

The Mediating Effect of Teacher Leadership on the Relationship Between Classroom Learning Environment and Teaching Behavior

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ABSTRACT

This study was conducted to determine the mediating effect of Teacher Leadership on the relationship between classroom learning environment and teaching behavior. Specifically, this study aimed to determine the level of classroom learning environment, teaching behavior and teacher leadership. To determine the significant relationship of classroom learning environment and teaching behavior, classroom learning environment and teacher leadership, teacher leadership and classroom learning environment and teaching behavior. To determine the mediating effect of teacher leadership on the relationship between classroom learning environment and teaching behavior. This study used quantitative non-experimental correlational technique with regression analysis. The respondents were composed of 300 elementary public-school teachers within Panabo City Division through purposive sampling. Three adapted instruments were used to gather the data from respondents. Data were analyzed through getting the mean, standard deviation, Pearson correlation and regression analysis, Med graph using Sobel Z- test. The findings revealed that the level of classroom learning environment and teacher leadership are very high which means evident all the time and for teaching behavior is high which means evident most of the time. Moreover, significant relationship existed between these variables. A significant partial mediation of teacher leadership on the relationship classroom learning environment and teaching behavior was proven in this study. Teaching behavior and classroom learning environment are influenced by teacher leadership. Furthermore, it implies that teaching behavior is influenced by school culture, which is shaped in large part by teacher leadership.

Keywords: educational management, teacher leadership, classroom learning environment, teaching behavior, mediating effect Philippines

SDG Indicator: # (Quality Education)

INTRODUCTION

Teacher's teaching behaviors can impede learning include resistance to change, absenteeism, lack of preparation for class, and failure to meet student needs (QualAdebayo, 2023). Furthermore, teachers typically do not misbehave without reason; there are often underlying factors contributing to their actions. On the other hand, teachers are crucial stakeholders in education whose impact cannot be overlooked. Teachers' teaching behaviors play a significant role in shaping student learning, either positively or negatively.

Teaching behavior is a highly important indicator of learning environments (Fangchun & Xu, 2023). Effective teaching behavior plays a central role in student learning and outcomes (Maulana, Kington, Ko, Feng, Helms-Lorenz, Looker, Hibbert-Mayne, and Blackmore, 2023). Time spent in teaching is crucial and a fundamental behavior teachers should exhibit to enhance student success is effectively utilizing the instructional time available in the classroom (Cooper, 2019). Additionally, Zaffar, Bhuttah, Abdullah, Tahir, Aasy, Hassan,

Khalid (2021) mentioned that teaching as a profession requires individuals to be calm, patient, and communicative by nature, along with maintaining a friendly attitude.

Teachers play a crucial role in shaping students' success in the classroom and are the most significant factor influencing student learning and growth (Zhao and Zhang, 2022; Espinosa & López González, 2023). In the study of Warren (2021), stated that to foster effective learning, teachers must exhibit strong leadership skills, as these are essential for improving instructional quality both within and beyond the classroom. Teacher leaders are adept at classroom management and are better equipped to motivate students towards academic achievement. Additionally, by cultivating a positive and supportive classroom learning environment, teacher leaders not only enhance student engagement but also create conditions that are conducive to learning, engage participation and collaboration among teachers, thereby directly impacting students' overall educational experience (Naway, Haris, & Nue, 2019; Tang, 2023; Warren, 2023).

The study of Gosen (2019) emphasizes the importance of creating a collaborative and engaging classroom environment through project-based learning (PBL) strategies. By shifting teaching behaviors towards facilitation and student-centered practices, educators can empower learners to take ownership of their experiences, ultimately enhancing engagement and learning outcomes. Regular assessments of classroom dynamics and teaching behavior and approaches are essential to ensure alignment with PBL goals.

As Jiazhi and Batool (2024) stated, teacher leadership is closely connected to how teachers behave in the classroom learning environment and with their colleagues. A teacher who excels in teaching students demonstrates strong teaching behaviors, such as clear communication, engaging lessons, and a supportive attitude. These behaviors not only help students learn but also inspire and guide other teachers.

