥ .990 and Tucker-Lewis Index (TLI) ≥ .90. The factor loading was also carried out to see whether the items converge the latent construct. All factor loading should be statistically significant and more than 0.3. The reliability test was conducted with Cronbach's alpha which should be 0.7 or higher to indicate adequate internal consistency (Hair et al., 2019).

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Results and Discussion

Result of Adapting MTRS Indonesian Version

Following the procedures of test adaptation from ITC (2017), permission for adapting was asked from Caroline F. Mansfield, the one who developed MTRS. After obtaining the approval, the adaptation process began in the order of forward-backward translation, expert review, and readability test that led to pre-final versions. The example of items can be seen in Table 1.

Table 1. Translation Results of MTRS in Indonesian (MTRS-I)

Factors MTRS-I	Original Item	Forward Translation	Backward Translation	Prefinal Version
Emotional resilience	When I feel upset or angry at school I can manage to stay calm	*Ketika saya merasa kesal atau marah di sekolah, saya mampu untuk tetap tenang.*	When I'm upset or angry at school, I'm able to stay calm.	*Ketika saya merasa kesal atau marah di sekolah, saya mampu untuk tetap tenang.*
Motivational resilience	I am persistent in my work	*Saya persisten di dalam pekerjaan saya.*	I am persistent in my work.	*Saya menunjukkan kegigihan dalam bekerja.*
Professional resilience	I can quickly adapt to new situations at school	*Saya mampu beradaptasi dengan cepat terhadap situasi baru di sekolah.*	I can adapt quickly to new situations at school.	*Saya cepat beradaptasi dengan situasi baru di sekolah.*
Social resilience	At work I can view situations from other people's perspectives	*Di pekerjaan saya, saya mampu melihat situasi dari sudut pandang orang lain.*	In my work, I'm able to see situations from others' points of views.	*Dalam bekerja, saya mampu melihat situasi dari sudut pandang orang lain.*

The prefinal version of MTRS-I was tried out on 36 teachers to explore the reliability through a single trial test method and internal consistency of measurement. The results showed that the pre-final version was reliable (α = 0.905). In terms of dimensions, the prefinal version showed excellent internal consistency, ranging from 0.529 – 0.814, which showed that the pre-final version was valid. It could be easily understood by participants and answered according to their factual condition. It concluded that MTRS-I could be carried out without any modifications.

Construct Validity with Confirmatory Factor Analysis

Data was collected from 408 participants and analyzed with Confirmatory Factor Analysis (CFA). The results of CFA can be seen in Table 2.

Table 2. Results of Confirmatory Factor Analysis for Multidimensional Teachers Resilience Scale in Indonesian (MTRS-I) Model

	Accepted Criteria	Original Model (Peixoto et al., 2019)		Modified Model	
χ^2		190		175	
df		59		54	
χ^2/df		3.22		3.24	
p-value	p> .05	0.00	Not fit	0.00	Not fit
CFI	≥ .90	0.954	Fit	0.958	Fit
TLI	≥ .90	0.939	Fit	0.939	Fit
SRMR	≤ .08	0.0326	Fit	0.0312	Fit
RMSEA	< .08	0.0738	Fit	0.0741	Fit
AIC		8636		8631	
BIC		8817		8832	

Note: MTRS = Multidimensional Teachers Resilience Scale; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; SRMR = Standardized Root Mean Square Residual; RMSEA = Root Mean

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Square Error of Approximation; AIC = Akaike Information Criterion; BIC = Bayes Information Criterion

The results of the original model in Table 2 showed that most of the indicators already met the accepted criteria, including CFI, TLI, SRMR and RMSEA. However, the chi-square did not meet the accepted criteria. Referring to the accepted criteria (Hair et al., 2019), the original model of MTRS-I was categorized as a good fit model. Based on the modification indices, there were suggestions to correlate several errors that led to the modified model. The items whose errors have been correlated were item 5 with 8, item 2 with 9, item 6 with 9, item 4 with 7, and item 4 with 13. The modified model was also categorized as a good fit model, referring to CFI, TLI, SRMR and RMSEA scores that met the criteria. However, chi-square also did not meet the accepted criteria.

Factor loading analysis was necessary to be carried out to know whether the items converge the latent construct or factors. All factor loading should be statistically significant and more than 0.6 (Hair et al., 2019). Table 3 and Figure 1 show the results of the factor loadings.

