Examining the Relationship between Peer Support, School Climate, and Learner Self-Efficacy: A Survey-Based Approach

DR. C. KATHIRESAN
Assistant Professor,
Department of Education,
Periyar University, Salem, Tamil Nadu, India

Abstract:
Learner self-efficacy plays a central role in shaping students' motivation, persistence, and academic performance. This study examines the influence of peer support and school climate on learner self-efficacy among secondary-level students in Salem District, Tamil Nadu. A quantitative survey design was adopted, and data were collected from a stratified random sample of 450 students using standardized scales. Descriptive statistics revealed moderate to high levels of peer support, school climate, and self-efficacy. Independent samples t-tests showed no significant gender differences in peer support or school climate, although female students demonstrated significantly higher self-efficacy. Correlation analysis indicated significant positive relationships between peer support, school climate, and self-efficacy. Multiple regression analysis further revealed that peer support and school climate jointly accounted for 52.8% of the variance in self-efficacy, with school climate emerging as the stronger predictor. The findings highlight the importance of fostering supportive peer relationships and positive school environments to enhance students' academic confidence. Educational interventions should therefore focus on strengthening school climate and peer interaction to promote holistic learner development.

Keywords: *Peer Support, School Climate, Learner Self-Efficacy, Secondary-Level Students, Academic Confidence, Educational Environment, Regression Analysis, Student Motivation*

1. Introduction

Learner self-efficacy, defined as a student's belief in their capacity to organize and execute actions required to achieve academic goals, constitutes a foundational construct in educational psychology due to its strong influence on motivation, resilience, and academic achievement. Research in recent educational contexts continues to demonstrate that students who possess higher levels of self-efficacy engage more actively in learning tasks, persist through academic challenges, and exhibit better overall performance relative to their peers with lower self-efficacy (Bennett, Moreau & Matthews, 2025).

Parallel to individual cognitive factors, the social environment within schools, particularly peer support and school climate, plays a crucial role in shaping learners' self-perceptions and academic behaviors. Peer support refers to the emotional, informational, and academic assistance students receive from classmates and friends. Contemporary research highlights that perceived peer support is positively associated with motivational regulation and engagement, suggesting that supportive peer interactions can enhance students' belief in their capability to perform academically (Villar et al., 2024).

In addition to peer dynamics, the broader school climate, encompassing perceptions of safety, teacher-student relationships, fairness, and institutional support has been shown to significantly contribute to students' academic self-efficacy. Recent studies investigating school psychosocial environments report that positive school climates correlate with improved socio-emotional competence and self-efficacy, reinforcing the argument that institutional contexts support or hinder learners' confidence and

performance (Fang et al., 2025).

Despite the increasing volume of research on individual constructs, fewer empirical studies examine the combined effects of peer support and school climate on learner self-efficacy within a unified analytical model. Furthermore, contemporary investigations utilising large student samples and validated survey instruments are needed to delineate how these social and institutional factors interact to influence self-efficacy outcomes in diverse educational settings. This study, therefore, seeks to bridge this gap by exploring the relationships among peer support, school climate, and learner self-efficacy using a survey-based quantitative design.

2. Review of Related Literature
2.1 Peer Support and Learner Self-Efficacy
Peer support plays a central role in shaping learners' motivation, emotional wellbeing, and confidence in academic tasks. Recent studies consistently show that students who perceive higher levels of peer support exhibit stronger academic self-efficacy. Bennett et al. (2025) reported that peer encouragement and collaborative learning significantly enhanced students' belief in their ability to complete complex academic activities. Villar et al. (2024) further observed that supportive peer relationships contribute to improved motivational regulation, enabling students to sustain effort even when academic tasks become challenging. Research in Asian secondary schools also highlights the relevance of peer dynamics; Liu and Zhang (2024) found that peer academic support positively influenced students' self-efficacy and strengthened their academic identity. These findings collectively affirm that peer interactions provide both emotional reinforcement and academic scaffolding, which are essential for developing self-efficacy.

2.2 School Climate and Learner Self-Efficacy
School climate is increasingly recognised as a powerful contextual factor influencing students' cognitive and behavioral outcomes. Fang et al. (2025) demonstrated that students who perceived their school environment as safe, supportive, and inclusive reported significantly higher academic self-efficacy. Similarly, Rahman and Kaur (2024) found that teacher–student connectedness, institutional fairness, and participatory learning environments are strong predictors of students' confidence in mastering academic tasks. Positive school climate contributes to psychological safety, allowing learners to take intellectual risks without fear of judgment. Garcia et al. (2024) showed that supportive school climates promote deeper task engagement and greater persistence, both of which are closely linked to self-efficacy. These studies indicate that school climate not only supports academic achievement but also lays the foundation for learners' confidence and resilience.

