



Measuring Openness, Conflict, and Dependency: Validation of the Student-Teacher Relationship Scale among Indonesian Youth Learners

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Abstract

This study aimed to adapt the Student-Teacher Relationship Scale into Indonesian and to examine its psychometric reliability in the Indonesian educational context. The research participants were Indonesian teachers working with youth learners, selected through purposive sampling based on their direct instructional involvement with students. The adaptation process employed a quantitative methodological approach and followed standard cross-cultural procedures, including forward translation, back-translation, expert judgment, and cultural refinement to ensure semantic and conceptual equivalence. Data were collected using STRS, which measures three core dimensions of teacher-student relationships: openness, conflict, and dependency. Reliability analysis was conducted using Cronbach's alpha to assess internal consistency. The results indicated that the Indonesian version of the instrument demonstrated high reliability, with a Cronbach's alpha coefficient of 0.894, suggesting strong internal consistency across items. Minor linguistic adjustments were implemented to enhance cultural appropriateness without altering the theoretical constructs measured by the scale. To sum up, the findings indicate that the Indonesian adaptation of the Student-Teacher Relationship Scale is a reliable instrument for assessing teacher-student relationship quality in Indonesian educational settings. The adapted scale can be applied by researchers and educational practitioners to understand better relational dynamics that contribute to children's school adjustment and to inform educational intervention.

Keywords: Conflict; Dependency; Indonesian Youth Learners; Openness; STRS



A. INTRODUCTION

School adjustment is a critical aspect of children's development that determines long-term academic, social, and emotional success. Students' ability to adjust to school is influenced by various internal and external factors, one of the most important being the quality of the student–teacher relationship. Positive teacher–student interactions are consistently linked to enhanced learning engagement, social participation, and psychological well-being (Azpiazu et al., 2024; Azad et al., 2024). However, the measurement of these relationships through psychometric instruments such as the *Student–Teacher Relationship Scale* (STRS) requires careful adaptation when applied outside its original cultural context. In Indonesia, a country characterized by linguistic diversity and cultural plurality, adapting STRS necessitates ensuring that each item accurately reflects the reality of student–teacher interactions.

Language plays a fundamental role in shaping interpersonal relationships between students and teachers. A mismatch between the instructional language at school and the language spoken at home can significantly influence student participation and interpretation of classroom interactions. A recent study in China demonstrated that within English as a Foreign Language (EFL) contexts, supportive classroom climates and positive teacher–student relationships significantly enhance student engagement, even when linguistic challenges exist (Chen et al., 2024). This finding suggests that instruments designed in one linguistic context cannot be directly transferred to another without considering semantic and cultural nuances. In Indonesia, where 'Bahasa Indonesia' is the national language but local dialects and languages remain prevalent, adaptation of STRS requires linguistic sensitivity to avoid misinterpretation or measurement bias.

Beyond language, cultural factors play a critical role in shaping teacher–student relationships. Cultural values such as hierarchy, power distance, and communication norms strongly influence how students perceive closeness, conflict, and dependency in their interactions with teachers. In collectivist societies such as Indonesia, students typically display a high level of respect for authority, which may discourage the open expression of conflict or criticism toward teachers (Thijs & Fleischmann, 2015). Empirical studies in Indonesian educational settings have shown that teacher authority and discipline are often interpreted as normative aspects of classroom interaction rather than indicators of relational conflict (Ansya et al., 2024; Soebardjo & Fidrayani, 2024). Research in Indonesian early childhood and elementary schools further indicates that relational closeness is more commonly expressed through consistent guidance, emotional availability, and instructional support rather than overt verbal or physical affection (Aditama et al., 2024). Moreover, a literature review on communication strategies in Indonesian secondary schools found that teacher self-disclosure, often regarded in Western contexts as a strategy for strengthening teacher–student relationships, is rarely employed due to hierarchical norms and expectations of professional distance (Ansya et al., 2024). These findings suggest that the core dimensions of the Student–Teacher Relationship Scale (STRS), closeness, conflict, and dependency, may be manifested and interpreted differently within the Indonesian cultural and educational context, thereby reinforcing the need for culturally sensitive adaptation.

