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## EFFECT OF SOCIO-ECONOMIC STATUS ON ACADEMIC ACHIEVEMENT OF TRIBAL STUDENTS AT SECONDARY LEVEL IN KALAHANDI DISTRICT

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### Abstract

Education is a fundamental right of every Indian child. It is the most important element for growth and prosperity of the nation. Human beings are uniquely endowed with many abilities. The intellectual and cultural aspects of human beings distinct from other animals. Unlike other creatures, humans are capable of learning and being educated. Education ensures survival of the human race, maintains its intellectual and cultural traditions and helps in developing enlightened civilisations that history has witnessed through ages. Education is an essential ingredient of socio-economic development. Tribal students being socially disadvantaged have significantly lower academic achievement as compared to the non-tribal students. Theirs' levels of performance are very much low due to psycho-social factors rooted in it. They need proper help, motivation, encouragement, guidance and remedial instruction. The proper diagnosis of their educational backwardness and corrective treatment are also necessary ingredients of a sound educational programme for the deprived tribal students' population in comparison to socially advantaged groups. Kalahandi is a backward district of Odisha. As per 2011 census 28.5% ST People live in Kalahandi district and the literacy rate of tribal people is 49.29%. Among the tribal people 98.06% people live in rural areas where as 1.94% people live in urban areas. Another interesting and important feature is that 48 types of tribes out of 62 types of Odisha are found to live in Kalahandi district. They are handicapped socially as well as educationally and found to be educationally backward.

**Keywords:** Socio-Economic Status, Academic Achievement, Schedule Tribe & Secondary Level.

### Introduction

The concept of social disadvantage, is a powerful combination of poverty and prejudice. The excellent potentialities of the child are destroyed prematurely or are allowed to develop only partially by the adverse socio-economic conditions. A large number of scheduled tribe families live below the national poverty line. The economic backwardness is linked with social backwardness in a vicious circle strengthening each other. Taking to the problems of tribal people, both the central and state governments have extended facilities by providing school building, teachers, free studentship, free textbooks and uniforms, free boarding and lodging facilities and mid-day meals, opening of ashram schools, establishing hostels, post-matric scholarship, remedial coaching, and guidance and counselling service in educational, vocational and personal problem from time to time to better the situations in India in general, states in particular. Education is recognized as an engine of social and economic development of a country. Education on the one hand improves the quality of life of the people through improvement in views, attitudes, perceptions and understanding and on the other improves livelihood opportunities and health and hygiene seeking behaviour. The educational level of the Tribals of Orissa, however, is very low, not only less than the state and national average but is also less than the average of the Tribals of the country. As per 2011 census 2,86,580(18.2%) are SC, 4,49,456(28.5%) and 840,833(53.3%) other people lives in Kalahandi. Among them 1,454,882 (92.26%) are in rural and 1,21,987 (7.74%) are in are in urban areas. Out of 4,49,456 ST people 4,40,775 (98.06%) are lives in rural area and 8,681(1.94%) people are lives in urban areas. Out of total population in Kalahandi 7,871,01(49.91%) are male and 7,897,68 (50.09%) are female. Out of 4,49,456 ST people 2,211,71 (49.21%) are male and 2,282,85 (50.79%) are female. Out of 2,211,71 ST male 2,16,883 (98.06%) are live in rural area and 4,288 (1.94%) are live in urban area. Out of 2,282,85 ST female 2,238,92(98.08%) are lives in rural area and 4,393 (1.92%) are lives in urban areas. As per 2011 census total population under 6 years is 2,22,570 (14%). Total literate is 8,02,036(59.22%). Male literate is 4,84,177(71.90%). Female literate is 3,17,859 (46.68%). Total illiterate is 7,74,833. Male illiterate is 3,02,924 and female illiterate is 4,71,909.