The study is based on the theory of Social Learning Theory, proposed by Albert Bandura in 1977 which emphasizes that people learn from one another through observation, imitation, and modeling. In the context of teaching, it suggests that teachers can influence student behavior and learning by demonstrating positive teaching practices and interactions. Moreover, the Ecological Systems Theory by Urie Bronfenbrenner (1979), suggests that a learner's development is affected by different environmental systems, including the classroom. It emphasizes the importance of the classroom environment and how it interacts with other systems influencing teaching behavior and student learning. Furthermore, Transformational Leadership Theory developed by James MacGregor Burns (1978), focuses on leaders who inspire and motivate others to achieve higher levels of performance. In education, transformational teacher leaders foster a shared vision, encourage collaboration, and promote professional growth among colleagues.

Social Learning Theory underscores how observation plays a crucial role in education, illustrating that teachers act as role models who can significantly influence student behavior. In addition, Bronfenbrenner's Ecological Systems Theory points to the importance of the wider context affecting student development, showing how various factors outside the classroom come into play. Finally, Transformational Leadership Theory inspires me to promote collaboration and a shared vision among peers, as I have experienced how mutual inspiration can enhance the entire school environment.

The independent variable of the study is Classroom Learning Environment (McGhee, Lowell, and Lemire, 2007) with the following indicators: Classroom Positive, Diversity Values, Personal Negative, and Persistence in Major. Widiyawanti & Wahyono (2024) defines Classroom Learning Environment as where the learning process takes place. The classroom is a setting within an educational institution that operates concurrently in both time and space. It serves as an environment that can be optimized to meet learning objectives. Additionally, the classroom functions as a space where educational institutions facilitate the transmission of knowledge through the teaching and learning process to achieve established learning goals.

The term Classroom environment describes the social, psychological, pedagogical, and personal aspects of a classroom. The main factors affecting students' learning environments include curriculum, classroom setup, time, institution, policies, community characteristics, teacher behavior, student behavior, teacher

characteristics, and the environment's efficiency or inefficiency. The interaction between students and their teacher is one of the many learning components that are covered by the classroom setting. The classroom environment is made up of several elements that are occasionally visible, including the physical space, the psychological atmosphere that is produced by social interactions, and various teaching techniques that are connected to the traits and conduct of the teachers (Arshad, Iqbal, Noshaba, & Pervez, 2022).

Furthermore, the mediating variable of the study is the Teacher Leadership (Yuet, Ismail, and Yusof, 2016) with the following indicators: Fostering Collaborative Culture, Facilitating Improvement and Establishing Standards, Modeling Leadership Attributes and Skills, and Performing as Referral Leader). Kamaruzaman, Musa & Hashim (2020). defined teacher leadership as a process in which teachers, both individually and collectively, influence their peers, principals, and other school community members to enhance the quality of teaching and learning, ultimately leading to improved student outcomes. Furthermore, it emphasizes the capacity to foster a supportive and inspiring learning environment for students.

Teacher Leadership, in school organizations, teacher leadership is characterized as leadership that is dispersed through a network of leaders, followers, and situational interactions. One of the fundamental roles of teaching is teacher leadership, which plays a significant role in how schools run. Leaders who lead both inside and outside of the classroom, who identify with and support a community of teacher learners and leaders, who persuade others to adopt better teaching practices, and who take ownership of their leadership's results are known as teacher leaders (Liu, Chen, Cheng, & Xiao, 2023).

Moreover, the dependent variable of the study is the Teaching Behavior (Pössel, Rudasill, Adelson, Bjerg, Wooldridge, and Black, 2013) with the following indicators: Instructional Behavior, Negative Teaching Behavior, Socio-Emotional Behavior, and Organizational Behavior. Teacher Leadership encompasses the concept of power and influence. Fangchun & Xu (2023) defined teaching behavior as the strategies educators implement to manage student behavior and promote a positive classroom environment that supports learning and self-regulation.

Teaching Behavior, the students' learning is greatly influenced by the way teachers teach or the teaching behavior. More and more studies suggest that many schoolchildren perform poorly academically as a result of their teachers' inefficient methods. The term "teacher's teaching behavior" refers to the social indication of education that is carried out to support learning by a group of pupils or an understudy. A teacher's behavior and conduct can be considered successful when it influences students' academic performance and scholarly devotion (Haider, Hussain, & Hafiz Muhammad, 2020).