2.3 Combined Influence of Peer Support and School Climate
Recent literature emphasises that peer support and school climate should not be viewed in isolation. Instead, they interact to shape students' academic beliefs and behaviors. Moretti and Sanders (2024) found that school climate moderates the relationship between peer support and self-efficacy, with peer support exerting stronger positive effects in schools perceived as inclusive and well-structured. Kim and Ortega (2023) highlighted that positive school climates foster cooperative norms, which enhance the quality of peer interactions and consequently strengthen learners' sense of competence. Torres and Mahmood (2024) also reported that institutional structures such as collaborative learning policies and counselling programs enhance the developmental impact of peer relationships. Collectively, recent research underscores the synergistic relationship between peer support and school climate in promoting high levels of learner self-efficacy.

3. Objectives of the Study
- To measure the levels of peer support, school climate, and learner self-efficacy among secondary-level students.

- To find if there is no significant difference in peer support, school climate, or self-efficacy between male and female students.
- To examine the relationship between peer support and learner self-efficacy.
- To examine the relationship between school climate and learner self-efficacy.
- To determine the combined predictive influence of peer support and school climate on learner self-efficacy.

4. Hypotheses of the Study

H_{01}: There is no significant difference in peer support, school climate, or self-efficacy between male and female students.

H_{02}: There is no significant relationship between peer support and learner self-efficacy.

H_{03}: There is no significant relationship between school climate and learner self-efficacy.

H_{04}: Peer support and school climate do not significantly predict learner self-efficacy.

5. Methodology

5.1 Research Design

This study employed a quantitative survey-based design to examine the relationships among peer support, school climate, and learner self-efficacy. Quantitative designs are widely used to measure psychosocial constructs and to analyse predictive relationships between variables using statistical models (Anderson & Malik, 2024). Survey research was selected because it allows efficient data collection from large samples and provides valid insights into learners' perceptions in natural educational settings (Turner & Ellis, 2023). The design also aligns with recent educational studies that examine environmental and motivational factors affecting student outcomes.

5.2 Population and Sample

The target population consisted of secondary-level students (Grades 9–12) enrolled in government and private schools. A sample of 450 students was selected using stratified random sampling from Salem district, Tamil Nadu, which ensured proportional representation of gender, school type, and academic streams. Stratified sampling is recommended for heterogeneous school populations because it reduces sampling bias and enhances representativeness (Hassan & Yuen, 2024). Parental consent and institutional permissions were obtained prior to data collection, and participation was voluntary.

5.3 Instruments Used

Three validated scales were used to measure the variables:

1. **Peer Support Scale**: assessed emotional, academic, and social support from peers. Recent studies have confirmed its reliability and construct validity for adolescent populations (Villar et al., 2024).
2. **School Climate Inventory**: measured perceptions of safety, teacher–student relationships, fairness, and institutional support. This scale is widely used in current educational climate research and shows high internal consistency (Fang et al., 2025).
3. **Learner Self-Efficacy Scale**: evaluated students' confidence in completing academic tasks, managing challenges, and sustaining effort. The scale has been utilised in several recent studies on motivational outcomes and demonstrates strong psychometric properties (Bennett et al., 2025).

A pilot test was conducted with 50 students to ensure clarity and reliability. Cronbach's alpha coefficients for all instruments exceeded 0.80, indicating acceptable reliability.

5.4 Data Collection Procedure

Data were collected over a two-week period during regular school hours. Following the protocol for educational survey research, researchers explained the purpose of the study, assured confidentiality, and provided instructions for responding to the questionnaires (Turner & Ellis, 2023). Students completed the instruments in a supervised classroom setting to minimise distractions and enhance response accuracy. Completed forms were checked for missing data before analysis.

5.5 Data Analysis Techniques

The collected data were coded and analysed using SPSS version 26. Descriptive statistics (mean, standard deviation) were used to determine the levels of peer support, school climate, and self-efficacy. Pearson correlation coefficients were calculated to examine relationships among the variables. Multiple regression analysis was performed to identify the predictive influence of peer support and school climate on learner self-efficacy, consistent with recent statistical approaches in educational psychology (Harper & Lindberg, 2025). Additionally, independent samples t-tests were conducted to examine differences across gender and school type.

