

Impact of Teacher Empathy and Motivation on Student Academic Achievement: Mediated by Sense of School Belongingness

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Abstract: This quantitative study investigates the influence of teacher empathy and motivation on student academic achievement, with a focus on the mediating role of students' sense of school belongingness in secondary schools in Punjab, Pakistan. The research employs a survey methodology, gathering data from 778 secondary school teachers to explore how these teacher traits directly impact student outcomes and how the school environment potentially mediates such effects. Results from structural model analysis using Smart-PLS4 indicate that teacher empathy and motivation directly enhance student academic achievement. However, when mediated by the sense of school belongingness, the effects, while still positive, appear less potent. As a result, direct teacher-student interactions have a greater impact on student outcomes than broader educational environments. In addition to pointing out the important role of teacher behaviors in educational success, these findings suggest that enhancing teacher empathy and motivation may be more effective than improving school environments alone. Study implications extend beyond the immediate educational setting, offering insights into effective strategies for teacher development and student engagement. To validate these findings further and explore additional mediating factors, future research should consider broader demographic variables and include objective measures.

Keywords: Teacher Empathy, Teacher Motivation, Student Academic Achievement, Sense of School Belongingness, Secondary Education

Introduction

In the art of teaching, teachers cultivate their students' curiosity, passion, creativity, and empathy (Biesta, 2022). Students carry their personal experiences and backgrounds into the school setting, and it is the responsibility of teachers to acknowledge and consider these unique factors, motivating students to achieve their fullest potential. Teachers are also expected to foster a supportive and caring community within their classrooms and throughout the school environment (Werder & Otis, 2023).

Empathy, often seen as a catalyst for altruistic and socially beneficial behavior, extends beyond merely enhancing the wellbeing of others. It is a crucial skill that enables young individuals to excel in

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academic and professional settings that demand teamwork and collaborative efforts (Meyers et al., [2019](#)). Moreover, empathy lays the groundwork for students to emerge as leaders in a complex global economy. Studies indicate that the acquisition and integration of knowledge are most effective in settings where students feel secure and valued (Aldrup et al., [2022](#)). The interplay between emotion and learning becomes even stronger with empathy. By fostering collaboration and shared experiences alongside knowledge acquisition, students learn to empathize with their peers in a supportive environment.

Schools are miniature communities that reflect the larger society around us. Teachers fulfill roles far beyond traditional teaching. They are mentors, coaches, motivators, and ongoing sources of inspiration for their students. Each student learns in their way, bringing a range of talents and types of intelligence to the classroom (Frey et al., [2019](#)). Research has shown a link between the emotional support students receive and their engagement in emotionally stimulating activities, enhancing their learning. One of the critical roles of teachers is to engage students emotionally with the material being taught.

Additionally, students enhance their awareness of environmental issues and develop critical thinking skills as they solve environmental problems (Saputra et al., [2019](#)). In addition, Kramarski and Heaysman ([2021](#)) posited that when teachers exemplify, promote, and communicate caring behaviors, students are likely to emulate these behaviors. Establishing a caring environment enhances students' ability to develop empathy and concern for others (Kramarski & Heaysman, [2021](#)). Since issues like bullying frequently dominate educational discourse, fostering empathy and caring attitudes is essential for students to live harmoniously inside and outside the classroom. When teachers actively encourage, oversee, and mentor students in adopting pro-social behaviors, these behaviors can lead to positive social outcomes (Shirin, [2020](#)).

This quantitative study examines the influence of teaching empathy and motivation on student achievement, focusing on the mediating role of school belongingness in secondary schools in Punjab, Pakistan. The study aims to determine whether nurturing empathy and motivation in the educational environment can enhance students' academic performance and whether this enhancement is influenced by students feeling valued and integral members of their school community. Furthermore, this study's findings will have implications beyond the immediate environment by offering insights into how teaching empathy affects student achievement. It will also suggest methods for teaching empathy that are applicable in diverse educational contexts.

Literature Review

Teacher Empathy

Empathy is frequently recognized as a crucial trait for teachers, facilitating effective communication within the educational process. Emotional competencies are vital for successfully fulfilling the diverse professional roles of teachers. Recent studies in Serbia have highlighted that empathy allows individuals to feel pleasure, freedom, involvement, and respect Calp, Ş. ([2020](#)). This has led us to examine the relationship between teachers' empathy and their performance in professional roles.

