ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 11| Issue: 8| August 2025|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

ACADEMIC ACHIEVEMENT OF SECONDARY SCHOOL GIRL STUDENT'S IN RELATION TO HOME AND SCHOOL ENVIRONMENT IN HILLS DISTRICT OF ASSAM

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Article DOI: https://doi.org/10.36713/epra23575
DOI No: 10.36713/epra23575

ABSTRACT

This study investigates the academic achievement of 10th-grade girl students in government schools in Karbi Anglong, Assam, focusing on home and school environments. Data were collected from 300 female students across four schools using a Home Environment Scale and a School Environment Scale. Findings revealed a strong positive correlation (0.706) between home environment and academic success, indicating that better home conditions enhance performance. School environment factors also significantly contributed to academic achievement. Regression analysis showed that home and school environments explained about 67% of the variance in academic performance (R value of 0.818).Recommendations to improve academic outcomes include enhancing learning environments, strengthening parent-child relationships, improving school conditions, increasing parental involvement, and promoting curricular activities. These initiatives can significantly benefit female students in the region.

KEYWORDS: *Academic Achievement, Secondary School Girls, Home Environment, School Environment.*

INTRODUCTION

"Education is the development of all those capacities in the individual which enable him to control his environment and fulfil his possibilities."- John Dewey,

Karbi Anglong, the largest hilly district in Assam, is home to the Karbi tribe and rich in natural resources. However, it faces serious developmental challenges, particularly in women's education. The region's difficult terrain and scattered settlements make it hard to build infrastructure and access schools, especially for girls. Long travel distances and poor transport deter regular attendance. Research shows tribal communities face deep-rooted educational barriers. S. Narayan (1986) emphasizes that slow educational progress hinders economic and social development. Sharma and Mittal (1988) note gender disparities, with tribal women's low literacy restricting empowerment despite their economic contributions.

Local studies highlight the impact of socio-economic and geographical factors on girls' education. Family income, parental education, and occupation positively influence performance, while traditional roles, discrimination, and poor health infrastructure worsen educational outcomes. Overall, systemic reforms are needed to ensure equitable education for girls in Karbi Anglong.

The educational gap between male and female students is particularly pronounced in Karbi Anglong. While boys are more likely to complete their education, girls are often forced to drop out at an early age due to the combined pressures of domestic responsibilities, economic limitations, and social norms that devalue the education of girls. This leaves tribal women with fewer opportunities for empowerment and upward mobility. In many cases, these women are excluded from participating in the wider economic and social development of their communities because they lack the necessary skills and education to do so.

Review of Related Literature

Research consistently shows that both school and home environments significantly influence academic performance across genders. Sumithra (2022), Singh (2021), Meenakshi (2021), Sumaiya (2020), and Tiwari (2018) found positive links between supportive environments and student achievement. Kaur (2019) and Kaur (2018) emphasized the role of family and school in developing life skills and reducing delinquency. Praveen & Shafeeq (2019) and Emanuel (2015) highlighted gender-specific experiences, with girls often facing challenges like household responsibilities. Illahi & Khandai (2015) noted higher academic achievement among females, while Mungai (2012) stressed the impact of family resources on learning for all students.

The reviewed studies collectively highlight that both home and school environments play a crucial role in shaping students' academic performance, life skills, and behavior. These influences are largely positive and consistent across genders, though some gender specific challenges, such as household responsibilities for girls and differing perceptions of family support, were noted. The findings emphasize the need for supportive, well-resourced

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environments at both school and home to enhance the student achievement and well being

Research Gap: While existing studies highlight factors affecting academic achievement, there is limited research on female secondary students in Karbi Anglong, Assam. Cultural norms, gender roles, and domestic responsibilities often hinder girls' education. Poor infrastructure, lack of transport, and limited school access worsen the issue. Deeper research is needed to understand these challenges and inform policies that promote gender equality and academic success for girls in this hilly region.

Significance of the Study: In Karbi Anglong, economic hardship and cultural beliefs lead families to prioritize boys' education, while girls are burdened with household chores, limiting their school attendance. Poor infrastructure, lack of teachers, and long travel distances worsen the situation, especially for girls. To bridge this gender gap, efforts should include better school facilities, scholarships, transport or hostels for girls, and community awareness to change attitudes toward female education. Inclusive policies are key to empowering tribal women and advancing regional development

Table .1Year of Passing (High School Leaving certificate) SEBA

Sl. No.	Year of Passing (High School Leaving certificate) SEBA	Pass percentage
1	2020	53.11
2	2021	Data not available
3	2022	49.92
4	2023	75.47
5	2024	81.06

Table no.2
Karbi Anglong District Literacy Rate, Census 2011

District	Total	Male	Female	Rural	Urban
Karbi Anglong	71.81	78.74	64.50	68.97	87.84

To address these issues, improving school facilities, offering scholarships, and providing transportation or hostels for girls are crucial. Community awareness programs can shift cultural norms and highlight the benefits of educating girls. Empowering girls through education is essential for both their growth and the region's development, requiring inclusive policies to create a more equitable society in Karbi Anglong district of Assam.