### Rationale of the Study

Education and academic achievement is closely related to each other. The whole system of education revolves round the academic achievement. In our society academic achievement is as a key criterion to judge one's total potentialities and capacities. Good (1959) defined academic achievement as "the knowledge attained or skills developed in the school subjects, usually designated by test scores or marks assigned by the teacher." It means the student's performance in school subjects and the behavioural changes which take place on individual as a result of learning experience. Academic achievement is of paramount importance to pupils themselves of any stage i.e., secondary, higher secondary, college, and University as well as teachers, parents, educational administrators, and policy makers. It plays a vital role in almost all aspects of human life. It is the major criteria for further administration, promotion and employment. Academic achievement at the secondary stage works as a foundation of education for further education of the child. Setting the stage for the achievement of the youth is thus a fundamental obligation of the educational system at the school stage. Academic achievement is a dependent variable and its success depends upon so many independent



variables like intelligence, interest, creativity, adjustment, personality pattern, achievement motivation, study habits, family climate, socio-economic status, social attitude, role of parents and mental health etc.

### Research Questions

On the basis of the above background of the problem the following research questions are raised by the researcher in his mind through the present piece of research work: -

1. What is the level of academic achievement of tribal students at secondary level?
2. Is the academic achievement of tribal students affected by socio-economic status?
3. Is there any difference in socio-economic status of three special category tribes namely Kandha, Gond and Sabar ?
4. Is there any difference among special category tribes in terms socio-economic status and academic achievement?
5. Is there any difference in between of boys and girls' students of three special category tribes namely Kandha, Gond and Sabar in terms of socio-economic status and academic achievement?
6. Is there any interaction effects of socio-economic status and academic achievement of tribal secondary school students?

### Statement of the study

In order to find out the answers of above research questions, the problem of the present study is stated as follows:- "**Effect Of Socio-Economic Status On Academic Achievement Of Tribal Students At Secondary Level In Kalahandi District**"

### Related literatures

The researchers conducted an intensive an intensive review of available kinds of literature related to academic achievement and socio-economic status. There are so many determinants of academic achievement. Socio-economic status is one among them. It measures education, income and Occupation of family members.

**Chattopadhyay and Durdhawale (2009)** have concluded that economic uncertainty and financial hardship are the contributing factors for the age-old disinterest in education among the tribes.

**Jamila (2009)** conducted a study on parent's socio-economic status and children's academic performance and found positive association between parental education level and children's academic performance.

**Garnaik and Barik(2012)** have reported that poverty is a major contributing factor for educational backwardness of tribal children. It is clear from the above-mentioned studies that socio-economic status is an important factor in determining academic achievement.

### Objectives of the study

1. To study the level of socio-economic status, and academic achievement of tribal students at secondary level
2. To study the relationship of socio-economic status with academic achievement of tribal students at secondary level
3. To compare mean scores of socio-economic status and academic achievement of tribal students of special category tribes at secondary level
4. To compare the mean scores of socio-economic status and academic achievement of tribal boys and girls students of special category tribes at secondary level
5. To study the interaction effect between socio-economic status and special category tribes on the academic achievement of tribal students at secondary level

### Hypotheses

The hypotheses of the present study are stated as follows:-

1. There exists no significant relationship of socio-economic status with academic achievement of tribal students at secondary level.
2. There exists no significant differences in mean scores of socio-economic status and academic achievement of tribal students at secondary level.
3. There exists no significant differences in mean scores of socio-economic status and academic achievement of tribal boys and girls students of special category tribes at secondary level
4. There exists no interaction effect between socio-economic status and special category tribes on the academic achievement of tribal students at secondary level.

### Delimitation of the study

- The present study has been limited in the following manner:
- The study is limited to two major variables i.e. Socio- Economic Status and Academic Achievement.
- The study is limited on class X secondary school tribal students of Govt. and Govt. aided studying under Board of Secondary Education, Odisha.



- The study is delimited to only Kalahandi district of Odisha.
- The study is delimited to scheduled tribe students (class X) belonging to three specific tribes i.e.Kandha, Gond and Sabar.

