



A STUDY OF ATTITUDE TOWARDS SCIENTIFIC INTEREST AMONG THE TRIBAL STUDENTS AT SECONDARY LEVEL IN KOHIMA

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Abstract:

The purpose of the study was to determine the attitude towards Scientific Interest of tribal students. A sample of 78 tribal students (39 from private and 39 from Govt secondary school students) were selected by stratified random sampling method. And 'Scientific Attitude Scale (SAS) designed by Dr. Sukhwant Bajwa and Monika Mahajan were used for collection of data. The result revealed that tribal students of private secondary schools have more in relation to their scientific interest and its curiosity in comparison to tribal students of Govt secondary schools.

Keywords: Scientific Interest & Tribal Students.

1. Introduction:

1.1 Background of the Study:

Education is a systematic process through which a child or an adult acquires knowledge, experience, skill and sound attitude. It makes an individual civilised, refined, cultured and educated. Every society has to give importance to education because it is a panacea for all evils and the key to solve the various problems of life. An educated person is socially conscious, morally upright, culturally distinct and yet nationally integrated. Education is a unique feature that plays the most dominant role in the life and evaluation of mankind. Hence education at all levels namely-Primary, Middle, Secondary, Higher secondary and Higher education plays an important role in shaping, sharpening and refining personality of the person.

NPE (1986-1992) "Access to Secondary education will be widened with emphasis on enrolment of girls, SC, ST, particularly in Science, Commerce and Vocational streams. Vocationalisation through specialised Institutions or through the re-fashioning of Secondary Education will, at this stage, provides valuable manpower for Economic growth."

Secondary Education prepares the students for Higher education and also for the world of work. Classes IX and X constitute Secondary stage (14-16 yrs) and Classes XI and XII constitute the Higher Secondary stage of schooling (16-18 yrs). This stage is on the one hand as strong or as weak as the school stage is and is simultaneously a test of the soundness of the learning culture developed at the school. The Secondary level is in relation to the school both the mirror and reflector. On the other hand the foundations for higher learning are laid at this stage. In that sense the University and the colleges can only build on the material formed at the secondary stage. Besides general education, vocational knowledge and skill be provided to enable students to be employed.

1.2 Nagaland Overview:

The state of Nagaland is located in the extreme North-Eastern part of India which has been inaugurated on the 1st of December 1963. Nagaland is a store house of rich culture and traditions. It is a land of song and music. It is also known the Switzerland of the east for its scenic beauty of landscapes, the vibrantly colourful sunrise and sunset, lust and verdant flora and fauna. The inhabitant here belongs to the Indo-Mongoloid

race who are known to be simple, friendly, hardworking, honest, self-respecting and hospitable.

The exact number of Naga tribes is not known because they are now found not only in Nagaland, but also in the contiguous areas of the Indian state of Manipur, Assam and Arunachal Pradesh, as also in Myanmar (Burma). Thus Naga inhabited areas, sometimes call greater Nagaland, is divided by states and national boundaries.

Nagas inhabiting the 11 districts of Nagaland are not a single homogeneous people but a composite of 16 schedule tribes speaking about 30 dialects, and yet there are distinct features of similarities amongst them.

Nagaland the 16th state of the Indian union is situated at an average of 1000 metres above the sea level, and between 25.06°N and 27.04°N latitude and 93.20°E and 95.15°E longitude covering an area of 16,579 sq.km.

1.3 History of Secondary Education in Nagaland:

In Nagaland like elsewhere in the country NBSE is the apex body of Secondary Education. NBSE was set up through an Act by the Nagaland Legislative Assembly and received the assent of the Governor on the 15th of Nov.1973. Function from 1st Oct.1974 and in March 1975, the Board held its first HSLC examination at 6 centres for 2008 candidates. The state level curriculum committee held its first meeting on the 30th March 1978 which led to a series of workshops to bring out Independent curriculum. The NBSE (Amendment) Act 1990 empowers the Board to conduct the Higher Secondary School Leaving Certificate Examination under three streams-Science, Arts and Commerce. The students are to chose a particular stream in class 11 and at the end of the course i.e in class 12, an examination is conducted by the NBSE which is known as HSSLC(Higher Secondary School Leaving Certificate)

1.4 Review Related Literature:

Sarah, Shanta Kumari, Williams A. (1983) have studied Attitude of High school pupils towards general science and its relationship with achievement. The major finding were 1) The attitude of the High school pupils towards science and science education in Tamilnadu was generally favourable but there was wide disparity in their attitude.

