



Achievement Motivation as a Predictor of Academic Success among Tribal Students: An Empirical Study From Keonjhar District, Odisha

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ABSTRACT

The tribal communities in India, moulded by centuries of socio-cultural exclusion and marginalisation, continue to face significant educational disadvantages despite constitutional safeguards and welfare initiatives. Although tribal literacy rates have improved over time, disparities persist between tribal and non-tribal populations—particularly in regions like Odisha and districts such as Keonjhar. Achievement motivation emerges as a crucial intrinsic factor that can empower tribal students to overcome challenges and enhance academic performance. The relationship between achievement motivation and academic performance was studied among 200 tribal secondary school students in Keonjhar district, Odisha. The findings reveal moderate to high levels of achievement motivation, with a statistically significant positive correlation ($r = .403, p < .01$) between motivation and academic performance, reinforcing previous research highlighting the critical role of intrinsic motivation in academic success. It is thus evident that enhancing achievement motivation can significantly improve educational outcomes among tribal students. Hence, future educational policies and programmes should not only address structural and systemic disparities but also focus on fostering internal motivational factors through student-centred pedagogies, structured goal-setting, and inclusive, culturally responsive learning environments.

Key Words: Achievement Motivation, Academic Success, Tribal Students, Keonjhar District

Introduction

India is the abode of innumerable populations with distinct cultures, languages, traditions, and lifestyles (Singh, 2017). Unity in diversity is highlighted as a major theme of Indian culture. These diversities are rooted in the historical antecedents, geographical variations, socio-economic conditions, and religious beliefs. India witnessed several invasions from time immemorial. Such invasions resulted in cultural diffusion and led to the formation of different communal and linguistic groups in the subcontinent (Thapar, 2003). Consequently, the early inhabitants of India, now known by many labels—Adivasis, aboriginals, and tribals—dispersed to most parts of India, preserving their uniqueness to a great extent (Xaxa, 1999). The fourfold caste system, which evolved from occupational division and was characterised by Brahmanical superiority, didn't include the aboriginals anywhere in its rungs (Sharma, 2005). Thus, they became outcasts and were left to suffer in the name of discrimination and untouchability (Guha, 2011). They were considered inhuman and were deprived of the amenities that common people enjoyed (Béteille, 1998).

The life of aboriginals was closely related to and depended on agriculture, gathering forest products, and natural resources (Rath, 2006). They did not receive any kind of formal education, except for the transmission of their indigenous knowledge (Tripathy, 2016). They had no medical aids except for their own medical practices and natural medicinal materials, like plants and animal products (Mahapatra, 1994). They had no sophisticated households, only huts made from forest and natural products, and no monetary transactions, except for their barter system (Xaxa, 1999).

The unjust practices that humiliated the early inhabitants continued for centuries (Béteille, 1998). British rule also offered no favours to these underprivileged groups; instead, it worsened their lives by alienating them from their natural habitats for many reasons (Guha, 1999). Deforestation, the installation of huge projects like dams and power stations, industrialisation, and the expansion of agriculture all resulted in the marginalisation of these communities (Fernandes, 2000). After independence, the tribal communities were given special consideration through the Constitution of India by officially recognising them as Scheduled Tribes (STs) and ensuring several provisions to safeguard their habitat, impart formal education, and enhance their lifestyles by reserving government jobs (Ministry of Tribal Affairs, 2014). However, the attempts to mainstream them were truly perplexing; the relics of discrimination and untouchability in the attitudes and behaviour of the general population serve as an obstacle to assimilating them into the common populace (Shah, 2010). Hence, tribal people still face a multitude of barriers in their progress and upliftment in many areas of the country (Xaxa, 2014).

Tribal Education in India

Education is a modern tool that can be used to rewrite the destiny of any people (Tilak, 2002). It is a major determinant of socio-economic progress, especially among marginalised groups and women, and significantly influences income generation, career advancement, and economic security (King & Hill, 1993). Research findings consistently indicate that increased educational attainment leads to better job prospects, higher earnings, and economic progress (Behrman & Rosenzweig, 2002). Realising the role of education in empowering tribal communities, central and state governments in India initiated several projects and programmes specifically for providing education for tribal communities (Bose, 2019). Notable among them are hostel facilities for tribal students, scholarships and fee concessions, and the midday meal system (Ministry of Tribal Affairs, 2014). These measures have greatly improved the tribal educational scenario (Tripathy, 2016). In India, the ST population makes up 8.6% of the total population, numbering around 10.45 crores people. The literacy rate of tribal people has been raised from 8.53% in 1961 to 59% by 2011 (Table 1). However, it still lags behind the literacy rate of the general population. The low literacy rate among Scheduled Tribes (STs) compared to the general population is evident in states such as Odisha, Madhya Pradesh, Rajasthan, Tamil Nadu, Andhra Pradesh, West Bengal, and Kerala, indicating the educational backwardness of tribal communities.