5.6 Ethical Considerations

Ethical standards were upheld throughout the study. Participation was voluntary, anonymity was maintained, and data were used exclusively for research purposes. These ethical protocols align with the guidelines recommended for school-based research involving minors (Rahman & Kaur, 2024).

6. Results

Table-1: Level of Peer Support, School Climate, and Learner Self-Efficacy (N = 450)

Variable	Low (%)	Moderate (%)	High (%)
Peer Support	12%	63%	25%
School Climate	10%	58%	32%
Learner Self-Efficacy	14%	61%	25%

Interpretation

The findings reveal that a majority of secondary-level students fall within the moderate range for peer support (63%), school climate (58%), and learner self-efficacy (61%). This indicates that students generally experience average levels of social support, perceive a reasonably positive school environment, and possess moderate confidence in handling academic tasks.

Table-2: Gender Differences in Peer Support, School Climate, and Learner Self-Efficacy

Variable	Gender	Mean (M)	SD	t-value	p-value
Peer Support	Male (n = 220)	3.70	0.62	1.12	0.26
	Female (n = 230)	3.75	0.60		
School Climate	Male	3.85	0.59	1.48	0.14
	Female	3.92	0.57		
Learner Self-Efficacy	Male	3.60	0.55	3.12	0.002
	Female	3.92	0.50		

Interpretation

The results of the t-test reveal no significant gender difference in peer support and school climate among secondary-level students. Although female students reported slightly higher mean scores in both peer support (M = 3.75) and school climate (M = 3.92) compared to male students (M = 3.70 and M = 3.85 respectively), these differences were statistically insignificant. This indicates that male and female students perceive similar levels of social support from peers and share comparable experiences regarding school safety, fairness, and teacher–student relationships. However, a significant gender difference is observed in learner self-efficacy. Female students obtained a higher mean score (M = 3.92) compared to male students (M = 3.60), and the difference was statistically significant (t = 3.12). This suggests that female learners exhibit stronger academic confidence, better task management, and a more positive belief in their ability to succeed academically.

Table-3: Relationship between Peer Support and Learner Self-Efficacy

Variables	N	Correlation Value (r)	p-value
Peer Support & Learner Self-Efficacy	450	**0.46**	**0.000**

Interpretation

The correlation analysis reveals a moderate positive relationship between peer support and learner self-efficacy (r = 0.46, p = 0.000). Since the p-value is less than 0.05, the result is statistically significant, indicating that higher levels of peer support are associated with higher levels of academic self-efficacy among secondary-level students. Hence, there is no significant relationship between peer support and learner self-efficacy is rejected.

Table-4: Relationship between School Climate and Learner Self-Efficacy

Variables	N	Correlation Value (r)	p-value	Interpretation
School Climate & Learner Self-Efficacy	450	**0.59**	**0.000**	**Significant**

Interpretation

The correlation analysis shows a strong positive relationship between school climate and learner self-efficacy (r = 0.59, p = 0.000). Since the p-value is less than 0.05, the result is statistically significant, indicating that students who perceive their school environment as safe, fair, supportive, and well-structured tend to have higher academic self-belief and confidence in managing learning tasks. Hence, there is no significant relationship between school climate and learner self-efficacy is rejected.

Table-5: Predictive Influence of Peer Support and School Climate on Learner Self-Efficacy

Predictor Variables	B	SE B	β	t-value	p-value	Interpretation
Peer Support	0.28	0.05	0.31	5.60	0.000	Significant
School Climate	0.41	0.06	0.44	6.83	0.000	Significant

[Model Summary, R = 0.73, R^2 = 0.53, Adjusted R^2 = 0.52, $F_{(2, 447)}$ = 126.84, and p = 0.000]

Interpretation

The regressions results show that peer support and school climate together have a strong and significant influence on learner self-efficacy. The model explains 52.8% of the variance, indicating high predictive power. The ANOVA result (p = 0.000) confirms that the overall model is statistically meaningful. Among the predictors, school climate is the strongest contributor to self-efficacy (β = 0.437), suggesting that a supportive and positive school environment greatly enhances students' academic confidence. Peer support also significantly predicts self-efficacy (β = 0.310), showing that positive peer interactions contribute to stronger belief in one's academic abilities. Overall, the findings indicate that improving both school climate and peer support can substantially strengthen students' self-efficacy, with school climate having a greater impact.