The concept of empathy lacks a universally accepted definition, as its interpretation varies depending on the focus of different scholars. Definitions range widely, encompassing the act of caring for

others and a desire to assist them, as suggested by Hoffman, L. W. (1979), to feeling emotions that mirror someone else's and understanding another's thoughts and feelings, as Davis proposed in 1980. According to Hoffman, M. L. (2008), empathy serves as "the ignition of human compassion towards others, the adhesive fostering social interconnectedness" (Hoffman et al., 2008, p. 3). Despite its historical precedence and the plethora of studies across disciplines such as psychology, education, and medicine, the precise definition of empathy continues to elicit various, sometimes overlapping, conceptual interpretations. Fundamentally, empathy involves the accurate perception of others' emotional states and encompasses the ensuing impacts on the individual Riggio, H. R. (2020). Empathy also involves a deep engagement with the thoughts and feelings of others, imagining oneself in their situation, and attempting to think as they do.

Moreover, Baron-Cohen S. & Wheelwright S. (2004) describe empathy as the natural and spontaneous alignment with the thoughts and feelings of others, regardless of their nature. They identify two principal components of empathy: the cognitive aspect, which involves understanding others' feelings and adopting their perspective, and the affective aspect, which is the observer's emotional reaction to the emotional states of others. From the definitions provided, it's evident why empathy is considered a critical personality trait for teachers. It can be inferred that empathy significantly influences the effectiveness with which teachers fulfill many aspects of their professional roles (Pal, 2024). Emotional empathy refers to an individual's emotional response, such as concern, to another person's feelings, like sadness (Schoeps, 2020; Bailey et al., 2020). This type of empathy does not imply understanding the intellectual reasons behind these emotions. It encompasses entering another's emotional realm and personally experiencing similar emotions (Kamas & Preston, 2021).

Cognitive empathy involves the mental recognition and understanding of another person's emotional state, but it does not necessitate experiencing the same emotions (Buck et al., 2017). Defined as a sophisticated cognitive process, empathy enables individuals to infer others' thoughts and feelings through skills like observation and memory, similar to the functions seen in the theory of mind (Udwin et al., 1996). Ultimately, empathy encompasses both emotional and cognitive dimensions, allowing one to comprehend not just the emotions but also the thoughts and intentions of others, all while retaining a distinct sense of self (Goldstein & Bloom, 2010; Yalçın & Dipole, 2020).

Empathy has been extensively explored across various fields that require effective communication, such as healthcare (Moudatsou et al., 2020), sales (Gabler, 2019), and management (Clark et al., 2019). Empathy is particularly valued in education as it influences the teacher-student relationship, affecting student interactions and creating a positive classroom environment that enhances learning and academic achievement (Barr, 2011; Altavilla et al., 2021). When students feel safe, welcomed, comfortable, supported, and understood, they are more likely to engage fully with school activities and excel academically (Zhang, 2022). Research on empathy in teachers primarily focuses on its impact on student relationships and performance (Bockmier et al., 2017; Grigoropoulos, 2019; Bostic, 2014). Based on the reviewed research on teacher empathy, we put forward the following hypothesis:

H1: Teacher empathy significantly and positively influences student academic achievement in school settings.

Teacher Motivation

Motivation is defined in various ways across different disciplines, but generally, it refers to the inherent human tendency to conserve and direct energy toward achieving a specific goal. Appova, A., & Arbaugh, F. (2018) describe it as “the process whereby goal-directed activity is instigated and sustained” (p. 4). Typically, a person with high motivation is more likely to succeed than someone without motivation, all other factors being equal. Teachers' motivation, which involves participating in an activity because it is inherently interesting or enjoyable, is considered crucial for how teachers can help foster their students' learning and skill development (Akhtar, [2019](#); Lemberger & Krauss, [2013](#); Sheldrake et al., [2019](#)).

Researchers investigate why students are motivated to learn and why some strongly desire to learn. Motivation is a key determinant of test performance and overall academic success (Griffin et al., 2013). Self-determination theory seeks to explain the goal-oriented behaviors of individuals and typically encompasses the four types of motivation previously described. Moreover, the theory is based on three psychological needs that are considered universal and innate:

- **Competence:** The belief that one possesses the necessary skills and tools to perform well in a task or activity.
- **Autonomy:** The belief that one participates in an activity out of one's own free choice and volition.
- **Relatedness:** The belief that connecting through shared experiences or understanding can foster meaningful relationships.