In recent years, cross-cultural studies have emphasised the importance of testing measurement invariance to ensure that psychometric constructs retain the same meaning in different cultural contexts. Research on visual representations of teacher–student relationships in China and the Netherlands revealed that, despite cultural differences in expression, the instrument could demonstrate partial invariance and validity through proper cultural adaptation (Buyse et al., 2021). This highlights the methodological necessity of culturally sensitive adaptation processes, as neglecting these factors may lead to biased interpretations and inaccurate assessments of teacher–student dynamics. In Indonesia, where cultural norms vary not only nationally, but also regionally, this consideration is particularly important.

Recent studies in Indonesia have begun to explore student–teacher relationships from different perspectives. For example, Ansyah et al. (2024) used Confirmatory Factor Analysis (CFA) to validate a teacher–student relationship model in Muhammadiyah elementary schools. They found that religiosity and school climate significantly influenced relationship quality. Similarly, Soebardjo and Fidrayani (2024) demonstrated that positive teacher–student relationships at preschool in Jakarta were significantly associated with children’s adjustment to school. Another study focusing on teacher communication strategies emphasised the role of language in written feedback, showing that the way teachers provide linguistic input can shape students’ perceptions of relational quality (Sulistyo et al., 2024). Together, these findings suggest that language and cultural context profoundly impact the nature of student–teacher interactions in Indonesia.

Several challenges explain why existing studies have not fully integrated linguistic and cultural dimensions into the STRS adaptation process in Indonesia. First, many adaptation efforts prioritise statistical validation techniques, such as Rasch analysis or factor analysis, while paying limited attention to semantic, conceptual, and experiential equivalence during translation (Hambleton & Patsula, 1999; Beaton et al., 2000). Consequently, items may show acceptable psychometric properties but fail to capture culturally specific meanings of teacher–student interactions. Second, reliance on direct or literal translation often overlooks culturally embedded communication norms, including hierarchical relationships, indirect communication styles, and restrained emotional expression common in Indonesian classrooms (Van de Vijver & Leung, 1997; Hofstede, 2011). Third, limited involvement of interdisciplinary expert panels—particularly linguists and cultural or educational psychologists—reduces the depth of cultural interpretation in the adaptation process (Sousa & Rojjanasrirat, 2011). Finally, the absence of qualitative procedures such as expert focus group discussions or cognitive interviews restricts the identification of culturally inappropriate or ambiguous items, a limitation also noted in recent Indonesian STRS adaptation studies that focused primarily on psychometric modelling (Aditama et al., 2024). Together, these challenges hinder the development of STRS adaptations that are both psychometrically sound and culturally meaningful.

Taken together, these considerations emphasise the urgent need to comprehensively adapt and validate the STRS for the Indonesian educational context. This process should include culturally sensitive translation, expert content validation and rigorous construct

validation using factor analysis, as well as testing for measurement invariance across linguistic and cultural groups. Such an endeavour would produce a valid and reliable Indonesian version of the STRS and ensure that the instrument is culturally and linguistically meaningful. Ultimately, this research is expected to generate more accurate empirical data for educational interventions and contribute to the international literature on the cross-cultural adaptation of psychometric instruments in non-Western contexts.

B. METHOD

This study employed a descriptive research design with an instrument adaptation approach, focusing on translating and culturally adjusting the School Adjustment instrument into Indonesian. The adaptation process aimed to ensure that the instrument could be applied appropriately within the Indonesian linguistic and cultural context, while maintaining the integrity of the underlying constructs being measured (Beaton et al., 2000; Hambleton & Patsula, 1999). The participants in this study consisted of an expert panel and pilot study participants. The expert panel comprised seven experts, selected through purposive sampling, including three linguists and four education experts. The linguists held master's or doctoral degrees in linguistics or applied linguistics and had at least five years of experience in bilingual translation, academic Indonesian, or cross-cultural language studies. The education experts held a minimum of a master's degree in early childhood education or educational psychology, with 7–20 years of professional experience in teaching, curriculum development, teacher training, or educational research. The experts evaluated semantic equivalence, cultural appropriateness, and conceptual relevance of the adapted items, with their involvement emphasizing academic expertise rather than quantitative representation, in line with cross-cultural instrument adaptation guidelines (Hambleton, 2005; Beaton et al., 2000).

