



SOCIO-ECONOMIC STATUS (SES) AND ITS IMPACT ON ACADEMIC ACHIEVEMENT OF THE HIGHER SECONDARY SCHOOL STUDENTS OF BODOLAND TERRITORIAL REGION (BTR)

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ABSTRACT

Socio-economic status (SES) is widely acknowledged as a significant determinant of students' academic achievement. The present study investigates the socio-economic status of higher secondary school students of Bodoland Territorial Region (BTR) and examines its impact on their academic achievement. A normative survey method was adopted. The sample consisted of 1,062 higher secondary school students selected from various schools of BTR. The Socio-Economic Status Scale developed by Dr. S.K. Upadhyay was used to assess SES, while students' academic achievement was measured through their obtained marks in the High School Leaving Certificate (HSLC) examination. Descriptive statistics and Analysis of Variance (ANOVA) were employed using SPSS version 25 for data analysis. The study reported that more than half of the total sample were found to have below average socio-economic status and academic achievement. It also found that SES has a significant impact on AA of the higher secondary school students of BTR. The study provides empirical insights into SES and AA and their relationship in the regional context of BTR and contributes to educational planning and policy formulation.

KEYWORDS: *Socio-Economic Status, Academic Achievement, Higher Secondary Students, BTR.*

INTRODUCTION

Education is universally acknowledged as a key instrument for social mobility, economic development, and human empowerment. It not only enhances individual capabilities but also contributes to the broader goals of equity and social justice. However, the distribution of educational opportunities and outcomes is often uneven, largely influenced by differences in socio-economic status (SES). Socio-economic status, often conceptualized through indicators such as parental income, educational attainment, and occupational status, shapes the material and cultural resources available to learners and thereby significantly affects their academic achievement (Sirin, 2005; Bradley & Corwyn, 2002).

The relationship between SES and academic achievement has been extensively examined across diverse educational contexts. Empirical studies consistently indicate that students from higher socio-economic backgrounds tend to demonstrate superior academic performance compared to their lower SES counterparts. This disparity can be attributed to multiple interrelated factors, including access to quality schooling, availability of learning materials, exposure to cognitively stimulating environments, and greater parental involvement in education (Coleman et al., 1966; OECD, 2019). Furthermore, higher SES families are often better positioned to invest in supplementary educational resources such as private tutoring, digital learning tools, and extracurricular enrichment, which further enhance students' academic outcomes (Reardon, 2011).

From a theoretical perspective, the influence of SES on academic achievement can be understood through frameworks such as Bourdieu's theory of cultural capital and the social reproduction theory. Bourdieu (1986) argues that families transmit cultural capital – comprising knowledge, skills, language, and dispositions – that aligns with the dominant norms of the education system. Students from higher SES backgrounds are more likely to possess such capital, enabling them to navigate academic environments more effectively. In contrast, students from lower SES backgrounds may experience a mismatch between their home culture and school expectations, which can adversely affect their academic performance. Similarly, social reproduction theory posits that educational institutions often perpetuate existing social inequalities by favoring those who already possess socio-economic advantages (Bowles & Gintis, 1976).

In the Indian context, socio-economic disparities continue to pose significant challenges to achieving equitable educational outcomes. Despite constitutional provisions and policy initiatives such as the Right to Education Act (2009) and various scholarship schemes, inequalities persist across regions, social groups, and economic strata (Tilak, 2018). Rural areas, in particular, often face infrastructural deficiencies, shortage of qualified teachers, and limited access to educational resources, all of which disproportionately affect students from economically disadvantaged backgrounds (ASER, 2022).



The Bodoland Territorial Region (BTR) in Assam represents a unique socio-cultural and economic setting where such disparities are particularly pronounced. The region is characterized by ethnic diversity, varying levels of economic development, and a significant rural population. Many households in BTR depend on agriculture and informal economic activities, which often result in unstable income levels. Additionally, disparities in educational infrastructure, access to quality schools, and availability of academic support services further complicate the educational landscape in the region. These contextual factors make it imperative to examine how socio-economic status influences academic achievement among students in this specific geographical area.

The present study emphasized that higher secondary education (Classes XI and XII) constitutes a critical phase in the academic journey of students, as it serves as a transitional stage between school education and higher education or employment. Academic performance at this level plays a decisive role in shaping students' future educational and career opportunities. However, students at this stage are also more vulnerable to socio-economic pressures, including financial constraints, family responsibilities, and limited access to academic support, which may adversely impact their performance. Given these considerations, the present study seeks to explore the impact of socio-economic status on the academic achievement of Higher Secondary School students in the Bodoland Territorial Region. By focusing on this under-researched yet significant context, the study aims to contribute to the existing body of knowledge on educational inequality. It also intends to provide empirical insights that can inform policymakers, educators, and stakeholders in designing targeted interventions to bridge the achievement gap and promote inclusive and equitable education in the region.

