

Connection and Resilience: Constructing a Measurement Tool for Teacher-Student Relationship and Resilience in the Era of Educational Disruption

Annisa Firdausy Ifitahur Rahma¹, Fitriania Maghfiroh¹

¹*Department of Psychology, Universitas Negeri Surabaya, Surabaya, Indonesia*
annisafirdausy.23365@mahs.unesa.ac.id; fitrianiamaghfiroh@unesa.ac.id;

Abstract: This study aims to develop and validate measurement instruments for assessing teacher–student relationships and student resilience in the Indonesian educational context. The teacher–student relationship scale covers seven dimensions such as proximity seeking, emotional support, and open communication. Meanwhile, the resilience scale comprises eight dimensions including emotional, cognitive, relational, physical, motivational, spiritual, and adaptive aspects. Data were collected through two try outs using Likert scale questionnaires distributed via both paper based and Google Form to middle and high school students. Validity was tested using Pearson correlation, and reliability was confirmed through Cronbach’s Alpha. The results show high validity and reliability for both scales, with a positive correlation ($r = 0.489$, $p < 0.05$) indicating that better teacher–student relationships are associated with higher student resilience. This study contributes practical measurement tools for educational interventions to strengthen psychosocial student development in Indonesia.

Keywords: Teacher–Student Relationship, Resilience, Scale Development, Psychometric Validation, Indonesian Education

1 INTRODUCTION

Teacher–student relationships play a significant role in supporting students’ emotional and academic development (Pianta, 1999). A secure attachment between teachers and students provides a sense of safety, motivating students to learn and explore new experiences. At the same time, resilience — the ability to adapt and recover from adversity has become a critical factor for students to succeed in challenging educational environments (Masten, 2001). However, educational disruption increasingly complicates the dynamics of teacher–student relationships and students’ psychosocial resilience. As learning shifts to online and hybrid modes, the warm face-to-face interactions that form the foundation of emotional bonds are increasingly at risk. Recent studies affirm that positive teacher–student relationships are a powerful protective factor that reduces academic stress, anxiety, and even the risk of dropping out of school (Quin, 2017; Roorda et al., 2011).

Furthermore, resilience is not merely the capacity to withstand pressure but also to grow through challenging experiences (Luthar et al., 2000). In Indonesia, resilience is shaped by complex factors including diverse cultural backgrounds, economic disparities, and unequal educational infrastructure. Most measurement instruments currently used are imported without deep adaptation to local values such as spirituality, communal support, and strong family ties core elements of Indonesian culture. In Indonesia, the lack of culturally relevant instruments to measure teacher–student relationships and student resilience hinders evidence-based interventions. Existing scales often originate from foreign contexts and may not fit Indonesia’s unique socio-cultural background (Azwar, 2014). Therefore, developing culturally relevant instruments is an urgent need. Such instruments not only help educators identify potential risks but also form the basis for designing interventions rooted in local wisdom. Thus, this research aims to bridge the gap between literature and practice, enriching Indonesia’s psychometric resources with valid, reliable, and contextual measurement tools.

2 MATERIALS AND METHODS

This study employed a descriptive quantitative method to construct and validate two scales: the teacher–student relationship scale and the resilience scale. The scale dimensions were derived from literature reviews and operationalized into measurable indicators. Items were generated using a 4 point Likert scale. The first try-out involved 30 students for initial item clarity checks. Items were refined based on reliability (Cronbach’s Alpha) and validity (Pearson correlation)

analyses using JASP. A second try-out was conducted online with a larger student sample to finalize the instruments. The normality of data distribution was tested using the Shapiro–Wilk test.

3 RESULTS

The analysis shows that all items in both scales meet the validity criteria, with item-total correlations above 0.3 and significant p-values. The reliability tests yielded Cronbach's Alpha scores of 0.95 for both scales, indicating excellent internal consistency. The Pearson correlation test revealed a positive and significant relationship between teacher–student relationship and resilience ($r = 0.489$, $p < 0.05$). This suggests that students who perceive stronger emotional bonds with teachers tend to exhibit higher resilience levels.

Table 1. Instrumen Reliability

Variabel	Number of Items	Cronbach's Alpha
Teacher-student Relationship	31	0.95
Resilience	45	0.95

Note: $\text{Alpha} \geq 0.70$ indicates good reliability.