The primary purpose of this study is to determine the mediating effect of teacher's leadership on the relationship between classroom learning environment and teaching behavior. Specifically, to address the following research objectives: First is to determine the level of classroom learning environment in terms of classroom positive, diversity values, personal negative, and persistence in major. Second, to determine the level of teaching behavior in terms of instructional behavior, negative teaching behavior, socio-emotional behavior, and organizational behavior. Third is to determine the teacher's leadership. Fourth, to determine the significant relationship of classroom learning environment and teaching behavior, classroom learning environment and teacher leadership, and teacher's leadership and teaching behavior. Lastly, this study aims to determine the mediating effect of teacher's leadership on the relationship between classroom learning environment and teaching behavior.

The study's hypothesis was tested at a 0.05 significance level, indicating a significant relationship between classroom learning environment and teaching behavior. There is no significant relationship between teacher's leadership and classroom learning environment. Subsequently, there is no significant relationship between teacher leadership and teaching behavior. Lastly, there is no significant relationship between the mediating effect of teacher's leadership on the relationship between classroom learning environment and teaching behavior.

The goal of the study is to determine the link between the classroom learning environment and teaching behavior; the results will be useful to school officials, instructors, and students. Simply put, educators will be more aware of how to perform their job as school leaders because of this. This study will not only serve as a resource for future researchers, but it may also serve as a roadmap for them to look into other classroom learning environment strategies that have a significant impact on teacher leadership in the relationship between classroom learning environment and teaching behavior. This material may be valuable to teacher leaders, principals, professional development directors, district administrators, state education department executives, lawmakers, and program designers for teacher leader preparation.

The learning environment refers to the various physical locations, cultures, and settings in which students learn. The word is frequently used as a more accurate, preferred, or preferred alternative to the classroom, which has more confined and constrained learning environments. This concept acknowledges that kids learn in a variety of ways and in a variety of settings. Because learners must learn, the goal is to establish a well-rounded learning environment that maximizes students' capacity to learn. There is no such thing as the perfect learning environment. The fact that there are an infinite number of possible learning settings is what makes teaching so fascinating (Thamaresseri, 2017).

Teachers should comprehend the importance of concrete operational instruction at school so the children could maximally achieve the learning goal in accordance to their thinking level that they acquire. The suggestion that can be proposed is that the teacher should synergize the characteristics of students in the concrete operational stage with the instructional readiness in the steps of planning, implementation and evaluation (Ni Putu, 2018). Students' impressions of instructors' behaviors and attitudes reinforced the complexity of factors that affected their motivation. Instructors played a crucial role in building confidence, making disciplinary relevance explicit, and maintaining interest in science. Students valued instructors who were knowledgeable, caring, accessible, encouraging, and democratic. Students appreciated those who promoted a growth mind-set and autonomy yet were still available as a supportive individual (Sasway & Kelly, 2021).

This study determines the mediating effect of teacher leadership in the relationship between classroom learning environment and teaching behavior. To determine the level of classroom learning environment, ascertain the level of teaching behavior, determine the level of teacher leadership, determine the significance in relationship between classroom learning environment and teaching behavior.

METHOD

This section of the study depicts the various methods on how the study will be conducted. Likewise, it presents the research respondents, materials/instruments, designs and procedures to be observed in the study.

Research Participants

The study will be conducted with public elementary school teachers from the following schools: Panabo Central Elementary School, Rizal Elementary School, Gredu Elementary School, San Vicente Elementary School, and Glicerio L. Dondoy Central Elementary School, all located in the Panabo City Division of Davao del Norte. Using Yamane's (1967) formula, the required sample size for the study is 300 respondents.

The purposive sampling technique was employed in selecting the respondents. Purposive sampling is employed when the sample is selected based on specific characteristics, meaning only individuals who possess those characteristics are included, while others are excluded. According to Campbell, Greenwood, Prior, Shearer, Walkem, Young, Bywaters, & Walker, (2020), purposive sampling is a method used to select a sample based on criteria or considerations. Thus, purposive sampling involves deliberately selecting specific cases that meet certain criteria, rather than using purposive selection. This approach assumes that certain individuals, due to their unique perspectives or experiences, can provide valuable insights relevant to the study's objectives and should therefore be included in the sample.

