

# A Study on the Influence of Gender and Race on the Academic Achievement of Grade VIII Learners in East Siang District of Arunachal Pradesh



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## Abstract

Elementary education in 21<sup>st</sup> century plays a very crucial role towards the development of child education in particular and the nation in general. The entire edifice of the education and future of the child is dependent on the foundations that he/she gets at elementary level of education. The integral development of child's personality specifically takes place during elementary stage of education. It is well known fact that if the child is rightly looked after at the primary stage education his/her further education automatically gets good beginnings. The present study deals with the academic achievement of elementary school students of East Siang district in relation to independent variables like gender and tribes. In the present study, a sample of 560 elementary school students from 15 schools were selected through simple random sampling technique adopted under the purview of the descriptive survey method educational research. The data were collected from schools records and analyzed through the descriptive and inferential statistical measures. The study revealed the variations in academic achievements among the learners in the selected district of Arunachal Pradesh in relation to the independent variables that have been stated above.

**Keywords:** Academic Achievement, Elementary Education, Assessment, Curriculum

## Introduction

Elementary education is said to be the backbone of the entire education system of any country. In this programme a many teachers, supervisors, and administrators are engaged to deal with the biggest numbers of pupils enrolled at this stage of education. As such, some from the point of view of magnitude, from the stand point of psychological preparedness, from the preponderance of sociological influences in view of the economic necessities, and the philosophical background and in view of scientific enlightenment and humanism, the role of elementary education is extremely significant and crucial elsewhere.

Present system of elementary education gives utmost importance to all the domains of the child i.e. cognitive, affective and psychomotor developments. On the other hand it cannot be denied that cognitive development of the child is regarded as one of the major indicators of quality education. We know that evaluation/examination plays major role in the assessment of the learner's understanding level of the different subjects taught in the classroom by a teacher. The four familiar areas of school curriculum, i.e. language, mathematics, science, and social sciences are generally being taught in the elementary level of education. The learners at this stage are more or less dependent on the pedagogy of the teacher to understand the significance of the different subjects taught at this stage. In prevalent era, the parents are not only more conscious about their child's education, but also they are more concerned about the quality of education as their children are getting high academic achievement that plays as an indicator of the same. Since elementary stage of education is the stepping stone for higher level of education, no doubts it needs sincere efforts from concern authority, teachers, parents and student itself to making it more productive. There are many variables which effect the academic achievement of the learner but if efforts are made whole heartedly by the teachers, parents and the students it can be improved up

to great extent. In context to primary education the NCF-2005 sets out the following aims of education and Curriculum Areas at School Stages and Assessment.

1. Commitment to democratic values of equality, justice and freedom.
2. Concerns for other's well being.
3. Secularism
4. Respect for human dignity and rights.

### Languages

1. Taking note of the fact that language skills- speech and listening, reading and writing-cut across school subjects and disciplines. Their foundational role in children's construction of knowledge right from elementary classes through senior secondary classes needs to be recognized.
2. Making renewed effort to implement the three-language formula, emphasizing recognition of children's mother tongue(s) as the best medium of instruction. These include tribal languages.
3. Keeping in view that success in learning English is possible only if it builds on sound language pedagogy in the mother tongue.
4. Seeing multilingual character of Indian society as a resource for enrichment of school life.

### Mathematics

1. Considering mathematization (ability to think logically, formulate and handle abstraction) rather than 'knowledge' of mathematics (formal and mechanical procedures) as the main goal of teaching mathematics.
2. Enhance the child's ability to think and reason, to visualize and handle abstractions, to formulate and solve problems. Access to quality mathematics education in the right of every child.

### Science

1. Making content, process and language of science teaching commensurate with learner's age-range and cognitive reach.
2. Engaging the learner in acquiring methods and process that will nurture their curiosity and creativity, particularly in relation to the environment.
3. Placing science teaching in the wider contexts of children's environment to equip them with requisite knowledge and skills to enter the world of work.
4. Permeating of environmental concerns through the entire school curriculum.

### Social Science

1. Equipping children with moral and mental energy so as to provide them the ability to think independently and reflect critically on social issues.
2. Promoting inter disciplinary approaches, to key national concerns such as gender justice, human rights and sensitivity to marginalized groups and minorities.
3. Recasting civics as political science, and recognizing the history as a shaping influence on the child's conception of the past and civic identity.

### Review of Related Literature

By looking into the previous studies it can be focused here that the importance of academic performance of the child cannot be denied because it indicates the cognitive development of the child as a whole. The present study deals with the academic achievement of learners at elementary stage of education. Taking the background of the study, it seems that number of studies have been conducted in context of academic achievement of learners by researchers like Kapoor, Lungdim, and Acharya (2009), Taloh (2009), Mishra (2002), Benipal and Singh (2014), Collier (1992), Sirin (2005), Liem and Connel (2004) etc. with several variables. But on the other hand when we look at the current status of elementary education in Arunachal Pradesh, it seems to be a study area which needs in-depth and early attention from researchers. Therefore the investigators had taken this study area.

### Objectives of the Study

In view of the nature of the problem, the investigators have formulated the following objectives.

1. To study the academic achievement of male and female elementary school students of East Siang District of Arunachal Pradesh.
2. To study the academic achievement of Non-Tribal and Tribal elementary school students of East Siang District of Arunachal Pradesh.