SIGNIFICANCE OF THE STUDY

The present study holds considerable significance in both theoretical and practical domains, as it seeks to examine the impact of socio-economic status (SES) on the academic achievement of Higher Secondary School students in the Bodoland Territorial Region (BTR) of Assam. From a theoretical perspective, the study contributes to the existing body of knowledge on the relationship between socio-economic factors and educational outcomes. Although numerous studies have established a strong association between SES and academic achievement (Sirin, 2005; Bradley & Corwyn, 2002), there remains a paucity of region-specific research focusing on marginalized and underrepresented areas such as BTR. By situating the analysis within this unique socio-cultural and economic context, the study enriches the literature and provides localized insights that may not be captured in broader national or global analyses.

The study is significant for policymakers and educational planners. Understanding how socio-economic disparities influence students' academic performance can assist in the formulation of targeted educational policies and intervention strategies. In regions like BTR, where economic inequalities, rural deprivation, and infrastructural limitations are prevalent, empirical evidence from this study can guide the allocation of resources, implementation of scholarship schemes, and development of support systems aimed at improving educational equity (OECD, 2019; Tilak, 2018).

The findings of the study are expected to be valuable for educators, school administrators, and curriculum planners. By highlighting the specific challenges faced by students from different socio-economic backgrounds, the study can help educators adopt more inclusive teaching practices, provide additional academic support, and create a more equitable learning environment. It may also encourage schools to strengthen parent-teacher engagement and develop strategies to support students who lack adequate resources at home.

Furthermore, the study carries social significance as it addresses issues of inequality and social justice in education. Academic achievement at the Higher Secondary level plays a crucial role in determining students' access to higher education and employment opportunities. Therefore, identifying and addressing SES-related disparities is essential for breaking the cycle of poverty and promoting upward social mobility (Bourdieu, 1986; Reardon, 2011).

The study is particularly significant for the Bodoland Territorial Region itself. Given the region's diverse population and varying levels of development, the research provides context-specific insights that can inform local stakeholders, including government bodies, non-governmental organizations, and community leaders. It can serve as a foundation for future research and policy initiatives aimed at improving the quality and accessibility of education in the region.

OBJECTIVES OF THE STUDY

1. To study the socio-economic status of higher secondary school students of BTR.
2. To study the academic achievement of higher secondary school students of BTR.
3. To study the impact of socio-economic status on the academic achievement of higher secondary school students of BTR.

HYPOTHESIS

There is no significant impact of socio-economic status on academic achievement among higher secondary school students of BTR.



METHODOLOGY

A normative survey method was adopted for the present study. The sample consists of a total of 1062 higher secondary school students of BTR. To study the socio-economic status, the Socio-economic status scale developed by Dr. S.K. Upadhyay was used to assess, and Academic achievement was measured through students' obtained marks in the HSLC examination. For the analysis of the data, descriptive statistics and ANOVA were used to assess the data using statistical software (SPSS version 25).

DATA ANALYSIS AND INTERPRETATION

Objective 1: To study the socio-economic status of higher secondary school students of BTR

To study the level of Socio-economic status of Higher Secondary School Students (HSSS) of BTR, frequencies and percentages were calculated to measure their level of Socio-economic status, who were categorized into five different levels of Socio-economic status based on their raw scores. Accordingly, to interpret the level of socioeconomic status, it has been categorized into five different categories, ranging from low to high. To mark the level of Socio-economic status, the standard procedure of the Socio-economic status scale developed by Dr. S.K. Upadhyay was followed, as presented in Table 1, and accordingly, following the interpretation norms of SES, the result is presented below in Table 2.

Table 1
Norms for Interpretation of Socio-Economic Status (SES) Raw Scores

Category	Raw scores
High SES	77 and above
Above average SES	67 – 76
Average SES	54 – 66
Below average SES	44 – 53
Low SES	43 and below

Table 2
Sample distribution of respondents by SES

Variable	Level	Frequency	Percentage
Socio-economic Status	Low	98	9.2%
	Below average	680	64.0%
	Average	254	23.9%
	Above average	30	2.8%
	High	0	0%
	Total	1062	100%

Table 2 presents the SES distribution of the respondents, as measured by the standardized SES scale developed by Dr. Sunil Kumar Upadhyay. The tool measures SES across five dimensions – personal information, family characteristics, education, income, and others (including family possessions and social standing), and classifies respondents into five SES categories based on their total scores.