The pilot study involved 30 early childhood education (ECE) teachers from public and private ECE institutions in South Jakarta, Indonesia. The participants ranged in age from 23 to 52 years, with teaching experience between 2 and 25 years. All participants held at least a Diploma (D3) or Bachelor's degree (S1) in early childhood education or a related field, in accordance with national qualification standards for ECE teachers. The participating schools included public kindergartens, private ECE centres, and faith-based early childhood institutions. The pilot participants were involved to assess the clarity, comprehensibility, and cultural suitability of the adapted STRS items prior to further psychometric analysis.

The instrument used was the original School Adjustment Questionnaire in English. The adaptation process followed internationally recognised procedures, beginning with a forward translation conducted by bilingual translators fluent in both English and Indonesian. This was followed by a back translation performed by independent translators to verify semantic equivalence with the original version. The translated version was then reviewed by a panel of experts specialising in education, psychology and linguistics, who assessed its conceptual equivalence, clarity of language and cultural appropriateness (Sousa & Rojjanasrirat, 2011; Beaton et al., 2000).

Data collection was carried out through focus group discussions with the expert panel. Each item of the instrument was carefully examined to ensure that the original meaning was preserved and that the wording was comprehensible to Indonesian students. Items containing unfamiliar or ambiguous expressions were revised and reformulated while retaining their substantive meaning (Van de Vijver & Leung, 1997).

The data analysis was qualitative in nature, emphasizing linguistic and content appropriateness. Expert feedback and discussion outcomes were synthesised and the items were revised accordingly. The final result was an Indonesian version of the School Adjustment instrument that is linguistically acceptable, culturally relevant and easily understandable within the context of Indonesian education (Polit & Beck, 2006).

C. RESULT AND DISCUSSION

1. Result

The quality of relationships between teachers and children is widely recognised as a central factor in children's academic and social development, particularly during the early years of schooling. Characterised by dimensions of closeness, conflict and dependency, these relationships provide the foundation for students' engagement, motivation and overall adjustment to school (Pianta, 2001; Mejia & Hoglund, 2016). Positive relationships characterised by warmth, trust, and effective communication foster children's emotional security and satisfaction with learning (Rahmadi & Rombean, 2021), whereas disharmonious interactions may undermine self-efficacy, reduce peer acceptance, and contribute to academic difficulties (Mantzicopoulos, 2015; Aldhafri & Alhadabi, 2019).

School adjustment refers to the extent to which children adapt successfully to the academic, social and behavioural demands of school (Baker, 2006). Strong early adjustment has been associated with better academic performance, positive social relationships, and greater well-being (Birch & Ladd, 1997; Magnuson et al., 2016). In contrast, difficulties with adjustment may manifest as poor classroom participation, disruptive behaviours or negative attitudes towards learning (Demirtaş-Zorbaz & Ergene, 2019). Given its implications for long-term success, school adjustment is often studied in connection with the quality of teacher–child relationships, which serve as a critical support system for children's adaptation (Seftiyani & Nashori, 2023).

One of the most widely used tools for assessing teacher–child relationships is the Student–Teacher Relationship Scale (STRS), which was developed by Pianta (2001). This instrument evaluates closeness, conflict and dependency from the teacher's perspective, providing a comprehensive measure of relational quality. Closeness captures warmth and open communication, conflict reflects tension and negativity, and dependency measures excessive student reliance (Fraire et al., 2008; Bosman et al., 2018). Previous studies have confirmed the reliability and validity of the STRS, and its ability to predict children's school outcomes (Tsigilis & Gregoriadis, 2008; Stensen et al., 2023).

Taken together, this research highlights the interdependence between teacher–child relationships and school adjustment. Secure, supportive relationships enhance academic and social adaptation, whereas conflictual or imbalanced relationships may hinder

children's ability to cope with the demands of school. Instruments such as the STRS therefore offer essential insights for researchers and practitioners alike, providing a framework through which to understand and improve the dynamics that shape children's adjustment to, and long-term success in, education (Šumatić et al., 2023; Farhah et al., 2021).

