Identifying the Dimensions of the Teacher-Student Relationship Construct

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Article Info	ABSTRACT
Article type: *Original Research* **How to cite this article:** Azad S, Akhavan Tafti M, Mohsenpour M. (2024). Identifying the Dimensions of the Teacher-Student Relationship Construct. *Iranian Journal of Educational Sociology, 7*(4), 176-185. http://dx.doi.org/10.61838/kman.ijes.7.4.18 	**Purpose:** This study aims to develop a comprehensive scale for assessing the teacher-student relationship by integrating elements from various established theories in educational psychology. **Methodology:** The study employed a systematic review approach, following the framework by Oakley and Shabrams (2010), to synthesize dimensions from attachment theory, interpersonal theory, social support theory, and self-determination theory. Items for each dimension were adapted from existing validated questionnaires. The initial scale comprised 80 items and was subjected to face and content validity assessment by an expert panel. Content Validity Ratio (CVR) and Content Validity Index (CVI) were calculated to ensure the relevance and essentiality of the items. **Findings:** Six core dimensions were identified: emotional support, conflict, autonomy and independence, self-worth and competence, instrumental support, and informational support. The final student version comprised 32 items, while the teacher version included 30 items. The validation process confirmed that the items accurately reflect the theoretical constructs and are relevant to the educational context. The findings align with existing literature, emphasizing the importance of emotional and instrumental support, effective conflict management, and the role of autonomy in enhancing student engagement and academic performance. **Conclusion:** The developed scale provides a comprehensive and validated tool for assessing the teacher-student relationship, integrating key dimensions from multiple theoretical perspectives. This tool can be used for both research and practical applications, helping educators to foster positive interactions that enhance student engagement, achievement, and overall well-being. Future research should focus on further validation with diverse samples and explore the impact of cultural and contextual factors on these relationships. ***Keywords:*** *teacher-student relationship, educational psychology, scale development, emotional support, conflict management, student engagement, autonomy support.*

1. Introduction

The teacher-student relationship is a cornerstone of educational success, impacting various aspects of student development and academic achievement. This relationship, often characterized by emotional support, conflict management, autonomy, competence, and informational support, serves as a developmental context that can significantly influence students' behaviors, attitudes, and overall learning outcomes (Amiri et al., 2023; Baker et al., 2008; Glock et al., 2019; Herawati et al., 2024; Karimi et al., 2023; Lee et al., 2024; Rahmati et al., 2024; Russell & Qiu, 2024).

A positive teacher-student relationship is associated with numerous benefits, including enhanced student engagement, higher academic performance, and improved social and emotional well-being. According to Byiringiro (2024), the quality of the teacher-student relationship can significantly influence students' perceptions of their academic subjects, such as mathematics, ultimately affecting their achievement levels. This underscores the importance of fostering strong, supportive relationships in the classroom to promote a conducive learning atmosphere. Conversely, poor teacher-student relationships can lead to detrimental outcomes, including increased behavioral problems, lower academic achievement, and reduced student motivation (Byiringiro, 2024). Farhah, Saleh, and Safitri (2021) found that the quality of the student-teacher relationship can also affect teachers' subjective well-being, moderated by their teaching experience. This bidirectional influence highlights the intricate connection between teachers' professional satisfaction and their interactions with students, emphasizing the need for supportive educational environments (Farhah et al., 2021).

Differences in perceptions of the teacher-student relationship between students and teachers can further complicate these dynamics. Kavenagh, Freeman, and Ainley (2012) explored these perceptual differences, noting that adolescent boys often perceive their relationship with teachers differently than teachers perceive their relationship with students. Such discrepancies can affect the effectiveness of teaching strategies and the overall classroom climate, necessitating a more nuanced understanding of these relationships (Kavenagh et al., 2012).

The measurement of teacher-student relationships has been a focal point in educational research, with various instruments developed to assess this complex interaction. Loan and Garwood (2018) conducted a psychometric analysis of measures used to evaluate relationships between adolescents with emotional and behavioral disorders and their teachers. Their findings underscore the importance of reliable and valid assessment tools in capturing the multifaceted nature of these relationships, particularly for vulnerable student populations (Loan & Garwood, 2018).