Teachers who are ranked Teacher 1 (T1), Teacher 2 (T2), and Teacher 3 (T3) were included as respondents of the study. Additionally, these individuals were License Professional Teachers (LPT) and taught for 5 - 10 years in public schools. Those who are not T1 to T3, and teaching for 4 years below or 11 years above will be excluded as participants of the study. Moreover, participants are free to withdraw anytime without penalty.

Materials and Instruments

Three sets of survey questionnaires were used in obtaining data from the respondents which are adapted from previous studies. To ensure accuracy of measurements, the questionnaires were subjected for content validity and reliability analysis. The survey instruments were validated from external validators' expertise in the field of research and statistics. The findings of the data acquired must be understood and assessed using a rating scale when evaluating the degree of classroom learning.

The descriptive level of the range of means 4.20 - 5.00 is quite high, indicating that items related to the classroom learning environment are always visible. Second, the descriptive level of the range of means between 3.40 and 4.19 is high, indicating that the item linked to the classroom learning environment is visible most of the time. Third, the descriptive level of the range of means between 2.60 and 3.39 is moderate, indicating that things related to the classroom learning environment are visible on occasion. Fourth, the descriptive level of the range of means between 1.80 and 2.59 is low, indicating that the elements related to the classroom learning environment are barely discernible.

The scale was used to interpret the means to determine the level of instructional behavior. The descriptive level of the range of means between 4.20 and 5.00 is quite high, indicating that the item linked to teaching conduct is always visible. Second, the descriptive level in the range 3.40 - 4.19 is high, indicating that instructional conduct elements are apparent most of the time. Third, the descriptive level in the range 2.60 - 3.39 is moderate, indicating that instructional behavior features are noticeable on occasion. Fourth, the descriptive level of the range 1.80 - 2.59 is low, meaning that things linked to instructional behavior are only observable in a few cases. Finally, the descriptive level of the range between 1.00 and 1.79 is quite low, indicating that the elements linked to teaching behavior are not visible at all.

The Cronbach Alpha results from the three sets of questionnaires showed that the Classroom Learning Environment which is the independent variable had a reliability score of 0.76, the Teaching Behavior, which is the dependent variable scored 0.847, and finally, the Teacher Leadership which is the mediating variable achieved a score of 0.86.

Design and Procedures

This study employed a descriptive-correlational research design. Descriptive research focused on observing and describing participants' attitudes and behaviors, while correlational research explored statistical relationships between variables (Vanderstoep & Johnston, 2009). Descriptive research provided insights into the status of the phenomena (Shuttleworth, 2008) and allowed the researcher to examine participants' characteristics, behaviors, and experiences (Calmorin, 2007). Correlational analysis, on the other hand, assessed the strength and nature of associations between variables (Creswell, 2003). Specifically, this study examined the levels of classroom learning environment and teaching behavior, as well as the mediating role of teacher leadership in the relationship between these two factors.

This study used a quantitative, non-experimental descriptive correlational research design to analyze the data collected on classroom learning environment and teaching behavior (Creswell, 2018, cited by Survey Point Team, 2023). The study specifically tested the significant impact of classroom learning environment on the teaching behavior and identified which aspects of the classroom learning environment most influence teacher leadership.

RESULTS AND DISCUSSIONS

This section presents, evaluates, and interprets the information gathered from respondents about teacher effectiveness. The discussion follows this sequence: the level of the classroom learning environment, the level of teaching behavior, and the level of teacher leadership.

Classroom Learning Environment

Presented in Table 1 the level of classroom learning environment has an overall mean of 4.12, and a descriptive equivalent of High. The results show that classroom positive has the highest mean value of 4.43, with a descriptive level of Very High. This is followed by diversity values with a mean of 4.16, and persistence in major with a mean of 4.12, both have a descriptive equivalent of High. Meanwhile, personal negative got the lowest mean of 3.10, with a descriptive equivalent of moderate.

