

# **CHAPTER – II**

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#### **2.0.0 Introduction**

In the previous chapter, backgrounds of the problem, the rationale of this study objective, hypothesis along with the delimitations were given under different captions. This chapter deals with the review of the researches conducted related to the variables under study.

#### **2.1.0 Studies related to Attitude and Interest towards Science in India**

**Shrivastava (1983)** studied Attitude of Science and arts students belonging to scheduled caste and scheduled Tribes vis-à-vis Non-scheduled caste Communities. The sample consent of 480 students selected through a stratified sampling. Using 8 point scientific Attitude scale find that boys scored consistently higher than girls on scientific Attitude scale and scheduled Tribe/scheduled caste boys and girls scored consistently higher on scientific attitude scale compare to non-ST/SC boys.

**Ghose (1986)** made a critical study of scientific Attitude and Aptitude of students and determination of some determinants of scientific aptitude by taking a sample of from class IX of rural and urban schools situated in different district of West Bengal. The

result indicates that boys did not possess better scientific attitude than girls and there is positive relationship between scientific attitude and aptitude.

**Darchingpuri (1989)** conducted a study on science achievement, science attitude and problem – solving ability among secondary school students in Aizawal having sample of 812 students of class IX selected randomly. Using a science test developed by investigator and Attitude scale by Grewal (1977) find that there is significant relationship between scores on scientific attitude and achievement in science. also the high socio-economic states, family facility and type of school attended favored scientific attitude.

**Kumar (1991)** showed that the development of scientific attitude depends upon their perception of science teaching and nature of learning experience

**Padhi (1994)** studied High school students' science classroom environment and their attitude towards science where the sample comprised of 200 students of class IX of different types of schools using stratified random sampling technique. Using individualized classroom Environmental Questionnaire (ICEQ) developed by Fraser and Attitude scale by Grewal (1977). it come to conclusion that boys and girls differed significantly with respect to their attitude towards science and their existed significant relationship between science classroom environment scores and attitude towards science.

**Maitra, Krishna (1997)** studied exploration of the Attitude towards laboratories and other practical work in science. The sample comprised of 296 students of classes IX and X. 20 teachers

teaching classes IX and X and other professionals. The data collected through the attitude scale and Interest Inventory for students, questionnaire for teachers and other professionals developed by the researchers. Findings of the research show that rural girls of class X having high positive attitude towards science practical compare to the girls.

**Sarah, Kumari, Williams (1983)** studied Attitude of high school pupils towards General science and its relationship with achievement in the subject. The sample consists of 3000 students related via stratified sampling method. Finding was that there is wide disparity on the attitude of high school pupils towards science.

**Ravindranathan (1983)** conducted a study to compare the impact of medium of Instruction of the science Achievement, science interest and mental health status of secondary school students. The sample consists of 890 secondary school pupils and tool used was science Interest Inventory by Mother Pillai. The finding shows that science interests of pupils of English medium class were higher than those of pupils of Malayalam medium.

**Mandlia (1988)** examined attitude of secondary stage students towards their own science curriculum and its relationship with achievement motivation. He concluded that all the students from rural and urban areas possessed favourable attitudes towards science curriculum.

**Nelliappan (1992)** studied Attitude and interests among higher secondary biology students in relation to their learning

environment using learning environment scale and a science interest inventory constructed and investigated by G.M. Patted. The sample comprised of 645 Higher Secondary students covering from 11 Urban and 8 rural areas. Using cluster sampling technique. The finding of research shows that high and low total learning environment groups of the higher secondary biology students significantly differed in their scientific Attitude and Scientific Interest.

**Malviya. (1991)** Examined attitude towards science and interest in science. The study showed that high scores on the attitudes towards science favor higher scientific interest.

### 2.2.0 Studies Conducted Abroad

In recent year many research has been conducted is not only what students know about science but how they about it.

**Hofstain (1979)** studied the study of attitude towards science between junior and senior high school students. His sphere of study were –

1. Student's attitude towards science class.
2. Student's attitude towards value of science.
3. Their attitude towards science teachers, pupils and science activities.

He concluded:

1. Students' attitude towards science while in junior high school and senior high school is moderately low.

2. Students over all attitudes toward science career and the value of science are established during the junior high school educational phase.
3. Attitude towards science classes declined between junior and senior high school. while attitude towards teachers and participation in science activities increased.

**Ormerod and Duckwarth (1975)**, Bottomley and Ormerod (1981), Gardner (1975) several research studies in the area of students attitude and interest and in the context of science learning have shown that these tend to be formed and stabilised at age of 10-14 years, the phase of primary and junior.

**Layback and Jobey** studied on the problem of students' interest in natural science and technology and their attitude towards them. The purpose of the present paper was to review research on the development of science interest in the Swedish educational system from pre-schools to universities and also the development of structure of attitude to technology and science in Sweden. They referred to changing interest and attitudes in science and technology at different grades of schools between 1950 to 1980.

### 2.3.0 To sum up

From the review of literature, it was found that, while studying sex-difference in attitude towards science Gupta (1972), Desi (1973), Sood (1974) reported that the sex – difference was not significantly related to attitude towards science. While Ghosh (1986), Pandhi (1994), Maitra, Krishna *et al.* (1997) found that boys and girls difference significantly with respect to their attitude towards science.

Ravendranathan (1983) found that the interest towards science for English medium school is higher compare to other language school. Nelleappear (1992) found the interest difference between Rural and Urban pupils.

#### **2.4.0 Inference**

It is obvious that good number of studies was taken on attitude and interest towards science, but there is only few surveys have been studied with the reference of the tribal and non-tribal pupils. Such study has made it possible to investigate into the problem of sex-gender wise difference in attitude and interest towards science between two different respondent groups representing a quit different socio-cultural climate. This is the justification of present problem.