The motivation of teachers is an integral part of the teaching process, significantly influencing student behavior and facilitating exceptional academic achievements (Osman & Warner, [2020](#)). In the educational process, motivation plays a crucial role in cultivating an environment where students are willing to engage and actively participate. Usually, disinterested students do not engage or participate if they do not find the material interesting. Teachers play an important role in this context. Teachers must first possess a high level of motivation to inspire and energize the classroom atmosphere, motivating students to learn and excel. However, if teachers lack strong professional motivation, it can negatively affect the students, leading to a lack of enthusiasm for learning and poor academic outcomes (Boström & Bostedt, [2020](#)).

In a study conducted on secondary school instructors and students in Hong Kong, Lam et al. (2009) discovered that there is a positive correlation between teachers' intrinsic motivation and students' intrinsic motivation, both directly and indirectly mediated by teaching support. Specifically, when teachers exhibited high levels of motivation during learning activities, their students also tended to demonstrate increased intrinsic motivation. This phenomenon is attributed to imitation or modeling. Furthermore, enhanced instructional support from teachers was associated with higher levels of student intrinsic motivation. Study findings indicate that instructional strategies may serve as a buffer linking teachers' intrinsic motivation to that of their students. This aligns with prior studies (Ummat & Retnowati, [2022](#); Orsini et al., [2016](#); Bukhari et al., [2023](#)) suggesting that teachers' intrinsic motivation is transmitted through their attitudinal and behavioral expressions. These expressions influence the dynamics of classroom sessions and the educational rapport teachers develop with their students. Moreover, intrinsic motivation is recognized as a significant predictor of student learning outcomes.

The relationship between teacher motivation and student outcomes, such as academic achievement or student motivation, often shows inconsistent or negligible effects, as noted by Bardach et al. (2021a) and Gitonga (2012). Understanding teachers' potential contributions to student learning and adaptive development remains a key focus in both educational research and practice, serving as a crucial component in models of teacher performance and teacher competencies (Kunter et al., 2013). The challenge for research on teacher motivation to establish consistent correlations with student outcomes warrants further examination. Based on the literature reviewed, we propose the following hypothesis:

H2: Teacher empathy significantly and positively influences student academic achievement

Sense of School Belongingness as a Mediator

Sense of school belongingness refers to the degree to which students feel personally accepted, respected, included in communal activities, and supported by teachers and other school community members (Sari, 2012). It also encompasses the extent and manner in which their individuality is considered in decision-making processes. A stronger sense of belonging in school significantly enhances the positive impacts of the educational environment, fostering empathy, self-esteem, optimism, and a subjective sense of wellbeing (Allen et al., 2018; Vang & Nishina, 2022). Additionally, it motivates students' active participation in school life (Palomo & Chagas, 2022). This sense of belonging is primarily influenced by teachers, followed by the level of acceptance and recognition from classmates and parents, which relates to the concept of relatedness. According to Dukynaitė and Dudaitė (2017), positive aspects such as school structure, teacher assistance, and social value promotion contribute to students' sense of belonging.

To create a feeling of school belonging, three essential elements are identified by Parker, R. (2012): involvement, opportunity, and communication. To help students adjust to the school environment and develop a strong sense of emotional and social connection, it is first necessary to provide them with the right learning environment. This includes learning opportunities, involvement in the community, and encouragement to study and improve their skills. The second important factor is the level of involvement in the educational process; it should provide students with a sense of achievement and pleasant learning experiences, with teachers offering the assistance and direction needed to meet objectives. Finally, the caliber of the teacher-student connection determines how beneficial these chances and interactive encounters will be.

Belonging to a school has been linked to improved learning outcomes across many viewpoints. Adolescents can develop good self-esteem and self-identity through a sense of belonging at school. According to Osterman (2022), individuals who are open to new experiences and situations are more likely to grow and improve their skills. Students who experience a strong sense of belonging at school are more likely to form and sustain relationships with peers, friends, and instructors. Developing these ties helps children meet their desire for relatedness, lowering absenteeism and bullying. A sense of belonging to a school, often called school connectedness (Allen, 2017), is manifested through positive interpersonal relationships and identification with the school. To integrate students into the school community, both subjective assessments by kids and practical elements are crucial.