Gender also plays a significant role in the teacher-student relationship, influencing both teacher and student perceptions and interactions. McFarland, Murray, and Phillipson (2016) examined the relations between student-teacher relationships and student self-concept, noting variations based on teacher and student gender. These gendered dynamics can affect classroom interactions and students' academic self-perception, highlighting the need for gender-sensitive approaches in educational practice (McFarland et al., 2016).

Attachment theory provides a foundational framework for understanding the emotional bonds that develop between teachers and students. Murray, Kosty, and Hauser-McLean (2015) explored the role of social support and attachment to teachers, emphasizing how secure attachments can foster positive educational outcomes. This perspective aligns with the broader literature on attachment, suggesting that strong, supportive relationships with teachers can provide a secure base for students, promoting exploration and learning (Murray et al., 2015).

Teachers' experiences working with underachieving students offer valuable insights into the challenges and opportunities of fostering positive teacher-student relationships. Oreshkina and Greenberg (2010) highlighted the meanings teachers ascribe to their interactions with underachieving students, noting the complexities and rewards of supporting these students. Such experiences underscore the importance of empathy, patience, and tailored support in cultivating productive relationships (Oreshkina & Greenberg, 2010).

In the context of educational psychology, the teacher-student relationship is often examined through various theoretical lenses, including social support theory, self-determination theory, and interpersonal theory. These frameworks provide a comprehensive understanding of the factors that influence the quality of teacher-student interactions. Rabo (2022) emphasized the role of these relationships in enhancing academic performance, particularly in settings where resources and support systems are limited (Rabo, 2022).

Parental involvement and its interaction with teacher-student relationships also play a crucial role in students'

educational experiences. Ren and Liu (2022) investigated the influence of the parent-child relationship on pupils' learning motivation, highlighting the mediating role of teacher-student relationships. This interplay suggests that supportive home environments can complement positive school interactions, fostering a holistic approach to student development (Ren & Liu, 2022).

The advent of technology and digital communication has further transformed the landscape of teacher-student relationships. Shi (2022) explored the impact of affective cognitive education and deep neural networks on these relationships, suggesting that technology can enhance emotional and cognitive connections between teachers and students. However, this digital shift also raises questions about the nature of these interactions and the potential for technology to both support and hinder relationship-building efforts (Shi, 2022).

Empirical studies on teacher-student relationships in specific educational contexts provide valuable insights into the unique challenges and opportunities faced by educators. Sun (2012) conducted a study on new teacher-student relationships and questioning strategies in ESL classrooms, highlighting the importance of effective communication and cultural sensitivity in fostering positive relationships in diverse educational settings (Sun, 2012).

Thornberg et al. (2020) utilized a sequential explanatory mixed-methods design to examine the quality of teacher-student relationships and student engagement. Their findings indicate that high-quality relationships can significantly boost student engagement, underscoring the critical role of these interactions in promoting active participation and learning (Thornberg et al., 2020).

Reconceptualizing the teacher-student relationship involves considering the various dimensions that contribute to its quality. Toste et al. (2015) proposed a multidimensional approach, considering factors such as emotional support, academic guidance, and behavioral management. This comprehensive perspective provides a more nuanced understanding of the elements that constitute effective teacher-student relationships (Toste et al., 2015).

Student perceptions of their relationships with teachers can significantly influence their educational experiences and outcomes. Wubbels (2005) highlighted the importance of understanding these perceptions, noting that students' views on their interactions with teachers can shape their engagement and motivation. This underscores the need for educators to be attuned to students' perspectives and to foster open, communicative relationships (Wubbels, 2005).

Further, the influence of teacher-student relationships extends beyond the classroom, affecting broader educational trajectories and future opportunities. Dai (2024) discussed the long-term impact of these relationships on students' learning, suggesting that positive interactions can lead to sustained academic and personal growth. This highlights the enduring importance of nurturing strong relationships throughout the educational journey (Dai, 2024).

