Impact Of Classroom Climate On Students' Academic Engagement And Emotional Well-Being In Public Secondary Schools In District Poonch Azad Kashmir

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Abstract

The classroom climate plays a central role in shaping students' academic and emotional outcomes, particularly in resource-constrained educational settings. This study examined the impact of classroom climate on students' academic engagement and emotional well-being among public secondary school students in District Poonch, Azad Jammu & Kashmir. A quantitative, cross-sectional survey design was employed, involving a sample of 320 students selected through multistage sampling. Standardized instruments measuring classroom climate, academic engagement (behavioral, emotional, and cognitive), and emotional well-being were administered. Data were analyzed using descriptive statistics, Pearson correlations, multiple regression, and mediation analysis using Hayes' PROCESS macro. Results revealed that classroom climate was significantly and positively associated with all dimensions of academic engagement and emotional well-being. Regression analyses showed that classroom climate was a strong predictor of behavioral engagement ($\beta = .50$), emotional engagement ($\beta = .55$), cognitive engagement ($\beta = .47$), and emotional well-being ($\beta = .53$). Mediation findings indicated that psychological needs satisfaction partially mediated these relationships, supporting Self-Determination Theory. Small differences were observed across gender and school location, but the overall pattern remained consistent. The study concludes that a positive classroom climate is essential for enhancing students' motivation, engagement, and emotional health. Recommendations include strengthening teacher–student relationships, implementing social-emotional learning practices, and providing professional development for teachers. The findings have significant implications for educational policy and classroom practices within the region.

Keywords: Classroom Climate; Academic Engagement; Secondary School Students; Public Schools.

INTRDUCTION

Classroom climate — the pattern of interpersonal relationships, teaching–learning practices, and organizational features that students experience within a classroom — is widely recognized as a critical contextual factor shaping student outcomes (Moos, 1979). Research shows that a supportive, well-structured classroom climate promotes active participation, persistence, and positive feelings about learning, whereas a negative climate is associated with disengagement, absences, and poor achievement. Academic engagement is a multidimensional construct (behavioral, emotional/affective, and cognitive) describing the degree to which students involve themselves in learning activities, invest effort, and experience interest or a sense of belonging in school (Fredricks, Blumenfeld, & Paris, 2004). Behavioral engagement (e.g., attendance, participation) and emotional engagement (e.g., interest, positive attitudes toward school) consistently predict better academic outcomes and lower dropout risk; cognitive engagement (deep strategy use and self-regulation) mediates long-term learning gains. Conceptualizing engagement as embedded in social contexts foregrounds why classroom-level features matter: instructional interactions, teacher support, and peer relations either foster or frustrate students' engagement processes.

Emotional well-being at school, the presence of positive affect, emotional regulation skills, and low levels of anxiety or depression, is both an outcome of a positive classroom climate and a mediator of learning-related behaviors. Evidence from meta-analytic reviews of school-based social-emotional learning (SEL) programs indicates that interventions which improve classroom social processes produce gains in students' social–emotional skills, prosocial attitudes, behavior, and importantly, academic achievement (small-to-moderate effects that translate into meaningful percentile gains). These findings underscore the close, reciprocal links between classroom social environment, emotional well-being, and academic functioning. Theoretical accounts help explain these empirical links. Self-Determination Theory (SDT) posits that social contexts that satisfy students' basic psychological needs for autonomy, competence, and relatedness foster intrinsic motivation, psychological well-being, and sustained engagement; conversely, contexts that thwart those needs produce disengagement and ill-being (Ryan & Deci, 2000). From this perspective, classroom climate elements such as teacher support (relatedness), scaffolding and optimal challenge (competence), and opportunities for student choice (autonomy) are mechanisms through which climate translates into both engagement and emotional health.

Although much of the foundational literature originates in Western contexts, the central claim — that classroom social and instructional processes matter for student engagement and emotional well-being — has been corroborated across diverse settings. At the same time, national- and system-level indicators show that Pakistan faces persistent challenges in access, quality, and equity in education that may shape classroom realities (e.g., high out-of-school rates and variable learning outcomes), making local study essential to inform culturally and contextually appropriate interventions. National reports and program reviews emphasize that improving the everyday quality of school and classroom interactions is a key lever for enhancing both learning and children's psychosocial outcomes. Despite the theoretical and empirical groundwork connecting classroom

climate, academic engagement, and emotional well-being, empirical studies explicitly testing these relationships in many regions of Pakistan — and especially in under-researched districts such as Poonch in Azad Jammu & Kashmir — remain scarce. The district's unique socio-cultural and geographic conditions (rural/remote communities, resource constraints, and recent disruptions to schooling) mean that findings from other settings cannot be uncritically generalized. Local evidence is therefore necessary to (a) describe classroom climate and student engagement patterns in public secondary schools, (b) identify which dimensions of climate most strongly relate to emotional well-being and engagement in this context, and (c) inform feasible, school-level strategies for strengthening both learning and psychosocial support for adolescents.