### Research Method

So as the research methodology is concerned, the present study comes under the scope of “Ex-post facto research design”, as the effect of socio-economic status has been investigated.

### Population and Sample

All the tribal students studying in class X under the Board of Secondary Education, Odisha of Kalahandi district from the population of the present study. The investigator has collected the data of 300 tribal students (150 boys and 150 girls) randomly, out of these selected schools, which are treated as the sample of the present study. Further, the same 300 sample students belong to three specific tribes i.e.,Kandh, Gond and Shabar consisting 100 from each category. Again each 100 tribal students of specific category 50 are boys and 50 are girls.

### Tools and Techniques Used

The investigator has used the following tools in the present study: **Revised form of Kuppaswamy Socio-Economic Status scale developed by SCERT Odisha (1988) Odia version.**

### Academic Achievement Score

The total achievement scores (that is the aggregate of all the subjects) were recorded from students’ previous year’s (class IX) annual examination results collected from the mark register of the school. The percentage of the total achievement score was calculated as the index of the academic achievement, which is used for analysis and interpretation of data.

### Statistical Techniques Used

In order to analyse the data with suitable statistical techniques, the following statistics were employed:- Frequency Polygons, Product moment correlation, Mean, SD, ‘t’ test and ANOVA.

### Analysis and interpretation

Objective-1 For this purpose the researcher distributed the raw scores with some class intervals having frequencies. On the basis of the distribution of scores the levels of socio-economic status and academic achievement are found i.e., above average, average and below average. Therefore, the three levels were interpreted in a pie-chart showing percentages.

Graphical representation in frequency polygon

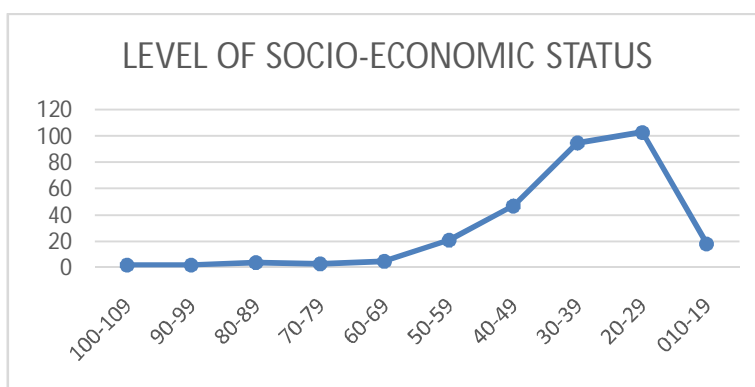


Figure 1 socio-economic status level in frequency polygon

Pie chart showing percentages of socio-economic status

From the frequency polygon three levels of socio-economic status were found among the tribal students i.e. average, above average and below average. The percentages of these levels were calculated and depicted in pie-chart, which is given below.

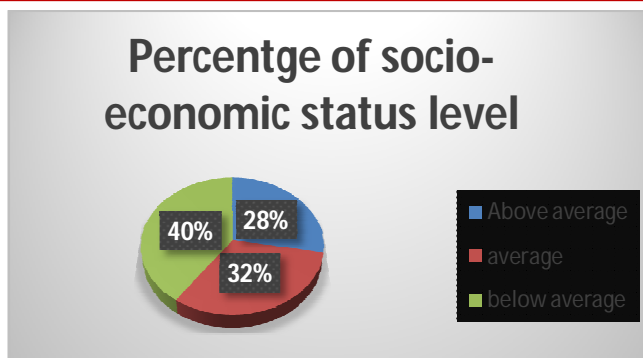


Figure 2 pie-chart showing socio-economic status level in %  
 Graphical representation in frequency polygon