Guo (2021, 2022) provided a contemporary perspective on the teacher-student relationship in Chinese universities, examining both traditional classroom interactions and the role of social media in facilitating communication. These studies underscore the evolving nature of these relationships in the digital age, where online interactions can complement and enhance face-to-face engagement (Guo, 2021, 2022).

Hagenauer, Muehlbacher, and Ivanova (2022) offered insights from the teachers' perspective, emphasizing the foundational role of the teacher-student relationship in higher education. Their findings suggest that these relationships are critical for effective teaching and learning, providing a basis for student engagement and academic success (Hagenauer et al., 2022).

Pérez-Salas et al. (2021) examined the influence of teacher-student relationships on student engagement and disengagement, particularly for students with special educational needs. Their study highlights the importance of tailored support and understanding in fostering positive relationships and mitigating disengagement (Pérez-Salas et al., 2021).

Tan and Nai-yi (2013) explored the interplay between student personality, teacher-student interactions, and the quality of the relationship. Their findings suggest that individual differences in personality can significantly influence the dynamics of these interactions, pointing to the need for personalized approaches in educational settings (Tan & Nai-yi, 2013).

Teacher expectations and their relationship with students' academic trajectories also play a crucial role in educational outcomes. Timmermans, Werf, and Rubie-Davies (2019) discussed the interpersonal character of teacher expectations, noting that perceived relationships can influence teachers' recommendations and students' academic paths. This highlights the importance of managing expectations and fostering supportive interactions (Timmermans et al., 2019).

Rethinking student-teacher relationships involves considering the various dimensions that contribute to their quality. Tormey (2021) proposed a multidimensional

approach, recognizing the complex interplay of emotional, cognitive, and behavioral factors in these relationships. This comprehensive perspective provides a deeper understanding of the elements that constitute effective teacher-student interactions (Tormey, 2021).

The development and validation of measures to assess teacher-student relationships are critical for advancing research and practice in this area. Whitehead et al. (2021) developed a measure to assess early adolescents' perceptions of caring student-teacher relationships, providing a valuable tool for understanding these interactions from the students' perspective (Whitehead et al., 2021).

Yang (2021) explored the impact of positive teacher-student relationships on students' perceptions of justice in educational settings. Their findings suggest that supportive relationships can enhance students' sense of fairness and equity, promoting a positive learning environment (Yang, 2021).

In conclusion, the teacher-student relationship is a multifaceted and dynamic interaction that plays a crucial role in shaping educational experiences and outcomes. The comprehensive scale developed in this study aims to provide a robust tool for assessing these relationships, incorporating key elements from established theories and empirical research. By fostering strong, supportive relationships, educators can enhance student engagement, achievement, and overall well-being, contributing to a positive and productive educational environment.

2. Methods and Materials

This study is applied research with a review approach. The final phase involved an assessment approach to validate the initially extracted scale using content validity indices, namely the Content Validity Ratio (CVR) and the Content Validity Index (CVI). The systematic review followed the framework proposed by Oakley and Shabrams (2010), encompassing the stages of planning, selection, extraction, and execution (Golabchi et al., 2024; Kafshchian Moghadam et al., 2024).

The selection of articles adhered to the method outlined by Silva (2015). This method involved identifying and extracting articles from various scientific databases, followed by removing duplicate records to ensure uniqueness. Titles and abstracts of the extracted articles were initially screened to select those relevant to the study's objectives and discard irrelevant ones. In the secondary screening, introductions and conclusions of the previously screened articles were reviewed in detail to further refine the selection, retaining relevant articles and eliminating non-relevant ones. The remaining articles were thoroughly evaluated against the research objectives, with full texts read and final selections made (Kafshchian Moghadam et al., 2024).

The review aimed to explore the theoretical foundations of teacher-student relationship dimensions. Articles were searched using specific phrases listed in the search strategy table. No time restrictions were applied, and the search continued until theoretical saturation was achieved. The inclusion criteria encompassed full-text articles in Persian and English published in scholarly journals, both domestic and international, that aligned with the research objectives and included one or a combination of the search phrases. Exclusion criteria involved discarding articles with overly general theoretical content not pertinent to educational psychology and those without accessible full text.