The absence of respondents in the High SES category and the overwhelming majority in the Below Average SES reflect the socio-economic realities of the BTR, a predominantly rural area with limited industrial development and economic opportunities.

A closer analysis of the categories highlights the stark disparities:

- Low SES students typically come from families where parents are illiterate or minimally educated (often only completing one or two primary grades), work as daily wage laborers or small-scale cultivators, and have minimal possessions – few even own a bicycle, and separate study spaces are rare.
- Below Average SES students, who make up the majority, come from families where parents may be literate or semi-literate, employed in small-scale businesses, informal private-sector jobs, or self-employment, but still face significant financial constraints.
- Average SES students often have one parent in formal service employment, or business, siblings pursuing higher education, and basic amenities, with a small number of families owning vehicles such as four-seater cars.
- Above Average SES students belong to families where both parents are educated and employed in stable jobs or professions, with greater access to educational resources and improved living conditions.
- High SES students were absent from the sample, reflecting the scarcity of affluent families in the region's school-going population.

The dominance of Below Average SES (64%) aligns with the economic structure of BTR, where agriculture remains the primary livelihood, industrialization is minimal, and rural poverty continues to shape students' educational environments. Limited household resources, a lack of private study spaces, and constrained access to supplementary learning facilities are common challenges for students in this region, directly affecting their educational experiences and aspirations.



Objective 2: To study the academic achievement of higher secondary school students of BTR

To study the level of Academic Achievement of Higher Secondary School Students (HSSS) of BTR, frequencies, percentages, and their cumulative percentage were calculated to measure their level of Academic Achievement, who were categorized into six different levels of Academic Achievement based on their raw scores. Accordingly, to interpret the level of Academic Achievement, it has been categorized into six different categories, ranging from poor to outstanding. To mark the level of Academic Achievement, the standard procedure followed by the Board of Secondary Education (SEBA), Assam, has been followed to interpret the Academic Achievement. However, a mild modification was made with labeling. Therefore, to assess the level of Academic Achievement of the Higher Secondary School Students, Table 3 Norms for classification of Academic Achievement based on their overall obtained marks (percentage) in HSLC, has been followed. As a result, the distribution of Higher Secondary School Students (HSSS) of BTR based on classification of Academic Achievement (AA) is presented below in Table 4.

Table 3

Norms for the classification of Academic Achievement (AA) based on their overall obtained marks (percentage) in HSLC

INTERPRETATION LEVEL OF ACADEMIC ACHIEVEMENT			
AS PER THE SEBA BOARD		REVISED CATEGORISATION FOR THE PRESENT STUDY	
%	Category	%	Category
85 and above	Distinction	95 and above	Outstanding
80 and above	Letter	85 – 94	Excellent
75 – 84	Star	75 – 84	Above average
60 and above	First	60 – 74	Average/Good
45 – 59	Second	45 – 59	Below average
30 – 44	Third	30 – 44	Poor

Table 4

Distribution of Higher Secondary School Students (HSSS) of BTR based on classification of Academic Achievement (AA)

Level	Frequency	%	Cumulative %
Poor	176	16.6	16.6
Below Average	447	42.1	58.7
Average	333	31.4	90.0
Above Average	89	8.4	98.4
Excellent	16	1.5	99.9
Outstanding	1	.1	100
Total	1062	100	

Table 4 presents the distribution of participants' Academic Achievement (AA) across six performance categories: Poor, Below Average, Average, Above Average, Excellent, and Outstanding, based on a sample size of 1,062 individuals. The analysis reflects each category's frequency, percentage, and cumulative percentage, offering a comprehensive view of academic performance within the group. A striking feature of the data is the high concentration of participants in the lower to mid-performance ranges. Specifically, 42.1% of individuals fall into the "Below Average" category, while 31.4% are classified as "Average." Combined, these two groups represent 73.5% of the total sample, suggesting that a significant majority perform at or below the expected academic level. Additionally, 16.6% of participants were identified as having "Poor" academic achievement, further indicating that a considerable segment struggles academically. On the higher end of the spectrum, only 8.4% of the sample achieved "Above Average" results, while a very small minority reached the "Excellent" (1.5%) and "Outstanding" (0.1%) levels. Together, these higher categories account for a mere 10% of the total population. The cumulative percentages reinforce this trend, with 90% of the sample falling below the "Above Average" threshold, and only the remaining 10% achieving levels considered exceptional. This distribution reveals a concerning pattern: the majority of the sample demonstrates limited academic performance, with only a small proportion achieving results that surpass average expectations.