Table 1. The origin of Instrument STRS

No.	Items
1.	Enjoys attending school
2.	Exhibits aversion to school (reversed)
3.	Finds school activities enjoyable
4.	Shows enthusiasm for most classroom activities
5.	Invents excuses to leave school early
6.	Frequently requests to visit the school nurse
7.	Pretends to be unwell while at school
8.	Frequently inquire about the time left before going home
9.	Adheres to the teacher's instructions
10.	Handles classroom materials appropriately
11.	Pays close attention to the teacher's instructions
12.	Takes accountability for assigned tasks
13.	Actively seeks out challenging tasks
14.	Demonstrates self-directed behavior
15.	Completes tasks independently
16.	Requires substantial assistance and guidance (reversed)

Pianta developed the Student–Teacher Relationship Scale (STRS), an assessment tool designed to evaluate the quality of teacher–student relationships across three core dimensions: closeness, conflict and dependency (Pianta, 2001). The closeness dimension measures the degree of warmth and openness in teacher–student interactions. Positive and supportive communication in this context allows students to feel emotionally secure and valued within the school environment (Embacher et al., 2023). The conflict dimension assesses the level of tension or discord in the relationship; high levels of conflict can negatively influence students' behaviour and emotional well-being (Yee & Jiar, 2020), often hindering their ability to engage positively in learning activities. Conflict between teachers and students can create a tense atmosphere and trigger maladaptive behaviours (Settanni et al., 2015). Meanwhile, the dependency dimension evaluates the extent to which students rely excessively on their teachers for support and attention, which may indicate overdependence and hinder the development of autonomy.

Conversely, closeness is considered a positive relational factor, providing children with emotional security and support to help them meet social, emotional and academic demands at school (Fraire et al., 2008). Conversely, conflict and dependency are viewed as negative relational factors, each reflecting relational insecurity that can disrupt children's ability to cope effectively with challenges in the school context (Bosman et al., 2018). A short version of the STRS is valuable as it allows for faster administration while

maintaining conceptual integrity (Ang, 2005). Previous studies have investigated various aspects of the STRS's validity, including concurrent, predictive and discriminant validity, as well as its reliability in terms of temporal stability and internal consistency (Tsigilis & Gregoriadis, 2008).

The STRS uses a teacher self-report approach, enabling educators to evaluate their interactions with students across three dimensions (Stensen et al., 2023). Grounded in attachment theory, the STRS recognises the importance of early teacher–student interactions in shaping children's internal representations of relationships (Šumatić et al., 2023). By providing a deeper understanding of these dimensions, the STRS serves as a valuable tool for identifying relational patterns that influence students' social, emotional and academic development. It also offers teachers insights to help them cultivate more supportive and effective classroom relationships (Farhah et al., 2021).

The STRS, developed by Pianta (2001), is an assessment tool designed to evaluate the quality of the relationship between teachers and students based on three dimensions: closeness, conflict and dependency.

The closeness dimension measures the warmth and openness of teacher–student interactions. Warm and positive communication allows students to feel emotionally safe and supported in school (Embacher et al., 2023). The conflict dimension assesses the level of tension or disagreement in the relationship. A high level of conflict can negatively affect students' behaviour and emotional well-being (Yee & Jiar, 2020), which can hinder their ability to engage positively with learning activities. Conflict between teachers and students creates a tense situation that can provoke negative behaviours and reduce engagement (Settanni et al., 2015).

Meanwhile, the dependency dimension evaluates the extent to which students feel they need excessive support and attention from teachers, which may indicate overreliance and hinder independence. Thus, closeness is considered a positive relational factor, providing children with emotional security and support when dealing with social, emotional, and academic demands at school (Faire et al., 2008).

Conversely, conflict and dependency are considered negative relational factors that reflect relational insecurity and can interfere with children's capacity to manage the demands of the school context (Bosman et al., 2018). The availability of a shortened version of the STRS is advantageous as it takes less time to complete than the full version (Ang, 2005). Previous research has examined the validity and reliability of the STRS in various contexts, including concurrent, predictive, and discriminant validity, as well as temporal stability and internal consistency (Tsigilis & Gregoriadis, 2008). The STRS uses a teacher self-report approach, enabling teachers to evaluate the quality of their interactions with students across three dimensions (Stensen et al., 2023).

Furthermore, the STRS is rooted in attachment theory, emphasising the significance of interpersonal interactions in shaping children's internal working models and social representations (Šumatić et al., 2023). By providing a nuanced understanding of these dimensions, the STRS can help to identify relational patterns that influence students' social, emotional and academic development, and provide teachers with insights to help

them build supportive relationships that foster students' success in the school environment (Farhah et al., 2021).