The databases used for the literature search included Google Scholar, ScienceDirect, ResearchGate, Elsevier, Scientific Information Database (SID), Iranian Research Institute for Information Science and Technology (IranDoc), and Noor Specialized Magazines Database (Noormags). After the search and necessary screenings, information relevant to the study's objectives was collected until theoretical saturation was reached, resulting in 173 articles being identified as pertinent to the study's aim.

Based on theories related to the teacher-student relationship in educational psychology, dimensions of the teacher-student relationship scale were gathered. Overlapping and more general domains were eliminated, leading to a more comprehensive initial scale extracted based on existing questionnaires related to these theories. The final scale comprised two versions: one for teachers and one for students. Each version contained items distributed across six dimensions: emotional support, conflict, autonomy, competence, instrumental support, and informational support. The items for each dimension were carefully developed to reflect the theoretical underpinnings and practical applications within the educational context. This detailed and structured methodology ensures a rigorous approach to identifying and validating the dimensions of the teacher-student relationship, contributing significantly to the field of educational psychology.

3.   Findings and Results

Through a synthesis of dimensions identified in major theories concerning the teacher-student relationship, six core dimensions were derived. The new scale developed in this study encompasses emotional support (closeness and proximity), conflict, autonomy and independence, self-worth and competence, instrumental support, and informational support. These dimensions were chosen based on their coverage across four foundational theories in educational psychology, as illustrated in Table 1.

Table 1

Dimensions of the Teacher-Student Relationship Communication Scale

No.	Variable (Factor)	Attachment Theory	Interpersonal Theory	Social Support Theory	Self-Determination Theory
1	Emotional Support	√	√	√	√
2	Conflict	√	√		
3	Autonomy and Independence Support	√	√		√
4	Self-Worth and Competence Support			√	√
5	Instrumental Support			√	
6	Informational Support			√	

The items for each of these dimensions were developed by adapting questions from existing questionnaires in line with the theories mentioned. Sources include Pianta (STR) (Pianta et al., 2012), Murray and Zvoch (IT-SR) (Murray & Zvoch, 2011), Y-CATS, Lardasemi and Kenny (QTI) (McDonnell et al., 2024), She and Fisher (TCBQ based on QTI), Skaiz (2007), Casss (2000), FAS, Basic Psychological Needs Scale by Black and Deci, Ryan and Deci (Rahmati et al., 2024), Perceived Autonomy Support Scale (Van der Giessen et al., 2014; Won & Yu, 2018), MOS Social Support Survey (Sherbourne & Stewart, 1991), and Perceived Social Support from Teacher Scale (Babanejad et al., 2020). The initial scale comprised 80 items.

Table 2

Final Confirmed Items for Student Version

Dimension	Item Number	CVR	CVI
1	1	1	1
1	6	0.82	1
1	13	0.82	1
1	14	1	1
1	18	0.82	1
1	19	0.82	1
2	21	0.64	0.82
2	27	0.64	0.9
2	30	0.82	0.82
2	37	0.82	0.82
2	40	0.82	0.9
3	43	0.82	0.9
3	44	0.82	0.9
3	48	1	1
3	51	1	1
3	52	1	1
3	53	1	1
4	54	0.82	1
4	55	0.82	1
4	57	0.82	1
4	58	0.82	1
5	61	0.82	0.9
5	62	1	1
5	66	0.82	1
5	68	0.82	1

5	69	0.82	0.9
6	70	1	1
6	71	1	0.9
6	72	1	1
6	75	0.64	1
6	78	0.82	0.9
6	80	0.82	1

To evaluate face validity, three researchers reviewed and revised the items, clarifying ambiguities to ensure the items were clear and comprehensible. This stage prepared the items for expert validation. For content validity, the Content Validity Ratio (CVR) and Content Validity Index (CVI) were calculated. Using Lawshe's (1975) method, experts assessed each item based on a three-point Likert scale: essential, useful but not essential, and not necessary. The CVR was calculated using the formula provided by Lawshe, with a minimum acceptable value of 0.59, considering the panel of 11 experts. Following Waltz and Basel's (1981) method, experts rated the relevance of each item on a four-point scale: not relevant, needs major revision, relevant but needs minor revision, and very relevant. Items with a CVI below 0.7 were rejected, those between 0.7 and 0.79 were revised, and those above 0.79 were accepted. Items meeting the criteria for both CVR and CVI were retained, while those failing one or both were discarded. The final student version comprised 32 items, while the teacher version included 30 items.