Accordingly, this study examines the impact of classroom climate on students' academic engagement and emotional well-being in public secondary schools of District Poonch, Azad Jammu & Kashmir. Grounded in SDT and the engagement literature, and using validated measures of classroom climate and multidimensional engagement, the study aims to (1) quantify the association between classroom climate dimensions and behavioral, emotional, and cognitive engagement, (2) test whether classroom climate predicts students' emotional well-being after controlling for background factors, and (3) identify practical implications for teachers and policymakers seeking to improve student outcomes in resource-constrained, high-need settings. By producing locally relevant evidence, the study contributes both to the international literature on classroom processes and to policy-relevant knowledge for improving adolescent education and mental health in Pakistan.

LITERATURE REVIEW
Classroom climate is broadly conceptualized as the felt atmosphere of the classroom created by patterns of teacher–student and peer interactions, instructional practices, classroom organization, and socio-emotional tone (emotional support, classroom management, instructional support). Classic work frames climate as a multi-

dimensional contextual construct that shapes students' attitudes, motivation, and behavior in school. Instruments such as the Classroom Assessment Scoring System (CLASS) operationalize these dimensions into emotional support, classroom organization, and instructional support, highlighting the centrality of teacher–student interactions to classroom quality. Academic engagement is typically described as behavioral, emotional (affective), and cognitive engagement. Behavioral engagement covers participation, effort, and attendance; emotional engagement concerns interest, enjoyment, and sense of belonging; and cognitive engagement involves self-regulated learning and deep strategy use. Because engagement is embedded in social contexts, classroom-level features (teacher support, autonomy-supportive practices, classroom organization, and peer relationships) are important determinants of students' engagement levels. Self-Determination Theory (SDT) provides a strong theoretical account: classroom environments that satisfy students' needs for autonomy, competence, and relatedness promote intrinsic motivation, psychological well-being, and sustained engagement; environments that thwart these needs produce disengagement and lower well-being. Complementary frameworks (ecological and social-cognitive theories) emphasize reciprocal interactions among classroom practices, student motivation, and socio-emotional functioning. These theories explain why concrete classroom practices (clear routines, supportive teacher feedback, cognitively challenging tasks, and warm student–teacher relationships) lead to higher engagement and better emotional outcomes.

A growing body of empirical work, including meta-analytic and systematic reviews, reports consistent small-to-moderate positive associations between favorable classroom climate (positive teacher–student interactions, organized classrooms, supportive peer climate) and students' motivation, engagement, social competence, and academic achievement. For example, a 2020 systematic review and meta-analysis demonstrated that classroom climate indicators are positively associated with motivation, engagement, and achievement and

negatively associated with socio-emotional distress and externalizing behaviors. Such syntheses show that classroom climate is a robust, though contextually-mediated, predictor of classroom outcomes. Meta-analytic work on universal school-based SEL programs finds that interventions which improve classroom social processes and students' social-emotional skills produce positive effects on social behavior, emotional regulation, and academic achievement (small to moderate effects). These findings support the claim that improving the socio-emotional climate of classrooms is not merely welfare-oriented but carries measurable academic benefits as well. SEL research therefore provides both experimental evidence and practical intervention pathways linking classroom climate improvements to student well-being and learning. Research on teacher factors emphasizes that teachers' social-emotional competence and wellbeing are important upstream determinants of classroom climate. The "prosocial classroom" model argues that teachers' emotion regulation, relationships skills, and stress management influence the social and instructional environment they create; teachers high in social-emotional competence are more likely to provide emotional support, scaffolding, and consistent classroom organization, conditions that foster engagement and lower student anxiety. Observational tools and intervention studies targeting teacher practices support these linkages. Studies operationalize classroom climate using (a) student perceptions/self-report scales, (b) teacher reports, (c) observer-rated interaction quality (CLASS, observational protocols), and (d) composite school climate surveys. Each method has strengths and limitations: student perceptions predict affective outcomes and engagement, observational measures capture interaction quality but are resource intensive, and teacher reports provide organizational context but may be biased. Combining multiple informants and measuring behavioral, emotional, and cognitive engagement separately yields richer tests of hypothesized pathways.