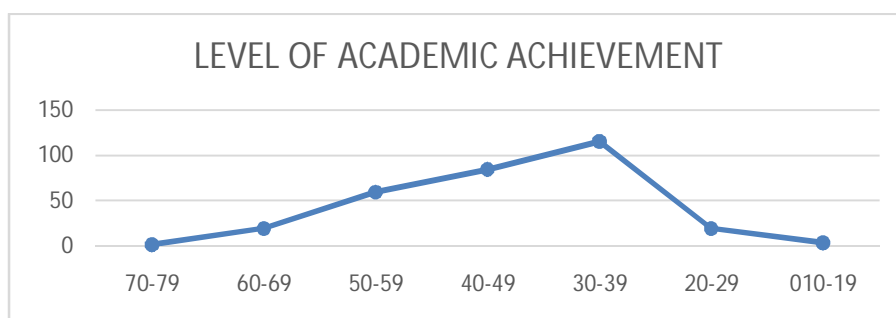


Figure 3: academic achievement level in frequency polygon  
 Pie chart showing percentages of academic achievement

From the frequency polygon three levels of academic achievement were found among the tribal students i.e., average, above average and below average. The percentages of these levels were calculated and depicted in pie-chart, which is given below.

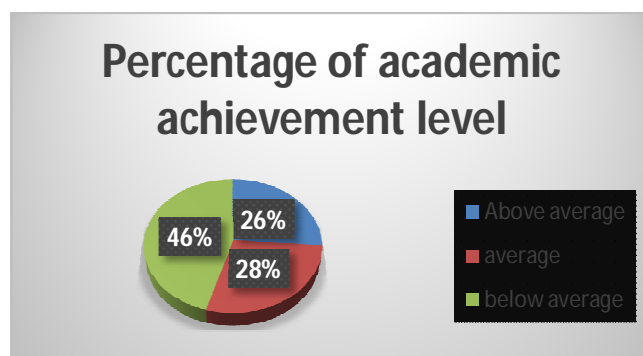


Figure 4: Pie-chart showing academic achievement level in %

The above pie-chart shows the academic achievement level among tribal students. As per the data of the pie-chart, it is clear that out of the selected tribal secondary school students, near about 46% students were having below average academic achievement level, 28% students were having average academic achievement level and 26% students were having above average academic achievement level.

Objective 2-Product-moment coefficients of correlation were computed for this purpose and the results are given in Table No- 1  
 Table No-1 Correlation coefficients (r) & N

Sr. No	Variables	N	Correlation Coefficient(r)	Significant
1	Socio-Economic Status & Academic Achievement	300	r = .269	YES



### Socio-Economic Status and Academic Achievement

The correlation coefficient between socio-economic status and academic achievement was found to be .269, which is significant at .01 level of significance. This shows that socio-economic status has a significant bearing on the academic achievement scores of tribal students of X class. Thus, the hypothesis of no significant correlation between socio-economic status and academic achievement is rejected and alternative hypothesis is accepted. Therefore, it may be said that there is significant positive correlation between socio-economic status and academic achievement of tribal students.

### Analysis of differences in independent and dependent variable in terms of special category tribes.

Objective-3 One of the objectives of the present study was to compare mean scores of Kandha, Gond and Shabar tribes in terms of socio-economic status and academic achievement. For this purpose one way ANOVA has been used by the investigator.

#### Differences in special category tribes in terms of socio-economic status

Table -2 Descriptive statistics of Socio-economic status.

Tribes	N	MEAN	SD	Standard Error	Minimum	Maximum
Kandha	100	34.856	13.684	1.368	19.25	102.60
Gond	100	33.356	13.774	1.377	13.40	92.50
Shabar	100	37.053	16.327	1.632	16.50	107.40
Total	300	35.088	14.676	0.847	13.40	107.40

The table-2 shows the mean, SD, N, Standard error, minimum and maximum values of socio-economic status of Kandha, Gond and Shabar tribe students. However, in order to study significance of difference among the three special tribes, one-way ANOVA was run and the results are given below.