Table 1 Literacy Rates among STs and the General Population

| Year | All Persons | All Males | All Females | ST Persons | ST Males | ST Females |
|------|-------------|-----------|-------------|------------|----------|------------|
| 1961 | 28.30 | 40.40 | 15.35 | 8.53 | 13.83 | 3.16 |
| 1971 | 34.45 | 45.96 | 21.97 | 11.30 | 17.63 | 4.85 |
| 1981 | 43.57 | 56.38 | 29.76 | 16.35 | 24.52 | 8.04 |
| 1991 | 52.21 | 64.13 | 39.29 | 29.60 | 40.65 | 18.19 |
| 2001 | 64.84 | 75.26 | 53.67 | 47.10 | 59.17 | 34.76 |
| 2011 | 73.00 | 80.90 | 64.60 | 59.00 | 68.50 | 49.40 |

Source: Office of the Registrar General, India

Academic performance is an indicator of the success of the educational process. It tells about the extent to which students have gained knowledge, mastered skills, and achieved learning objectives. Academic performance reflects students' ability to achieve educational goals and their potential for future success. Thus, it becomes a crucial metric for evaluating the overall effectiveness of educational strategies and interventions.

The academic performance of tribal students contrasts drastically with that of non-tribal students, indicating deep-seated disparities rooted in socio-economic, cultural, and educational factors. Tribal communities in many places face financial constraints, alienation, and social stigma, thereby limiting access to quality education and infrastructure, exacerbated by language barriers and culturally irrelevant curricula. In contrast, non-tribal students typically enjoy better resources and educational support. The 2011 Census data shows that the literacy rate among India's tribal population is 59%, which is notably lower compared to the national average of 73% (Office of the Registrar General & Census Commissioner, India, 2011). According to the Tribal Development Report 2022 by the Bharat Rural Livelihood Foundation, 48.2% of tribal children drop out before finishing Class 8, with this figure increasing to 62.4% by the time they reach Class 10 (Kumar, 2023).

The low academic performance noticed among tribal students is a direct reflection of their academic backwardness. The pass percentages of all categories of students and ST students in the Secondary Examination during 2010 - 2015 (Ministry of Tribal Affairs - Government of India, n.d.) illustrate a persistent gap in educational attainment between ST students and their peers from the general category (Table 2).

Table 2 Pass Percentage in Secondary Examination During 2010 - 2015

| Year | All | | | Scheduled Tribes | | |
|----------|----------|-----------|-----------|------------------|-----------|-----------|
| | Boys (%) | Girls (%) | Total (%) | Boys (%) | Girls (%) | Total (%) |
| 2010 | 72.6 | 76.6 | 74.3 | 61.6 | 60.8 | 61.3 |
| 2011 (P) | 73.3 | 76.7 | 74.8 | 62.4 | 61.7 | 62.1 |
| 2012 (P) | 74.4 | 78.0 | 76.0 | 61.5 | 61.2 | 61.4 |
| 2013 (P) | 75.8 | 80.1 | 77.8 | 64.2 | 64.8 | 64.5 |
| 2014 (P) | 77.6 | 81.0 | 79.2 | 65.1 | 63.8 | 64.5 |
| 2015 (P) | 77.5 | 80.6 | 78.9 | 65 | 63.2 | 64.1 |

Note: (P) denotes provisional data

Source: M/o Human Resource Development

Tribal Schooling: The Odisha Situation

The Scheduled Tribes (STs) of Odisha, comprising 22.85% of the state's population (Census, 2011), face systemic barriers to education, such as poverty, dissimilarities of language, poor school infrastructure, and socio-cultural marginalisation. In Odisha, there are 62 distinct tribal communities. Among these, 13 are identified as Particularly Vulnerable Tribal Groups (PVTGs), who are more secluded and marginalised than other tribal communities. The tribal population in Odisha is mainly rural, with 95% living in villages and remote hilly regions. These communities face several social, educational, and economic challenges due to historical influences, discriminatory policies, and social predispositions. As a result, the ST people consistently lag behind the general population on major development indicators. A significant percentage of tribal families in Odisha live in poverty. According to the Odisha Economic Survey, 2016-17, 41.39% of Scheduled Caste (SC) and Scheduled Tribe (ST) families in rural areas were below the poverty line in 2011-12 (Government of Odisha, 2017). This socio-economic backwardness of marginalised sections is due to several reasons, but poor educational attainment is one of the major reasons.