Table 3. Standardized Factor Loadings, Test Statistics and Composite Reliability of MTRS-I Model

	Original Model (Peixoto et al., 2019)	Modified Model
Emotional Resilience		
1. When I feel upset or angry at school I can manage to stay calm	0.600 (12.8)*	0.604 (12.8)*
5. I balance my role as a teacher with other dimensions in my life	0.690 (15.2)*	0.693 (14.6)*
8. I am generally optimistic at school	0.741 (16.7)*	0.746 (16.2)*
CR	0.94	0.93
Motivational Resilience		
2. I am good at maintaining my motivation and enthusiasm when things get challenging at school	0.790 (18.7)*	0.796 (18.7)*
6. I enjoy learning when I am at work	0.704 (15.8)*	0.694 (15.5)*
9. I like challenges in my work	0.755 (17.4)*	0.753 (17.0)*
12. I am persistent in my work	0.752 (17.3)*	0.752 (17.3)*
CR	0.95	0.95
Professional Resilience		
3. At school I can be flexible when situations change	0.686 (14.8)*	0.686 (14.8)*
10. I can quickly adapt to new situations at school	0.761 (16.7)*	0.761 (16.7)*
CR	0.94	0.94
Social Resilience		
4. In my role as a teacher, i am a good communicator	0.679 (14.9)*	0.699 (14.8)*
7. At work I can view situations from other people's perspectives	0.662 (14.4)*	0.658 (14.2)*
11. I am good at building relationships in new school environments	0.677 (14.8)*	0.676 (14.8)*
13. When I am at work I can generally resolve conflicts with others	0.818 (19.3)*	0.834 (19.5)*
CR	0.94	0.94
CR Model	0.94	0.94

Note: n = 408. Numbers in brackets refer to test statistics values. *All factor loadings were significant p < .001

Based on Table 3, it was found that all factor loadings were significant in each factor of teacher resilience, either in the original model or the modified model. The factor loadings

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ranged from 0.600-0.818 in the original model and from 0.604-0.834 in the modified model (Figure 1). It can be interpreted that each item can measure the construct of teacher resilience significantly. The composite reliability in both models was categorized as good because it has values of more than 0.70.

