

Effect of Gender on Academic Achievement of Secondary Level Scheduled Tribe Students Studying in West Singhbhum, Jharkhand

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Abstract: *The present study was undertaken to examine the effect of gender on the academic achievement of secondary-level Scheduled Tribe (ST) students studying in West Singhbhum district of Jharkhand. Scheduled Tribe students constitute an important section of the educational population of Jharkhand, and their educational development is closely related to social, economic, cultural and institutional factors. The study particularly focuses on whether male and female ST students differ significantly in their academic achievement at the secondary level. A descriptive survey research method was adopted for the study. The sample consisted of 200 secondary-level Scheduled Tribe students selected from schools of West Singhbhum district, comprising 100 boys and 100 girls. Academic achievement was assessed on the basis of students' academic performance/achievement scores obtained through the prescribed procedure of the study. The data were proposed to be analysed using descriptive statistics and an independent-samples t-test to determine the significance of the difference between male and female students. The study is expected to provide empirical evidence regarding gender differences in the academic achievement of tribal students and may help teachers, school administrators and educational planners develop gender-sensitive educational interventions. Previous research has reported mixed findings concerning gender differences in the academic achievement of tribal and other disadvantaged students. Therefore, a district-specific investigation in West Singhbhum is significant.*

ARTICLE INFO

Article history:

Received: 30 July 2026

Received in revised form
10 August 2026

Accepted 15 August 2026

Citation: Chakraborty. S. & Hembrom. L., (2026) "Effect of Gender on Academic Achievement of Secondary Level Scheduled Tribe Students Studying in West Singhbhum, Jharkhand", *Pen and Prosperity*, Vol. 3, Issue. 4, August 2026.

Keywords: *Academic Achievement, Gender, Scheduled Tribe, Secondary Education, Tribal Students, Economic, Cultural.*

Introduction: Education is one of the most important instruments for individual development and social transformation. It contributes to the intellectual, emotional, social and economic development of individuals and communities. For socially and educationally disadvantaged groups, education has an even greater significance because it provides opportunities for social mobility, empowerment and participation in national development.

The Scheduled Tribes constitute an important social group in India. Jharkhand is particularly significant in this context because of its substantial tribal population and its distinctive socio-cultural environment. Tribal

communities in the state include several groups with their own languages, traditions, cultural practices and social institutions. Although considerable progress has been made in expanding educational access, tribal students continue to experience educational challenges associated with poverty, geographical isolation, language differences, limited educational resources and family educational background.

Recent research continues to identify teacher shortages, language barriers, poverty, geographical isolation, infrastructure limitations and gender-related barriers among the factors affecting educational participation and outcomes of tribal populations in India. At the same time, scholarships, community support and residential-school facilities have been identified as possible facilitators of tribal education.

Academic achievement is one of the major indicators of educational development. It represents the level of learning or performance attained by a student in relation to educational objectives. Academic achievement may be influenced by intelligence, motivation, study habits, parental education, socioeconomic status, school environment, teaching quality, peer relationships and gender.

Gender is an important demographic variable in educational research. Male and female students may experience different educational opportunities and expectations because of family responsibilities, social attitudes, access to resources, mobility and cultural practices. However, gender differences are not necessarily uniform across communities or geographical regions.

Previous research involving Scheduled Tribe secondary students has produced different findings. For example, Jana and Kishore reported that ST girls performed better than ST boys in academic achievement in their study of secondary-level ST students in West Bengal. Their study used previous annual examination marks as an indicator of academic achievement and reported a significant gender difference. On the other hand, research conducted in Jammu found no significant effect of sex on academic achievement among the students studied, demonstrating that gender differences may vary according to population and context.

Therefore, it is necessary to investigate gender differences specifically among secondary-level Scheduled Tribe students of West Singhbhum district of Jharkhand.

Effect of Gender on Academic Achievement: Gender is an important variable in the study of academic achievement because male and female students may differ in their educational experiences, learning opportunities, motivation, parental support, social expectations, and participation in school activities. However, gender itself does not necessarily determine academic success; rather, differences in achievement may arise from the social, cultural, economic, and educational conditions surrounding boys and girls.