Even though the increase in the literacy rate of the tribal population over time seems to be appreciable, the disparity in educational attainment between tribal and non-tribal people widens with the level of schooling. At the higher education level, the gap reaches its extreme (Swetashree, 2024). This is evident from the dropout statistics from elementary to higher education levels. The dropout rate among tribal children is more pronounced at higher levels of schooling. As per 2011 census data, in Odisha, among the 5-14 age group children, only 9.8 lakh (45.8%) attend formal schools, and the majority (11.6 lakh) do not receive school education. This low school participation is reflected in the particularly small number of students who complete secondary level education. For example, out of 21.4 lakh children in the 5-14 age group, only 3,341 students appeared for the higher secondary examination in 2005, representing mere 0.156% of the total (Ota, 2009). Chandel et al. (2023) reiterate that despite the initiatives for enhancing the educational status of tribals, challenges remain within tribal communities, such as high dropout rates and low gross enrolment ratios in schools, colleges, and other higher education institutions. All these highlight a severe educational backwardness among tribal communities, which continues even decades after independence.

Educational Profile: Keonjhar District

Keonjhar, a mineral-rich yet educationally backward district, is home to several tribal groups, including Santal, Bathudi, Sounti, Shabar, Lodha, Munda, Kol, and Loharas (Ota et al., 2018). The 2011 Census report shows that the population of the district is 1,801,733, with 45.45% belonging to Scheduled Tribes (818,878). Most residents (85.95%) of the district live in rural and hilly regions, with only 14.05% in urban zones (Sethi, 2011).

In Keonjhar District, the educational attainment of tribal people significantly lags behind that of non-tribals. A major issue is the high dropout rate, particularly at the primary level, with many tribal students not continuing their education beyond the 10th standard. According to Mishra (1994), the causes of dropout include environmental, academic, economic, teacher-related, and infrastructural issues, as well as parental attitudes and employment pressures. Besides the difference in educational attainment between tribal and non-tribal communities, there are inter-tribal disparities in educational standards. For example, the Kolha and Santal tribes enjoy a higher educational status compared to the Juanga and Bhuyan tribes. Consequently, the quality of life of the Kolha and Santal communities is superior to that of the Juanga and Bhuyan communities (Roul, 2006).

Although government initiatives and NGO interventions have mitigated the educational backwardness of tribal people in Keonjhar, disparities persist; the 2011 Census report shows that the overall tribal literacy rate in Keonjhar is only 52.96%, lagging behind the district average of 78.61%. Gender disparities also exist; the male literacy and female literacy are 64.96% and 41.28% respectively, leaving a gender gap of 23.68%. Furthermore, variations in literacy rates are prominent across the CD blocks, with the lowest in Banspal (36.81%) and the highest in Ghatgaon and Saharapada blocks (59.94% and 59.34%, respectively). The gender disparity in literacy is consistent in all blocks, emphasising the need for female literacy interventions.

A prominent community in the district, the Juang tribe, one of the Particularly Vulnerable Tribal Groups, faces specific challenges in pursuing education. Because Odia is the medium of instruction, the lack of a native script and culturally irrelevant curricula hinder their engagement. The dependency on shifting cultivation, foraging, and the collection of minor forest produce for sustenance limits their educational participation, even though many Juang have gradually transitioned to settled life and other livelihood activities. Despite efforts, poverty, child labour, and perceived irrelevance of formal education continue to hinder the educational progress of this community (Sahu, 2014). Similarly, the PVTGs, Paudi Bhuiya and Ho fail to reap the maximum benefits of education.

Role of Achievement Motivation in Enhancing Academic Success

Academic success is influenced by a multitude of external factors such as infrastructure, teacher quality, school climate, parental attitude, and involvement; however, there are several intrinsic factors that energise and encourage learners in their academic pursuits. Some of them are interest, curiosity, self-efficacy, goal orientation, intrinsic motivation, and metacognitive awareness. Students with high achievement motivation are more likely to persist in the face of challenges, set academic goals, and perform better in school (Atkinson, 1964; McClelland, 1987).

Achievement motivation is an internal drive of an individual to accomplish academic goals, overcome challenges, and attain success. It involves setting challenging goals, continuing in the face of obstacles, and looking for opportunities to improve and accomplish tasks. Achievement motivation is defined as “the desire to perform well and be successful. In this sense, the term is often used synonymously with need for achievement” (American Psychological Association, n.d.).

Review of Related Literature

Achievement motivation, considered a major factor in influencing academic success, has been widely studied in relation to academic outcomes. This review mostly centres on previous empirical research studies done in India and abroad that examine achievement motivation as a correlate of academic success.