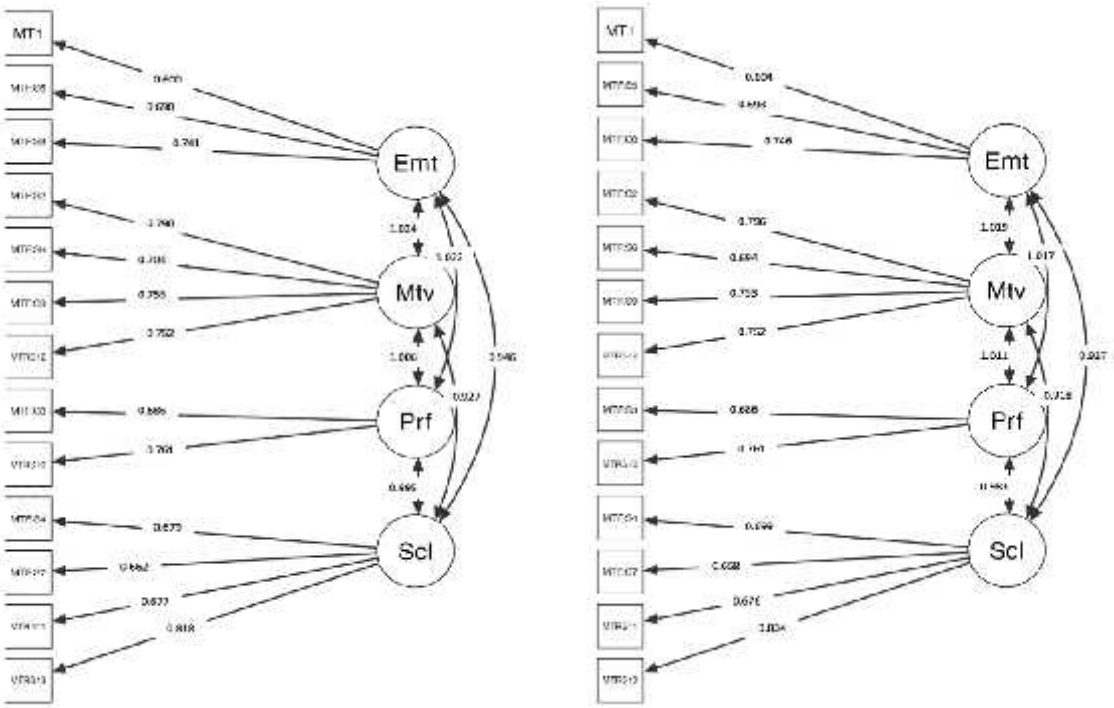

Figure 1. CFA Path Diagram of MTRS (Original Model (Right) and Modified Model (Left))

Reliability Test

Based on the Cronbach's Alpha reliability test, it was found that the Cronbach's Alpha for the total score of MTRS-I was 0.929. The Cronbach's Alpha for emotional resilience was 0.716, motivational resilience was 0.839, professional resilience was 0.683, and social resilience was 0.801. It can be interpreted that the reliability values for the total score of MTRS-I and each dimension were adequate. This instrument had strong reliability and would consistently measuring teacher resilience among Indonesian teachers. It is shown in Table 4.

Table 4. Descriptive Statistics, Item-Rest Correlation and Cronbach's Alpha of MTRS-I Model

Factors MTRS-I	Item	Mean	SD	Item-rest Correlation	α
Emotional resilience	1	4.25	0.714	0.581	0.716
	5	4.33	0.663	0.683	
	8	4.32	0.733	0.707	
Motivational resilience	2	4.18	0.662	0.758	0.839
	6	4.45	0.663	0.670	
	9	4.29	0.708	0.710	
	12	4.42	0.641	0.714	
Professional resilience	3	4.25	0.692	0.672	0.683
	10	4.25	0.773	0.732	
Social resilience	4	4.35	0.605	0.651	0.801
	7	4.18	0.764	0.618	
	11	4.09	0.813	0.627	

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	13	4.31	0.727	0.754	
α MTRS-I					0.929

In Table 4, it was shown that item rest correlation ranged from 0.581-0.758. Item-rest correlation is the correlation between the item score and the rest score that can be included in the item-validity index (Cohen et al., 2022). The minimum values needed for item-rest correlations are 0.20, 0.30 or 0.40 (Zijlmans et al., 2018). It can be concluded that all items can be used because their item-rest correlation coefficients were above 0.40.

Discussion

The result of the study that attempted to examine the psychometric properties of the Multidimensional Teachers Resilience Scale Indonesia Version (MTRS-I) found that MTRS-I has a good-fit model with four dimensions. There are several things that can be discussed from the adaptation procedures, data collection and psychometric study of MTRS-I. First, the Confirmatory Factor Analysis that was carried out to examine the construct validity of this scale showed that MTRS-I has a similar model to the previous model of MTRS (Peixoto et al., 2018, 2019). CFA for the original model was categorized as a good fit model ($\chi2$ (59) = 190, $p < 0.001$, CFI = 0.954, TLI = 0.939, SRMR = 0.033, RMSEA = 0.074 [90% Cl 0.062, 0.086]). Alternatively, the modifications of the model had been made based on the modification indices which means these items have a specific correlation. Correlating the covariance error value was performed between items 5 with 8 (“I balance my role as a teacher with other dimensions in my life” and “I am generally optimistic at school”), items 2 with 9 (“I am good at maintaining my motivation and enthusiasm when things get challenging at school” and “I like challenges in my work”), items 6 with 9 (“I enjoy learning when I am at work” and “I like challenges in my work”), items 4 with 7 (“In my role as a teacher, I am a good communicator” and “At work, I can view situations from other people’s perspectives”) and items 4 with 13 (“In my role as a teacher, I am a good communicator” and “When I am at work I can generally resolve conflicts with others”). The modified model was also categorized as a good fit model ($\chi2$ (54) = 175, $p < 0.001$, CFI = 0.958, TLI = 0.939, SRMR = 0.031, RMSEA = 0.074 [90% Cl 0.062, 0.086]). Both models show that chi-square values do not meet accepted criteria. This is because the chi-square statistic is sensitive to sample size and makes slight statistically significant differences when the sample size becomes large (Hair et al., 2019). Regarding AIC, the modified model shows the lowest AIC value than the original model. The model with the lowest AIC value offers the best fit (Spurk et al., 2020). Whereas in terms of BIC, the original model shows the lowest BIC value than the modified one. The model with the lowest BIC value offers the best fit (Spurk et al., 2020). Therefore, both models show a good-fit model and can be used.

