

The Impact of Teacher-Student Relationships on High School Students' Learning Engagement

Jianan Jin

Shangde Experimental School,
Shanghai, China
corresponding author:
nangua12348@outlook.com

Abstract:

As a core form of interpersonal interaction in the high school education context, the relationship between teachers and students has received widespread attention from the education community regarding its impact on students' learning engagement. However, current research still has deficiencies in terms of the adaptability to the academic stage of general high school students, the depth of dimensional associations, and the system aticity of the mechanism of action. Conducting targeted research holds significant theoretical and practical value. This paper focuses on the intrinsic connection between the three-dimensional structure of the teacher-student relationship, "emotional, interactive, and cognitive" and the three-dimensional model of high school students' learning engagement, "cognitive, emotional, and behavioral". Research has found that teacher-student intimacy and attachment are significantly positively correlated with learning engagement. Avoidance is the main risk factor, and the impact of different dimensions of teacher-student relationships on learning engagement has differentiated characteristics. Based on this, this paper proposes suggestions from three levels--teachers, schools, and educational management--to optimize teacher-student interaction strategies, build support systems, and improve the supply of policy resources, providing theoretical reference and practical guidance for enhancing high school students' learning engagement.

Keywords: Teacher-student relationships; High school students; Learning engagement

1. Introduction

Past studies have shown that high school students'

learning involvement is affected by many things, with the teacher-student link in the outside setting being a key factor. Unlike younger students, high

school students have a stronger sense of self and think more on their own. They want more to get their teachers' understanding, trust, and individual help. In today's high school setting, some teacher-student exchanges still show issues like 'focusing on school help but missing emotional ties'. Things like not enough teacher-student talk and a lack of trust happen often. This not only lowers students' active part in learning but might also cause bad feelings like not liking school and pushing back, leading to a drop in their learning effort. Many studies have looked at how teacher-student links matter in certain school stages or single subjects. Work looking into how and why teacher-student links affect learning involvement among regular high school students still needs more. With high school students dealing with double pressures from school and growing up, making clear how the main parts of teacher-student links shape thinking, feeling, and doing in learning involvement has big value for theory and practice.

This study is built on the setting of general high school education, clearly looking at a certain age group of high school students, and looks into the effect and mechanisms of teacher-student relationships on students' learning engagement. This study will also make clear the related links between the main parts of teacher-student relationships, specifically 'emotional, interactive, and cognitive parts', and the three-part setup of high school students' learning engagement, which are 'cognitive, emotional, and behavioral engagement'. So, to set out the different effects of different parts of teacher-student relationships on learning engagement. Help strengthen the academic world's full and orderly grasp of things affecting young people's learning engagement, and give backing for making learning engagement action ideas that fit better for different school stages.

For teachers, study results can make clear the main ideas of making good teacher-student connections, making better ways of interacting, and getting students more involved in learning by making stronger links in areas like respect, trust, and care. For schools, it can give ideas for creating teacher training plans, improving school management methods, and building a good school environment, which helps the general improvement of how teachers and students get along at school. For students, a positive teacher-student connection can offer a safe and helpful learning space, helping to increase their learning drive and feeling of well-being, and supporting the balanced growth of school work and body and mind health.

2. Concept Definition

2.1 Teacher-Student Relationship

The teacher-student relationship is the most central and basic type of personal connection in the area of education. Its making logic comes from the ongoing talk and action among education subjects, as well as the changing and growing features shown by social progress [1]. Academic groups often break down this relationship into three main parts: 'feeling, talking, and thinking parts'. The feeling part means the power of feeling, links as trust, respect, and care between teachers and students. The talking part includes how often, ways (like equal talk or one-way telling), and what is said (like school help or feeling support) of teacher-student talk. The thinking part means how much thinking match there is between both sides about each other's jobs and ways of talking, such as if students accept the teacher's guiding role. The teacher-student relationship is commonly seen as a main factor affecting school results and feelings of health [2]. In twelfth-grade math learning, where school needs and stress are especially strong, the quality of this relationship greatly changes students' work.