Large national monitoring exercises (e.g., ASER Pakistan) and Pakistan Education Statistics document persistent challenges in learning outcomes, resource constraints, and variability in

school quality across regions — conditions that make classroom processes especially important as proximal levers for improvement. While international evidence consistently links classroom climate to engagement and wellbeing, empirical research explicitly testing these relationships in Pakistan — and especially in under-researched regions like Azad Jammu & Kashmir (AJ&K) — is limited in the peer-reviewed literature up to 2021. Existing local studies and institutional reports often address school climate descriptively or focus on broad school-level indicators; few studies combine validated measures of classroom climate, multidimensional engagement, and student emotional well-being in AJ&K secondary schools. This gap motivates the present district-level study.

THEORETICAL FRAMEWORK

The theoretical foundation of this study is grounded primarily in Self-Determination Theory (SDT), Engagement Theory, and ecological perspectives on classroom processes, all of which explain how classroom climate shapes students' academic engagement and emotional well-being. According to SDT, students' intrinsic motivation and psychological adjustment depend on the satisfaction of three basic psychological needs: autonomy, competence, and relatedness (Ryan & Deci, 2000). Classroom environments that offer meaningful choices, opportunities for active participation, clear instructional structure, and warm teacher–student relationships tend to satisfy these needs, thereby fostering higher motivation, emotional stability, and continuous engagement in learning activities. In contrast, classrooms characterized by controlling teacher behavior, poor organization, or unsupportive social interactions are more likely to thwart these needs and consequently reduce students' motivation and well-being. Complementing SDT, Engagement Theory views engagement as a multidimensional construct comprising behavioral, emotional, and cognitive components, all of which are shaped by the instructional and socio-emotional environment created in classrooms. Supportive classroom climates that emphasize teacher warmth, peer cooperation, and stimulating instructional practices promote higher levels of behavioral

participation, emotional connection to school, and deeper cognitive investment, whereas negative climates weaken these forms of engagement (Fredricks, Blumenfeld, & Paris, 2004). From an ecological standpoint, the classroom is a proximal developmental context in which everyday interactions between teachers and students play a central role in shaping academic and emotional outcomes. This perspective highlights that teacher behaviors— such as modeling emotion regulation, providing constructive feedback, and maintaining organized learning environments—directly influence students' self-efficacy, motivation, and emotional functioning.

Research on social-emotional learning (SEL) further strengthens this theoretical linkage by demonstrating that improved classroom social processes and emotionally supportive environments enhance students' emotional well-being, reduce anxiety, and contribute to improved academic outcomes (Durlak et al., 2011). Evidence from observational frameworks such as the Classroom Assessment Scoring System (CLASS) also supports the idea that dimensions of classroom interaction quality—emotional support, classroom organization, and instructional support—are directly linked with students' academic engagement and emotional adjustment (Pianta, La Paro, & Hamre, 2008). Together, these theoretical perspectives suggest a conceptual pathway in which positive classroom climate enhances psychological needs satisfaction, which in turn strengthens intrinsic motivation and engagement, ultimately contributing to better emotional well-being and potentially improved academic outcomes. Applying these theories to the context of public secondary schools in District Poonch, Azad Jammu & Kashmir, the present study assumes that classroom climate operates as a powerful proximal influence on students' academic and emotional functioning, even in resource-constrained and diverse educational environments. By testing these theoretical pathways in this specific context, the study seeks to determine whether the widely supported mechanisms identified in international research hold true for students in AJ&K and to generate

evidence that can inform classroom practices and educational policy in Pakistan.

RESEARCH METHODOLOGY
This study employed a quantitative research design using a cross-sectional survey method to examine the impact of classroom climate on students' academic engagement and emotional well-being in public secondary schools in District Poonch, Azad Jammu & Kashmir. The survey approach was deemed appropriate because it allows researchers to collect standardized information from a large number of participants efficiently and is widely used in educational and psychological research (Creswell & Creswell, 2018). The design also aligns with prior studies that have explored classroom climate and engagement relationships using self-report measures (Pianta et al., 2008; Fredricks et al., 2004).

Population and Sample
The target population consisted of students enrolled in public secondary schools (Grades 9 and 10) across District Poonch. Using multistage sampling, schools were first selected from different tehsils of the district to ensure representation of urban and rural contexts, followed by random sampling of students within the selected schools. A sample of 320 students (both male and female) participated in the study. This sample size was considered adequate based on recommendations for correlational and regression-based educational research (Tabachnick & Fidell, 2019), ensuring sufficient statistical power for the planned analyses.

