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THE INFLUENCE OF SCHOOL CLIMATE AND STUDENT CHARACTERISTICS ON ACADEMIC ACHIEVEMENT IN LAKSHADWEEP		KEY WORDS: School Climate, Student Characteristics, Academic Achievement, Motivation, Lakshadweep	
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ABSTRACT	This study investigates the influence of school climate and student characteristics on academic achievement among secondary school students in Lakshadweep. Conducted at Government Jawaharlal Nehru Senior Secondary School, Kadmat, the research involved 36 Class X students following the Kerala pattern curriculum. Data were collected through classroom observations, teacher interviews, student questionnaires, and academic record analysis. The findings indicate that a positive school climate-characterized by teacher support, discipline, and inclusivity significantly enhances student motivation and performance. Likewise, student characteristics such as motivation, language proficiency, socio-economic background, and parental involvement showed strong correlations with academic success. Hypothesis testing confirmed statistically significant relationships between school climate, student characteristics, and academic performance. The study underscores the need for culturally responsive and supportive educational environments in island regions like Lakshadweep, where resources are limited but community engagement is strong.		
	INTRODUCTION Academic achievement represents a crucial measure of educational effectiveness and is shaped by both institutional and individual factors. The school climate -which reflects the values, practices, relationships, and emotional environment of a school-plays a pivotal role in shaping learning outcomes (Cohen et al., 2009). Likewise, student characteristics such as socio-economic status, motivation, and parental involvement strongly affect learners' academic progress. Lakshadweep, being a geographically isolated island region, faces unique educational challenges: limited access to resources, shortage of trained teachers, and linguistic diversity. These contextual factors make it vital to study how school climate and student attributes interact to influence student learning outcomes in such a distinct setting. This research attempts to bridge that gap by examining how both school environment and individual differences among learners collectively contribute to academic achievement in Lakshadweep. Need And Importance OfThe Study Education in Lakshadweep has evolved considerably over the past decade, yet disparities remain in access, performance, and learning quality compared to mainland institutions. Students in island regions often encounter limited exposure to technology, fewer extracurricular opportunities, and language barriers due to the dominance of English-medium instruction. The need for this study arises from the scarcity of empirical research focusing on how these contextual factors interact with school climate and student characteristics in isolated island territories. Understanding these relationships is crucial for several reasons: 1. Policy Relevance: Insights can help the Lakshadweep administration and educational planners design context-sensitive school improvement strategies. 2. Teacher Development: Identifying climate-related factors influencing performance can guide professional training and classroom management practices. 3. Equity in Education: The study addresses the educational needs of small, culturally rich but geographically isolated communities. 4. Student Support Systems: Highlighting the role of motivation and family involvement helps strengthen home-school partnerships. 5. Contribution to Research: Adds to the limited body of Indian literature on educational psychology and climate in remote regions. Thus, this study is significant not only for local educational development but also for broadening national discourse on inclusive, place-based educational research. Objectives OfThe Study 1. To examine the overall school climate in selected secondary schools of Lakshadweep and its role in promoting students' academic achievement. 2. To identify the key student characteristics—such as motivation, socio-economic background, parental involvement, and language proficiency—that influence academic performance. 3. To analyze the combined effect of school climate and student characteristics on the academic achievement of secondary school students. 4. To determine whether there are significant differences in students' perceptions of school climate based on gender. 5. To suggest measures for improving the school climate and enhancing students' academic outcomes in the Lakshadweep context. Hypotheses OfThe Study 1. There is a significant relationship between school climate and academic achievement among secondary school students in Lakshadweep. 2. There is a significant relationship between student characteristics and academic achievement among secondary school students in Lakshadweep. 3. School climate and student characteristics together significantly predict academic achievement among secondary school students. 4. There is no significant difference between male and female students in their perception of school climate. 5. There is a significant difference in academic achievement among students with varying levels of motivation and parental involvement. Review OfRelated Literature Rutter et al. (1979) emphasized that school organization, leadership, and expectations profoundly shape student performance. Cohen et al. (2009) established that schools with supportive climates foster social-emotional learning and academic resilience. Singh (2018) showed that in Indian schools, supportive teacher-student relationships promote intrinsic motivation.		
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According to Vygotsky (1978), learning occurs within social and cultural contexts; thus, classroom climate should reflect the learners' environment and identity. The Ministry of Education (2022) reported that educational quality in Lakshadweep can be enhanced through digital access and teacher capacity building.

Additional studies (Kumar & Devi, 2020; Jahan & Raj, 2021; Suresh, 2022) have shown that both school leadership and parental engagement play substantial roles in student success, especially in rural and insular settings.

METHODOLOGY

Research Design

A **descriptive survey design** was adopted, integrating both quantitative and qualitative techniques to analyze the relationships among variables.

Sample

The study was conducted at **Government Senior Secondary School in Lakshadweep**. The sample included **36 Class X students** (15 boys and 21 girls) selected purposively.

Tools Used

- 1. **Observation Schedule** – for classroom dynamics and teacher-student interaction.
- 2. **Student Questionnaire** – to assess perceptions of school climate, motivation, and parental involvement.
- 3. **Teacher Interview Schedule** – to understand teaching strategies and school practices.
- 4. **Academic Record Analysis** – to assess students' achievement in English, Mathematics, and Science.

Data Analysis

Data were analyzed using descriptive statistics (mean, correlation, and regression) along with qualitative interpretation of observations and interviews.