Second, MTRS-I has structure factors that are similar to studies by Peixoto et al. (2018, 2019). MTRS-I consists of four dimensions, namely emotional resilience, motivational resilience, professional resilience, and social resilience. All items hold factor loadings ranging from 0.600-0.818 in the original model and 0.604-0.834 in the modified model. Factor loadings greater than 0.50 are considered practically significant and greater than 0.70 are considered indicative of a well-defined structure and are the goal of any factor analysis (Hair et al., 2019). It can be interpreted that all items were significant and can measure each dimension.

Third, internal consistency testing shows that MTRS-I is an instrument with good reliability. It is shown through the results of composite reliability and Cronbach’s Alpha. The composite reliability value of the original or modified model is 0.93-0.95 for each dimension and 0.94 for the total score. Composite reliability is the preferred approach for reliability

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because it weights items based on their loadings (Hair et al., 2019). Then, Cronbach's Alpha consistency value ranges from 0.683-0.839 for each dimension and 0.929 for total score. The minimum reliability value recommended is 0.6 and the maximum is 0.90 (Hair et al., 2019). It can be concluded that the adaptation of MTRS in Indonesia can be used repeatedly to measure teacher resilience for Indonesian teachers.

Next, based on the reliability value, motivational resilience produces the highest score among the other dimensions of teacher resilience. This aligns with previous research that states the level of motivational resilience is higher than other dimensions (Daniilidou et al., 2020; Peixoto et al., 2018). This shows that the resilience that Indonesian teachers possess and manage is described more by features that demonstrate motivation, such as optimism, perseverance, positive attitudes etc. This finding is supported by previous research that states resilience is related to hope and positive attitudes (Baguri et al., 2022; Yirci et al., 2022; Zhang & Luo, 2023).

The findings of this study support the idea that teacher resilience construct has multidimensional view and highlights its interaction between teachers' personal and contextual resources (Mansfield, 2016; Peixoto et al., 2019). Those four dimensions of teacher resilience emphasize the importance of personal protective factors in a resilient teacher (Mansfield et al., 2012). It implied that it become essential for teachers to possess resilience. Having the capacity to deal with any adversities will make it easier for teachers to adjust, maintain teachers' stability, commit to work, and engage in their profession (Easterly & Myers, 2017; Mansfield et al., 2012; Peixoto et al., 2018). Teachers can cope more strategically in responding to challenging situations that result in more satisfying and acceptable ones (Peixoto et al., 2018). Moreover, teachers would have better well-being and personal accomplishments (Daniilidou et al., 2020; Brouskeli et al., 2018) and less stress (Zhang & Luo, 2023). Hence, adapting MTRS-I can be used by researchers for the development of teacher resilience research and by school principals to measure their teacher resilience. This can be as well by the policymakers or governments to identify the resilience of Indonesian teachers, increasing their quality to give a better quality of teaching.

Conclusion

Multidimensional Teachers Resilience Scale Indonesia version (MTRS-I) shows good psychometric properties, which are good validity and reliability. CFA shows that both the original and modified models are categorized as good fit models. It consists of 13 items with four dimensions, namely emotional resilience, motivational resilience, professional resilience, and social resilience. MTRS-I can be conducted for teachers in Indonesia to measure teacher resilience so they can improve the effectiveness of teaching.

Recommendation

MTRS-I can be used in future studies to measure teachers' mental condition and research development about teacher resilience. It also can be used by policy makers, such as the Ministry of Education, Culture, Research, and Technology, to understand the condition of teacher resilience that contributes to the improvement of teacher well-being, also the quality of education. To strengthen the validity of MTRS-I, it can be confirmed with convergent validity with the general resilience scale or other similar scales and discriminant validity. Furthermore, the study can involve a more diverse sample to represent every characteristic of teachers in Indonesia, such as gender, age, domicile, and years of experience. Therefore, MTRS-I can also be used as the foundation of teacher professional development about teacher resilience.

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