Bhandhopadhy J (1984) studied Attitude towards Science and related factors in a simple of 420 adolescent (221 boys and 199 girls from 21 schools of Calcutta. He found that parent's education and SES led to favourable attitude towards science besides other contributory factors like Teacher's influence, Peers influence, vocational value of education and the future aim in life. The pupil who had a favourable attitude towards science possessed higher ability in mechanical comprehension and visualization of objects in space.

Mandila Shyam Singh (1988) focussed his study on assessing the attitude of Secondary students towards science curriculum and its relationship with achievement motivation on a sample of 500 students through survey method. The objectives of the study were, 1) To determine the attitude of Science students about science curriculum. 2) To compare the differences between Urban and Rural, Intelligence and Weak, Male and Female students about the attitude towards science curriculum.

The major findings are 1) Students from rural schools and urban schools as well as male and female had favourable attitude towards science curriculum. 2) There were significance difference in some aspects such as science temper and teaching method.

Padhi J.S (1994) has attempted to find out 1) The nature of relationship existing between the high school students perceived science classroom and their attitude towards science.

Finding of the study revealed that significance relationship was found between classroom environment score and attitude towards science score of High school students.

1.5 Significance of the Study:

Secondary schooling is considered as the asset of Higher Education. It is one of the most important levels for deciding on the line of study and career one wants to pursue in future. Although many tribal students during their early part of schooling aspire to become doctors and engineers, it is seen that their interest and performance in science and allied subjects declines as they attain secondary and higher secondary years of schooling. Despite efforts are made for improvement of developing interest towards these subjects, it is often seen that performance of students and the number of students opting for career in Science remains considerably low as compared to other disciplines. Considering the source of income for livelihood, tribal people have a common notion that choosing science stream will result to better employment opportunities with a higher income. Although there is commonness in the intellectual level and interest, the attitude towards the subject is however, often considered as difficult and is accompanied by a sense of hesitation. In this regard, this study is an attempt to analyze the attitude of scientific interest among the tribal students. It is felt important by the researcher to conduct this study so as to find the possible reasons and problems relating to the attitude towards this discipline; and also to provide suitable solution to the problems.

1.6 Statement of the Problem:

The present study is an attempt to study of Attitude towards Scientific Interest among the Tribal students at Secondary level in Kohima of Nagaland.

1.7 Operational definitions of the terms used:

- i. **Attitude:** It implies the feeling or opinion of Tribal students.
- ii. **Scientific Interest:** It implies the interest towards Science and its allied subjects.
- iii. **Tribal students:** Tribal student in this study implies all the local Naga inhabitants studying in Kohima.
- iv. **Secondary Level:** Secondary level in this study includes both High school (IX and X) and Higher secondary level (XI and XII).

1.8. Objectives: To find out and compare between the tribal students of Govt and Private Secondary schools in relation to their Scientific Interest.

1.9. Hypothesis:

1.9.1 There is no significance difference between tribal students of Govt and Private Secondary school in relation to scientific interest.

1.9.2 There is no significance difference between tribal students of Govt and Private secondary schools in relation to Rationality.

1.9.3 There is no significance difference between tribal students of Govt and Private secondary schools in relation to curiosity.

1.9.4 There is no significance difference between tribal students of Govt and Private secondary schools in relation to Open mindedness.

1.9.5 There is no significance difference between tribal students of Govt and Private secondary schools in relation to Faith in Scientific method.

1.9.6 There is no significance difference between tribal students of Govt and Private secondary schools in relation to Aversion to superstition.