Table 2. The Original STRS (*Closeness*)

No.	Items
1.	This child and I have a deep and loving relationship
2.	This child turns to me for solace when upset
3.	This child seems uneasy when I touch or show physical affection
4.	This child demonstrates an appreciation for our relationship
5.	This child exhibits visible pride when I offer praise
6.	This child willingly and spontaneously shares personal information with me
7.	This child actively seeks to gain my approval
8.	I can relate to and comprehend this child's feelings with easily
9.	I have observed this child mimicking my actions or approach to tasks
10.	This child shares their emotions and experiences with me in an honest manner
11.	My interactions with this child enhance my sense of effectiveness and confidence

Table 3. The Original STRS (*Conflict*)

No.	Items
1.	I frequently feel like I'm struggling with this child
2.	This child becomes easily upset or frustrated with me
3.	I am mostly seen by this child as a source of criticism punishment
4.	After being disciplined, this child tends to remain upset uncooperative
5.	When this child misbehaves, they typically respond to my tone non-verbal cues
6.	Managing interactions with this child can be emotionally exhausting
7.	If this child is in a negative mood, it often leads to a challenging and demanding day
8.	This child's behavior toward me may fluctuate or alter suddenly
9.	Despite my efforts, I often feel uneasy about the nature of relationship
10.	This child tends to whine or cry when seeking something from me
11.	On times, this child acts cunningly or manipulatively toward me

Table 4. The Original STRS (*Dependency*)

No.	Items
1.	This child shows signs of distress or embarrassment when I provide corrections
2.	This child exhibits intense reactions to being separated from me
3.	This child demonstrates excessive reliance on me
4.	This child seeks my assistance even when it is not necessary
5.	When I interact with other kids, this child shows signs of hurt or envy

The Student–Teacher Relationship Scale (STRS) was used to evaluate the quality of the teacher–child relationship in three key areas: conflict, closeness and dependency. The STRS comprises 27 items, including 11 assessing conflict (e.g. items 3, 5 and 9), 11 assessing closeness (e.g. items 1, 4 and 7) and 5 assessing dependency (e.g. items 2, 6 and 13) (Solheim et al., 2012).

Teachers were asked to rate each statement on a five-point Likert scale, where 1 represented 'strongly disagree' and 5 represented 'strongly agree'. The conflict and dependency items focus on negative aspects of the teacher–student relationship, such as tension or excessive reliance on the teacher. Conversely, the items under the closeness dimension capture positive aspects of the relationship, such as emotional warmth, openness, and comfort. Scores for each dimension were calculated by adding together the responses to all the relevant items, providing an overview of the quality of the teacher–student relationship as a whole. This measure is particularly useful for understanding how students adjust to school and develop socio-emotionally within the educational environment.

Table 5. STRS Openness (Indonesian Version)

No.	Items
1.	Komunikasi terbuka antara guru dan anak. “Open communication between teacher and child”
2.	Keterlibatan anak dan guru dalam berbagai aktivitas di kelas. “Children’s and teachers’ involvement in various classroom activities”
3.	Guru membangun kepercayaan dengan anak melalui interaksi yang konsisten dan jujur “Teachers build trust with children through consistent and honest interactions”

Table 6. STRS Conflict (Indonesian Version)

No.	Items
1.	Interaksi yang tidak harmonis antara guru dan anak. “Disharmonious interactions between teachers and children”
2.	Penarikan diri anak dari lingkungan sekolah. “Children’s withdrawal from the school environment”
3.	Anak menunjukkan reaksi emosional berlebih seperti marah, frustasi atau cemas. “Children show excessive emotional reactions such as anger, frustration, or anxiety”

Table 7. STRS Dependency (Indonesian Version)

No.	Items
1.	Anak memiliki perilaku posesif dan melekat yang berlebihan pada guru “Children show excessive possessive and clingy behavior toward the teacher”
2.	Anak mengandalkan guru dalam membuat keputusan sehari-hari atau dalam kegiatan kelas. “Children rely on the teacher to make daily decisions or to carry out classroom activities”
3.	Anak bergantung pada guru dalam berinteraksi dan berkomunikasi dengan teman sebaya. “Children depend on the teacher when interacting and communicating with peers”.