The results show that the classroom learning environment is usually seen as positive, indicating a generally encouraging and productive learning environment. Notably, the classroom environment is scored quite positively (4.43), indicating a strong sense of positivity, and diversity in the classroom is also highly respected (mean of 4.16), demonstrating that students value inclusive and diverse viewpoints. Within this setting, students' dedication to their academic endeavors is further demonstrated by their persistence in major (mean of 4.12). However, the moderately low mean score of 3.10 for personal negative elements points to possible issues like stress or personal troubles that could negatively impact students' overall experience. This implies that more assistance is required to remove these detrimental elements, which could help maintain a healthy learning environment and improve students' wellbeing and academic performance.

According to the students' responses, the most common condition was depression, which was followed by stress and anxiety. To improve students' performance and support the personal sustainability and holistic development, the study also stated that effective stress-reduction and resilience-building strategies are necessary for increasing students' well-being and academic achievement (Mangoulia, Kanellopoulou, Manta, Chrysochoou, Dimitriou, Kalogerakou, & Antoniadou, 2025).

Table 1. Level of Classroom Learning Environment

Indicators	Mean	Descriptive Equivalent
Classroom Positive	4.43	Very High
Diversity Values	4.16	High
Persistence in Major	4.12	High
Personal Negative	3.1	Moderate
Overall Mean	4.12	High

Teaching Behavior

Presented in Table 2 the level of teaching behavior has an overall mean of 3.96, and has a descriptive equivalent of High. The results show that instructional behavior has the highest mean value of 4.44, followed by organizational behavior with a mean of 4.41, both got a descriptive equivalent of Very High. Socio-emotional behavior got a mean of 4.06 with a descriptive equivalent of High, and negative teaching behavior got the lowest mean of 2.17 with a descriptive equivalent of Low.

The results from Table 2 indicate that teaching behaviors are generally perceived positively, with instructional and organizational behaviors receiving the highest ratings, suggesting effective teaching methods and classroom management. However, the lower mean for negative teaching behavior (2.17) signals the need for improvement in minimizing such behaviors to enhance the overall learning environment. The relatively high

score for socio-emotional behavior (4.06) also points to the importance of strengthening teacher-student relationships. Overall, while teaching behaviors are strong, there is an opportunity for further improvement by addressing negative behaviors and enhancing socio-emotional interactions to create a more supportive and effective learning experience.

A supportive school environment, which includes instructors' instructional behavior, is crucial for adolescents' personal development, successful learning, and general well-being because they spend most of their time there. When students feel valued, supported, and a part of their school community, they engage in active learning. Adolescent health and academic outcomes may be strongly impacted by an unhealthful school environment. Adolescents' emotional well-being and academic success can thus be greatly enhanced by a positive and encouraging school environment (Wang, 2021; Podiya, Navaneetham, & Bhola, 2025).

Table 2. Level of Teaching Behavior

Indicators	Mean	Descriptive Equivalent
Instructional Behavior	4.44	Very High
Organizational Behavior	4.41	Very High
Socio – Emotional Behavior	4.06	High
Negative Teaching Behavior	2.17	Low
Overall Mean	3.96	High

Teacher leadership

Table 3. Level of Teacher Leadership

Indicators	Mean	Descriptive Equivalent
Fostering a collaborative culture	4.35	Very High
Facilitating improvements	4.41	Very High
Modelling Leadership attributes	4.46	Very High
Performing as referral leader	4.39	Very High
Overall mean	4.39	Very High

Shown in Table 3 the level of teacher leadership with an overall weighted mean score of 4.39 with a descriptive interpretation of Very High. However, the modeling leadership attributes got the highest mean result of 4.46 with a descriptive equivalent of Very High. And the second indicator which is facilitating improvements with a mean result of 4.41 and a descriptive equivalent of Very High. The third indicator performing as referral leader has the mean score of 4.39 with the descriptive equivalent of Very High. And the fourth indicator is fostering a collaborative culture, garnering a mean score of 4.35, with the descriptive equivalent of Very High.

The data from Table 3 show a high degree of teacher leadership in several areas. Teachers are excellent at modelling leadership (4.46), setting an example of the values and behaviors they want learners to follow, and facilitating improvements (4.41), which involves actively encouraging constructive changes in the classroom. Their function as referral leaders (4.39) further demonstrates their capacity to successfully guide and assist colleagues. Teachers' ability to encourage teamwork is also demonstrated by their 4.35 score for creating a collaborative culture, which is important for advancing academic performance and collective growth.