Table -3 Results of ANOVA in terms of Socio-economic status

	Sum of scores	df	Mean squares	F	Remarks
Between Groups	691.330	2	345.665	1.611	NS
Within Groups	63715.695	297	214.531		
Total	64407.025	299			

From table -3 it is evident that the F value is 1.611, which is not significant at 0.05 level and 0.01 level of significance with  $df= 2/297$ . It shows that the mean scores of socio-economic status of Kandha, Gond and Shabar tribe don't differ significantly. Thus, the null hypothesis that there is no significant difference among mean scores of socio-economic status of Kandha, Gond and Shabar tribe is accepted. Therefore, it may be said that there is no significant difference in the means of socio-economic status of Kandha, Gond and Shabar tribal students. As the result of ANOVA was not significant, so Post-hoc-test was not applied for further analysis of the objectives.

#### Differences in special category tribes in terms of Academic Achievement

Table -4 Descriptive statistics of academic achievement

Tribes	N	MEAN	SD	Standard Error	Minimum	Maximum
Kandha	100	39.73	8.4818	0.8481	16.83	67.50
Gond	100	39.39	10.0259	1.0026	20.00	69.16
Shabar	100	47.29	10.1340	1.0134	19.83	72.00
Total	300	42.14	10.2195	0.5900	16.83	72.00

However, in order to study significance of difference among the three special tribes one-way ANOVA was run the results are given below.

Table -5 Results of ANOVA in terms of academic achievement

	Sum of scores	df	Mean squares	F	Remarks
Between Groups	3986.325	2	1993.163	21.731	Significant
Within Groups	27241.017	297	91.721		
Total	31227.342	299			



From table -5 it is evident that the F value is 21.731, which is significant at 0.05 level of significance with  $df= 2/297$ . It shows that the mean scores of academic achievement of Kandha, Gond and Shabar tribe differ significantly. Thus, the null hypothesis that there is no significant difference among mean scores of academic achievement of Kandha, Gond and Shabar tribe is rejected. Therefore, it may be said that there is significant difference in the means of academic achievement of Kandha, Gond and Shabar tribal students. . As per the data presented in the table it is evident that the mean difference between Kandha and Shabar is significant at 0.05 level as the p. value was less than 0.05.

Thus, there is significant difference between mean scores of academic achievement of Kandha and Shabar tribe. As the mean score of Shabar tribe was significantly higher than Kandha, so it may be said that the Shabar tribal students differ significantly from Kandha tribal students in terms of academic achievement.

**Analysis of Differences of socio-economic status and academic achievement of boys and girls in terms of their tribe i.e.,Kandha, Gond and Shabar.**

Another objective of the present study was to find out the differences between Mean Scores of boys and girls tribal students of class X belonging to special category tribes i.e. Kandha, Gond and Shabar on variables socio-economic and academic achievement. Hence, ‘t’ test was computed for the purpose. The values of ‘t’ test, Mean, S.D. for given variables are provided in below Table.

**Significance of difference between Mean Scores of tribal boys and girls of Kandha, Gond and Shabar in terms of Socio-Economic Status.**

Table No- 6

Sr.No.	Variable	Tribe	Group	N	Mean	SD	‘t’ value	Signi
1	Socio-economic Status	Kandha	Boys	50	34.46	7.80	0.286	NS
			Girls	50	35.25	17.80		
2		Gond	Boys	50	35.11	13.11	1.283	NS
			Girls	50	31.59	14.31		
3		Shabar	Boys	50	36.84	14.81	0.128	NS
			Girls	50	37.26	17.86		

**Significance of difference between Mean Scores of tribal boys and girls of Kandha, Gond and Shabar in terms of Academic Achievement.**

Table No-7

Sr.No.	Variable	Tribe	Group	N	Mean	SD	‘t’ value	Signi
1	Socio-economic Status	Kandha	Boys	50	34.46	7.80	0.286	NS
			Girls	50	35.25	17.80		
2		Gond	Boys	50	35.11	13.11	1.283	NS
			Girls	50	31.59	14.31		
3		Shabar	Boys	50	36.84	14.81	0.128	NS
			Girls	50	37.26	17.86		

\* Significant at 0.01 level

Thus, the hypotheses of no significant sex differences in mean scores of Kandha and Shabar tribal students at secondary level is accepted. Whereas the hypothesis of no significant difference in mean scores of Gond boys and girls on academic achievement is rejected and the alternative hypothesis is accepted.