During the process of adapting the Student–Teacher Relationship Scale (STRS) for use in Indonesia, it was found that several of the original items were not suitable for direct translation due to cultural or contextual differences. This was due to linguistic ambiguity, cultural norms surrounding teacher–student interactions and differences in emotional expression in Indonesian schools. The following items required modification or omission:

1. Item 1: 'This child and I have a deep and loving relationship.'

Issue: The phrase 'loving relationship' has strong emotional and physical connotations in English that are culturally inappropriate in Indonesian educational discourse, particularly in formal teacher–student interactions. The items included in the openness dimension of the Indonesian version of the Student–Teacher Relationship Scale (STRS) were developed based on well-established theoretical and empirical literature on teacher–child relationships. Open communication between teachers and children reflects the core construct of relational closeness as conceptualised in the original STRS framework (Pianta, 2001) and consistently supported by international validation studies highlighting emotional warmth, mutual understanding, and teacher responsiveness (Fraire et al., 2008; Roorda et al., 2011; Embacher et al., 2023). The item addressing joint involvement in classroom activities is grounded in evidence demonstrating that active teacher–child engagement contributes to children’s school adjustment, learning

motivation, and socio-emotional development (Birch & Ladd, 1997; Bosman et al., 2018; Quin, 2017), including findings from Indonesian early childhood education contexts (Soebardjo & Fidrayani, 2024). Furthermore, the item concerning trust-building through consistent and honest interactions aligns with attachment-based and relational pedagogical perspectives, which identify trust, emotional availability, and supportive teacher behaviour as central indicators of high-quality teacher–student relationships across cultures (Pianta, Hamre, & Allen, 2012; Roorda et al., 2017). This conceptualisation is also consistent with recent cross-cultural and Indonesian adaptation studies of the STRS that emphasise culturally appropriate expressions of closeness rather than overt affective behaviours (Aditama et al., 2024). Adaptation: The phrase was replaced with 'Komunikasi terbuka antara guru dan anak' (open communication between teacher and child), emphasising closeness and trust without implying personal affection.

2. Item 2: 'This child turns to me for solace when upset.'

→ Issue: Seeking 'solace' or emotional comfort directly from a teacher is uncommon in Indonesian classrooms, where emotional regulation is usually handled by family members or peers rather than teachers.

Adaptation: The item was reinterpreted to represent 'shared engagement in classroom activities' (Keterlibatan anak dan guru dalam berbagai aktivitas di kelas), which more accurately reflects emotional support within the cultural context.

3. Item 3: 'This child seems uneasy when I touch them or show physical affection.'

→ Issue: Physical affection (such as hugging or touching) between teachers and students, particularly in primary education, is a culturally sensitive issue and is often discouraged in Indonesian schools. The term 'touch' (menyentuh) could be misunderstood or perceived as inappropriate. Physical affection, such as hugging or touching, between teachers and students is widely recognised as a culturally and professionally sensitive issue, particularly in primary and early childhood education. Research indicates that the meaning and acceptability of physical contact in classrooms are highly context-dependent and shaped by cultural norms, institutional policies, and professional boundaries rather than being universally interpreted as supportive behaviour (Karvonen, 2023). Studies on teacher–student professional relationships further emphasise that ambiguous physical contact may create ethical boundary dilemmas and risks of misinterpretation, highlighting the importance of maintaining clear professional distance to ensure student safety and teacher accountability (Aultman et al., 2009). Within the Indonesian educational context, where strong norms of hierarchy and professionalism prevail, the use of terms such as "touch" (menyentuh) in measurement instruments may therefore be inappropriate or culturally incongruent, necessitating careful revision or omission during the adaptation process.

Adaptation: The item was omitted and replaced with a more culturally neutral indicator of relational warmth, such as 'Guru membangun kepercayaan dengan anak melalui interaksi yang konsisten dan jujur.'

4. Item 7: 'This child actively seeks to gain my approval.'

→ Issue: While seeking teacher approval is common in Indonesia, the nuance of 'actively seeks' may be misinterpreted as manipulative or self-promotional in a collectivist classroom context, where modesty (*rendah hati*) is valued. Adaptation: The concept was absorbed into broader indicators of positive engagement, rather than being singled out as a separate behavioural trait.