Hypothesis

1. There is no significant correlation of home environment and academic achievement of secondary schools of girl's students.
2. There is no significant correlation between school environment and academic achievement of secondary schools of girl's students
3. There is no significant influence of home and school environment on the academic achievement of secondary schools of girl's students.

Delimitations of the Study: This study is limited to Class X girl students from Government Secondary Schools in Karbi Anglong district, Assam, using their Class IX annual exam results. It focuses only on schools under the Board of Secondary Education, Assam (SEBA), and examines three variables: Academic Achievement, Home Environment, and School Environment.

Operational Definition of Key Terms: Academic Achievement is refers to Class IX annual exam performance of girl students under SEBA, Assam. Home Environment is the perceived emotional, social, and cognitive support provided at home. School Environment is the perceived quality of support and teacher-student interactions in school. Secondary School Student – Class X girl students in Government Secondary Schools under SEBA, Assam.

Materials and Methods: The study uses the normative survey method to examine the relationship between home and school environments and academic achievement among high school students. Population of the Class X girl students in Government Secondary Schools of Karbi Anglong district, Assam. A sample of 300 Class X girl students from 4 randomly selected schools, ensuring representation from both rural and urban areas.

Table no.3
Distribution of sample Based on type of Family

Sl. No.	Name of the School	No. of students	% of the sample
	Dokmoka Higher Secondary School	94	78
	Padum Pukhuri Higher Secondary School	68	58
	Langhin Pamgaon Higher secondary School	134	122
	Amoni gaon BM high school	45	42

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Tools Used for the Present Study

To ensure valid and systematic data collection, the following tools were used: Home Environment Scale (HES): Measured (a) Socio-economic status, (b) Parental involvement, and (c) Parent-child relationship. School Environment Scale (SES): Assessed (a) Physical climate, (b) Teacher effectiveness, (c) Curricular, and (d) Co-curricular activities. Academic Achievement Record (AAR): Collected students' Class IX annual exam marks from SEBA records. The collected data were analyzed using statistical techniques such as Mean, Standard Deviation, t-test, ANOVA, Correlation, and Regression to interpret the relationships between academic achievement, home environment, and school environment.

RESULT AND DISCUSSION

Hypothesis

1. There is no significant correlation of home environment and academic achievement of secondary school girls students.

Table 4

Correlations			
		Academic Achievement	**Home total**
Academic Achievement	Pearson Correlation	1	.706**
	Sig. (2-tailed)		.000
	N	300	300
Home total	Pearson Correlation	.706**	1
	Sig. (2-tailed)	.000	
	N	300	300
**. Correlation is significant at the 0.01 level (2-tailed).			

The hypothesis of no correlation between home environment and academic achievement was rejected. A strong, significant positive correlation (r = 0.706, p = 0.000) confirms that better home environments are linked to higher academic performance.

Hypothesis There is no significant correlation of school environment and academic achievement of secondary schools of girls' students.

Table No.5

Correlations

		Academic Achievement	**School total**
Academic Achievement	Pearson Correlation	1	.716**
	Sig. (2-tailed)		.000
	N	300	300
School total	Pearson Correlation	.716**	1
	Sig. (2-tailed)	.000	
	N	300	300

**. Correlation is significant at the 0.01 level (2-tailed).

Hypothesis There is no significant influence of home and school environment on the academic Achievement of secondary schools of girl's students

Regression Analysis

Table No.6

Variables Entered/Removed[a]			
Model	**Variables Entered**	**Variables Removed**	**Method**
1	School total, Home_total[b]	.	Enter
a. Dependent Variable: Academic Achievement			
b. All requested variables entered.			