1.10 Delimitation:

The study was delimited to Secondary schools (one Private and one Govt.) from Kohima town.

2. Methodology:

The Study was concerned with the investigation of the attitude of tribal students towards scientific interest at Secondary level in Kohima. Therefore Descriptive method of study was adopted.

2.1 Population: The population consist of entire tribal students at different secondary schools in Kohima Town.

2.2 Sample of the Study: The sample of the study consists of 78 tribal students randomly drawn both from Govt and private Secondary schools in Kohima town.

2.3 Tools for the Study: The investigator administered the tools of Scientific Attitude Scale (SAS) designed by Dr. Sukhwant Bajwa and Monika Mahajan to collect required information.

2.4 Use of Statistical Technique: The investigator used appropriate statistical Techniques Mean, Medium, SD and t-test for the study.

3. Analysis of Data and Interpretation:

The collected data was put to statistical analysis by applying t-test. The results were reflected in tabular form as:

Table 3.1
Comparison between Tribal students of Govt and Private Secondary schools in relation to Scientific Interest

School	NO	MEAN	SD	t-value	Significant
Private	39	163	8.95	2.76	Significant at 0.01
Govt	39	158	8.86		

The information provided in table 3.1 reveals that the Mean value (M= 163) for tribal students of Private secondary school is more than the Mean value (M=158) of Govt secondary school. The obtained t-ratio (t=2.76) for Scientific Interest is more than 0.01 level of significance. Therefore it is significant at 0.01 level of significance. It means that there exist significant different between tribal students of Private and Govt secondary schools in relation to Scientific Interest. Thus, the null Hypothesis which states that “there is no significant between the tribal students of Private and Govt Secondary schools in relation to Scientific Interest” has been rejected. It reveals that tribal students of Private secondary school have more scientific interest than tribal students of Govt secondary school.

Table 3.2
Comparison between Tribal students of Govt and Private Secondary schools in relation to Rationality

School	NO	MEAN	SD	t-Value	Significant
Private	39	28.9	3.34	0.263	Not Significant
Govt	39	28.7	2.66		

The information presented in table 2 reveals Mean of tribal students of private and Govt secondary schools is M=28.9 and M=28.7. It is clear that obtained t-ratio (t-0.263) for Rationality is less than 0.05 level of significance. Therefore it is not significant at level 0.05 level of significance. It means that there is no significance between tribal students of private and govt secondary schools. Hence the Hypothesis which states that “there is no significance difference between tribal students of private and govt secondary schools in relation to Rationality” has been accepted. It means that tribal students of private and govt secondary schools in Kohima have equal interest in Rationality.

Table 3.3

Comparison between Tribal students of Govt and Private Secondary schools in relation to Curiosity

School	NO	MEAN	SD	t-Value	Significant
Private	39	23.3	2.14	2.23	Significant at 0.05
Govt	39	21.9	3.40		

Table 3 reveals that Mean score (M=23.3) tribal students of private secondary school is more than Mean score (M=21.9) tribal students of govt secondary school. And obtained t-value (2.23) is more than 0.05 level of significance. It means that there exist significance differences between tribal students of Private and Govt secondary schools in relation to Curiosity. Thus, the null Hypothesis which states that “there is no significant between the tribal students of Private and Govt Secondary schools in relation to Curiosity” has been rejected. Hence tribal students of Private secondary schools have more curiosity than tribal students of Govt secondary schools.

Table 3.4

Comparison between Tribal students of Govt and Private Secondary schools in relation to Open mindedness

School	NO	MEAN	SD	t-Value	Significant
Private	39	36.1	3.56	0.615	Not Significant
Govt	39	35.5	4.48		

Table 4 reveals that Mean ratio for tribal students of private and govt secondary school is M=36.1 and M=35.5 and obtained t-ratio (t=0.615) is lesser than 0.05 level of significance. It means that there is no significance difference between private and govt secondary schools. Thus hypothesis which states that “there is no significance difference between tribal students of private and govt secondary school in relation to Open mindedness” is accepted. It means that almost all the tribal students of both private and govt secondary schools have equal attitude of open mindedness.

