



## SCIENTIFIC ATTITUDE AMONG HIGHER SECONDARY STUDENTS

**Mr. K. Kumar**

M.Ed Student, S. Veerasamy Chettiar College of Education, Puliangudi – 627 855.

**Dr. T. Ranjith Kumar**

Assistant Professor, S. Veerasamy Chettiar College of Education, Puliangudi – 627 855.

**ABSTRACT**

The main objectives of the study were to find out the level of scientific Attitude among higher secondary students and difference between rural and urban school higher secondary students in their scientific attitude. The sample consists of 300 higher secondary students randomly from 10 higher secondary schools in Sankarankovil taluk, Tirunelveli district of Tamil Nadu. Scientific Attitude Scale was used as tool to collect data. The research reveals that the level of scientific attitude among higher secondary students was moderate and there is significant difference found between rural and urban school higher secondary students in their scientific attitude.

**KEYWORDS** : Scientific Attitude, Higher secondary students.**INTRODUCTION**

Scientific attitudes can be defined as open-mindedness, a desire for accurate knowledge, confidence in procedures for seeking knowledge and the expectation that the solution of the problem will come through the use of verified knowledge. Scientific Attitude is the most important outcome of science teaching. Though some people view the Scientific Attitude as the byproduct of teaching science, yet a majority of the people consider it as equally important as knowledge aspect (Jeyanthi, 2016). Scientific Attitude is of very significant concern in the process of science education. Developing Scientific Attitude among students is one of the main goals of science education. The teaching of science imparts training in the scientific method and develop scientific attitude, which are very valuable and at the same time are transferable to other situations in life. The significant aspect of science is that whatever the student learns it has immediate application in the world around. Science gives opportunity for creative thinking and constructive imagination (Rani and Rao, 2007).

**SIGNIFICANCE OF THE STUDY**

Science plays a major role in inculcating hope for continuous and progressive welfare. The strength of a modern economy depends on the strength of its industry and industrial development. In turn, it depends upon technology that in turn depends on the application of new scientific knowledge. At the same time, the nation's progress, welfare and prosperity also depend on a rapid, planned and sustained growth in the quality and extent of education and research in science and technology. Thus science has become an important area in education. Developing scientific attitude amongst the children should be the major aim of science teaching and education. It completely changes the outlook of child. Science teaching is not mere presentation of facts. Science can justify its place in the curriculum, only when it changes the outlook of students that leads to the all round development of personality. Pupils possessing positive scientific attitude would get more benefits of science compared to those who lacked scientific attitude. Thus the investigator wishes to study the Scientific Attitude of Higher secondary students.

**OBJECTIVES OF THE STUDY**

- To find out the level of scientific attitude among higher secondary students with regard to location of school.
- To find out the significant difference, if any, between rural and urban school higher secondary students in their scientific attitude.

**METHOD ADOPTED**

Survey method was adopted for the present study.

**POPULATION AND SAMPLE**

The population for the study consists of all the higher secondary

students studying in higher secondary schools of Sankarankovil taluk in Tirunelveli district of Tamil Nadu.

The sample consists of 300 higher secondary students from 10 higher secondary schools of Sankarankovil taluk in Tirunelveli of Tamil Nadu.

**TOOL USED**

The tool used for the present study was *Scientific Attitude Scale* developed by Mr. K. Kumar (Investigator) and Dr. T. Ranjith Kumar (Research Supervisor) in 2016.

**ANALYSIS OF DATA**

The statistics employed in the study were percentage analysis and 't' test. The analyses were presented in the following tables.

**Table 1**

**Level of Scientific Attitude of Higher Secondary Students with regard to Location of School**

Location of School	N	Low		Moderate		High	
		No.	%	No.	%	No.	%
Rural	159	36	22.6	98	61.6	25	15.7
Urban	141	17	12.1	104	73.8	20	14.2

It is inferred from the above table that 22.6% of the Rural school higher secondary students have low, 61.6% of them have moderate and 15.7% of them have high level of Scientific Attitude. It is also inferred that 12.1% of the Urban school higher secondary students have low, 73.8% of them have moderate and 14.2% of them have high level of Scientific Attitude.

**H01:** There is no significant difference in scientific attitude of higher secondary students with regard to location of school.

**Table 4.1.16**

**Difference in Scientific Attitude of Higher Secondary Students with regard to Location of School**

Location of School	N	Mean	SD	Calculated 't' value	Remarks
Rural	159	147.40	16.308	2.810	S
Urban	141	152.33	13.819		

At 5% level of significance, for df 298, the table value of 't' is 1.96 (Biswal & Dash, 2006).

It is inferred from the above table that the calculated 't' value (2.810) is greater than table value (1.96) for df 298 at 5% level of significance. It shows that there is significant difference between rural and urban located school higher secondary students in their scientific attitude. While comparing the mean scores of rural (147.40) and urban

(152.33) school higher secondary students, the urban school students have better scientific attitude than rural school students.

### FINDINGS

1. 22.6% of the Rural school higher secondary students have low, 61.6% of them have moderate and 15.7% of them have high level of Scientific Attitude.
2. 12.1% of the Urban school higher secondary students have low, 73.8% of them have moderate and 14.2% of them have high level of Scientific Attitude.
3. There is significant difference between rural and urban located school higher secondary students in their scientific attitude. The mean scores show that the urban school students have better scientific attitude than rural school students.

### EDUCATIONAL IMPLICATIONS

The results of the present study have shown that the rural and urban school higher secondary students had moderate level of scientific attitude. To increase this level, science teachers should use modern technologies to teach in their classrooms. This may develop the interest among students in knowing new facts and emerging advanced technologies. So, the students' interest towards science and scientific attitude may be improved. The Government should allot adequate funds to the rural schools to develop their science laboratory infrastructure facilities. Frequent use of science laboratories by the higher secondary students may improve their scientific attitude. Success in developing scientific attitudes depends ultimately upon the teacher. Experts in the field of science and technology and famous scientists may be invited to give special lectures to improve the scientific attitude of the students.

### REFERENCES

1. Biswal, B & Dash, P.C. (2006). Statistics in Education & Psychology. New Delhi: Dominant Publishers and Distributors.
2. Jeyanthi, R. (2016). Scientific Attitude and Achievement in Science of Upper Primary School Students. *BEST: International Journal of Humanities, Arts, Medicine and Sciences*, 4 (7): 129-132.
3. Rani, K.D and Rao, B.D. (2007). Educational Aspirations and Scientific Attitudes. New Delhi: Discovery Publishing House.