7. Discussion

The findings of this study closely align with earlier research demonstrating the importance of social and environmental factors in shaping learner self-efficacy. The significant positive relationship between peer support and self-efficacy supports the conclusions of Villar et al. (2024) and Liu and Zhang (2024), who found that supportive peer interactions enhance students' motivation and confidence. Likewise, the strong influence of school climate is consistent with studies by Fang et al. (2025) and Garcia et al. (2024), which reported that safe, fair, and supportive school environments significantly improve learners' belief in their academic abilities. The absence of gender differences in peer support and school climate also parallels recent research trends showing equal access to supportive environments across genders, while the higher self-efficacy scores among female students echo findings from contemporary motivation studies.

8. Educational Implications

The study shows that improving peer support and school climate can significantly enhance learners' academic confidence. Schools should prioritise cooperative learning, positive teacher–student relationships, and safe, inclusive environments. Strengthening school climate and peer interaction can

help students develop stronger motivation, resilience, and self-belief. Teacher training and counselling services should integrate strategies that foster supportive social and institutional conditions.

9. Recommendations
1. Promote peer tutoring, group work, and mentorship programmes.
2. Strengthen school climate through fair rules, supportive teacher practices, and participatory activities.
3. Provide teacher training on classroom climate management and relational pedagogy.
4. Offer counselling and targeted support for students with low self-efficacy.
5. Conduct regular school climate assessments for continuous improvement.

10. Conclusion
The study demonstrates that peer support and school climate significantly influence learner self-efficacy, with school climate emerging as the strongest predictor. Students who experience positive peer relationships and supportive school environments develop greater academic confidence, motivation, and resilience. These results highlight that self-efficacy is shaped not only by individual effort but also by the social and institutional conditions surrounding learners. Enhancing school climate and fostering constructive peer interactions can therefore make a meaningful contribution to improving students' academic outcomes and overall well-being.

References
1. Anderson, P., & Malik, R. (2024). Advances in quantitative research methods in education: Trends and applications. Journal of Educational Measurement, 61(2), 145–162.
2. Bennett, S., Moreau, K., & Matthews, J. (2025). Peer collaboration and student motivation: Contemporary insights from adolescent learning environments. Psychology of Education Review, 39(1), 22–35.
3. Fang, L., Ho, S., & Chan, T. (2025). School climate and socio-emotional competence: Predictors of academic confidence among secondary students. International Journal of School Psychology, 18(1), 44–59.
4. Garcia, M., Thompson, E., & Rivera, J. (2024). Classroom climate and student engagement: The mediating role of self-efficacy. Educational Studies Quarterly, 52(3), 210–225.
5. Harper, L., & Lindberg, M. (2025). Environmental predictors of learner motivation: A multilevel analysis of school climate factors. Journal of Adolescent Learning, 33(1), 58–72.
6. Hassan, F., & Yuen, C. (2024). Sampling approaches in educational research: Techniques for diverse school populations. Research Methods in Education Journal, 29(2), 95–110.
7. Kim, S., & Ortega, D. (2023). Cooperative norms in school environments and their influence on peer academic support. Asia-Pacific Journal of Educational Research, 41(4), 331–348.
8. Liu, X., & Zhang, Y. (2024). Peer academic support and self-efficacy among secondary students in collectivistic cultures. Asian Journal of Learning and Instruction, 12(1), 66–79.
9. Moretti, A., & Sanders, L. (2024). School climate as a moderator between peer support and student self-efficacy: A structural equation approach. Journal of Educational Psychology and Development, 19(2), 112–128.
10. Rahman, N., & Kaur, J. (2024). Teacher–student connectedness and school climate as predictors of academic belief systems. Journal of Teaching and Learning Studies, 17(3), 201–215.
11. Torres, D., & Mahmood, R. (2024). Institutional structures and peer relationship quality: Implications for student motivation. Review of School Effectiveness and Improvement, 29(2), 150–168.
12. Turner, A., & Ellis, B. (2023). Best practices in school-based survey research: Enhancing reliability and validity. Educational Research Standards Journal, 14(2), 87–102.
13. Villar, R., Moreau, S., & Gibson, T. (2024). Motivational regulation and peer support in adolescent learning contexts. British Journal of Educational Psychology, 94(1), 55–72.