Improving teacher leadership may help teachers perform better on the job which in turn help learners perform better and excel academically (Zhang & Maria, 2024). Among these initiatives are rethinking leadership in schools, rethinking teacher development programs based on the connection between learning and leadership, leveraging university-school collaboration, emphasizing new teacher mentoring, and fostering teacher leadership in relation to local school cultures that have been thoroughly examined (Nerlino, 2020).

Significance of Relationship of the between the Teacher Leadership, Classroom Learning Environment, and Teaching Behavior

Shown in Table 4 the results of the significant relationship between the Classroom Learning Environment, Teaching Behavior and Teacher Leadership. The result of the significant relationship between classroom learning environment and teaching behavior overall p-value of 0.016 shows a high positive correlation between variables. In the classroom learning environment and teacher leadership has a p-value of 0.336 shows no significant relationship, and the teacher leadership and teaching behavior has an r-value of .268 with a p-value of 0.000 thus the result was to reject the null hypothesis.

An enhanced classroom atmosphere may increase teaching effectiveness, as indicated by the strong positive association found between teaching behavior and the learning environment. Nonetheless, the lack of a substantial correlation between teacher leadership and the classroom learning environment suggests that other factors might have an impact on leadership roles in the classroom. The strong link between teaching behavior and teacher leadership emphasizes how crucial leadership is in forming successful teaching strategies. These findings suggest that enhancing teaching outcomes may need strong leadership and the development of a positive learning environment in the classroom.

Table 4. Significance of Relationship of the between the Teacher Leadership, Classroom Learning Environment, and Teaching Behavior

Pair	Variables	Correlation Coefficient	P-value	Decision
IV and DV	Classroom Learning and Teaching Behavior	0.139**	0.016	Reject
IV and MV	Classroom Learning and Teacher Leadership	0.056	0.336	Accept
MV and DV	Teacher Leadership and Teaching Behavior	0.268**	0.000	Reject

Shown in Table 4 is the relationship between the classroom learning environment, teaching behavior, and teacher leadership.

The relationship among the variables was determined using a bivariate correlation analysis with Pearson product-moment correlation. The first zero-order correlation analysis between classroom environment and teaching behavior revealed a computed r-value of 0.139 with a probability value of $p < 0.000$, which is significant at a 0.05 significance level. The result indicates a positive and significant relationship between the two variables. Therefore, the null hypothesis, which hypothesizes meaningful relationships, is consequently rejected.

Improvements to the classroom environment may improve teaching practices, as evidenced by the strong positive correlation between teaching behavior and the classroom environment. This research suggests that to promote more successful teaching practices, educators and school administrators should think about developing environments that are encouraging and conducive. Additionally, the null hypothesis' rejection shows that the two variables are not independent, highlighting how crucial it is to take both into account when planning and developing educational programs.

Similarly, the second correlation analysis involving classroom learning environment and teacher leadership yielded an r-value of 0.056 with a probability value of $p < 0.000$, which is significant at a 0.05 significance level. The finding suggests the non-existence of a significant correlation between the two variables. Therefore, the null hypothesis, which posits no significant relationship, is accepted.

Changes in the classroom environment may not have a direct impact on a teacher's leadership behavior, as seen by the lack of a substantial association between the two. This research suggests that teacher leadership may be more significantly influenced by variables outside of the classroom. As a result, educational approaches aimed at enhancing leadership abilities might need to concentrate on elements other than the social or physical features of the classroom.

The third correlational analysis of teacher leadership and teaching behavior yielded an r-value of 0.268** at a significance level of 0.05. The result suggests a positive and strong association between the two variables. Therefore, the null hypothesis, which posits a significant relationship, is consequently rejected.

The discovery of a statistically significant positive association between teaching behavior and teacher leadership implies that teaching behaviors improve in tandem with an increase in teacher leadership attributes. This suggests that improving teacher leadership may be essential to encouraging more successful teaching methods, underscoring the need for leadership development in learning environments. Therefore, educational interventions that focus on enhancing teachers' leadership abilities may result in greater student results and classroom dynamics.

