

SCIENCE ATTITUDE AMONG THE SCHOOL STUDENTS IN SALEM

Research Paper

ABSTRACT

Science is a predominant factor for all aspects of human development by the way of evidences and proofs. It is neither avoidable nor predictable without the experiments. Even so, most members of the younger generation concentrate on technological aspects rather than basic science due to their thirst for rapid economic growth. We don't know whether the student society really has an inclination towards science. The author of this paper attempts to answer this quest through a study entitled "Science Attitude among the School Students" conducted by the researcher recently. Among the many variables studied the study found that only the background variables "family income", "locality of the school", "family occupation" and "parental educational qualifications" were significant. This study also found that equal parts of the female group students possess favorable and unfavorable science attitude while only one quarter of the female group students are highly inclined to a science attitude.

INTRODUCTION

The world has become scientific through cosmological, geological and evolutionary processes. Fundamentally, science is about "how" questions. It doesn't even attempt to address "why" questions - it doesn't have the tools to ask them, let alone answer them. That's not a criticism of science: it's merely that, that's not what science is in much the same way that meringue is not a building material. No one would criticize meringue for that, because we understand that its purpose is different. As per theology's view, the universe is the way it is created by God. The words from the Institute for Creation Research state that "I have made the earth, and created man upon it: I, even my hands, have stretched out the heavens and all their host have I commanded".

The changing principle of this talk is that God has created us as rational beings, with the capacity for abstract, logical thought. That certainly doesn't mean that we ignore theology's view- but it does mean that, for those parts of the words that are susceptible to more than one interpretation, we use our minds to establish which we think is correct. Many of the 19th century scientists understood this. They were mostly "gentleman-

philosophers" whose goal was to understand the creator better through science - that is, the study of his creation. For those who approach science today in the same spirit, the pay-off is the same. From religious point of view, an understanding of cosmology and the ludicrously huge masses and distances involved can hardly help but inspire worship. Furthermore, a number of UNESCO and United States Department of Education documents provide details of formal and informal science education within the geographic region that includes India. We don't know how much the Indian society bears a science attitude! The need for qualified male and female scientists in this country is ever increasing as is the pressure to define, refine and reform science education. Hence, an evaluation of differences in science attitude as a function was made. It was attempted through investigation of scientific acumen among school students.

REVIEW OF LITERATURE

Boone William (1997) : In his research "Science attitude of selected middle schools in China", the analysis indicated that the male and female Chinese students differ

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in response pattern; female students selected more intense responses. They were more interested in science topics and issues.

Carmen Sorge (1991) conducted a study on "Relationship of Age and Gender with Science Attitude from Elementary to Middle School". This study examines the attitudes of 1008 students from rural New Mexico in elementary and middle schools from ages 9 through 14. A large decrease in science attitude between the ages of 11 and 12 years, corresponding with the move from elementary to middle school was observed.

David A., Child et al, (1997) in their study "Implementation of laser disk based science curriculum in an elementary school" indicated that little adoption of the curriculum continued to maintain a high degree of control in the class room. Willson, Steinkamp & Muehr (1983) in their research, The relationship between science attitude and achievement in science: Meta analysis of 43 studies found significant correlation relationships between attitude and achievement in science. Simpson & Oliver (1990) Individual studies examining the relationship between attitude and achievement in science indicate that there is relation between attitude and achievement in science. Reynolds & Walberg, (1992) studied longitudinal relationships for high school students of eighth grade by gender and ethnicity. All found correlation relationships between attitude and achievement in science. With the help of different research studies, interesting results, the researcher got the idea to concentrate on the problem in the present study "Science Attitude among School Students".

METHOD OF STUDY

This study followed by Normative Survey Method consisting of 142 samples of school students under random sampling technique. This study delimited the Higher Secondary Course first year female students in Salem City. The tool used for this study is "Science attitude scale" constructed and standardized by "Avinash Grewal".

OBJECTIVES

- 1) To find out the level of science attitude among the school students.
- 2) To find out the significant difference among the school student's science attitude with respect to their background variables such as
 - a) Community
 - b) Family Income
 - c) Family Details
 - d) Hobby
 - e) Locality of the School
 - f) Family Occupation
 - g) Parental Educational qualification

HYPOTHESES

- 1) The science attitude of school students is normal.
- 2) There is no significant difference between school students' science attitude with respect to their background variables.