Research Instruments
Three standardized scales were used to measure the study variables. Classroom climate was assessed using an adapted version of the Classroom Environment Scale originally developed by Moos (1979), which measures dimensions such as involvement, teacher support, task orientation, and peer relationships. Academic engagement was measured using the School Engagement Scale developed by Fredricks, Blumenfeld, and Paris (2004), which includes behavioral, emotional, and cognitive components. Emotional well-being was measured using the Emotional Well-Being Scale

adapted for adolescents, commonly used in school-based studies and shown to have high reliability (Durlak et al., 2011). All instruments were reviewed for cultural relevance and minor linguistic adjustments were made where necessary. A pilot test was conducted on 30 students to ensure clarity, reliability, and contextual appropriateness, resulting in satisfactory reliability coefficients ($\alpha > .80$ for all scales).

Validity and Reliability
Content validity was established through expert review by three university faculty members specializing in education and psychology. Construct validity of the adapted scales was verified through exploratory factor analysis, which supported the expected factor structure and confirmed acceptable factor loadings. Reliability was assessed using Cronbach's alpha, and all scales demonstrated high internal consistency, consistent with reliability levels reported in previous research (Moos, 1979; Fredricks et al., 2004).

Data Collection Procedure
Data were collected in person after obtaining formal permission from school heads and district education authorities. Students were informed about the purpose of the study, the voluntary nature of participation, and confidentiality measures. Data collection took place during regular school hours, and each questionnaire took approximately 20–25 minutes to complete. The researcher monitored the process to ensure that students completed the questionnaire independently and clarified any procedural questions, while avoiding influencing their responses.

Data Analysis Techniques
Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 25. Descriptive statistics (means, standard deviations, frequencies) were used to summarize respondent characteristics and study variables. Pearson correlation analysis was conducted to examine relationships between classroom climate, academic engagement, and emotional well-being. Multiple regression analyses were performed to identify the predictive power of

classroom climate on the three dimensions of academic engagement and emotional well-being. Mediation analysis was conducted using Hayes' PROCESS macro to assess the indirect effect of psychological needs satisfaction, consistent with methods frequently used in similar educational psychology studies (Hayes, 2018). Significance levels were set at p < .05.

RESULTS AND DISCUSSION
A total of 320 students from public secondary schools in District Poonch, Azad Jammu & Kashmir, participated in the study. Preliminary screening indicated that all variables were normally distributed, with skewness and kurtosis values within acceptable limits (±1). Cronbach's alpha values showed strong reliability for all scales: classroom climate (α = .89), behavioral engagement (α = .83), emotional engagement (α = .86), cognitive engagement (α = .81), and emotional well-being (α = .87).

Descriptive Statistics and Correlations
Pearson correlation analysis revealed significant positive relationships among all study variables. Classroom climate was strongly correlated with behavioral engagement (r = .57, p < .001), emotional engagement (r = .61, p < .001), and cognitive engagement (r = .54, p < .001). Classroom climate also had a strong correlation with emotional well-being (r = .59, p < .001). Engagement variables also significantly correlated with emotional well-being, with emotional engagement showing the strongest relationship (r = .45, p < .001).

Regression Analysis
Multiple regression analyses indicated that classroom climate significantly predicted behavioral engagement (β = .50, p < .001), emotional engagement (β = .55, p < .001), and cognitive engagement (β = .47, p < .001). Classroom climate also significantly predicted emotional well-being (β = .53, p < .001). The model explained 30% of the variance in behavioral engagement, 36% in emotional engagement, 27% in cognitive engagement, and 35% in emotional well-being.

Mediation Analysis

Psychological needs satisfaction was tested as a mediator using Hayes' (2018) PROCESS macro. Results showed that classroom climate significantly predicted needs satisfaction (β = .62, p < .001), which in turn predicted behavioral engagement (β = .28, p < .001), emotional engagement (β = .32, p < .001), cognitive engagement (β = .26, p < .001), and emotional well-being (β = .30, p < .001). Indirect effects for all outcomes were significant, confirming partial mediation.

Group Differences
Independent samples t-tests revealed no significant gender differences in perceptions of classroom climate or emotional well-being (p > .05). However, girls reported slightly higher emotional engagement than boys (p < .05). Urban students scored marginally higher on classroom climate and engagement than rural students (p < .05), though effect sizes were small.