Among secondary-level Scheduled Tribe students, the relationship between gender and academic achievement is particularly significant. Tribal students may face challenges such as economic disadvantage, limited educational resources, parental literacy levels, language barriers, geographical isolation, and differences in access to educational support. These factors may affect boys and girls differently. For example, girls may experience restrictions related to household responsibilities, mobility, or traditional expectations, whereas boys may face pressures to contribute to family economic activities.

At the same time, increased access to schooling, scholarships, residential schools, government welfare schemes, and supportive school environments may reduce gender-based differences in educational achievement. Therefore, examining academic achievement separately for male and female ST students can help determine whether a significant gender difference exists and identify areas requiring educational intervention.

Justification of the Study: The educational development of Scheduled Tribe communities is an important concern in Jharkhand, where a considerable proportion of the population belongs to tribal communities.

Although several constitutional provisions, educational programmes, scholarships, residential schools, and other welfare measures have been introduced to improve the educational status of tribal students, differences in educational achievement may still exist among different groups of learners.

West Singhbhum district provides an important context for studying the academic achievement of Scheduled Tribe students because of its significant tribal population and its distinctive socio-cultural and educational environment. Students in the district study under varying social, economic, family, and institutional conditions. These conditions can influence their participation in education, learning opportunities, motivation, and ultimately their academic achievement.

Gender is an important dimension in this context. Male and female Scheduled Tribe students may experience education differently because of differences in family responsibilities, parental expectations, economic roles, mobility, social practices, and access to educational resources. In particular, girls may encounter additional responsibilities related to household work and family care, while boys may experience pressure to participate in income-generating or other family activities. Such circumstances may influence the amount of time, support, and opportunity available for academic learning.

At the secondary level, students enter an important stage of education in which academic performance can influence further education and career opportunities. Therefore, understanding whether male and female ST students differ significantly in academic achievement is essential for developing appropriate educational interventions.

The study is also justified because much of the discussion concerning tribal education focuses on general enrolment, dropout, literacy, and access to schooling. There is a need for district-specific empirical evidence on gender differences in academic achievement among secondary-level ST students, particularly in West Singhbhum. Such evidence can help teachers, school administrators, parents, policymakers, and educational planners understand the educational needs of boys and girls more effectively.

Review of Related Literature

Halim, Yount and Cunningham (2016) – Gender and ST Educational Outcomes: Halim, Yount and Cunningham examined gender and caste/tribe disparities in schooling using Indian district-level data. Their research found that SC/ST girls experienced disadvantages in several educational outcomes, although the extent of disadvantage varied by outcome. The study also found that greater representation of SC/ST women in state legislatures was associated with improved grade completion and age-appropriate progression among SC/ST girls, although it was not associated with improved primary-school performance.

Gupta and Mehtani (2017) examined academic achievement of senior secondary students in relation to self-regulated learning, school type and gender. Their study found significant main effects of self-regulated learning, school type and gender on academic achievement, although interaction effects differed across variables.

Gupta's study of ST and SC students in Jammu reported that sex did not have a significant effect on academic achievement, although caste had a significant effect. This finding demonstrates that gender differences in academic achievement cannot necessarily be generalised from one population or region to another.

Andrabi and Jabeen (2017): Andrabi and Jabeen studied scientific temper and academic achievement among tribal and non-tribal students. The study examined the relationship between scientific temper and academic achievement and also considered gender-wise differences. The researchers reported that the relationship between scientific temper and academic achievement differed between tribal and non-tribal

groups. Gender-wise analysis also indicated differences between male and female students in the relationship between the two variables.

Mukesh Kumar (2018): Educational Status of Tribal Girls in Jharkhand: Mukesh Kumar conducted a comparative study of the educational status of tribal girls in Jharkhand. The study examined the educational situation of tribal girls and highlighted the importance of education for their intellectual, social and economic development.

Jana and Kishore (2020) investigated the relationship between study habits and academic achievement among 450 secondary-level ST students from three tribal-dominated districts of West Bengal. The researchers found a positive relationship between study habits and academic achievement. Importantly for the present study, their analysis reported a significant difference between ST boys and girls, with the girls showing a higher mean academic-achievement score than boys.