The reliability analysis results indicate that the instruments used to measure *teacher-student relationship* (31 items) and *resilience* (45 items) have a very high level of internal consistency, with Cronbach's Alpha values of 0.95 for both variables. These values far exceed the minimum threshold of 0.70, which is generally considered indicative of good reliability. This suggests that both instruments are dependable in measuring the intended constructs and that the items within each scale are highly consistent in representing their respective variables.

Table 2. Normality Test (Saphiro-Wilk)

Variabel	Shapiro-Wilk	Sig. (p)
Teacher-student Relationship	0.978	0.617
Resilience	0.959	0.143

Based on the Shapiro-Wilk normality test, the data distributions for the variables *teacher-student relationship* and *resilience* can be considered normal. This is evidenced by the significance (p) values of 0.617 and 0.143, respectively, both of which are above the 0.05 threshold. Therefore, there are no significant deviations from a normal distribution, indicating that the data for both variables meet the assumption of normality required for various parametric statistical analyses.

Table 3. Correlation Test

Variabel	1	2
Teacher-student Relationship	–	0.489
Resilience		–

Note: $p = 0.001$ ($p < 0.05$), significant correlation.

The results of the correlation test show a significant positive relationship between *teacher-student relationship* and *resilience*, with a correlation coefficient of 0.489 and a significance value of $p = 0.001$ ($p < 0.05$). This means that the stronger the relationship between teachers and students, the higher the level of resilience students tend to possess. This relationship falls within the moderate range, suggesting a meaningful contribution of teacher-student relationship quality to students' ability to cope with stress or adversity.

4 DISCUSSIONS

The results of this study reinforce the critical role of teacher–student relationships in fostering student resilience, which aligns with existing theories and previous empirical studies (Pianta, 1999; Roorda et al., 2011). A strong emotional bond with teachers provides a secure base and safe haven for students, allowing them to feel supported, trusted, and understood within the school environment. This sense of security encourages students to take risks in learning, develop coping strategies, and remain motivated when facing academic or personal challenges.

The high internal consistency (Cronbach's Alpha = 0.95) indicates that the developed instruments successfully capture the multi-dimensional nature of both constructs. The teacher–student relationship scale encompasses crucial dimensions such as proximity seeking, emotional support, and open communication. These dimensions mirror attachment theory

principles, showing that when students perceive teachers as responsive figures, their emotional well-being and engagement improve significantly.

The positive correlation ($r = 0.489$) between teacher–student relationship and resilience supports the argument that psychosocial resources at school contribute to students’ adaptive capacities. This finding is consistent with Masten’s (2001) “ordinary magic” framework, which highlights everyday relationships and environments as protective factors in children’s development. The implication is that strengthening relational quality in the classroom may serve as a practical, low-cost intervention to bolster students’ psychological endurance in the face of stressors.

However, while the study demonstrates robust psychometric evidence, it also raises important questions. The sample was limited to middle and high school students, which may restrict generalizability. Further research could apply these scales to primary school students or even university populations to explore developmental differences in attachment bonds and resilience mechanisms.

Another consideration is the socio-cultural context. While this scale was designed for Indonesian schools, Indonesia’s diverse cultural backgrounds may require local adaptations across regions. The inclusion of spiritual and relational dimensions reflects Indonesian cultural values emphasizing collectivism, spirituality, and family ties. Future studies could compare these findings with results from Western or individualistic cultures to explore how cultural norms shape teacher–student attachment and resilience.

Practically, the validated instruments can be used by school counselors, teachers, and educational psychologists to identify students who may be at risk due to weak relational ties or low resilience levels. Targeted interventions such as mentorship programs, teacher training on emotional communication, or resilience-building workshops can be developed based on this data. In sum, this study contributes a comprehensive tool for educators and researchers to assess, understand, and strengthen the social emotional fabric that connects students and teachers an aspect increasingly critical in navigating educational disruptions.

5 CONCLUSIONS

The teacher–student relationship and resilience scales constructed in this study are valid and reliable for use in Indonesian schools. The positive correlation between the two constructs highlights the importance of strengthening teacher–student connections to boost student resilience.

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