Table 3.5

Comparison between Tribal students of Govt and Private Secondary schools in relation to Faith in Scientific method

School	NO	MEAN	SD	t-Value	Significant
Private	39	35.9	2.72	0.378	Not Significant
Govt	39	35.6	3.78		

Table 5 reveals that Mean ratio for tribal students of private and govt secondary school is M=35.9 and M=35.6 and obtained t-ratio (t=0.378) is lesser than 0.05 level of significance. It means that there is no significance difference between private and govt secondary schools. Thus hypothesis which states that “there is no significance difference between tribal students of private and govt secondary school in relation to Faith in Scientific method” is accepted. It means that almost all the tribal students of both private and govt secondary schools have equal Faith in Scientific Method.

Table 3.6

Comparison between Tribal students of Govt and Private Secondary schools in relation to Aversion to Superstition

School	NO	MEAN	SD	t-Value	Significant
Private	39	38.7	4.68	1.64	Not Significant
Govt	39	36.9	4.72		

Table 6 reveals that Mean ratio for tribal students of private and govt secondary school is $M=38.7$ and $M=36.9$ and obtained t-ratio ($t=1.64$) is lesser than 0.05 level of significance. It means that there is no significance difference between private and govt secondary schools. Thus hypothesis which states that “there is no significance difference between tribal students of private and govt secondary school in relation to Aversion to Superstition” is accepted. It means that almost all the tribal students of both private and govt secondary schools have equal Aversion to Superstition.

4. Findings of the Study:

HO1 has been rejected and found significant difference between tribal students of Private and Govt secondary schools in relation to their scientific interest. Mean value of tribal students from Private secondary school is higher than the Mean value of tribal students from Govt secondary schools. Thus it shows that tribal students of Private secondary school have more scientific interest than tribal students of Govt secondary school.

HO2 has been accepted as it found that though there is a slight mean value differences between Tribal students of private and govt secondary schools the t-value found much lower than 0.05. It means that tribal students of private and govt secondary schools in Kohima have equal interest with relation to their Rationality.

HO3 has been rejected and found disparity between tribal students of private and govt secondary schools in relation to Curiosity. That s why we can say that tribal students of Private secondary schools have more curiosity than tribal students of Govt secondary schools.

HO4 has been accepted and found vibrant equality among the tribal students of private and Govt secondary schools in relation to their open mindedness.

HO5 has been accepted and shows clear indication that tribal students in both private and govt secondary schools draws equal interest in relation to their faith in Scientific method.

HO6 has been accepted and found indicative similarity between tribal students of private and Govt secondary schools in relation to Aversion to Superstition.

5. Conclusion and Suggestions of the Study:

In the nutshell tribal students have more common in their thoughts and interest in over all components. However, researcher reveals more effective and better response from the tribal students in the private secondary schools. The study shows keen interest on the part of tribal students toward scientific interest if necessary facilities provided for them. The question of fear psychosis towards science and its allied subjects can easily be removed from their minds if proper and strong encouragement is given. As every tribal students have the same capability of what the general students have, it's just the problems of less input and fewer encouragement from their parents and society. The study also reveals that private institutions have given more efforts in providing necessary facilities to their students to go for science and allied subjects. Hence Govt should gear up in venturing more facilities and come up with strong policy to administer in the school for better and easier earning in the days to come.

6. Educational Implication of the Study:

1. Findings of the present study will serve as a basic data for further studies related to tribal students in other areas at secondary level.
2. Arrangement of proper facilities for science subjects in the schools will surely raise the confidence level of the tribal students.

3. In the place like multi-religious India, Church, Temple and Mosque can also play their role in encouraging the tribal students to take up science subjects as their strong believe in their religion raise more confidence even in their study.
4. Also the present result will provide feedback to school authorities with special idea that providing science subjects is to be applauded not because of its intellectual subjects but because it grabs more income in the earning.
5. The present study will remove the idea of hesitation towards tribal students taking up science and its allied subjects. The findings of this study will be advantageous for society, policy maker and school administration.

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