The influence of socio-cultural environment on achievement motivation is evident in many previous studies. Kumar and Bajpai (2015) observed significant differences in the achievement motivation of college students of Sikkim in terms of socio-economic status. Students from high socio-economic backgrounds displayed higher levels of achievement motivation than those from low socio-economic backgrounds. Similarly, Sarangi's (2015) research among tribal and non-tribal students in Assam ($n = 200$) has shown that urban students possess a higher motivation level than rural ones. In a study among 400 undergraduate students from Guwahati, Assam, including tribal and non-tribal students belonging to the Boros, Mishings, and Hajong communities, as well as students from General, OBC, and SC categories, Lama (2020) found that tribal students displayed significantly lower achievement motivation than non-tribal counterparts. Doifode (2018) revealed that non-tribal school students have significantly higher levels of achievement motivation compared to their tribal school counterparts in the Marathwada region, suggesting that there may be disparities in motivational factors between tribal and non-tribal students, influenced by various socio-cultural and educational factors. There are also disparities in achievement motivation within underprivileged groups. Tadavi and Sontakke (2022), in a study conducted in the Jalgaon district of Maharashtra, reported that Scheduled Caste students exhibit higher levels of achievement motivation compared to Scheduled Tribe students.

Gender is another variable that emerged in some studies as a factor that influences achievement motivation. In a study among 80 students from Ranchi, it was seen that female students scored significantly higher than male students (Kumari, 2025). Manisha (2021), in a study among senior secondary students of Jharkhand, found that female students exhibit higher intrinsic motivation than male students. Conversely, Kumar and Bajpai (2015) found that male students have more motivation for achievement than females. However, no gender variations in achievement motivation levels are noticed in certain previous studies (Lama, 2020; Manhas, 2017).

The impact of achievement motivation on learning outcomes is reported globally by several researchers. Rana (2022) reported that there is a substantial correlation between academic achievement motivation and achievement based on a survey among senior secondary school students ($n = 120$) selected from government and private schools in Ghaziabad. Karlina et al. (2021) highlighted the positive impact of achievement motivation on learning achievement in accounting courses among students at the University of Lampung, Indonesia. Based on a study conducted in Purnia, Bihar, Kurian (2021) noticed that there is a notable positive association between achievement motivation and achievement. Similarly, Bhuyan (2022) observed a notable positive relationship between academic motivation and achievement among tribal students in Jamshepur. Pandey and Singh (2018) observed that highly motivated students perform better in school. A substantial positive association between motivation and academic achievement was observed among non-tribal and urban students by Sarangi (2015). Tucker et al. (2002) argued that academic achievement motivation of students, including cognitive, emotional, and behavioural aspects of their investment in education, plays a central role in academic commitment.

The tribal life and culture are generally non-conducive to accomplishing academic success of learners who belong to tribal communities. Aman et al. (2025) revealed a significant difference in the academic achievement of tribal adolescents and that of non-tribal adolescents, as well as the superiority of non-tribal students in academic achievement. Kurian's (2021) study reported lower academic achievement of tribal students compared to their non-tribal peers.

Rationale of the Study

The tribal educational scenario is commendable in the North Eastern states of India, where literacy rates are relatively high and school participation of tribal students has shown remarkable progress (Singh, 2019). However, in several other states, including Odisha, the situation still remains pitiable, due to various challenges (Patnaik, 2020), and the tribal educational attainment lags behind that of other states. In this context, the present study seeks to examine how the achievement motivation of tribal students influences their academic performance and success, focusing on Keonjhar district—a district with a high concentration of tribal population in Odisha state.

Historically, centuries of oppression, discrimination, alienation, and humiliation have conditioned many tribal communities to lead their lives in relatively non-sophisticated and isolated environments (Xaxa, 2014). Lack of educational opportunities has driven the tribal people into ignorance. Even though noticeable progress and changes are emerging through various interventions and support from government agencies and non-governmental organisations (Kumar & Bhardwaj, 2020), these efforts have not eliminated the educational gap. A significant barrier lies in the lack of awareness about the long-term benefits of education, which fosters negative attitudes and predispositions among many tribal parents towards sending their children to school. The economic backwardness and poverty force families to engage their children in household jobs or wage-earning activities, often at the cost of formal education, worsening the tribal education scenario (Behera, 2015).

Achievement motivation is an internal trait that drives an individual towards setting goals and encourages them to accomplish them. It plays a crucial role in determining educational attainment (McClelland, 1987). Achievement motivation serves as a powerful psychological resource, enabling learners to overcome adverse conditions, continue their efforts, and strive for success despite obstacles (Schunk, 2014). In the context of Keonjhar, where tribal children usually face multiple socio-economic and cultural challenges, investigating the relationship between their achievement motivation and educational outcomes becomes particularly relevant. Such a study not only provides insight into the academic potential of tribal students but also holds significant implications for designing specific interventions for tribal empowerment through education.