Therefore, it may be said that there is no significant differences in mean scores of boys and girls belonging from Kandha and Shabar tribes interms of academic achievement. But there is significant difference between mean scores of boys and girls belonging from Gond tribe in terms of academic achievement.

**Analysis of Achievement Scores of Tribal Students of Kandha, Gond and Shabar Tribes**

One important objective of the present research work is to study the effects of socio-economic status and tribe on academic achievement of special category tribes at secondary level. So, to analyse the data of present study, the investigator has adopted Two Way ANOVA technique of statistics. In the 2-way ANOVA, the variables like socio-economic status and tribe are taken as



independent variables and academic achievement scores is taken as dependent variables. Thus, the following factorial designs of Two-Way ANOVA was used for analysing the data;

Tribe x Socio-Economic Status (3x2)

Table - 8

SL.NO	Variables	Leven's statistics	df1	df2
01	Tribe X (Socio-economic status)	1.82	5	294

The table-8 shows the Leven's statistics and degree of freedom. As per the data of the table, it was found that Leven's statistics value of tribe verses socio-economic status level found to be less than the table value at 0.05 level(2.25) and 0.01 (3.08) level of significance vide 5/294 df. Thus, it was concluded that the variances within the groups don't differ significantly, so the assumptions of homogeneity of variance was assumed.

### Analysis of effect of tribe and socio-economic status on academic achievement

This section deals with analysis of effects of tribe and socio-economic status on academic achievement of tribal students. In these section two kinds of effects were examined i.e., main effect and interaction effect.

### Descriptive statistics

Table -9 N, Mean, and SD of tribal students in terms of socio-economic status

Tribe	Socio-Economic Status level	N	Mean	SD
KANDHA	High Socio-Economic Status	45	42.8040	8.23726
	Low Socio-Economic Status	55	41.1631	7.65768
	Total	100	41.9015	7.92561
GOND	High Socio-Economic Status	41	45.1841	10.95576
	Low Socio-Economic Status	59	40.7963	10.72135
	Total	100	42.5953	10.97924
SHABAR	High Socio-Economic Status	31	48.5035	11.17011
	Low Socio-Economic Status	69	38.9703	10.40125
	Total	100	42.9256	11.47847
TOTAL	High Socio-Economic Status	117	45.1482	10.22427
	Low Socio-Economic Status	183	40.2180	9.76831
	Total	300	42.1408	10.21955

The table no - 9 shows in the Kandha tribe the mean of high socio-economic status was found to be higher than the mean of low socio-economic status. Secondly in the Gond tribe mean of high socio-economic status was found to be more than the mean of low socio-economic status. Similarly, in the Shabar tribe the mean of high socio-economic status was found to be higher than the mean of low socio-economic status. However, as a whole among all the tribes the mean of high socio-economic status was found to be slightly more than the mean of low socio-economic status.

### Tests of Between-Subjects Effects

Table No-10 Summary of two-way ANOVA

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2507.385 <sup>a</sup>	5	501.477	5.134	.000
Intercept	515709.825	1	515709.825	5279.210	.000
Tribe	143.482	2	71.741	.734	.481
SES.level	1884.732	1	1884.732	19.294**	.000
Tribe * SES.level	727.890	2	363.945	3.726*	.025
Error	28719.958	294	97.687		
Total	563981.450	300			
Corrected Total	31227.342	299			

a. R Squared = .080 (Adjusted R Squared = .065)

\*significant at 0.05 level \*\*significant at 0.01 level



### Main Effect- Tribe

From the table No-10, it is seen that F value of 0.734 for tribe is not significant. It indicates that the mean scores of academic achievement of students of Kandha, Gond and Shabar don't differ significantly. So, there is no significant effect of tribe on academic achievement of students. Thus, the null hypothesis that there is no significant effect of tribe on academic achievement is accepted. It may, therefore be said that the students of Kandha, Gond and Shabar tribe were found to have a similar type of academic achievement at secondary level.