2.2 Learning Engagement

Students' learning engagement not only helps guess their school results and shows how good the school's teaching is, but also has a big effect on students' own body and mind growth, school work progress, and whether they can finish their studies. The current academic world usually uses a three-part setup of 'thinking, feeling, and action involvement' to group learning involvement. Thinking involvement means how much students use deep thought plans, like asking questions and looking back in their learning. Feeling investment covers good feeling experiences like interest, fun, and a feeling of being part of the learning process. Action involvement is shown in clear actions like taking part in class, finishing homework, and starting extra learning on their own. It is affected by outside world things (parenting ways, teacher-student ties, friend ties) and inside person things (own drive, school feelings, self-belief) [3]. In online math learning, learning involvement acts as a go-between for the links between learning self-belief and felt learning, learner talking and felt learning, and feeling control and felt learning. This finding adds to the grasp of the parts of learning self-belief, learner talking, feeling control, and felt learning, and makes clear the go-between part of learning involvement in this case [4].

3. Link

3.1 The Three-Dimensional Structure of Teacher-Student Relationships Affects Learning Engagement

Does the effect strength of teacher-student relationships across different areas have different directions? Through study, this paper finds that the link between them shows different traits, and the strength and direction of different areas are clear.

3.1.1 Emotional dimension

In the emotional part, the main question is whether different kinds of emotional links between teachers and students (closeness, attachment, staying away, conflict) will have different effects on the 'thinking-feeling-doing' three-part setup of learning involvement? From a linking idea point of view, the heart of the teacher-student emotional part is the quality of shared emotional exchange between both sides. It works on the three-part setup of learning involvement--thinking, emotional, and doing--by forming students' learning mindset (like mind safety and a feeling of belonging). Close and warm good feelings can let students ask questions and do deep think in a safe mind setting, staying away from surface learning because of fear of being turned down when it comes to thinking involvement. This good feeling can give students a good experience of being understood and helped, thus strengthening their interest in learning and feeling of belonging. In terms of involvement, it can push the desire to take part in class and finish after-class jobs. Bad feelings, like staying away and conflict, have a stopping effect on thinking involvement. The worry they cause can get in the way of students' focus and depth of thought. Such bad feelings can create resistance, boredom, and other negative feelings toward emotional investment, which lowers the sense of fun in learning. In terms of behavioral investment, it will weaken the learning drive, leading to passive class involvement and quick completion of homework. Some studies have split high school students into three groups based on low, medium, and high learning engagement. Comparison results show that students in the high learning engagement group saw much higher teacher-student closeness and attachment than those in the low learning engagement group, while showing clearly lower avoidant traits [5]. This supports that teacher-student closeness and attachment are strongly positively linked with learning engagement, while avoidance and conflict are risk factors for learning engagement [6]. More studies on high school students have backed this finding, confirming that the closeness and attachment parts in teacher-student relationships

not only directly positively affect learning engagement but can also indirectly raise the level of learning engagement by improving learning self-efficacy, while the avoidant part has a negative predictive effect on both [7].

3.1.2 Interactive dimension

In the interactive part, this looks at how teachers' interactive actions (kinds of help, ways of talking) exactly change different levels of learning involvement. The main link is that teachers' interactive actions, as direct carriers of information transmission and emotional exchange between teachers and students, create targeted influence by accurately matching the three-dimensional needs of learning involvement--thinking, feeling, and doing. Practical aid directly aims at the thinking side of learning investment, meaning teachers focus on students' confusion at the thinking level, such as understanding ideas and method grasp. By helping students build a clear knowledge setup, define learning aims, and guide problem-solving steps, teachers help students deepen their thinking and judgment of the value of learning. A fair and open way of talking, together with good feedback, considers both doing and thinking, as well as feeling sides. This method can build a trusting interactive environment, thus sparking students' willingness to take part in class talks and actively look for help with questions. It can also lead students to do deep thinking through specific feedback, thereby positively improving the depth of thinking involvement and the eagerness of feeling participate. A study in Singapore looked at this issue, and the findings showed that teachers' practical aid and emotional support have directional effects on different aspects of students' learning involvement, respectively [8]. The more students see the practical aid given by teachers as enough, the clearer they can grasp the value of knowledge and the meaning of learning. The emotional support given by teachers directly changes students' effort in learning by making their bad feelings less and making their desire to learn stronger. In teaching based on problems, students' good thoughts about teachers' care, trust, and ways of giving comments make their hard work and learning focus on school work much better [9]. At the same time, fair and good talks can also push teachers to make their teaching better in return, making a good circle of 'positive teacher-student talk - good teaching - more learning work'.