Students' feeling of school belonging, which captures their perception of acceptance, respect, and support within their educational community, is essential for developing teacher empathy, student motivation, and academic accomplishment. Effective teacher empathy affects students' involvement and receptivity to learning, which can promote a healthy school atmosphere (Scheerhorn, 2022). Students who have a strong feeling of belonging are more inclined to participate in extracurricular and academic activities, which advances both their academic and personal growth (St-Amand, 2017). In this regard, it can be concluded that students' sense of belonging at school has a significant impact on the interconnection between teacher empathy, student motivation, and academic success. Based on the existing literature, we propose the following hypothesis:

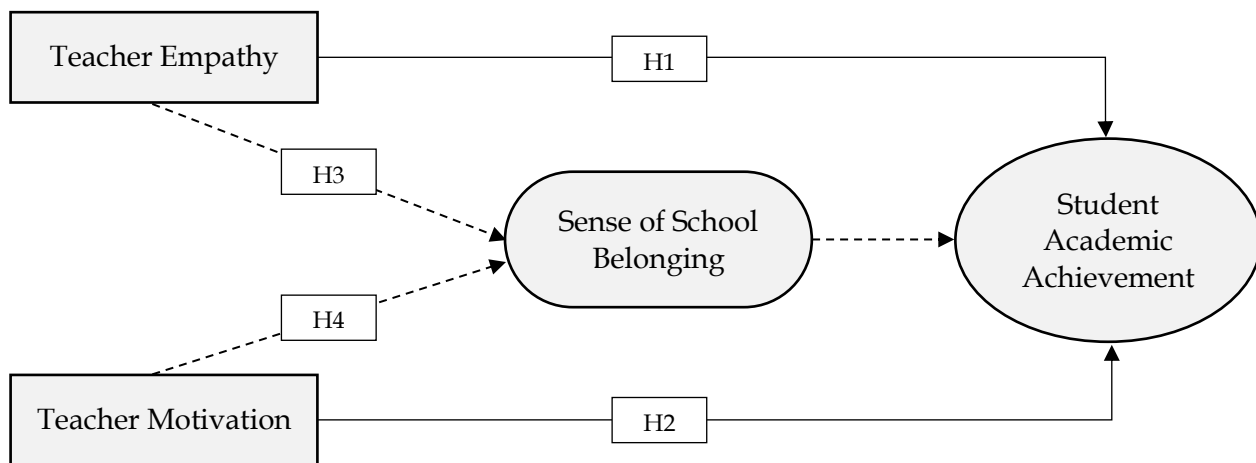
H3: Teacher empathy demonstrates a positive and significant correlation with student academic achievement, with the sense of school belonging serving as a mediator in this relationship.

H4: Teacher motivation exhibits a positive and significant correlation with student academic achievement, with the sense of school belonging acting as a mediator in this relationship.

Objectives of the Study:

- To determine whether teacher empathy contributes to students' academic success.
- To determine whether teacher motivation influences students' academic performance.
- To investigate whether school belongingness mediates the relationship between teacher empathy and student academic achievement.
- To explore the mediating effect of a sense of school belongingness on the relationship between teacher motivation and student academic achievement.

Conceptual frame of the study



Methodology

The research conducted was a casual comparative study employing survey methodology to collect data. The study's primary objective was to explore the impact of teacher empathy and motivation on student academic achievement within the secondary school context. A sample of 778 secondary school teachers

was chosen to gather data. This sample consisted of 410 male teachers and 368 female teachers. The target population consisted of 3168 secondary school teachers instructing secondary classes in high schools across five districts of Lahore division in Punjab. Due to variations in the number of teachers across the four districts of the Multan division, the sample of 778 teachers was selected using a population proportionate sampling technique.

Measures

Teacher Empathy Scale: In this study, we used Tanhan et al.'s (2022) Teacher Empathy Scale (TES). This scale has seven items in a Likert-type style, with each item assessed on a range of 1 (never) to 5 (always). The scale's reliability, as determined by Cronbach's Alpha, was 0.771 in this research. Furthermore, the Kaiser-Meyer-Olkin (KMO) test provided a value of 0.848, while Bartlett's test achieved 0.878, which was significant at $p < 0.05$.

Teacher Motivation Scale: The Motivational Orientation for Teaching Survey (MOT-SIII) scale, created by Ferrell & Daniel in 1993 and subsequently modified by Sinclair, C. (2008), was used in this study to measure teacher motivation. The Modified Orientations to Teach Survey (MOTS) was also used in the study to assess Australian preservice teachers' reasons for choosing to become teachers, with a focus on 10 distinct reasons. There were 80 elements in the MOTS, 10 of which were specifically related to teacher motivation. Furthermore, the current study used a modified six-item scale that was created specially to evaluate teacher motivation, as described by Sinclair, C. (2008).