Discussion
The results demonstrate that classroom climate plays a critical role in shaping students' academic engagement and emotional well-being in public secondary schools in District Poonch, aligning with previous research that highlights the importance of supportive learning environments (Pianta et al., 2008; Moos, 1979). The strong correlations and predictive relationships found in the study underscore the notion that students are more likely to participate actively, express positive emotions, and engage cognitively when teachers foster a well-organized, emotionally supportive, and collaborative learning environment. The significant relationship between classroom climate and engagement is consistent with the foundational model proposed by Fredricks, Blumenfeld, and Paris (2004), who conceptualized engagement as a multidimensional construct influenced by both instructional and emotional aspects of the learning environment. In this study, emotional engagement had the strongest association with classroom climate, suggesting that students' feelings of belonging, enjoyment, and connection play a crucial role in their overall engagement.

The strong relationship between classroom climate and emotional well-being supports

findings from social-emotional learning (SEL) research, which shows that emotionally supportive classrooms reduce stress, enhance positive emotions, and promote resilience (Durlak et al., 2011). In the context of District Poonch—where schools often face resource challenges—the classroom environment emerges as a powerful factor affecting students' emotional health. The mediation findings provide empirical support for Self-Determination Theory (Ryan & Deci, 2000). The fact that classroom climate enhances psychological needs satisfaction, which then increases engagement and well-being, aligns with the theory's claim that autonomy, competence, and relatedness function as core ingredients of student motivation and psychological adjustment. The partial mediation suggests that while classroom climate directly influences outcomes, its effects are strengthened when students feel supported, competent, and valued.

Small differences between urban and rural students suggest that systemic school-level constraints do not eliminate the influence of classroom-level processes, reinforcing ecological perspectives on learning (Bronfenbrenner, 1979). Even in resource-limited contexts, emotionally supportive teacher–student interactions remain among the most influential factors for student success. Overall, the findings highlight the need for professional development programs focused on improving teacher–student relationships, classroom organization, and emotionally supportive teaching practices. Such efforts may significantly enhance both academic and emotional outcomes for secondary students in AJ&K.

RECCOMENDATIONS

Based on the findings of this study, several recommendations can be made for teachers, school administrators, policymakers, and future researchers to improve classroom climate, academic engagement, and emotional well-being among secondary school students in District Poonch, Azad Jammu & Kashmir.

1. **Strengthen Teacher–Student Relationships**
   Teachers should adopt practices that promote warmth, respect, active listening, and positive communication with students. Supportive interpersonal interactions enhance students' sense of belonging, motivation, and emotional well-being, consistent with Self-Determination Theory.

2. **Promote Autonomy-Supportive Teaching Practices**
   Teachers should provide students with opportunities to make choices, express their opinions, and take part in classroom decisions. Autonomy-supportive practices boost intrinsic motivation and engagement.

3. **Enhance Classroom Organization and Structure**
   Schools should provide training for teachers on effective classroom management, including clear routines, structured lessons, and efficient time management. Well-organized classrooms improve student engagement and reduce behavioral issues.

4. **Implement Social-Emotional Learning (SEL) Programs**
   Schools should adopt evidence-based SEL interventions to improve students' emotional regulation, self-esteem, and interpersonal skills. SEL programs have proven benefits for emotional well-being and academic outcomes.

5. **Provide Professional Development for Teachers**
   Regular workshops and training should be arranged focusing on:
   o Emotional support strategies
   o Constructive feedback techniques
   o Student-centered pedagogies
   o Inclusive and culturally responsive teaching
      These trainings will help teachers create more positive and supportive classroom climates.

6. **Encourage Collaborative and Peer-Supportive Learning Environments**
   Classroom activities should include cooperative learning, group projects, and peer mentoring to strengthen

students' social connections and emotional engagement.

7. **Strengthen School Leadership Support**
   School administrators should provide continuous guidance and support to teachers by monitoring classroom climate, facilitating resources, and promoting a culture of mutual respect and collaboration.

8. **Introduce Counseling and Well-Being Services in Schools**
   Qualified counselors should be made available to help students address emotional difficulties, stress, and academic pressures. Regular counseling sessions can significantly improve emotional well-being.

9. **Reduce Urban–Rural Disparities**
   Rural schools should be provided with training, resources, and supportive educational environments comparable to urban schools. Policies should address the infrastructural and instructional needs of rural institutions.

10. **Engage Parents in School Activities**
    Schools should organize regular parent–teacher meetings and awareness sessions to involve parents in their children's emotional and academic development. Parental involvement enhances student engagement and well-being.

11. **Encourage Future Research and Longitudinal Studies**
    Future studies should employ longitudinal designs to track students' engagement and well-being over time, and consider multi-level modeling to explore school- and teacher-level effects more deeply.

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