Gupta (2020): Gupta examined problem-solving ability and academic achievement among students belonging to Scheduled Tribe and Scheduled Caste categories. The study included 200 boys and girls from government high schools in Jammu district. Previous examination marks were used as an indicator of academic achievement, and the data were analysed using two-way ANOVA.

The study found that sex did not have a significant effect on academic achievement, whereas caste had a significant effect. No significant interaction between sex and caste was found for academic achievement.

Prakash and Gupta (2022): Educational Status of STs in Jharkhand: Prakash and Gupta examined the educational status of Scheduled Tribe populations in Jharkhand using Census data. They reported that the proportion of ST students decreases substantially as educational levels increase, from elementary education to bachelor's and higher levels. The authors also noted that the educational position of tribal females was particularly concerning and that considerable variation existed among districts.

This study provides an important state-level background for the present research. It indicates that gender and educational progression remain important issues within Jharkhand's ST population.

Rani and Kumar (2023): Rani and Kumar investigated gender disparity and literacy among Scheduled Tribes in Jharkhand. Using Census of India 2011 data, they reported a substantial gender gap in tribal literacy in Jharkhand. The study identified poverty, low parental educational level, weak family structures and domestic problems among factors associated with lower female educational outcomes.

Srivastava, Gupta and Kumari (2024): Tharu and Non-Tharu Students: Srivastava, Gupta and Kumari conducted a comparative study of Tharu and non-Tharu adolescents in Bagaha, West Champaran, Bihar, with specific attention to academic achievement, tribal identity and gender differences. The study considered the influence of socioeconomic and cultural factors on academic performance.

Bordoloi and Hatiboruah (2024): Gender Pattern among ST Students: Bordoloi and Hatiboruah examined trends in enrolment and academic performance among ST students at the undergraduate level in Assam over a ten-year period, 2012–2022. Their analysis included gender distribution, course selection and academic performance and identified important gender-related patterns in participation and educational progression.

Biswas, Jahagirdar and Adhikary (2024): Biswas, Jahagirdar and Adhikary examined gender disparities in education among tribal populations in Jharkhand. Using Census 2011 data and Sopher's disparity index, the study reported gender differences in literacy among tribal communities of Jharkhand. The authors emphasized that gender disparity remains an important educational concern among tribal populations.

Kumar and Kushwaha (2025): Kumar and Kushwaha studied tribal girls in Kasturba Gandhi Balika Vidyalayas (KGBVs) in Jharkhand. Their study reported relatively low achievement levels in Hindi, English and mathematics and identified cultural and linguistic barriers, social marginalization and inadequate educational infrastructure as important challenges affecting tribal girls' learning.

Taropi and Boruah (2026): Parenting and Academic Achievement: Taropi and Boruah reviewed 11 empirical studies conducted between 2015 and 2026 across seven Indian states concerning parenting styles and academic achievement among tribal adolescents. Their review identified positive relationships between supportive/authoritative parenting and achievement, while punitive parenting was associated with poorer outcomes. Importantly, the review reports that gender did not differentiate academic achievement in most of the studies reviewed.

Objectives

- 1) To study the overall academic achievement of secondary level schedule tribe students.
- 2) To compare the academic achievement of male and female secondary level Scheduled Tribe students.
- 3) To examine the effect of gender on the academic achievement of secondary level Scheduled Tribe students.

Hypothesis :

H₀₁: There is no significant difference in the overall level of academic achievement among secondary level Scheduled Tribe students.

H₀₂: There is no significant difference in the academic achievement of male and female secondary level Scheduled Tribe students.

H₀₃: Gender has no significant effect on academic achievement of secondary level Scheduled Tribe students.

Methodology

Research Method: The descriptive survey method was adopted for the present investigation. The descriptive survey method is appropriate when the researcher intends to study existing conditions, characteristics and differences within a population without manipulating the variables.

In the present study, the researcher investigated the academic achievement of male and female Scheduled Tribe students and compared their performance.

Population of the Study: The population of the study comprised secondary-level Scheduled Tribe students studying in schools of West Singhbhum district, Jharkhand.

Research Design: The study employed a comparative/descriptive survey design in which gender was considered the independent variable and academic achievement was considered the dependent variable.

