

CHAPTER - V

DISCUSSIONS, SUMMARY AND IMPLICATIONS

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5.0.0 Introduction

Chapter-IV dealt with the results and interpretations of the data analyzed by using various statistical techniques. This chapter deals with the findings, discussions, conclusions, summary and the educational implications of the findings of this study along with the suggestions for further studies under different captions.

5.1.0 Findings

The objective-wise findings of the study are given under:

1. Non-tribal students are having more favorable attitude towards science than that of tribal students.
2. Non-tribal boys are having more favorable attitude towards science than that of tribal boys. Non-tribal boys are having more favorable attitude towards science than that of tribal boys
3. Non-tribal girls are having more favorable attitude towards science than that of tribal girls.
4. Tribal boys and tribal girls are having same attitude towards science.

5. Non-tribal boys and non-tribal girls are having same attitude towards science.
6. Non-tribal students are having more interest towards science than that of tribal students.
7. Tribal boys and non-tribal boys are having equal interest towards science.
8. Non-tribal girls are having more interest towards science than that of tribal girls.
9. Tribal boys and tribal girls are having equal interest towards science.
10. Non-tribal boys and non-tribal girls are having equal interest towards science.
11. There is a negligible relation between the attitude and interest towards science of tribal students.
12. There is a negligible relation between the attitude and interest towards science of non-tribal students.

5.2.0 Comparison of Attitude towards Science of Tribal and Non-Tribal Students

Non-tribal students are having more favorable attitude towards science than that of tribal students. This finding is supported by the earlier studies. Shrivastava,1983. Attitudes are positive or negative feelings that an individual holds about objects, persons or ideas. Attitude is formed in relation to an issue also. Tribal students might have more interested towards the development of science and technology of this modern day than the Non-tribal students, which might be a cause for this result.

5.3.0 Comparison of Attitude towards Science of Tribal Boys and Non-tribal Boys

Non-tribal boys are having more favorable attitude towards science than that of tribal boys. As discussed in the caption 5.3.0, interest plays a key role in making the attitude favourable. Perhaps, the non-tribal students might have got the satisfying experiences in studying the subject of science than their counterparts i.e., the tribal students, which contributed for this result.

5.4.0 Comparison of Attitude towards Science of Tribal Girls and Non-tribal Girls

Non-tribal girls are having more favorable attitude towards science than that of tribal girls. Attitudes are formed in relation to an object person, situation and issues. At present, steps are taken in various ways to promote the feeling of equality among boys and girls. DPEP programme of the Govt. of India was launched in this area. More care would have been taken for the tribal girls students to educate them than the non-tribal girls. Therefore the tribal girls might have developed a positive attitude towards science.

5.5.0 Comparison of Attitude towards Science of Tribal Boys and Tribal Girls

Tribal boys and tribal girls are having same attitude towards science. At present, steps are taken in various ways to promote the feeling of equality among boys and girls. As the SES of both the group under study is more or less same, their satisfying experiences might have the same in case of studying the subject of science for this result.

5.6.0 Comparison of Attitude towards Science of Non-Tribal Boys and Non-Tribal Girls

Non-tribal boys and non-tribal girls are having same attitude towards science. At present, steps are taken in various ways to promote the feeling of equality among boys and girls. As the SES of both the group under study is more or less same, their satisfying experiences might have the same in case of studying the subject of science for this result.

5.7.0 Comparison of Interest towards Science of Tribal and Non-Tribal Students

Tribal boys and non-tribal boys are having equal interest towards science. Interest is primarily considered as the affective one. It is not a separate psychological entity, but merely one of several aspects of behaviour. Interest has subjective and objective aspects. In the subjective sphere, the emphasis is on the feeling component and this fact is observed from observation of those who are highly interested. In the objective sphere, the emphasis is on the motor behaviour of the individual which is noticeable through an approach to and a choice of alternatives, which are equally available to the individual in so far as environment barriers do not influence his choice (Kundu, 1991). That the interests are relative and is demonstrative through the fact that preferential hierarchy could be formed by an individual about himself and the same way not hold good for another individual. Perhaps, either the groups might have the got more or less the same environment, which might have contributed to the result of this study.

5.8.0 Comparison of Interest towards Science of Tribal Boys and Non-tribal Boys

Tribal boys and non-tribal boys are having equal interest towards science. As discussed in the caption 5.7.0, the either group in the study, might have got more or less the same environment, and the alternatives. The result may be attributed to this factor in addition to other factor.

5.9.0 Comparison of Interest towards Science of Tribal Girls and Non-tribal Girls

Non-tribal girls having more interest towards science than that of the tribal girls. At present, steps are taken in various ways to promote the feeling of equality among boys and girls. DPEP programme of the Govt. of India was launched in this area. More care would have been taken for the tribal girls students to educate them than the non-tribal girls. It might have created interest in them (Non-tribal girls) towards the science subject. The result may be attributed to this factor in addition to other factor.