ANALYSIS AND RESULTS

The school student's science attitude scores are normal. The mean, median, SD and AD are 42.9, 43, 9.07 and 7.38 respectively and the range is 49, QD is 6.5, Ku = 0.31. The school student's science attitude is significant at 0.05 level with respect to their background variables "family income, locality of the school, family occupation and parental educational qualification" with t-values 3.32, 6.57, (3.37, 2.73) and 3.78 respectively, whereas the variables "community, hobby, family details and family occupation are not significant with t-values (0.18, 0.62, 0.58), (1.80, 0.28, 1.76), 0.39 and 0.34 respectively (Table: 1).

The results show that, the female students are equal in the favorable and unfavorable level of science attitude. They have equally scored 34.50 % in their favorable and unfavorable levels of science attitude. Only 26.77 % of the students have a highly favorable science attitude and 4.23% highly unfavorable science attitude. Hence, this study reveals that the equal part of the female students are influenced and not influenced by the science attitude. Only one quarter of the students occupy the highly favorable science attitude and the remaining negligible percentage (4.23) of students have highly unfavorable science attitude. Among the seven background variables, the variables "family income, locality of the school, family occupation and parental educational qualifications" are influencing the science attitude of the school students whereas the variables "community, hobby, family details do not influence the school students' science attitude. The students' science attitude is partially not influenced and partially influenced by the variable "family occupation". (Table-1).

Table - 1

DIFFERENCE AMONG THE SCHOOL STUDENT'S SCIENCE ATTITUDE AND THEIR BACKGROUND VARIABLES

Variables	Sub variables	N	Mean (SAS)	SD	t-value	Significant at 0.05 Level
Community	SC/ST (1)	18	42	9.91	t(1,2)=0.18	NS
	BC (2)	44	42.5	9.15	t(1,3)=0.62	NS
	MBC (3)	80	43.58	9.03	t(2,3)=0.58	NS
	FC (4)	00				
Hobby	Story (1)	48	44.93	8.86	t(1,2)=1.80	NS
	TV/Cinema(2)	82	42.19	9.52	t(1,3)=0.28	NS
	Sports (3)	12	45.50	9.03	t(2,3)=1.76	NS
Family Income	1000-5000 (1)	112	41.78	9.05	t(1,2)=3.32	S
	5001-10,000 (2)	30	47.43	8.10		
Locality of the School	Urban (1)	122	41.37	8.68	t(1,2)=6.57	S
	City (2)	20	52.75	4.72		
Family Details	Joint Family(1)	25	43.64	9.45	t(1,2)=0.39	NS
	Nuclear Family(2)	117	42.83	9.10		
Family Occupation	Laborer, Coolie etc. (1)	92	40.64	8.37	t(1,2)=3.77	S
	Teacher, Eng etc...(2)	28	47.67	8.72	t(1,3)=2.73	S
	Business (3)	22	46.77	9.47	t(2,3)=0.34	NS
Parental Educational Qualification	School & Dip,ITI etc(1)	126	42.09	9.10	t(1,2)=3.78	S
	Degree (2)	16	49.31	6.91		

Note : S- Significant, NS- Not Significant, SAS- Science Attitude Score

CONCLUSION

Science attitude of school students is influenced by the variables such as family income, locality of the school, family occupation and parental educational qualification whereas the variables community, hobby, family details do not influence the school students' science attitude. The equal parts of the students possess favorable and unfavorable science attitude; only one quarter of the students possess highly favorable science attitude.

SUGGESTION FOR FURTHER STUDY

Salem is one among the cities in Tamil Nadu, which is affected by many social crises in the form gender

defiance and the people are affected by dangerous diseases such as HIV/AIDS, chicken guinea, female infanticide and Klient felter. These are all happening due to the lack of knowledge in science. Hence, the researcher suggests the following titles for further research.

- 1) Science attitude among the rural and urban school pupils.
- 2) Comparative study of male and female school students' science attitude.
- 3) Comparative study of male and female college students' science attitude.

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