The outcome for the findings might also lie in the socio-cultural and economic reality of the region: many students are first-generation learners, whose parents are either illiterate or have limited formal education. As a result, parental support in terms of guiding study habits, providing learning resources, or helping with academic decision-making is often lacking, which restricts the students' ability to convert their aspirations into measurable success. Furthermore, limited access to quality educational facilities, high pupil-teacher ratios in some districts, economic hardship, and the burden of household responsibilities for many students act as barriers to sustained academic excellence.

Objective 3: To study the impact of socio-economic status on the academic achievement of the higher secondary school students of BTR

Hypothesis: *There is no significant impact of socio-economic status on academic achievement among higher secondary school students of BTR.*



To examine whether socio-economic status (SES) significantly influences academic achievement among higher secondary school students in BTR, One-Way ANOVA was conducted. The result is presented below in Table 5.

Table 5***One-Way ANOVA Results for Academic Achievement (AA) Among Four SES Groups***

	Sum of squares	Df	Mean square	F	Sig.
Between Groups	40323.996	3	13441.332	119.113	.000
Within Groups	119389.882	1058	112.845		
Total	159713.878	1061			

ANOVA Table 5 presents the statistical analysis of academic achievement among different groups. Table 5 shows a significant difference in academic achievement between the groups being compared. The Between Groups row shows a Sum of Squares (SS) of 40,323.996, with 3 df, resulting in a Mean Square (MS) of 13,441.332. The F-value is 119.113, and the Sig. value is .000, which is less than the standard alpha level of 0.05. This indicates that the differences in academic achievement across the groups are statistically significant. The Within Groups row has a Sum of Squares of 119,389.882 with 1,058 degrees of freedom, and a Mean Square of 112.845. The Total Sum of Squares is 159,713.878 across 1,061 degrees of freedom. In summary, the F-ratio of 119.113 and the associated p-value of .000 demonstrate that there is a statistically significant difference in academic achievement among the groups studied. Since the p-value (Sig. = .000) is less than the standard alpha level of 0.05, we reject the null (evidence of effect) hypothesis, "There is no significant impact of socio-economic status on academic achievement among higher secondary school students of BTR". Thus, there is a significant difference in AA among the different SES groups. The findings of the study are supported by the findings of Lourdasamy 2012; Awasthi 2002; Mehrotra 2012; Hashmi 2014. Therefore, since the ANOVA result, presented in Table 5, is statistically significant, a Tukey HSD post-hoc test was conducted to further compare differences among the groups.

The Tukey HSD test, presented below in Table 6, was used to determine where significant differences exist between SES groups in terms of AA. This analysis shows pairwise comparisons between SES groups to test if their differences in mean AA are statistically significant.

Table 6***Tukey HSD Post-Hoc Comparisons of Academic Achievement (AA) by Socio-Economic Status (SES)***

Comparison	Mean Difference	Std. Error	Sig. (p-value)	95% confidence interval (lower-upper)
Above Average SES vs Average SES	7.10458	2.05080	.003	1.8276to 12.3815
Above Average SES vs Below Average SES	18.84626	1.98178	.000	13.7469 to 23.9456
Above Average SES vs Low SES	24.47397	2.21652	.000	18.7706 to 30.1773
Average SES vs Below Average SES	11.74168	0.78117	.000	9.7317 to 13.7517
Average SES vs Low SES	17.36939	1.26323	.000	14.1189 to 20.6198
Below Average SES vs Low SES	5.62771	1.14779	.000	2.6743 to 8.5811

- All differences are statistically significant at the 0.05 level (Tukey HSD).

The Tukey HSD post-hoc test, presented in Table 6, confirms that all pairwise comparisons between SES groups are significant at the 0.05 level. The greatest disparity is observed between students from above-average SES and those from low SES, with a mean difference of 24.47, underscoring the wide academic gap associated with socio-economic inequalities. Moreover, the consistent significance across all comparisons — including between average and below average SES (mean difference = 11.74), and even between below average and low SES (mean difference = 5.63), indicates that academic performance is highly sensitive to even modest changes in socio-economic conditions. This pattern suggests a cumulative advantage in AA as socio-economic resources increase. These findings reinforce the argument that SES is a critical determinant of educational outcomes, likely due to disparities in access to learning resources, parental support, school quality, and overall learning environment. To support the findings, Table 7 below presents the mean scores of AA across different SES groups.