Study Objectives

1. To assess the level of achievement motivation among tribal students in Keonjhar district.
2. To analyse the academic success of tribal students based on their academic performance.
3. To examine the relationship between achievement motivation and academic performance.
4. To explore gender-based differences in achievement motivation and academic performance.

Methodology of the Study

This investigation was planned as a district-wide study, and a descriptive survey design was adopted to gather primary data. The population comprised all the tribal students studying in secondary schools in the Keonjhar district of Odisha. A sample of 200 tribal students from ten secondary schools was selected for the survey. One hundred male students and 100 female students in the ninth standard were randomly chosen. The Deo-Mohan Achievement Motivation Scale was administered among the sample to assess their achievement motivation. It is a five-point self-reporting instrument comprising 50 items, with high reliability (Cronbach's alpha coefficient = .86). The instrument has a concurrent validity of .54, indicating a moderate correlation with other established measures. Moreover, the scale demonstrated a high correlation coefficient of .75 with the Aberdeen Academic Motivation Inventory. The academic performance of students was taken from school records. The collected data were analysed using both descriptive and inferential statistical techniques, and the findings were interpreted accordingly.

Results and Discussion

1. Level of achievement motivation among tribal students in Keonjhar district

The scores regarding the achievement motivation among tribal students ($n = 200$) in Keonjhar district obtained through the Deo-Mohan Achievement Motivation Scale were consolidated and analysed employing descriptive statistical procedures. The descriptive statistics for the distribution of achievement motivation scores of tribal students are given in Table 3.

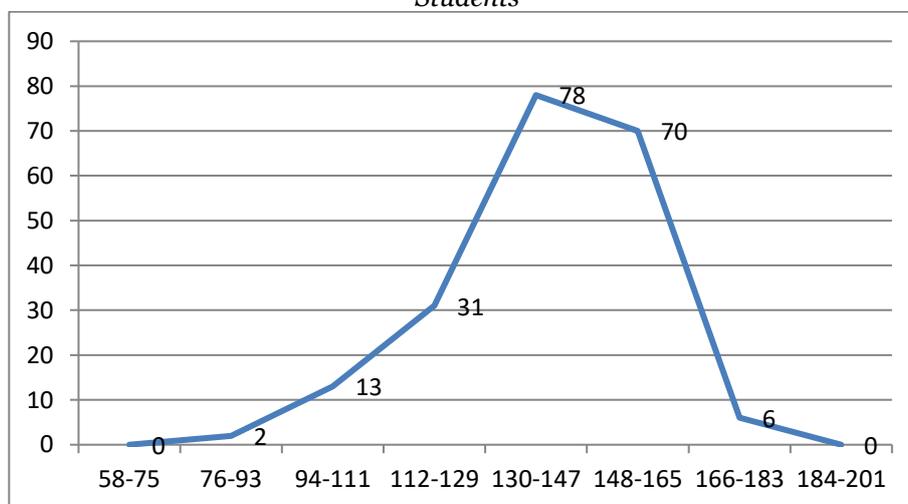
Table 3 *Descriptive Statistics of the Distribution of Achievement Motivation Scores of Tribal Students*

| Sl. No. | Statistic | Value |
|---------|-----------|-------|
|---------|-----------|-------|

| | | |
|---|----------|--------|
| 1 | Mean | 140.02 |
| 2 | Median | 141.96 |
| 3 | Mode | 145.84 |
| 4 | SD | 17.49 |
| 5 | Skewness | -0.333 |
| 6 | Kurtosis | 0.250 |

The maximum possible score for the Deo-Mohan Achievement Motivation Scale is 200, and the minimum possible score is 50. Since all the measures of central tendency fall above the midpoint of the scale (100), it can be inferred that the tribal students possess a moderate to high level of achievement motivation. The distribution of achievement motivation scores shows a slightly negatively skewed pattern (Skewness = -0.333). This is supported by the values of mean, median, and mode, where the mean (140.02) is slightly less than the median (141.96), which is less than the mode (145.84). The majority of students have scores higher than the mean, and a small number of students scored lower than the average. The standard deviation (17.49) shows a moderate spread of scores around the mean, indicating some variability in achievement motivation among students. The kurtosis value (0.250) is slightly less than 0.263, the characteristic value of a normal distribution (Garrett, 1966, p. 102), indicating that the distribution of achievement motivation scores is slightly more peaked than a normal distribution. The descriptive statistics suggest a moderate to high level of achievement motivation among tribal students. Figure 1 provides the graphical representation of the distribution of achievement motivation scores.