Table 3

Final Confirmed Items for Teacher Version

Dimension	Item Number	CVR	CVI
1	1	0.64	0.9
1	6	0.64	1
1	10	0.64	0.9
1	13	0.82	1
1	18	0.82	0.82
1	19	1	0.9
2	20	0.64	0.9
2	27	0.64	0.82
2	39	0.64	0.82
2	40	0.82	0.82
3	43	0.82	0.82
3	48	1	0.9
3	49	0.82	0.82
3	51	0.82	0.82
3	52	1	1
3	53	1	1
4	54	0.82	0.82
4	55	1	1
4	56	0.82	0.9
4	57	1	0.9
4	58	1	0.9
5	62	1	0.82
5	63	1	0.9
5	65	0.82	0.9
5	66	0.82	0.9
5	68	0.82	1
6	70	0.82	1
6	71	0.82	0.9
6	75	0.82	1
6	80	0.82	1

The student version retained items such as "I trust my teacher" and "When I need help, my teacher supports me" for emotional support; "My teacher is grumpy" and "My teacher does not pay attention to my opinions" for conflict;

"If I disagree with my teacher, I can talk about it" and "I can make decisions about important topics in this teacher's class" for autonomy and independence support; "I feel competent in this teacher's class" and "My teacher believes I can succeed" for self-worth and competence support; "My teacher helps me and spends time ensuring I understand how to complete assignments" and "My teacher introduces us to tools for conducting research" for instrumental support; and "My teacher explains things I do not understand" and "My teacher provides us with enough information on how to complete assignments" for informational support.

The teacher version included items such as "I have a warm and close relationship with my students" and "I am supportive and helpful to my students when they need it" for emotional support; "I argue with my students in class" and "I do not pay attention to my students' opinions" for conflict; "My students can be themselves in various class situations" and "If a student disagrees with me, they can speak about it in class" for autonomy and independence support; "My students feel competent in my class" and "I provide opportunities for my students to demonstrate their abilities" for self-worth and competence support; "I provide supplementary books for my students" and "I guide my students in obtaining materials needed for practical lessons" for instrumental support; and "I explain things that my students do not understand" and "I provide my students with the information they need to complete their assignments" for informational support.

4. Discussion and Conclusion

The findings of this study underscore the critical role of the teacher-student relationship in educational settings. By developing a comprehensive scale that integrates elements from various established theories, we aimed to provide a robust tool for assessing these interactions. Our results identified six core dimensions: emotional support, conflict, autonomy and independence, self-worth and competence, instrumental support, and informational support. These dimensions align well with the theoretical frameworks and empirical evidence presented in the literature.

The results demonstrated that emotional support, which encompasses closeness and proximity, is a foundational component of the teacher-student relationship. This dimension is supported by attachment theory, which posits that secure attachments between teachers and students foster a safe and conducive learning environment (Murray et al., 2015). Further studies have also highlighted the importance

of emotional support in enhancing student engagement and self-concept, further validating our findings (Murray et al., 2015; Thornberg et al., 2020).

Conflict, as a dimension, was found to be significant in understanding the teacher-student relationship. Our findings suggest that managing conflict effectively is crucial for maintaining a positive classroom environment. This is consistent with the work of Kavenagh, Freeman, and Ainley (2012), who noted that unresolved conflicts can lead to perceptions of negative teacher-student relationships, particularly among adolescent boys. Loan and Garwood (2018) also emphasized the impact of conflict on students with emotional and behavioral disorders, indicating that effective conflict resolution strategies are essential for this group (Kavenagh et al., 2012).