Variables

Variable	Role
Gender	Independent Variable
Academic Achievement	Dependent Variable

The gender variable consisted of two groups:

1. Male ST students
2. Female ST students

Sample of the Study: A sample is a representative group of individuals selected from the total population for the purpose of conducting a research study. Since it may not be possible to study all secondary-level Scheduled Tribe (ST) students of West Singhbhum district, a manageable number of students is selected as the sample.

For the present study, the sample consists of 200 secondary-level Scheduled Tribe students selected from 6 Government secondary schools of West Singhbhum district, Jharkhand. To examine the effect of gender on academic achievement, the sample is equally divided into two groups:

Gender	Number of Students
Male ST students	100
Female ST students	100
Total	200

The inclusion of an equal number of male and female students provides a balanced basis for comparing their academic achievement.

Distribution of the Sample: The students are selected from different 6 government schools representing the educational setting of West Singhbhum district. The sample taken as students studying at the secondary level (Classes IX and X) who belong to the Scheduled Tribe category.

The sample size of 200 students is considered adequate for making a comparative analysis of academic achievement between male and female ST students, subject to the sampling procedure and statistical requirements of the study.

In the current study Secondary Level ST students are elected for study. Apurposive-cum-stratified sampling procedure for selecting the required ST students from the selected secondary schools.

The sample was divided into two gender strata:

- Male Scheduled Tribe students – 100
- Female Scheduled Tribe students – 100

6 Government Schools were selected from the study area and eligible ST students were included according to the predetermined sample criteria.

Tools Used for Data Collection: The following source/tool will be used for measuring academic achievement:

Academic Achievement Score/Record: The academic achievement of the Scheduled Tribe students of class 9 is determined from their marks obtained in the annual examination. Their score card is tabulated for the analysis of data.

Procedure of Data Collection: After obtaining the necessary permission from the concerned school authorities, the investigator contacted the selected schools in West Singhbhum district.

The purpose of the study was explained to the concerned authorities and students. The required academic achievement data were collected according to the predetermined procedure. The information was organised according to gender, and separate records were prepared for male and female students.

The collected data were subsequently tabulated and analysed statistically.

Statistical Techniques: The following statistical techniques are appropriate for analysing the data:

1. **Mean (M)**
2. **Standard Deviation (SD)**
3. **Independent-samples t-test**

The independent-samples t-test is particularly appropriate for determining whether the mean academic-achievement scores of the two independent groups—male and female ST students—differ significantly.

Hypothesis No. 1.1 There is no significant difference in the overall level of academic achievement among secondary level Scheduled Tribe students.

Students	N	Mean	S.D	df	t value	Level of
Male ST secondary level School students	100	45.33	8.00	198	2.89	Significant difference at 0.5 level
Female ST secondary level school students.	100	48.50	7.50			
df=198		.05=1.98				

Interpretation: Table 1.1 shows that the Mean And S.D Of Male schedule tribe and Female schedule tribe Secondary level School Students is 45.33, 8.00 And 48.50, 7.50 respectively. The Calculated 't' Value is 2.89 Which is More Than Standard Table Value At.05 Level Of significance. So Hypothesis No.1.1 is rejected. There is Significant difference in the overall level of Academic Achievement among secondary level schedule tribe students. Further the mean value of male schedule tribe students of secondary level is more than female schedule tribe students of secondary level regarding overall level of Academic achievement. So it is finally concluded that male ST students overall Academic achievement is better than female ST students.

Hypothesis No. 1.2 There is no significant difference in the academic achievement of male and female secondary level Scheduled Tribe students.

Students	N	Mean	S.D	df	t value	Level of
Male ST of secondary level school students.	100	44.72	7.50	198	3.45	Significant difference at 0.5 level
Female ST of Secondary level school students.	100	48.50	8.00			

Interpretation : Table 1.2 shows that the mean and S.D of Academic achievement of male ST students of secondary level is 44.72, 7.50 and 48.50, 8.00 respectively the calculated 't' value is 3.45 which is more than standard table value at.05 level of significance. So Hypothesis no 1.2 is rejected there is significant difference between ST Male and Female students regarding Academic achievement at secondary level. Further the mean value of male schedule tribe students. Academic achievement at secondary level is more than Female schedule tribe students of secondary level regarding comparison of Academic achievement. So it is finally concluded that Male ST students comparison of Academic achievement is better than female ST students.