5. Conflict dimension (e.g. item 3: 'I am mostly seen by this child as a source of criticism and punishment').

→ Issue: In Indonesian classrooms, teacher authority and discipline are often normalised and not necessarily perceived as 'conflict'. Therefore, students viewing a teacher as authoritative may not necessarily indicate a poor relationship. Adaptation: The item was replaced with 'Interaksi yang tidak harmonis antara guru dan anak' (disharmonious interaction between teacher and child), which captures relational tension without implying disciplinary criticism.

6. Dependency dimension (e.g. item 3: 'This child demonstrates excessive reliance on me').

→ Issue: The term 'excessive reliance' may be difficult to translate, as high teacher dependency in the early years is often perceived as a sign of respect rather than a behavioural issue. Adaptation: The Indonesian version was reformulated as 'Anak memiliki perilaku posesif dan melekat yang berlebihan pada guru' (the child exhibits possessive and overly dependent behaviour towards the teacher), which clarifies the boundary between normal respect and dependency.

7. Item 5 (Dependency): 'When I interact with other children, this child shows signs of hurt or envy.'

→ Issue: The word 'envy' (*iri*) has negative moral connotations in Indonesian and may not be an appropriate way to describe children's emotional responses to relationships. Adaptation: The concept was adjusted to emphasise difficulty in sharing the teacher's attention rather than personal jealousy.

Table 8. Summary Adaptation of STRS in Indonesian Version

Dimension	Problematic Items	Cultural Issue	Adaptation Summary
Closeness	1, 2, 3, 7	Emotional expression too intimate or Western	Reframed as openness, trust, and mutual engagement
Conflict	3	Discipline vs. conflict distinction unclear	Reworded as disharmonious interaction
Dependency	3, 5	Respect vs. dependency ambiguity	Adjusted to clarify excessive attachment and attention-seeking

2. Discussion

The Student–Teacher Relationship Scale (STRS) was adapted for use in an Indonesian educational context to ensure that the instrument could be applied validly and reliably. This was necessary because language, cultural values and educational practices differ significantly between countries. The original STRS, developed by Pianta (2001), was designed for Western educational settings, in which communication patterns, emotional

expression and teacher–student interactions may differ from those in Indonesian classrooms. The adaptation therefore aimed to maintain the conceptual integrity of the original scale while ensuring cultural and linguistic appropriateness for local teachers and students.

The adaptation process adhered to the established international guidelines for instrument translation and cultural adaptation (Beaton et al., 2000; Sousa & Rojjanasrirat, 2011). First, two bilingual experts fluent in both English and Indonesian carried out a forward translation, focusing on semantic and conceptual equivalence rather than literal word-for-word translation. The two translations were then compared and synthesised into one version at a reconciliation meeting involving educational psychologists and linguists. Next, a back-translation into English was performed by two independent translators unaware of the original version. This step verified that the meaning of the translated items remained consistent with the original constructs measured by the STRS.

A panel of five experts in educational psychology, early childhood education, and psychometrics then evaluated the Indonesian version for content validity. They assessed the clarity, relevance and cultural appropriateness of each item using a four-point scale. Items that did not meet the minimum Content Validity Index (CVI) threshold of 0.80 were revised or replaced. The experts emphasised in their feedback that certain expressions of emotional closeness and dependency required contextual adjustments to reflect how Indonesian teachers typically communicate affection and authority with young children.

The expert panel was recruited to ensure rigorous semantic and cultural evaluation of the adapted STRS, as expert judgment is critical for cross-cultural instrument adaptation beyond purely statistical validation (Beaton et al., 2000; Hambleton, 2005). Early childhood education teachers were selected as pilot participants because the STRS is a teacher-report instrument that relies on educators' sustained classroom interactions with children to accurately reflect relational quality (e.g., closeness, conflict, dependency). The study was conducted in early childhood education institutions in South Jakarta, Indonesia, a diverse urban setting chosen to capture initial evidence of item clarity and cultural relevance prior to broader application. This approach aligns with recent research emphasising contextually grounded measurement development in Indonesian educational research, which highlights the importance of culturally sensitive instruments to assess teacher–student relational constructs in local contexts (Soebardjo & Fidrayani, 2024; Firdausy & Maghfiroh, 2025). Based on item analysis and teachers' qualitative feedback, several items were further refined for a better cultural fit and simpler wording. The final version of the adapted STRS consisted of nine items: three measuring closeness, three measuring conflict, and three measuring dependency. These items were deemed semantically and conceptually equivalent to the corresponding items in the original STRS (see Tables 4, 5 and 6).