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Table No.6.1

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.818[a]	.670	.668	3.75803

a. Predictors: (Constant), School total, Home total

The regression model included two predictors: school environment (School total) and home environment (Home total), showing a strong correlation with an R value of 0.818. The R Square value of 0.670 indicates that about 67% of the variance in academic achievement is explained by these factors. The Adjusted R Square value of 0.668 confirms the model's robustness. With a Standard Error of 3.75803, the model offers reasonable prediction accuracy. These findings support the conclusion that both home and school environments significantly influence high school students' academic achievement

Table No.7

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8507.655	2	4253.828	301.202	.000[b]
	Residual	4194.479	297	14.123		
	Total	12702.134	299			
a. Dependent Variable: Academic Achievement						
b. Predictors: (Constant), School total, Home total						

Significance (Sig.): The p-value is reported as .000, which is highly significant. This indicates that there is strong evidence to reject the null hypothesis, confirming that the home and school environments have a significant influence on academic achievement

Table No.8

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.682	1.915		1.401	.162
	Home total	.478	.040	.461	11.883	.000
	School total	.444	.036	.481	12.418	.000
a. Dependent Variable: Academic Achievement						

Coefficients Interpretation: The table displays the unstandardized and standardized coefficients for your regression model. Constant (Intercept): The constant value of 2.682 represents the predicted academic achievement when both the home and school environment scores are zero. While this value is not directly interpretable in practical terms, it serves as a baseline for the model.

Home total: The unstandardized coefficient for Home total is 0.478. This means that for each one-unit increase in the home environment score, the academic achievement is expected to increase by 0.478 units, holding the school environment constant. The standardized coefficient (Beta) is 0.461, indicating a strong effect relative to other variables in the model. The t-value of 11.883 and the significance level of .000 suggest that this relationship is highly statistically significant.

School total: The unstandardized coefficient for School total is 0.444. Similar to Home total, this means that for each one-unit increase in the school environment score, academic achievement is expected to increase by 0.444 units, controlling for the home environment. The standardized coefficient (Beta) of 0.481 indicates that this predictor also has a strong effect. The t-value of 12.418 and the significance level of .000 confirm that this relationship is statistically significant as well.

Discussion: Education plays a vital role in shaping young girls' character and personality, influencing their personal growth and family life. It cultivates values like honesty, responsibility, and respect, which guide their choices and relationships. Through interactions with peers and teachers, girls develop critical thinking, problem-solving, independence, and resilience. Academic achievements build self-confidence and social skills, fostering meaningful connections. Families that prioritize education create supportive environments that encourage curiosity and learning, strengthened by open communication. Schools that emphasize education provide safe, motivating spaces where teamwork and diversity are valued, and parental involvement further enriches the community and student success.

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Correlation: Tables 5 and 6 show statistically significant positive correlations between home and school environments and academic achievement among secondary school girls, both with significance levels of 0.000. The home environment has a strong Pearson correlation of 0.706. Table 7 presents a regression model with these two predictors, revealing a strong overall correlation ($R = 0.818$) that explains 67% ($R^2 = 0.670$) of the variation in academic performance. The model's robustness is supported by an Adjusted R^2 of 0.668 and a Standard Error of Estimate of 3.75803. Table 8 details the regression analysis, showing the model explains a significant portion of the variance with a Regression Sum of Squares of 8507.655 and a Residual Sum of Squares of 4194.479 (total 12702.134). With 299 observations, the F-value of 301.202 and p-value of 0.000 indicate a strong effect of both environments on academic achievement. The coefficients reveal positive influences from home (unstandardized = 0.478, Beta = 0.461, t = 11.883, p = 0.000) and school environments (unstandardized = 0.444, Beta = 0.481, t = 12.418, p = 0.000), with the school environment having a slightly greater impact. Overall, improvements in either environment can significantly enhance academic outcomes for secondary school girls.

Recommendations: Enhancing the academic achievement of secondary school girls requires a multifaceted approach involving both home and school. This includes creating supportive and well-equipped learning spaces, strengthening parent-child communication, increasing parental involvement in school activities, and fostering a positive home environment. Schools should also promote extracurricular participation, improve infrastructure, enhance collaboration between home and school, and utilize data for continuous improvement. Together, these efforts can create a strong, supportive framework for academic success.

Suggestions for Further Research: Future studies should expand the student sample across all educational levels, include male students from all Assam districts for broader representation, explore changing home environments amid socio-economic and cultural shifts, and conduct urban-rural comparisons to identify specific challenges and strengths—offering valuable insights to guide targeted interventions.

Conclusion: This study highlights the strong link between home and school environments and the academic achievement of secondary school girls in Karbi Anglong. It emphasizes the need for supportive learning spaces and positive parent-child relationships to boost students' confidence and motivation. The research calls for broader studies covering all educational levels and genders across Assam, especially as changing social dynamics reshape home environments. Comparing rural and urban student experiences can also guide targeted interventions. These insights aim to help policymakers, educators, and families work together to create an inclusive educational environment that promotes both academic success and overall student development.

Acknowledgment
The investigators would like to extend their heartfelt gratitude to all the study participants from the Karbi Anglong region. Your overwhelming support and cooperation were invaluable to the smooth conduct of this research. Thank you for sharing your insights and experiences.

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