### Socio-economic status

The F value of socio-economic status was found to be 19.29, which is significant at 0.01 level with  $df=1/294$ . It indicates that the mean scores of academic achievement of tribal students having high and low socio-economic status differ significantly. So there is a significant effect of socio-economic status on the academic achievement of tribal students. Thus, the null hypothesis that there is no significant effect of socio-economic status on academic achievement of students is rejected. Further the mean score of students having high socio-economic status is 45.15, which is significantly higher than the students having low socio-economic status is 40.22. It may therefore be said that tribal students having higher socio-economic status were found to have higher academic achievement as compared to tribal students having lower socio-economic status.

### Interaction effect (Tribe and Socio-economic status)

The F-value for interaction between tribe and socio-economic status is 3.73, which is significant at 0.05 level with  $df=2/294$  (vide table No-10). It indicates that the mean scores of academic achievement of Kandha, Gond and Shabar having high and low socio-economic status differ significantly. So, there is significant interaction effect between tribe and socio-economic status on academic achievement of tribal students. Thus, the null hypothesis that there is no significant interaction effect between tribe and socio-economic status on academic achievement of tribal students is rejected. It may therefore be said that there exists significant interaction effect between tribe and socio-economic status on academic achievement of tribal students.

### Main Findings

Near about 28% of tribal students at secondary level have above average socio-economic status level, 32% students have average level of socio-economic status, and have 40% students have below average level of socio-economic status.

Near about 26% of tribal students at secondary level have above average level of academic achievement, 28% students have average level of academic achievement and 46% students have below average level of academic achievement.

- There is significant positive correlation between socio-economic status and academic achievement of tribal students.
- There is no significant differences in the means of socio-economic status of Kandha, Gond and Shabar tribal students.
- There is significant difference between mean scores of Shabar and Kandha tribes in terms of academic achievement and Shabar tribal students have better academic achievement than the Kandha tribal students. But there is no significant differences in the means of academic achievement of Kandha and Gond, and Gond and Shabar tribal students.
- There is no significant differences between mean scores of boys and girls of Kandha, Gond and Shabar tribes in terms of socio-economic status.
- There is no significant differences in mean scores of boys and girls belonging from Kandha and Shabar tribes in terms of academic achievement.
- There is significant difference between mean scores of boys and girls of Gond tribe in terms of academic achievement. The academic achievement of boys are better than girls.

### Discussion

From the results of present study it is clear that there is significant and positive correlation between socio-economic status and academic achievement of 10<sup>th</sup> class tribal students. Similar findings were reported in support of the results of the present study by Pandey (1981); Suri (1984); Mohanty (1985); Mehrota (1986); Mishra (1986); Trivedi (1987); Mishra (1993); and Jamila (2009) for non-tribal students. The study of effect of socio-economic status on academic achievement indicates that there is significant effect of socio-economic status on academic achievement of tribal students and students having higher socio-economic status were found to have higher academic achievement than the students having lower socio-economic status.

### Conclusion

The present study is much more importance in the present day context as there is a growing realization of focusing attention on the education of the disadvantaged including the tribal groups of people for their upliftment. Therefore, a study of effects of socio-economic status on academic achievement of X class tribal students, provides an empirical basis for understanding that how much the tribal students' academic achievement is related to the variables cited above and how far the differences exist in mean scores between



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boys and girls and among the three special category tribes i.e. Kandha, Gond and Shabar in terms socio-economic status and academic achievement, which can be useful for the disciplines like Anthropology, Sociology, Psychology and Education, as well as, to the teachers, teacher educators, educational administrators, curriculum framers and policy makers in adopting correct remedial measures.

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