### Hypotheses of the Study

The investigators formulated the following hypotheses on the basis of the nature of the problem and objectives of the study.

#### H<sub>01</sub>

There is no significant difference between the male and female students academic achievement at elementary schools of East Siang District.

#### H<sub>02</sub>

There is no significant difference between the academic achievement of Non-Tribal and Tribal students of East Siang District.

### Methodology

The following methodology was adopted for the present piece of research work.

### Sample

A sample of 516 elementary school students from 15 schools were selected through simple random sampling technique adopted under the purview of the descriptive survey method. The students were divided into two groups on the basis of their race and gender variation.

### Tools

In this study, the investigators did not use any tool for the collection of data rather collected the total academic achievement scores of the elementary school students in all the five subjects (English, Hindi, Mathematics, Science, and Social Science) in the final year examination 2010-2011 from the respective 15 elementary schools of East Siang District of Arunachal Pradesh.

### Analysis and Interpretation of Data

In the present study, the descriptive statistical techniques - Mean, SD, and the Inferential Statistics t-test were used for the analysis of data.

## Results and Findings

The major findings of the study have been put under in tune of the objectives and hypotheses of the study.

**Table-1**

**Mean and Standard Deviation (SD) of Scores of Elementary School Students of East Siang District of Arunachal Pradesh**

N	M	SD
516	187.48	56.25

### Interpretation

From the Table-1 it is clear that the computed mean score of academic achievement of elementary school students of East Siang District came out to be 187.48 out of total 500 marks which is very low and may be treated as unsatisfactory. It is a matter of great concern for the teacher, educational administrators and the state government as a whole. Further in the study it was also found that 51.64% elementary school students were found above the mean score (187.48) and 48.36 % learners were found below the mean score. This indicates that the quality of elementary education in the District is very low. The researcher investigated the variations pertaining to the academic achievement of elementary school students and it was found that the achievement scores vary from 96 to 446 which is a very wide gap between the highest and the lowest academic achievement scores of the elementary school students of East Siang District. Therefore, the computed standard deviation came out to be 56.25 which indicates a wide gap among achievement scores of the elementary school students of the district.

**Table-2**

**Mean Scores, Standard Deviations, and 't' value of the Academic Achievement of Male and Female Elementary School Students of East Siang District of Arunachal Pradesh**

Gender	N	M	SD	SE <sub>D</sub>	't' Value
Male	286	189.18	62.15	0.87	4.38
Female	230	185.37	56.73		

### Interpretation

The Table-2 indicates that the computed t-value (4.38) came out to be greater than the criterion t-value (1.96) at 0.05 level of confidence for 514 df. As the computed t-value (4.38) is significant at 0.05 level of confidence, therefore the formulated hypothesis. "there is no significant difference between the male and female learners academic achievement at elementary schools of East Siang district" gets rejected. It means that elementary schools male and female learners of the district do differ in their academic achievement. The Table-2 also revealed that the mean score of male learners (189.18) is slightly higher than the mean score of female learners (185.37). From Table-2 it can be also concluded that male learners are better than their female counterpart in academic performance at elementary stage of education in East Siang District of Arunachal Pradesh.

**Table-3**

**Summary of Academic Achievement Mean Scores, Standard Deviations, and 't' Value of Non-Tribal and Tribal Elementary School Students of East Siang District of Arunachal Pradesh**

Race	N	M	SD	SE <sub>D</sub>	't' Value
Non-Tribal	103	203.5	39.58	2.64	7.57
Tribal	413	183.5	58.26		

### Interpretation

The Table -3 indicates that the computed t-value (7.57) came out to be greater than the criterion t-value (1.96) at .05 level of confidence for 514 df. As the computed t-value (7.57) is significant at 0.05 level of confidence, therefore the formulated hypothesis: "there is no significant difference between the academic achievement of Non-Tribal and Tribal students of East Siang district" get rejected. It means that the Non-Tribal and Tribal elementary school students of the East Siang district do differ in their academic achievement. The Table-3 also revealed that the mean score of Non-Tribal (203.5) is higher than the mean score of Tribal learners (183.5). From this it can be conclude that Non-Tribal learners are better than Tribal learners in academic performance at elementary stage of education in East Siang district of Arunachal Pradesh.

### Major Findings of the Study

Much scoring gaps were found in academic achievement of students, and the calculated mean was also found to be not up to the satisfactory level. Male elementary students were performed better than their female counterparts in academic achievement. Non Tribal elementary students were performed better than their Tribal counterparts in academic achievement.

### Conclusion

It is thus concluded from the present study that the academic achievement mean of the students at elementary stage of education in East Siang district is not up to the satisfactory level. Research also shows that there exists a significant difference between the academic achievement of boys and girls, and that of Non Tribal and Tribal students at elementary stage of education in East Siang district of Arunachal Pradesh. The study also revealed that the mean score of boys were found to be more than that of the girls, and the mean score of Non Tribal students were higher than that of their Tribal counterparts. Finally, the study indicates that the more attentions need to be provided by the Government, Teachers, Parents, and curriculum planners for improvement of the academic achievement of the students at elementary stage of education in East Siang district of Arunachal Pradesh in particular..

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