Figure 1 Graphical Representation of the Distribution of Achievement Motivation Scores of Tribal Students



2. Academic performance of tribal students

The sample for the study consisted of ninth-grade students selected from secondary schools in Keonjhar District, all following a common curriculum and examination system. The academic performance of these students was assessed using their previous year's final examination marks. The total marks (Out of 400 - the maximum possible score) obtained by 200 tribal students were collected from school records. Table 4 presents the descriptive statistics for the distribution of these scores.

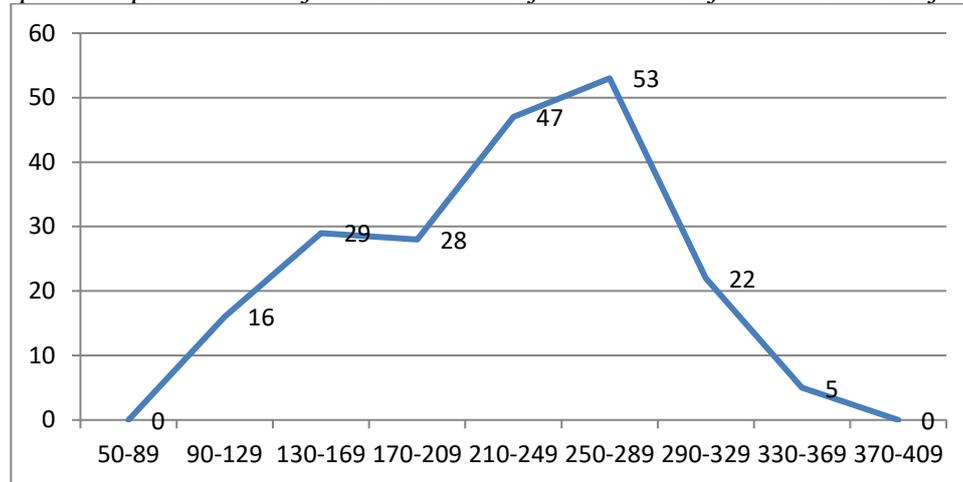
Table 4 Descriptive Statistics of the Distribution of Academic Performance Scores of Tribal Students

| Sl. No. | Statistic | Value |
|---------|-----------|--------|
| 1 | Mean | 232.48 |
| 2 | Median | 224.73 |
| 3 | Mode | 209.23 |
| 4 | SD | 60.28 |
| 5 | Skewness | +0.386 |
| 6 | Kurtosis | 0.286 |

The average scores of the tribal students in the final examination show only a moderate level of performance (232.48 out of 400; i.e. 58.12%). The distribution of academic performance scores of tribal students shows a slightly positive skewness (+0.386). The mean score (232.48) is greater than the median (224.73), and the mode (209.23) is lower than the median, suggesting that many students attained scores below the average.

The standard deviation of 60.28 shows a considerable variability in academic performance among the students. The kurtosis value of 0.286 (Greater than 0.263) indicates a slightly flattened distribution than a normal one (Garret, 1966, p. 102). Figure 2 shows the graphical representation of the distribution of academic performance scores.

Figure 2 Graphical Representation of the Distribution of Academic Performance Scores of Tribal Students



3. Relationship between achievement motivation and academic performance of tribal students

To explore the relationship between achievement motivation and academic performance of tribal students in Keonjhar district, the investigator subjected the achievement motivation scores and previous board examination marks to the Pearson correlation analysis. The results of the Pearson's correlation analysis are shown in Table 5.

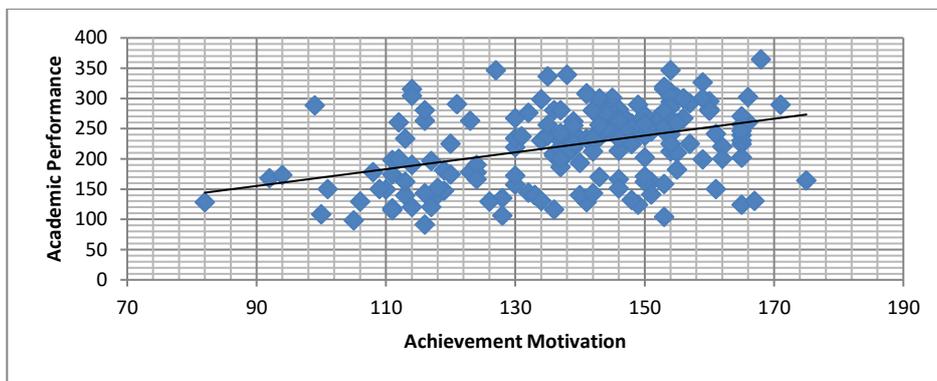
Table 5 Data Displaying the Relationship between Achievement Motivation and Academic Performance of Tribal Students

| N | r | t | SEr | 99% Confidence interval | | Significance |
|-----|--------|---------|------|-------------------------|-------|--------------|
| | | | | Lower | Upper | |
| 200 | .403** | 6.196** | .059 | .250 | .556 | p = .0000 |

