

# **CHAPTER V**

## **SUMMARY AND IMPLICATIONS**

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#### **5.0.0. INTRODUCTION**

The objectives, hypotheses, rationale and delimitations of the present investigation are presented in chapter I. The review of related literatures along with the sum-up of those is given in chapter II. The methodology, design, sample, tools and the statistical techniques used for the analysis of the data are presented in chapter III. The results and their interpretations related to the objectives are presented in chapter IV. The present chapter deals with the findings, discussions summary and implications of the study. These are presented below under separate headings.

#### **5.1.0 Findings**

- Teaching students with the collaborative concept mapping is found to be effective in terms of comprehension of content in science of class VIII students than the traditional approach of teaching.
- There is no significant effect of gender on comprehension of content in Science.
- There is no significant effect of interaction of gender and collaborative concept mapping on comprehension of content.

#### **5.2.0 Justification of the Study**

Since science as a discipline strives hard to develop the ability to comprehend and reason it is highly felt by the researcher that there is a requirement to devise a teaching strategy fit for the purpose. Much of the research has occurred in the science education regarding the teaching techniques, assessment and evaluation. Finding the gaps in the previous researches helped me to understand that not much of work has been done in the dimensions of collaborative concept

mapping. The intention behind the study is not only to check the effects, but to add to the science education in the form of a teaching strategy. The study will be helpful in addition of a modified teaching learning strategy in science.

### 5.3.0. Statement of the Problem

*The Effect of Collaborative Concept Mapping on the Comprehension of content in Science Of class VIII students*

### 5.4.0. Objectives of the Study

1. To study the effect of collaborative concept mapping on the comprehension of content in science of the students of class VIII.
2. To study the effect of gender on the comprehension of content in science of the students of class VIII.
3. To study the effect of interaction of gender and the treatment (collaborative concept mapping) on the comprehension of content in science of the students of class VIII.

### 5.5.0 Hypotheses

1. The students taught through collaborative concept mapping will gain significantly higher score as compared to students taught through traditional method.
2. There is no significant effect of gender on the comprehension of content in science of class VIII students.
3. There is no significant effect of interaction of gender and the treatment on the comprehension of content in science of class VIII students

### 5.6. 0. Sample

A sample of 54 students of class VIII was taken purposively.

GROUP	NO.OF BOYS	NO.OF GIRLS	TOTAL
CONTROL	11	16	27
EXPERIMENTAL	2	15	27
TOTAL	23	31	54

### **5.7.0. Variables under the Study**

Variables are the characteristics or the conditions that a researcher observes, controls and manipulates in order to carry out the study.

1. Collaborative Concept Mapping (independent variable)
2. Comprehension of the content (dependent variable)

### **5.8.0. Tools and Techniques**

The tool administered for the study is an achievement test for content comprehension in science. The tool was self-developed and focused mainly on the comprehension skill of the student.

### **5.9.0 Implications of the Study**

Any research work which has been done is judged on the basis of the contribution that it does in the field of research. The present study has been performed with the intention of contribution to the field of science education. The educational implications of the study are as follows:

1. Addition of a new teaching strategy: Collaborative concept mapping has exhibited a significant effect on the comprehension of content in science. Thus it can be considered that collaborative concept mapping can be utilized for the better understanding of concepts and development of reasoning and logic in students.
2. Learner centered teaching strategy: Students have always enjoyed working together in groups with their own peers rather than being constantly directed by their teachers. The researcher observed that the collaborative concept mapping not only improves the comprehension but also increases student's involvement and the art of team work. Also the students develop the ability to critically analyze their own work and the work done by their peers.
3. Enhancement of teacher's role: The new teaching strategy is not only learner centered but also an addition to the skills of teacher as the teacher needs to plan the collaborative work. Here the task of the teacher is being changed to the task of a facilitator which definitely increases the proficiency of the teacher.

#### **5.10.0 Suggestions for further Researches**

- i) The study can be conducted on a larger sample for precise results.
- ii) The technique of collaborative concept mapping can be integrated with ICT and its effect can be observed on student's achievement.
- iii) The study can be conducted for different grade levels so as to compare the effectiveness at different levels.
- iv) A comparative study between the effectiveness of individual concept mapping and collaborative concept mapping can be done.
- v) The study can be extended to new dependent variables such as interests, achievement motivation, attitude towards science etc.

#### **5.11.0 Delimitations of the Study**

Although the research intends to study the whole population, but due to time constraint the following research will be delimited to a particular area. So that the study can be done exclusively on the selected participants and as exact as possible results could be drawn.

1. The study has been delimited to a government school of Bhopal.
2. The study has been delimited to the Demonstration Multipurpose School.
3. The study has been delimited to the students of class 8.

#### **5.12.0 Conclusion**

The present study is unique of its own kind in the field of school education. The study ventured to investigate the effectiveness collaborative concept mapping on students' comprehension of content in Science. The study concludes with an establishment of an empirically verified proposition i.e. collaborative concept mapping has a positive impact on the comprehension of content in science.