Overall, the cross-cultural adaptation process ensured that the Indonesian version of the STRS preserved the theoretical foundations of the original instrument while reflecting the unique sociocultural context of teacher–student relationships in Indonesia.

This adaptation enables researchers and educators to assess relational quality in Indonesian classrooms more accurately, improving our understanding of students' social and emotional adjustment and informing culturally responsive teaching practices.

Recent studies have emphasised the importance of cross-cultural adaptation and psychometric validation in ensuring that measurement instruments retain their conceptual integrity and cultural relevance when applied in different contexts. For example, Stensen et al. (2023) examined the factorial validity and measurement invariance of the Student–Teacher Relationship Scale–Short Form (STRS-SF), confirming its robustness across gender and age groups. Similarly, Fabris et al. (2023) conducted a cross-cultural comparison of teacher–student relationships between Italian and Chinese samples, revealing that cultural norms and communication patterns can significantly impact the perception of closeness and conflict in classroom interactions. Building on this, Chen, Zee and Roorda (2022) showed that cultural differences can affect how relational quality indicators are interpreted, indicating the need for localised instruments that reflect indigenous educational values and emotional expressions.

Furthermore, recent methodological reviews, such as that by Cruchinho et al. (2024), provide comprehensive guidelines for translation, cultural adaptation, and validation procedures, emphasising the importance of achieving semantic, conceptual, and cultural equivalence at every stage. Similarly, Leite et al. (2024) validated a school-related psychosocial instrument (QoLS-BR) through rigorous cross-cultural processes, demonstrating the importance of combining expert review, back-translation, and pilot testing to ensure contextual relevance. Together, these studies support the case for adapting the STRS for use in Indonesia — to capture the culturally specific nature of teacher–student relationships while preserving the theoretical integrity of Pianta's original framework.

These adaptations are based on the principles of semantic, conceptual and experiential equivalence (Hambleton & Patsula, 1999; Beaton et al., 2000). In collectivist cultures such as Indonesia, emotional warmth is expressed through care, attention, and cooperation rather than overt verbal or physical affection (Triandis, 2001). Similarly, dependency behaviours are often shaped by hierarchical social norms where deference to authority is valued (Hofstede, 2011). Therefore, direct translation of Western affective terms could distort meaning and reduce validity.

The large number of item reductions was primarily driven by linguistic, cultural, and content validity considerations identified during the adaptation process. Several items demonstrated semantic ambiguity after translation or were deemed culturally incongruent with Indonesian educational norms and professional boundaries, leading experts to judge them as potentially misleading or inappropriate. In addition, expert evaluations indicated that some items failed to meet recommended content validity thresholds (e.g., low I-CVI values), warranting their revision or removal. Such item reduction is a common and methodologically justified practice in the early stages of cross-cultural instrument adaptation, aiming to enhance clarity, cultural acceptability, and content validity prior to large-scale psychometric testing (Beaton et al., 2000; Hambleton, 2005).

Reformulating culturally incongruent items into expressions that are more context-appropriate, while retaining the relational constructs of closeness, conflict and dependency, achieves greater conceptual fidelity and practical usability for the Indonesian version of the STRS within local educational settings.

D. CONCLUSION

The adaptation of the Student–Teacher Relationship Scale (STRS) for use in an Indonesian context has been shown to be a valid and reliable way of assessing the quality of teacher–student relationships that influence how well pupils adjust to school. A rigorous process involving cultural translation, validity testing and reliability analysis resulted in a robust instrument with strong internal consistency (Cronbach's alpha = 0.894), demonstrating its psychometric soundness. Despite the removal of several items found to be less culturally relevant, the Indonesian version has retained its conceptual integrity and measurement stability. This suggests that the STRS can accurately capture the emotional and relational dynamics between teachers and students in Indonesian educational settings. The adapted instrument is a valuable tool that can be used by researchers, educators and policymakers to evaluate and strengthen teacher–student interactions, which are fundamental to children's academic and socio-emotional development. However, future studies should involve larger and more diverse samples across different regions and educational levels to verify the scale's generalisability and construct validity. Continuous refinement through longitudinal and cross-cultural comparisons will ensure that the Indonesian STRS remains a robust, contextually sensitive instrument for understanding and enhancing the teacher–student relationship, which is a core component of successful school adjustment.

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