** Significant at .01 level

The coefficient of correlation between achievement motivation and academic performance of tribal students is .403 (Table 5). The r-value exceeds the critical value, .181, required for a significant association at a significant level of .01 and at 198 degrees of freedom (Garrett, 1966, p. 201). The t-value calculated (6.196) is greater than 2.58, the critical value at the .01 level, implying the significance of the calculated 'r' value (Best & Kahn, 2006, p. 421). The 99% confidence interval has a lower limit of .250 and an upper limit of .556, and this range does not include zero. All these statistical results suggest that a significant positive relationship exists between the two variables studied. Hence, it is inferred that there exists a significant positive relationship between achievement motivation and the academic performance of secondary school tribal students in Keonjhar district. As the achievement motivation of secondary school tribal students increases, their academic performance increases to a significant extent. Figure 3 provides the scatter diagram representing the relationship between achievement motivation and the academic performance of tribal students.

Figure 4.3 Scatter Diagram Representing the Relationship between Achievement Motivation and Academic Performance of Secondary School Tribal Students



4. Gender-based differences in achievement motivation

To study the gender-based difference in the achievement motivation of tribal students, the investigator considered the achievement motivation scores of male and female subsamples separately. Using an independent sample t-test, the significance of the difference between the means of these two subsamples was calculated. Table 6 shows the results of the significance testing of the difference in subsample means.

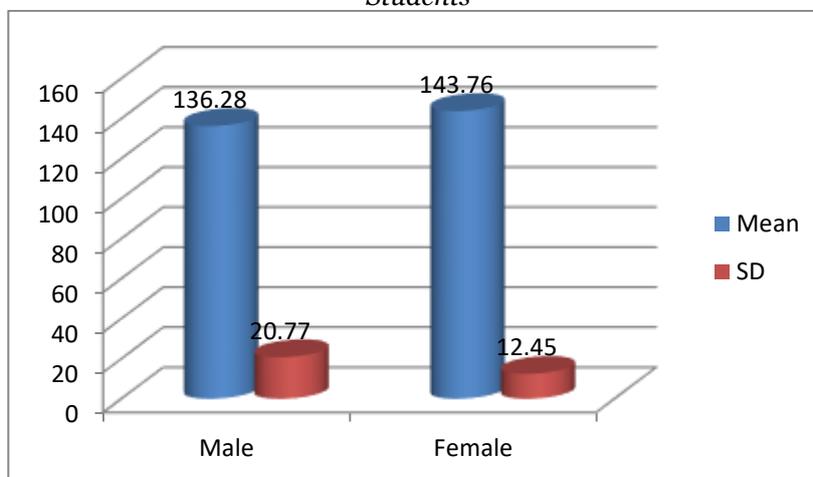
Table 6 Test of Significance of the Difference between Mean Achievement Motivation Scores of Male and Female Tribal Students

| Sl. No. | Gender | N | Mean | SD | t-value | t - critical |
|---------|--------|-----|--------|-------|-------------|----------------|
| 1 | Male | 100 | 136.28 | 20.77 | 3.088** | 2.601 |
| 2 | Female | 100 | 143.76 | 12.45 | (p = .0023) | (at .01 level) |

** Significant at .01 level

The mean score obtained for the achievement motivation scores of male tribal students was 136.28 with a standard deviation of 20.77, and that of female tribal students was 143.76 with a standard deviation of 12.45. The mean score of the female subsample is higher than that of the male subsample. The t-value calculated (3.088) surpasses 2.601, the critical value for a significant difference at the .01 level ($p < .01$). Therefore, the difference between the two mean scores is statistically significant. Hence, it is interpreted that the female tribal students possess more achievement motivation than their male counterparts, as the mean score of the former (143.76) is significantly greater than that of the latter (136.28). The graph representing the mean achievement motivation scores of male and female tribal students with respective standard deviations is shown in Figure 6.

Figure 6 Graphical Representation of Mean Achievement Motivation Scores of Male and Female Tribal Students



5. Gender-based differences in academic performance

The investigator collected the academic performance scores of male and female tribal students separately, and an independent sample t-test was carried out to ascertain the significance of the difference between the mean scores of these two subsamples. Table 7 shows the findings related to the t-test.