3.1.3 Cognitive dimension

In the thinking area, the main point is whether the shared view on the teacher-student link (role view, happiness) is a key part affecting students' learning involvement. The thinking side of the teacher-student link has a positive effect on students' thinking involvement. When teachers

and students get a shared view, students do not have to go through doubt and inner use in role play and contact rules, letting them focus more on learning itself and raising their desire for deep thought in thinking involvement. The good push of feeling put in by the teacher-student link is a high-happiness shared view between teachers and students about the link. It straight raises students' school link and learning joy, cuts down bad feelings like push-back and distance, and strengthens the self-start of feeling put in. The thinking side, in a roundabout way, helps action involvement. This shared view sets a sol It forms a base for making stronger emotional bonds and making interaction quality better, so making emotional support and high-quality interactions stronger, and in a roundabout way making students take part in class more on their own. Related research has come to a good finding: the agreement between teachers and students on how happy they are with the relationship and how much their views on roles match directly changes how well learning involvement works. When students understand the teacher's leading part and ways of interacting, and are very happy with the teacher-student relationship, their feelings of belonging at school and mental involvement, especially the desire to think deeply, will be much better [8]. Also, this shared understanding can make the emotional bond and interaction quality between teachers and students stronger, indirectly helping the continued nature of students' action involvement, like more own effort in joining class activities and continuing with tasks after class [7]. Building a positive teacher-student relationship of 'excellent teachers and beneficial friends', enhancing students' learning motivation, and optimizing guidance patterns and methods all contribute to improving the satisfaction of nursing graduate student supervisors [10].

3.2 Current Problems

In conclusion, there is a clear pattern in the association between the three-dimensional structure of teacher-student relationships—emotional, interactive, and cognitive—and high school students' learning engagement, intimacy, and attachment. In the emotional dimension, positivity promote learning engagement, while avoidance hinder it. In the interactive dimension, teachers' instrumental help, emotional support, and equal communication are respectively adapted to different levels of learning engagement. The role identity in the cognitive dimension provides a fundamental guarantee for the association between it and relationship satisfaction.

Based on the current reality reflected by existing research, there are still obvious shortcomings in the current relationship between high school teachers and students:

At the emotional connection level, some teacher-student relationships lack deep trust and sincere care, resulting in relatively weak emotional bonds. Affected by the heavy academic pressure and fast teaching pace in high school, teachers often focus more on knowledge impartation and score improvement, paying insufficient attention to students' emotional needs. Emotional communication between teachers and students often remains superficial, failing to deeply understand the complex emotions, such as anxiety and confusion, that students experience in academic competition and growth-related uncertainties. At the same time, avoidant interaction is relatively common in teacher-student interactions. Some teachers, when faced with students' negative emotions or communication needs, tend to respond perfunctorily or deliberately avoid addressing them.

In terms of interaction quality, there are issues such as single communication methods between teachers and students, insufficient emotional support, and a lack of targeted instrumental help. From the perspective of supported content, there is an imbalanced phenomenon of 'valuing academics over emotions'. Teachers' interactions mostly revolve around academic guidance, such as explaining knowledge points, grading homework, and providing feedback on grades, while emotional support in areas like psychological stress relief for students and encouragement after learning setbacks is seriously insufficient. From the perspective of instrumental assistance, there is a lack of targeting and personalization. Teachers often adopt a one-size-fits-all guidance approach, failing to provide adaptive learning strategies and support based on students' learning foundations and cognitive characteristics. This guidance method leads to poor actual effectiveness of interaction and makes it difficult to effectively stimulate students' learning engagement willingness.