Student Academic Achievement: In this study, we evaluated student academic accomplishment using eight items revised by King, T. M. (2016), from the original Inventory of School Motivation (ISM) published by McNerney et al. 1997. This 43-item questionnaire is intended to assess four types of accomplishment goals: mastery (task and effort), performance (competition and social power), social (affiliation and social concern), and extrinsic (praise and rewards).

Data Analysis

Researchers used Smart-PLS 4 software to examine the linkages that were postulated in the current conceptual framework (Ringle et al., 2015). Two essential stages were taken in the PLS-SEM modeling procedure, as stated by Hair et al. (2017). First, the psychometric qualities of the proposed assessment model were evaluated. After the measurement model was done and verified in terms of psychometric qualities, the following phase required analyzing the structural model to explore the proposed links (Hair et al., 2017).

Both discriminant validity and convergence validity were evaluated to examine the measurement model closely. Factor loadings, average variance extracts (AVEs), and composite reliability were evaluated by Hair et al. (2011) to ascertain convergent validity. According to Table 1, all item loadings were greater than 0.5, AVEs were greater than 0.5, and CR values exceeded 0.7 (see Figure 2). HTMT was also used to evaluate discriminant validity in this study by Henseler et al. (2015). In Tables 2 and 3, all values fell below the prescribed thresholds of HTMT 0.85 and HTMT 0.90 Kline, R. B. (2011), confirming discriminant validity.

Measurement Model

Figure 1
Teacher Empathy Measurement Model

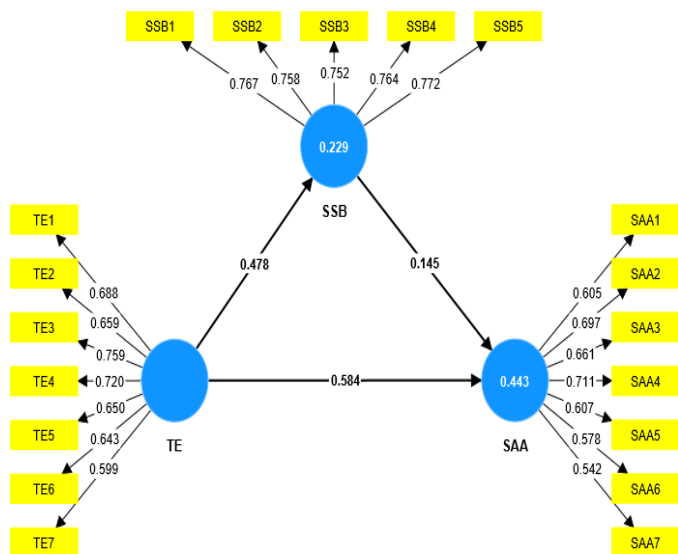
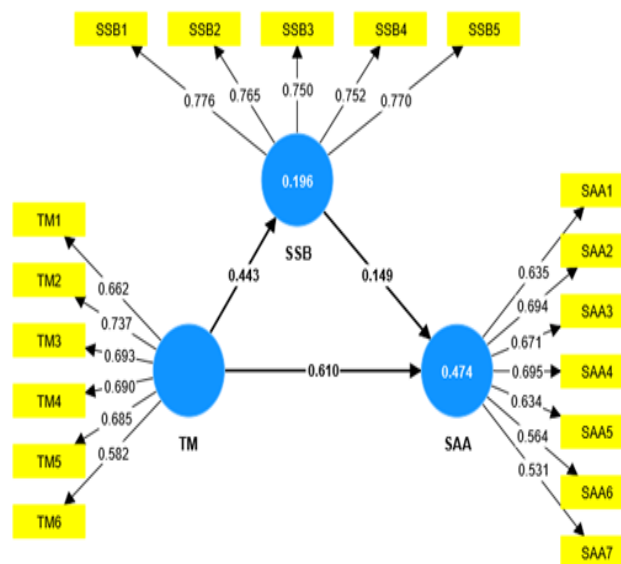


Figure 2
Teacher Motivation Measurement Model



Based on the measurement model used in the study, the constructs related to teacher empathy, teacher motivation, sense of school belonging, and student academic achievement were reliable and valid. A convergent validity evaluation revealed that all factor loadings exceeded the threshold of 0.5, indicating strong associations with their respective constructs and indicating each item measures its intended construct reliably (Hair et al., 2011). Additionally, the Average Variance Extracted (AVE) for each construct surpassed the 0.5 mark, demonstrating substantial variance attributable to the constructs themselves, indicative of good construct validity (Fornell & Larcker, 1981). The Composite Reliability (CR) values, exceeding the 0.7 threshold, further affirmed the internal consistency and reliability of the scales (Peterson, R.A., 1994).