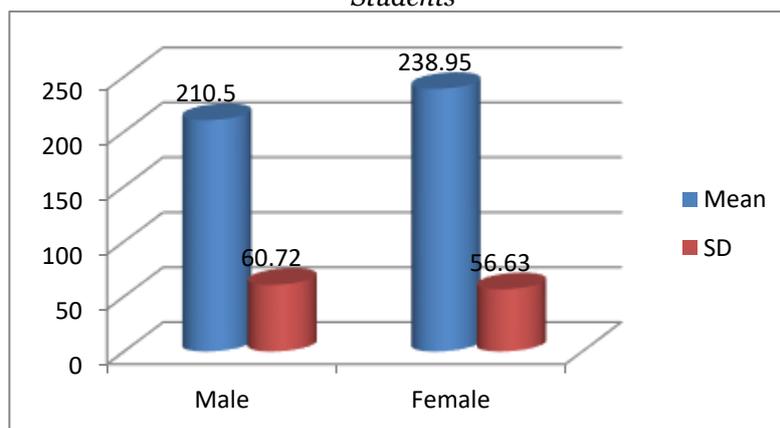
Table 7 Significance of the Difference between Mean Academic Performance Scores of Male and Female Tribal Students

| Sl. No. | Gender | N | Mean | SD | t-value | t - critical |
|---------|--------|-----|--------|-------|-------------|----------------|
| 1 | Male | 100 | 210.50 | 60.72 | 3.426** | 2.601 |
| 2 | Female | 100 | 238.95 | 56.63 | (p = .0007) | (at .01 level) |

** Significant at .01 level

The mean academic performance score obtained by male tribal students was 210.50 with a standard deviation of 60.72, and that of female tribal students was 238.95 with a standard deviation of 56.63. The t-value calculated (3.426) exceeds 2.601, the critical value required for a significant difference at the .01 level ($p < .01$). Therefore, the difference between the two mean scores is statistically significant. Therefore, it is interpreted that the female tribal students show more academic performance than their male counterparts, as the mean score of the former (238.95) is significantly greater than that of the latter (210.50). The graph representing the mean performance scores of male and female tribal students with respective standard deviations is shown in Figure 7.

Figure 7 Graphical Representation of Mean Academic Performance Scores of Male and Female Tribal Students



Findings and Conclusion

The current study reveals that tribal students in Keonjhar district exhibit a moderate to high level of achievement motivation, with most of the students scoring above the midpoint of the achievement motivation scale. Their academic performance is found to be moderate, with noticeable variability in scores; there is a tendency for many students to score below the average. A significant positive correlation ($r = .403$, $p < .01$) exists between achievement motivation and the academic performance of tribal students, indicating that students with higher motivation tend to perform better academically. Furthermore, gender-based differences are evident: female tribal students are significantly superior to their male counterparts in both achievement motivation and academic performance. The findings suggest that enhancing achievement motivation can positively influence the academic outcomes of tribal students in Keonjhar district.

The findings of the present study clearly establish a significant positive relationship between achievement motivation and academic performance among tribal students in Keonjhar district. This supports the previous body of literature which emphasises the role of intrinsic factors—such as self-efficacy, goal orientation, and motivation—in determining students' academic outcomes (Atkinson, 1964; McClelland, 1987). While external factors like infrastructure, school environment, and socio-economic status indubitably affect academic success, intrinsic motivational factors act as internal drivers that encourage persistence, engagement, and performance in learning contexts. The results of the study are consistent with prior research. Scholars such as Rana (2022), Karlina et al. (2021), and Kurian (2021) have reported similar positive correlations between achievement motivation and academic performance through different educational contexts. Similarly, Bhuyan (2022) found a significant association between academic motivation and achievement among tribal students. However, the moderate to high levels of achievement motivation observed among the tribal students contrast with earlier studies that reported lower motivation levels among tribal groups (Lama, 2020; Doifode, 2018; Sarangi, 2015). This discrepancy may point to improvements in educational awareness and support systems in the study area. Moreover, the study found that female tribal students outperformed their male counterparts in both achievement motivation and academic performance. This aligns with findings from Kumari (2025) and Manisha (2021), who observed higher levels of motivation among female students. However, the mixed findings from earlier studies regarding gender-based differences (e.g., Kumar & Bajpai, 2015; Lama, 2020) suggest that these patterns are not uniform across populations and may be influenced by context-specific cultural, social, or educational dynamics.

The present study highlights the importance of achievement motivation as a major determinant of academic success among tribal students. The findings suggest that enhancing achievement motivation through specific

interventions could lead to improved educational outcomes and success among tribal populations. Future educational policies and programmes must therefore not only address structural inequalities but also foster internal motivational factors through student-centred pedagogies, goal-setting strategies, and inclusive learning environments.

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