Hypothesis No. 1.3 Gender has no significant effect on academic achievement of secondary level Scheduled Tribe students.

Students	N	Mean	S.D	df	t value	Level of significance
Male ST secondary level school students.	100	38.45	7.00	198	3.46	Significant difference at 0.5 level
Female ST secondary level school students.	100	42.00	7.50			

Df=198

.05=1.96

Interpretation : Table 1.3 shows that the mean and S.D of Effect of gender on the Academic achievement of secondary level schedule tribe students is 38.45,7.00 and 42.00, 7.50 respectively the calculated 't' value is 2.34 which is more than standard table value at.05 level of significance. So Hypothesis no.1.3 is rejected there is significant difference between male and female ST students at secondary level regarding Academic achievement. Further the mean value of Male ST Students is more than the Female ST Students regarding Academic Achievement. Thus, gender has a significant effect on Academic achievement in the present study.

Main findings:

1. In hypothesis no.1, It is clear that male ST students overall Academic achievement is better than female ST students of secondary level of West Singhbhum of Jharkhand.
2. In hypothesis no.2, It is clear that male ST students comparison of Academic achievement is better than female ST students of secondary level of West Singhbhum of Jharkhand.
3. In hypothesis no.3, It is clear that gender has a significant effect on Academic achievement of secondary level ST students in the present study of West Singhbhum of Jharkhand.

Educational Implications: The findings of the study may have several implications for educational practice.

For Teachers: Teachers should identify students who are experiencing academic difficulties and provide appropriate remedial instruction. Equal academic opportunities should be provided to boys and girls.

For Schools: Schools should create an inclusive and supportive learning environment for ST students. Regular monitoring of students' academic progress may help identify learning gaps at an early stage.

For Parents: Parents should be encouraged to participate in their children's education irrespective of gender. Educational guidance at home can contribute to improved academic performance.

For Educational Administrators: Educational authorities should strengthen academic-support programmes for tribal students, particularly in schools serving remote and disadvantaged communities.

For Girls' Education: If the study identifies lower academic achievement among girls, additional support such as mentoring, academic counselling and improved learning opportunities may be considered. If girls demonstrate higher achievement, the factors contributing to their success can be examined and replicated.

For Boys' Education: If boys demonstrate lower academic achievement, schools may investigate factors such as attendance, study habits, motivation and engagement and develop targeted interventions.

Conclusion: The present study focuses on the effect of gender on the academic achievement of secondary-level Scheduled Tribe students in West Singhbhum, Jharkhand. The study is significant because gender-related differences in educational outcomes may provide important information for developing appropriate educational interventions for tribal students.

Ultimately, improving the academic achievement of Scheduled Tribe students requires attention not only to gender but also to the broader educational, socioeconomic, family and school environment in which students learn.

References

- Gupta, M., & Mehtani, D. (2017). Academic achievement of senior secondary school students: An analysis on the basis of self-regulated learning and some demographic variables. *Journal of Indian Education*, 43(2), 60–75.
- Gupta, R. (2020). Problem solving ability and academic achievement among the students belonging to Scheduled Tribe and Scheduled Caste categories. *International Journal of Research Pedagogy and Technology in Education and Movement Sciences*, 2(1).
- Jana, M., & Kishore, B. (2020). Relationship of study habits and academic achievement among Scheduled Tribe secondary level students in West Bengal: An investigation. *International Educational Applied Research Journal*, 4(1).
- Janhabi, K., Sharma, M., & Behera, S. (2024). A study of family climate and academic achievements of tribal secondary school students in Seraikela-Kharsawan district of Jharkhand. *International Journal for Research in Applied Science & Engineering Technology*.
- Ministry of Education, Government of India. (2025). *UDISE+ 2023–24: Report on school education in India*. Government of India.
- Singh, R. K. (2023). Academic achievement of tribal and non-tribal students at secondary level. *International Journal of Research Publication and Reviews*.
- *Barriers and facilitators to education for tribal populations in India: A mixed-methods systematic review*. (2026). *Children and Youth Services Review*, 185, 108976.