Autonomy and independence were identified as critical dimensions that support students' sense of self-determination. This aligns with self-determination theory, which underscores the importance of fostering autonomy to enhance intrinsic motivation and engagement (Byiringiro, 2024). Studies also support this finding, highlighting that autonomy support from teachers can significantly impact students' academic motivation and performance (Byiringiro, 2024; Ren & Liu, 2022).

The dimension of self-worth and competence is supported by social support theory, which emphasizes the role of teachers in providing validation and encouragement to students. This dimension is crucial for students' academic self-concept and overall well-being (McFarland et al., 2016; Suldo et al., 2013). Pérez-Salas et al. (2021) found that positive teacher-student relationships are associated with higher levels of student engagement and reduced disengagement, particularly among students with special educational needs (Pérez-Salas et al., 2021).

Instrumental support, which involves providing practical assistance and resources, was also found to be a significant dimension. This finding is supported by the work of Oreshkina and Greenberg (2010), who noted that teachers' practical support is essential for underachieving students (Oreshkina & Greenberg, 2010). Additionally, the importance of informational support, which includes providing clear guidance and feedback, aligns with the prior findings that emphasized the role of clear communication in fostering positive teacher-student relationships (Guo, 2021, 2022; Hagenauer et al., 2022).

The validation process of the scale, which involved both face and content validity, demonstrated that the items accurately reflect the theoretical constructs and are relevant

to the educational context. The use of CVR and CVI ensured that the items selected were both essential and relevant, contributing to the robustness of the scale.

Overall, our findings provide a comprehensive understanding of the teacher-student relationship, integrating various theoretical perspectives and empirical evidence. The developed scale offers a valuable tool for assessing these interactions, with potential applications in both research and practice.

Despite the strengths of this study, several limitations should be acknowledged. Firstly, the study relied on self-reported data, which may be subject to social desirability bias and may not fully capture the complexity of the teacher-student relationship. Secondly, the sample size and demographic diversity of the participants were limited, potentially affecting the generalizability of the findings. Thirdly, while the scale development process was rigorous, further validation with larger and more diverse samples is necessary to confirm the reliability and validity of the scale across different educational contexts. Finally, the cross-sectional design of the study limits the ability to draw causal inferences about the impact of teacher-student relationships on educational outcomes.

Future research should address the limitations of this study by employing longitudinal designs to examine the causal relationships between teacher-student interactions and educational outcomes. Additionally, future studies should aim to include larger and more diverse samples to enhance the generalizability of the findings. It would also be beneficial to incorporate objective measures of teacher-student interactions, such as classroom observations, to complement self-reported data and provide a more comprehensive understanding of these relationships. Moreover, exploring the impact of cultural and contextual factors on the teacher-student relationship could provide valuable insights into how these interactions vary across different educational settings. Finally, future research should investigate the effectiveness of interventions designed to improve teacher-student relationships, particularly those targeting specific dimensions identified in this study, such as conflict resolution and autonomy support.

Educators and policymakers should consider the findings of this study when developing strategies to enhance teacher-student relationships. Training programs for teachers should emphasize the importance of emotional support, conflict management, and autonomy support in fostering positive interactions with students. Schools should provide resources and support systems to help teachers implement these strategies effectively. Additionally, creating a school culture that values and promotes strong teacher-student relationships can contribute to a positive learning environment. Teachers should be encouraged to engage in reflective practices and seek feedback from students to continually improve their interactions. Furthermore, involving parents and caregivers in the educational process can help reinforce positive teacher-student relationships and support students' overall development. Finally, the developed scale can be used as a diagnostic tool to assess the quality of teacher-student relationships and identify areas for improvement, guiding targeted interventions and professional development initiatives.

In conclusion, the teacher-student relationship is a multifaceted and dynamic interaction that plays a crucial role in shaping educational experiences and outcomes. This study provides a comprehensive framework for understanding and assessing these interactions, integrating various theoretical perspectives and empirical evidence. By fostering strong, supportive relationships, educators can enhance student engagement, achievement, and overall well-being, contributing to a positive and productive educational environment.

Authors' Contributions

The first author was responsible for conducting the interview and collecting data, and the other authors were responsible for analyzing the data and writing the article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethics Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research before the start of the interview and participated in the research with informed consent.

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