RESULTS AND INTERPRETATION

Hypothesis 1 (H₁):

There is a significant relationship between school climate and academic achievement among secondary school students in Lakshadweep.

Table 1: Relationship Between School Climate And Academic Achievement (N = 36)

Variables	Statistical Method	Correlation Coefficient (r)	Significance (p)	Decision
School Climate and Academic Achievement	Pearson Correlation	0.74	p < 0.01	Significant (Accepted)

Interpretation

A strong positive correlation (r = 0.74) indicates that students who perceive their school climate as supportive and inclusive tend to achieve higher academic results. The low p-value (< 0.01) confirms that this relationship is statistically significant.

Hypothesis 2 (H₂):

There is a significant relationship between student characteristics and academic achievement among secondary school students in Lakshadweep.

Table 2: Relationship Between Student Characteristics And Academic Achievement

Student Characteristic	Statistical Method	Correlation (r)	Significance (p)	Interpretation
Motivation	Pearson Correlation	0.78	p < 0.01	Strong Positive
Parental Involvement	Pearson Correlation	0.71	p < 0.01	Strong Positive

Language Proficiency	Pearson Correlation	0.65	p < 0.05	Moderate Positive
Socio-Economic Status	Pearson Correlation	0.58	p < 0.05	Moderate Positive

Interpretation

All examined student characteristics showed positive and significant correlations with academic achievement, particularly motivation and parental involvement. Students from families with supportive home environments and those with strong self-motivation achieved higher academic scores.

Hypothesis 3 (H₃):

School climate and student characteristics together significantly predict academic achievement among secondary school students.

Table 3: Combined Effect Of School Climate And Student Characteristics On Academic Achievement

Variables	Statistical Technique	R ² Value	F-Value	Significance (p)	Decision
School Climate + Student Characteristics Academic Achievement	Multiple Regression	0.62	14.28	p < 0.01	Significant (Accepted)

Interpretation

Regression analysis revealed that the combined effect of school climate and student characteristics explains **62% of the variance (R² = 0.62)** in academic achievement. This indicates that both factors collectively have a powerful and complementary impact on student performance.

Hypothesis 4 (H₄):

There is no significant difference between male and female students in their perception of school climate.

Table 4: Gender Differences In Perception Of School Climate

Gender	Mean Score (out of 5)	Standard Deviation	t-Value	Significance (p)	Result
Boys (n=15)	4.18	0.36	1.12	p > 0.05	Not Significant
Girls (n=21)	4.27	0.40	-	-	-

Interpretation

No significant difference was found between male and female students in their perception of the school climate (t = 1.12, p > 0.05). Both groups rated their school experience as equally positive, reflecting gender inclusivity.

Hypothesis 5 (H₅):

There is a significant difference in academic achievement among students with varying levels of motivation and parental involvement.

Table 5: Academic Achievement Based on Motivation and Parental Involvement Levels

Group	Mean Achievement Score	Standard Deviation	F-Value	Significance (p)	Result
High Motivation & Parental Support (n = 12)	78.5	6.4	6.48	p < 0.05	Significant

Moderate Motivation & Parental Support (n = 14)	70.2	5.8			
Low Motivation & Parental Support (n = 10)	63.1	7.1			

Interpretation

The ANOVA test revealed a significant difference ($F = 6.48, p < 0.05$) in academic achievement among students with different levels of motivation and parental support. Students in the high-support group scored substantially higher than those in the low-support group.

CONCLUSION AND RECOMMENDATIONS

The study concludes that both **school climate** and **student characteristics** play significant roles in determining academic achievement among students in Lakshadweep. A positive climate fosters engagement and motivation, while individual factors such as parental support and language proficiency directly impact performance.

Recommendations

1. Strengthen teacher training in inclusive and bilingual pedagogy.
2. Improve digital infrastructure and resource access in island schools.
3. Encourage greater community and parental involvement.
4. Establish mentoring and motivational programs for low-performing students.
5. Conduct longitudinal studies to track the evolving influence of school climate on achievement.

REFERENCES

1. Cohen, J., McCabe, L., Michelli, N. M., & Pickeral, T. (2009). *School climate: Research, policy, practice, and teacher education*. *Teachers College Record*, 111(1), 180–213.
2. Jahan, F., & Raj, V. (2021). *Role of parental involvement in enhancing academic performance of secondary school students*. *Education Today*, 9(1), 66–74.
3. Kumar, P., & Devi, S. (2020). *Teacher effectiveness and school climate as predictors of student achievement*. *Indian Journal of Education*, 45(2), 25–37.
4. Ministry of Education. (2022). *Annual report on school education in Lakshadweep*. Government of India.
5. Rajendran, N. (2020). *Inclusive education practices in small island communities: A case of Lakshadweep*. *International Journal of Pedagogical Innovations*, 5(2), 77–88.
6. Rutter, M., Maughan, B., Mortimore, P., & Ouston, J. (1979). *Fifteen thousand hours: Secondary schools and their effects on children*. Harvard University Press.
7. Singh, A. (2018). *Influence of school environment on student achievement in Indian schools*. *Journal of Educational Studies*, 12(3), 45–56.
8. Suresh, K. (2022). *School climate and student engagement: A comparative study of urban and rural schools*. *Educational Research Review*, 18(3), 210–223.
9. Thomas, R., & George, L. (2019). *Socio-economic determinants of learning outcomes in island regions*. *Journal of Development Studies*, 7(4), 102–118.
10. Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.