5.10.0 Comparison of Interest towards Science of Tribal Boys and Tribal Girls

Tribal boys and tribal girls are having equal interest towards science. Influence of Genetic constitution, environment in which the individual lives, tradition and customs upon the growth of interest can not be eliminated (Kundu, 1991). As, both the groups belong to the same SES, more or less, besides other factor, therefore, the result may be attributed to this.

5.11.0 Comparison of Interest towards Science of Non-Tribal Boys and Non-Tribal Girls

Non-tribal boys and non-tribal girls are having equal interest towards science. Influence of genetic constitution, environment in which the individual lives, tradition and customs upon the growth of interest cannot be eliminated (Kundu, 1991). As, both the groups belong to the same SES, more or less, besides other factor, therefore, the result may be attributed to this.

5.12.0 Study of relation between the Attitudes towards Science of and Interest towards Science of Tribal Students

There is a negligible relation between the attitude and interest towards science of tribal students. Attitudes are positive or negative feelings that an individual holds about objects, persons or ideas. Attitude is formed in relation to an issue also. Interest is primarily considered as the affective one. It is not a separate psychological entity, but merely one of several aspects of behaviour. Interest has subjective and objective aspects. In the subjective sphere, the emphasis is on the feeling component and this fact is observed from observation of those who are highly interested. In the objective sphere, the emphasis is on the motor behaviour of the individual, which is noticeable through an approach to, and a choice of alternatives, which are equally available to the individual in so far as environment barriers do not influence his choice (Kundu, 1991). That the interests are relative and is demonstrative through the fact that preferential hierarchy could be formed by an individual about himself and the same way not hold good for another individual. Interests are

more or less not changeable. But, on the other hand attitudes are some how changeable if steps would have been taken in that direction.

5.13.0 Study of relation between the Attitudes towards Science of and Interest towards Science of Tribal Students

There is a negligible relation between the attitude and interest towards science of non-tribal students. There is a negligible relation between the attitude and interest towards science of tribal students. Attitudes are positive or negative feelings that an individual holds about objects, persons or ideas. Attitude is formed in relation to an issue also. Interest is primarily considered as the affective one. It is not a separate psychological entity, but merely one of several aspects of behaviour. Interest has subjective and objective aspects. In the subjective sphere, the emphasis is on the feeling component and this fact is observed from observation of those who are highly interested. In the objective sphere, the emphasis is on the motor behaviour of the individual, which is noticeable through an approach to, and a choice of alternatives, which are equally available to the individual in so far as environment barriers do not influence his choice (Kundu, 1991). That the interests are relative and is demonstrative through the fact that preferential hierarchy could be formed by an individual about himself and the same way not hold good for another individual. Interests are more or less not changeable. But, on the other hand attitudes are some how changeable if steps would have been taken in that direction.

5.14.0 Rationale of the Study

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.

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

5.15.0 Objectives

(Objectives of following study are as follows: -

1. To compare the Attitude towards science of Tribal students and Non-tribal students of Class VIII.
2. To compare the Attitude towards science of Tribal boys with Non-tribal boys of Class VIII.
3. To compare the Attitude towards science of Tribal girls with Non-tribal girls of Class VIII.
4. To compare the Attitude towards science of Tribal boys and Tribal girls of Class VIII.
5. To compare the attitude towards science of Non-Tribal girls and Non-Tribal boys of Class VIII.
6. To compare the Interest towards science of Tribal students and non-tribal students of Class VIII.

7. To compare the Interest towards science of Tribal boys and Non-tribal boys of Class VIII.
8. To compare the Interest towards science of Tribal girls and Non-tribal girls of Class VIII.
- 9 .To compare the Interest towards science of Tribal boys and Tribal girls of Class VIII.
10. To compare the Interest towards science of Non-Tribal boys and Non-Tribal girls of Class VIII.
11. To study the relation of the Attitude towards science and Interest towards science of Tribal students of Class VIII.
- 12 .To study the relation of the Attitude towards science and Interest of towards science of Non-tribal students Class VIII.

5.16.0 Hypotheses

Hypotheses of this research are as follows: -

1. There will be no significant difference of Attitude towards science of the Tribal and Non-tribal students of Class VIII.
2. There will be no significant difference of Attitude towards science of the Tribal boys and Non-tribal boys of Class VIII.
3. There will be no significant difference of Attitude towards science of the Tribal girls and Non-tribal girls of Class VIII.
4. There will be no significant difference of Attitude towards science of the Tribal boys and Tribal girls of Class VIII.
5. There will be no significant difference of Attitude towards science of the Non-Tribal girls and Non-tribal boys of Class VIII.

6. There will be no significant difference of Interest towards science of Tribal and Non-tribal students of Class VIII.
7. There will be no significant difference of Interest towards science of Tribal boys and Non-tribal boys of Class VIII.
8. There will be no significant difference of Interest towards science of Tribal girls and Non-tribal girls of Class VIII.
9. There will be no significant difference of Interest towards science of Tribal boys and Tribal girls of Class VIII.
10. There will be no significant difference of Interest towards science of Non-Tribal boys and Non-tribal girls of Class VIII.
11. There will be no relation between the Attitude towards science and Interest towards science of Tribal students of Class VIII.
13. There will be no relation between the Attitude towards science and Interest towards science of Non-tribal students of Class VIII.