Table 1
Measurement model of the study

Constructs	Item Code	Items Statements	FL	VIF
Teacher Empathy	TE1	When I look at my students, I know how they feel.	0.688	1.504
	TE2	If my students try to hide their emotions, I will realize how they feel.	0.659	1.499
	TE3	I understand how my students feel about me.	0.759	1.731
	TE4	I understand my students' feelings without them telling me.	0.720	1.652
	TE5	I can tell you how the students feel.	0.650	1.463

	TE6	When I argue with my students, I focus on my response rather than what she or he says.	0.643		1.319	
	TE7	I understand what students feel about their behavior.	0.599		1.296	
Teacher Motivation	TM1	I would like to work with children	0.662		1.336	
	TM2	Teaching is an important profession.	0.737		1.493	
	TM3	Teaching is an intellectually stimulating occupation.	0.693		1.510	
	TM4	Teaching offers me a good opportunity for career advancement.	0.690		1.471	
	TM5	Teaching gives me a chance to help the less fortunate.	0.685		1.446	
	TM6	Teaching gives me an opportunity to meet a lot of people.	0.582		1.139	
Sense of School Belonging	SSB1	I am glad to be at this school.	0.767	0.776	1.681	1.681
	SSB2	I feel lucky to be a student of this school.	0.758	0.765	1.637	1.637
	SSB3	I am proud of my school.	0.752	0.750	1.625	1.625
	SSB4	I am happy at this school.	0.764	0.752	1.578	1.578
	SSB5	I like obeying the rules at the school.	0.772	0.770	1.584	1.584
Student Academic Achievement	SAA1	I always try hard to understand something new in my schoolwork.	0.605	0.635	1.239	1.239
	SAA2	I like to compete with others in school.	0.697	0.694	1.448	1.448
	SAA3	I like being in charge of a group.	0.661	0.671	1.458	1.458
	SAA4	I can do my best work at school when I work with others.	0.711	0.695	1.336	1.336
	SAA5	I like helping other students with their schoolwork.	0.607	0.634	1.163	1.163
	SAA6	Getting a reward for my good schoolwork is important to me.	0.578	0.564	1.343	1.343
	SAA7	I work best when I am praised in school.	0.542	0.531	1.318	1.318