Mediation Analysis between Classroom Learning Environment and Teaching Behavior, and Teacher Leadership

Four steps must be met for a third variable acting as a mediator. In Table 5, these are categorized as steps 1 to 4. In step 1, Classroom Learning Environment as the independent variable significantly predicts Teaching Behavior, which is this study's dependent variable. In step 2, school connectedness significantly predicts Teacher Leadership, the mediator. In step 3, Teacher Leadership significantly predicts Teaching Behavior.

Given the importance of the three steps (paths a, b, and c), further mediation analysis using MedGraph is required to assess the significance of the mediation effect. This analysis will involve the Sobel z test. Full mediation is achieved if the independent variable's effect on the dependent variable becomes statistically insignificant after the mediation process, suggesting that the mediator variable fully accounts for the relationship between the independent and dependent variables.

Additionally, partial mediation is observed if the regression coefficient decreases significantly in the final stage but remains statistically significant. This indicates that the Teacher Leadership has partially explained the relationship between the Classroom Learning Environment and the Teaching Behavior. However, other variables not included in the model may still influence the relationship or be mediated by it. As shown in step 4 (c'), the impact of Classroom Learning Environment on Teaching Behavior weakened after being mediated by Teacher Leadership, but a significant relationship between Classroom Learning Environment and Teaching Behavior persisted. Therefore, partial mediation occurred, as the effect remained statistically significant at the $p < 0.05$ level.

Table 5. Regression Results of the Variables in the four Criteria of the presence Mediating Effect

STEP	PATH	BETA (UNSTANDARDIZED)	ERROR	STANDARDIZED BETA
Step 1	c	0.128	0.053	0.139
Step 2	a	0.055	0.057	0.056
Step 3	b	0.052	0.052	0.261
Step 4	c	0.051	0.051	0.124

CONCLUSIONS

This section presents the conclusions drawn after accounting for the study's findings. Students' academic performance and general well-being depend on addressing their mental health issues, especially those related to anxiety, stress, and depression. Future healthcare professionals' personal sustainability and holistic development will be supported by the implementation of efficient stress-reduction and resilience-building techniques.

Additionally, adolescents' academic performance, emotional health, and personal growth all depend on a supportive school environment. Students are more likely to participate in meaningful learning and achieve

better academically when they feel appreciated and supported. Adolescents' health and academic performance can be greatly enhanced by creating a supportive and upbeat school climate.

Furthermore, boosting student academic achievement and teacher effectiveness both depend on strengthening teacher leadership. Fostering a culture of growth requires strategies including reevaluating school leadership structures, revamping teacher development programs to link leadership and learning, and enhancing university-school partnerships. These initiatives are further supported by emphasizing mentorship for new teachers and matching teacher leadership to the requirements of regional school cultures. In the end, by empowering educators and fostering a good, encouraging learning environment for adolescents, these programs offer a comprehensive strategy for enhancing education.

RECOMMENDATIONS

Targeted stress-reduction and resilience-building initiatives should be implemented by universities to improve students' academic performance and general well-being. By addressing prevalent mental health conditions including anxiety, stress, and depression, these programs can support the comprehensive and holistic development of the students.

Additionally, schools should place a high priority on establishing a welcoming and inclusive environment where students feel appreciated and connected to support adolescents' emotional health, academic achievement, and personal growth. Teachers should implement teaching strategies that encourage participation, decency, and emotional support to foster a pleasant school climate that improves academic performance and health.

Moreover, the development of teacher leadership should be a top priority for schools to improve student outcomes and teacher performance. This can be achieved by strengthening partnerships between schools and universities, improving teacher development programs, and reconsidering leadership positions. Teachers' development and efficacy in the classroom can also be further supported by establishing leadership that fits with local school cultures and providing new teachers with focused mentoring.

Furthermore, based on the findings, it is recommended that educational administrators focus on creating supportive and encouraging classroom environments to enhance teaching behaviors, as these factors are positively correlated. While changes in the classroom environment may not directly impact teacher leadership, targeted programs aimed at developing teacher leadership skills could lead to improved teaching practices. Investing in leadership development for educators, alongside fostering positive classroom environments, can contribute to enhanced student outcomes and a more effective learning atmosphere. Therefore, a balanced approach focusing on both the physical environment and leadership development is essential for promoting successful teaching practices.

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