5.16.0 Sample

Sample consisted of 120 students i.e., 60 boys and 60 girls of grade VIII in the age up to 14 years of Hindi and English medium schools of rural and urban areas of Raipur district.

5.18.0 Tools

Tools used for studies are the Science Interest Inventory of Dubey and Dubey and the Attitude towards Science scale, developed by the investigator on the lines of the Likert's method of summated rating scale.

5.19.0 Procedure of Data Collection

After selecting the appropriate tool, the tests were administered, to collect information regarding concerned variables. Firstly, the attitude test was administered then on the next day interest test administered to the students. Before circulating the test to the students necessary instructions were given to the students and they were told that the results would keep confidential and will not have any effect on their academic achievement.

Subjects were asked to write correctly their names, grade, school name, age, date, sex, and category on the top of the school. Time limitation was given to the respondent according to the requirement of test. They were asked to read the statements attentively and put a tick mark on any of the options given in the test of attitude and interest. After attempting all the items from both the tools the researcher collected the sheets.

In this way the researcher collected the desired data from 120 students of different schools (60 students each of tribal and non tribal students) of Raipur district.

5.20.0 Statistical Techniques used

The statistical techniques used in the present study for analyzing data are given here objective wise.

1. For comparison of attitude towards science of Tribal and Non-tribal students t-test is employed.
2. For comparison of attitude towards science of tribal boys and Non-tribal girls' t-test is employed.

3. For comparison of attitude towards science of tribal girls and Non-tribal girls* t-test is employed.
4. For comparison of attitude towards science of tribal boys and tribal girls t-test is employed.
5. For comparison of attitude towards science of non-tribal boys and non-tribal girls t-test is employed.
- 5 For comparison of interest towards science of tribal and non-tribal students t-test is employed.
- 6 For comparison of interest towards science of tribal boys and non-tribal boys t-test is employed
8. For comparison of interest towards science of tribal girls and non-tribal girls t-test is employed.
- 9 For comparison of interest towards science of tribal boys and tribal girls t-test is employed.
- 10 For comparison of interest towards science of non-tribal boy and non-tribal girls t-test is employed.
- 11 For studying the relation between the attitude towards science and interest towards science co-relation is employed.
12. For studying the relation between the attitude towards science and interest towards science co-relation is employed.

5.21.0 Findings

The objective-wise findings of the study are given under:

1. Non-tribal students are having more favorable attitude towards science than that of tribal students.
2. Non-tribal boys are having more favorable attitude towards science than that of tribal boys.

3. Non-tribal girls are having more favorable attitude towards science than that of tribal girls.
4. Tribal boys and tribal girls are having same attitude towards science.
5. Non-tribal boys and non-tribal girls are having same attitude towards science.
6. Non-tribal students are having more interest towards science than that of tribal students.
7. Tribal boys and non-tribal boys are having equal interest towards science.
8. Non-tribal girls are having more interest towards science than that of tribal girls.
9. Tribal boys and tribal girls are having equal interest towards science.
10. Non-tribal boys and non-tribal girls are having equal interest towards science.
11. There is a negligible relation between the attitude and interest towards science of tribal students.
12. There is a negligible relation between the attitude and interest towards science of non-tribal students.

5.22.0 Delimitations of the Study

1. The investigation was confined to the geographical limit of Raipur district.
2. The samples included in the study belong to age group of up to 14 years only.
3. The study has been limited to students of class VIII.
4. The samples were selected from the both Hindi and English medium school of Raipur District.

5.23.0 Educational Implications

When we talk of science for all naturally it becomes our obligation to develop interest in sciences side by side a positive attitude. The education implication of the present study seem to be following

1. Teachers will come to know about students in science and accordingly should allow him and her prevailing interests.
2. After knowing the interest and attitude towards science of students, teaching learning process can be made effective.
3. Text books used in the schools can be revised accordingly to the requirement of students' attitude and interest towards science.
4. This will help in development of girls' studies, especially tribal girls.

5.24.0 Suggestions for Further Studies

There is still a large scope to investigate some of the ideas in science and to other allied subjects, related with tribal communities and non- tribal communities. Some interesting topics are suggested below:

1. The impact of science teaching on the life style of tribal boys and tribal girls.
2. Pupils' attitude towards science teaching.
3. Factors affecting the achievement of tribal pupil in science.
4. An investigation of the availability of local resources found in the tribal area and their use in teaching in science.

5. The comparative study can be replicated on the students of tribal region and non-tribal region.
6. The comparative study can be replicated on the basis of social-economic status of students.
7. To study the factors responsible for negative attitude of students towards science.
8. To study the attitude and interest towards science of teacher teaching class VIII.
9. The sample of present study was restricted to Raipur district, which can also be done for largest size sample.
10. A comparative study of the physical facilities available in different schools for learning science may be conducted.