Table 7***Mean Academic Achievement (AA) by Socio-Economic Status (SES)***

Socio-Economic Status	N	Mean
Low	98	49.32
Below average	680	54.94
Average	254	66.69
Above average	30	73.79

Descriptive statistics, presented in Table 7 show a progressive increase in mean academic achievement scores as socio-economic status rises: students from low SES backgrounds have the lowest mean score (49.32), followed by those from below average SES



(54.94), average SES (66.69), and above average SES with the highest mean score (73.79). Academic achievement increases with socioeconomic status. This trend is further supported by the results of the Tukey HSD post-hoc test, which indicates that all pairwise differences between the SES groups are statistically significant at the 0.05 level. The largest gap in academic achievement exists between students from above-average SES and those from low SES, with a mean difference of 24.47 points. Even smaller differences, such as between below-average and low SES groups (mean difference of 5.63), are statistically meaningful. The bar chart below visually confirms this upward trend. These findings suggest that socio-economic status plays a critical role in shaping academic outcomes, highlighting the need for targeted educational support and interventions for students from lower SES backgrounds to help close the achievement gap.

The significant difference in AA among students belonging to different SES groups, as shown in the ANOVA and Tukey HSD post-hoc results, can be attributed to the strong influence of economic, social, and educational capital on learning outcomes. Students from higher SES backgrounds tend to enjoy distinct advantages that directly enhance their academic performance, while those from lower SES backgrounds face multiple constraints that hinder their learning progress. A primary reason could lie in the availability of material and educational resources. Students from above-average SES families typically have access to better study environments, including adequate learning materials, private tutoring, digital resources, and a stable home atmosphere conducive to study. Such advantages help sustain consistent academic performance. In contrast, students from low SES backgrounds often face economic hardship, a lack of educational resources, and competing domestic responsibilities, which divert attention from academics and reduce their capacity to perform well in examinations.

Parental education and involvement are also critical determinants. Families with higher SES often have educated parents who can provide direct academic guidance, help with homework, and motivate children toward academic excellence. They are also more aware of educational pathways and career opportunities, allowing them to set clear expectations for their children. Conversely, many low SES families – especially those with illiterate or semi-literate parents – may lack the capacity to provide such intellectual or motivational support. The schooling environment and peer influence further contribute to this disparity. High SES students are more likely to attend well-resourced private or English-medium schools that emphasize academic rigor, accountability, and competitive learning. Low SES students, on the other hand, are often concentrated in under-resourced government schools where teacher absenteeism, large class sizes, and limited individual attention are common. These institutional inequalities perpetuate achievement gaps. Furthermore, psychological and motivational factors associated with SES play a significant role. Students from higher SES families tend to have greater self-confidence, future orientation, and educational aspiration, believing that education will secure them a better future. Low SES students, however, may develop lower academic self-concept or fatalistic attitudes due to repeated exposure to socio-economic challenges and limited role models in higher education (Awasthi, 2020). This psychological disadvantage can suppress performance despite equal potential. This highlights the persistent and multi-layered impact of socio-economic inequality on educational outcomes and underscores the need for targeted interventions – such as remedial teaching, financial assistance, and parental literacy programs – to bridge this achievement gap.

Major findings of the study

1. The study found that the majority of students are found to have below average SES (64%), and only 2.8% in above average SES, 23.9% from average SES and 9.2% students from low SES.
2. The study found that the majority of pupils (42.1%) are found to have below average AA, and only .1% were found to have outstanding AA, 31.4% pupils to have average AA, 16.6% pupils are found to have poor AA, 8.4% of above average, and 1.5% pupils of excellent AA.
3. There is a significant variation in the AA of HSSS of the BTR concerning their SES. It was found that students from distinct SES found to vary in their AA, it denotes as SES improves, the AA of students also increases.

Educational Implications

1. Need for Financial Support: Since most students belong to below average SES, government and institutions should provide scholarships, free textbooks, uniforms, and other learning resources to reduce economic barriers.
2. Remedial Teaching Programs: A large number of students have below average academic achievement, so schools should introduce remedial classes, extra coaching, and academic support programs.
3. Inclusive Teaching Methods: Teachers should adopt learner-centered and flexible teaching strategies to address the needs of students from diverse socio-economic backgrounds.
4. Focus on Equity in Education: Special attention should be given to low SES students to ensure equal learning opportunities and reduce achievement gaps.
5. Parental Awareness and Involvement: Schools should organize awareness programs to encourage parents, especially from low SES groups, to support their children's education.
6. Improvement of School Infrastructure: Better facilities, qualified teachers, and access to digital learning tools should be ensured, particularly in underdeveloped areas of BTR.
7. Integrated Socio-Economic Interventions: Since SES affects academic achievement, efforts should include community development programs and livelihood support to improve students' home environment.



8. Policy-Level Interventions: Policymakers should design region-specific strategies for BTR to address socio-economic disparities and improve overall educational outcomes.

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