At the level of cognitive consensus, there is a discrepancy between teachers' and students' expectations regarding role positioning and interaction patterns, and relationship satisfaction needs to be improved. In terms of role perception, some teachers still adhere to the positioning of 'authoritative manager', emphasizing their dominant position. Additionally, high school students have a strong sense of self-awareness and are more eager for teachers to interact with them in the role of 'learning guides and companions in growth'. This misalignment of role expectations is prone to causing conflicts and resistance between teachers and students. In terms of interactive pattern cognition, teachers may tend more towards an interactive form characterized by 'regular feedback and uniform requirements'. Students, on the other hand, look forward to more flexible, diverse, and personalized interactive methods, such as group collaborative communication and

convenient online Q&A sessions. Cognitive biases make it difficult for teachers and students to reach a mutual understanding in their interactions. In addition, some students have low satisfaction with the current teacher-student relationship because their emotional needs are not met, and their interactive experiences are unsatisfactory. This negative perception further affects their proactive and sustained engagement in learning.

4. Suggestion

4.1 Teacher Level

In response to issues such as insufficient emotional connection, monotonous interaction methods, and cognitive consensus bias in current teacher-student relationships, teachers strengthen the positive promoting effect of learning investment from the three-dimensional perspective of 'emotion-interaction-cognition'. Emotionally, centered on 'empathetic care', regularly conduct one-on-one communications to focus on students' emotions and stress, pay attention to individual differences among students, provide targeted guidance to those with heavy academic pressure and sensitive emotions, and convey respect and recognition to students in class. Reduce avoidant interactions, strengthen teacher-student trust, enhance students' sense of learning belonging, and establish a solid teacher-student trust and attachment. In terms of interaction, guide classroom expression through equal dialogue and use 'guiding questions' to answer doubts after class. Provide timely emotional support to students who encounter learning setbacks. Cognitively, understanding students' expectations regarding teacher-student roles and interaction patterns before class, and adjusting accordingly based on feedback after class to reduce cognitive biases, reach a consensus on the teacher-student relationship, and lay the foundation for learning engagement.

4.2 School Level

Schools need to provide systematic support. First, conduct teacher training, combining the psychological characteristics of high school students to explain emotional support and communication skills, and enhance teachers' interactive abilities through case discussions. Second, establish a dynamic feedback mechanism to collect students' needs through anonymous questionnaires and regularly feedback to teachers to adjust strategies. Third, foster a campus atmosphere by promoting 'joint growth of teachers and students', creating interactive opportunities, and publicizing excellent cases to guide teachers and students to attach importance to relationship building.

4.3 Educational Management Level

Educational management departments need to do a good job in top-level design. First, they should optimize teacher evaluation by including indicators such as satisfaction with the teacher-student relationship and students' learning engagement, and set up incentive mechanisms to guide teachers to pay attention to relationships. Secondly, provide resource support by compiling guide manuals, building regional resource platforms, and integrating cases and tools to reduce practical costs. Thirdly, promote home-school collaboration by conveying the importance of teacher-student relationships through parent classes, and establish communication mechanisms to form a collective force for education.

5. Conclusion

This paper focuses on the scenario of general high school education. Addressing the shortcomings in the adaptability of current research on teacher-student relationships across academic stages and the depth of dimensional associations, it systematically explores the intrinsic connection between the 'emotional-interaction-cognitive' three-dimensional structure of teacher-student relationships and the 'cognitive-emotional-behavioral' three-dimensional model of high school students' learning engagement. Research has found that there is a clear pattern in their association: In the emotional dimension, teacher-student intimacy and attachment are significantly positively correlated with learning engagement, serving as important positive driving factors, while avoidance and conflict are risk factors for learning engagement. In the interactive dimension, teachers' instrumental help, emotional support, and egalitarian communication styles each precisely target different layers of learning engagement. Moreover, high-quality interactions can form a virtuous cycle of 'teacher-student interaction - teaching optimization - higher engagement'. In the cognitive dimension, teacher-student role identification and relationship satisfaction provide a foundational guarantee for their association, directly enhancing the sustainability of students' cognitive engagement and behavioral involvement.

Based on the above conclusion, this paper puts forward targeted optimization suggestions from the perspectives of teachers, schools, and educational management. Future research can combine empirical investigations to further explore the differences in how teacher-student relationships in different types of high schools (such as key high schools and regular high schools) affect learning engagement, or focus on specific subject contexts to conduct more targeted mechanism analyses. This study is limited

by its research scope and sample selection, failing to cover the heterogeneity of student groups of different grades and genders in high schools, and the analysis of the causal mechanism between teacher-student relationships and learning engagement remains to be deepened with more longitudinal research evidence.

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