Note: **FL**- factor loading; **VIF**-Variance inflation factor

Table 2

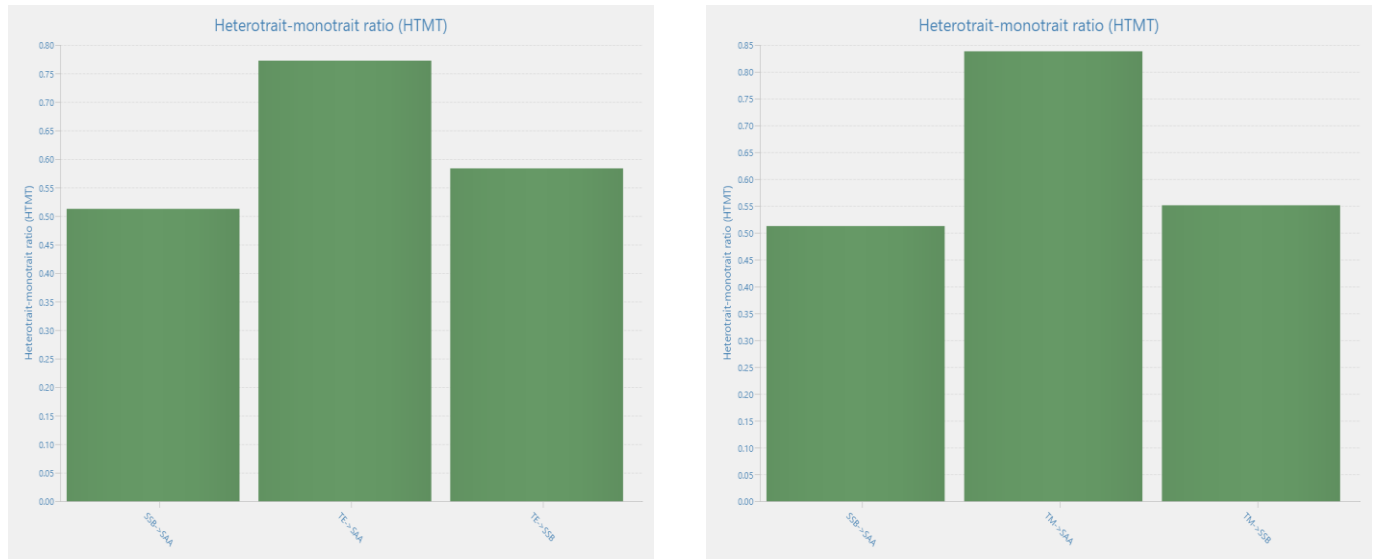
Reliability and validity

	Constructs	Cronbach's Alpha	rho_a	rho_c	AVE
1	Teacher Empathy (TE)	0.801	0.803	0.854	0.592
2	Teacher Motivation (TM)	0.762	0.760	0.834	0.558
3	Sense of School Belonging (SSB)	0.820	0.823	0.874	0.581
		0.820	0.822	0.874	0.582
4	Student Academic Achievement(SAA)	0.755	0.760	0.821	0.536
		0.755	0.759	0.824	0.531

Discriminant and Convergent Validity

Figure 3

Heterotrait-monotrait Ratio (HTMT); Validity (Discriminant and Convergent)



Discriminant validity was confirmed through the Heterotrait-Monotrait Ratio (HTMT) values, which were below the conservative thresholds of HTMT.85 and HTMT.90 (Henseler et al., 2015), ensuring that the constructs are distinct and measure different dimensions effectively. This differentiation is essential to ensure that the constructs do not overlap excessively, which could confound the analysis of their interrelationships.

Structural Model

Figure 4

Teacher Empathy Structural Model

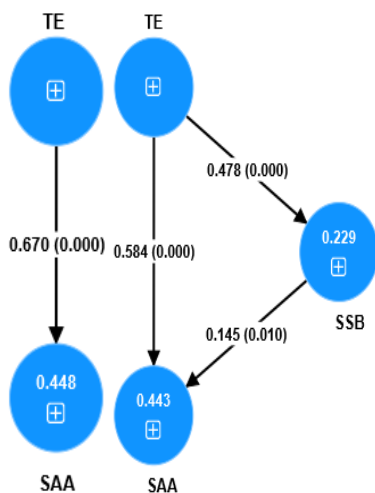
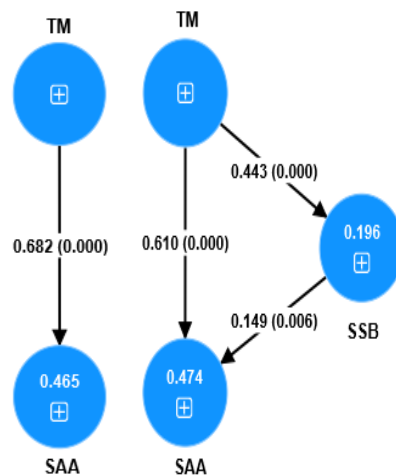


Figure 5

Teacher Motivation Structural Model



Hypothesis Testing

Hypothesis 1: Teacher Empathy -> Student Academic Achievement (H1)

The results for H1 reveal a strong positive relationship between teacher empathy and student academic achievement, with a beta coefficient of 0.801, indicating a substantial impact. This relationship was supported by a T-value of 12.780 and a P-value of 0.000, demonstrating high statistical significance. The model explains 44.8% of the variance in student academic success ($R^2 = 0.448$). The confidence intervals (0.499, 0.676) did not encompass zero, confirming the robustness of the relationship. This finding aligns with prior research, such as Cornelius-White (2007), which emphasized that empathetic teacher-student interactions significantly enhance student learning outcomes by creating a supportive and responsive environment.

Hypothesis 2: Teacher Motivation -> Student Academic Achievement (H2)

Hypothesis 2 indicated a significant positive correlation (beta = 0.762) between instructor motivation and student academic success. The statistical analysis showed a T-value of 15.214 and a P-value of 0.000, indicating the link is significant. This hypothesis explained 46.5% of the variance in student achievement ($R^2 = 0.465$), with confidence intervals (0.536, 0.692) also excluding zero. These results are consistent with the findings of studies like Stipek (2002), which noted that motivated teachers are crucial for engaging students and promoting effective learning practices.

Hypothesis 3: Teacher Empathy -> Sense of School Belonging -> Student Academic Achievement (H3)

In testing the mediated effect of a sense of school belonging on the relationship between teacher empathy and student academic achievement, H3 indicated a positive mediated pathway, albeit weaker than the direct effects. The beta was 0.820, with a T-value of 2.398 and a P-value of 0.017, pointing to statistical significance but lower impact strength. The model's explanatory power was 44.3% for academic achievement ($R^2 = 0.443$). The narrower confidence intervals (0.013, 0.127) suggest a significant yet constrained effect through the mediating factor. This outcome supports research like Goodenow (1993) that emphasizes the importance of students feeling valued and accepted in enhancing educational outcomes.

Hypothesis 4: Teacher Motivation -> Sense of School Belonging -> Student Academic Achievement (H4)

Similar to H3, H4 explored the mediated effect of school belonging on the relationship between teacher motivation and academic achievement. The results showed a beta of 0.820, a T-value of 2.421, and a P-value of 0.016, underscoring a statistically significant yet weaker mediated relationship. This pathway accounted for 47.4% of the variance in academic achievement ($R^2 = 0.474$), with confidence intervals (0.015, 0.122) indicating a positive but less pronounced effect. This finding complements studies like Osterman (2000), which highlighted the pivotal role of school belonging in fostering an engaging learning environment.

Table 4
Result-Structural Model

H	Relationship	Beta	T- value	P- value	R ²	Confidence intervals (Lower; Upper)		Conclusion
H1	TE -> SAA	0.801	12.780	0.000	0.448	0.499	0.676	Supported
H2	TM -> SAA	0.762	15.214	0.000	0.465	0.536	0.692	Supported
H3	TE -> SSB -> SAA	0.820	2.398	0.017	0.443	0.013	0.127	Supported
H4	TM -> SSB -> SAA	0.820	2.421	0.016	0.474	0.015	0.122	Supported

Discussion and Implications

Based on the structural model analysis, teacher empathy and motivation are crucial to student academic achievement. It has been demonstrated in previous research that positive teacher behavior is critical to fostering effective learning environments, and both constructs showed a strong direct effect on student academic outcomes. Student achievement is significantly correlated with teacher empathy, which supports the theory that empathic teachers can better understand and respond to students' needs (Cornelius-White, 2007). A similar relationship exists between teacher motivation and achievement, suggesting that motivated teachers engage students more effectively, resulting in better academic performance (Stipek, 2002). A sense of school belonging was significantly associated with mediated relationships, but the effects were weaker than direct effects. Despite the importance of an environment of acceptance and belonging, it does not have the same impact as the direct influence of teacher characteristics. As a result of this finding, educational strategies should focus more on improving teacher training programs that emphasize empathy and motivation rather than only enhancing school environments.

Limitations and Recommendations of the Study

One of the study's key weaknesses is its dependence on self-reported metrics, which may add bias and reduce data accuracy. Furthermore, the study was done in a unique cultural and educational environment (secondary schools in Punjab, Pakistan), which may restrict the findings' applicability to other situations. The model also fails to account for other possible mediators or moderators, such as parental participation or student personality factors, which may have an impact on the connections studied.

Future research should try to include a broader range of situations and demographic backgrounds to improve the generalizability of the results. Furthermore, including objective measurements of teacher effectiveness and student accomplishment may assist in mitigating the possible bias associated with self-reported data. Investigating other mediating and moderating variables might give a more complete

picture of the interactions between teacher behaviors and student outcomes. For example, investigating the significance of teacher-student racial/ethnic matching might provide crucial insights into the effectiveness of empathy and motivation across diverse student groups.

Conclusion

The study emphasizes the critical role that empathy and motivation play as teachers, offering insightful information on how these qualities affect students' academic success. Although school affiliation has a mediating function, research indicates that teacher qualities have a greater direct impact. According to these results, improving teachers' empathy and motivation should be a top priority for educational policies and programs that support teacher development to successfully raise student achievement. Future investigations have to focus on resolving the limitations of this study and investigating other variables that could affect the learning process.

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