### CHAPTER-5

# SUMMARY AND CONCLUSIONS

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#### 5.1 <u>INTRODUCTION</u>:-

Evaluation is considered as a integral part of teaching - learning process. Analysis of an evaluation throws light on different aspects of teaching learning process. One such aspect is the measurement of performance of students. There are several factors which lead to poor performance of students.

There are some students in each class who have some difficulties in understanding and learning certain concepts. The difficulty level from individual to individual, subject to subject & institution to institution. In order to make teaching learning process effective, it is essential to identify the learning difficulties of the students during instruction.

It has been found that there are some specific domains of the content of a discipline (i.e. science) in which the errors committed have high frequency. Also it has been observed that there are some common errors which are committed by a large population of students.

It can thus be assumed that by finding the specific domains (i.e. concept of the discipline) in which errors are committed commonly, the nature of those errors and knowing their possible causes, suitable teaching learning materials and methods can be developed and adopted to minimize the errors. These instructional materials and methods constitute the remedial materials.

There may be considerable improvement in the achievement of students if remedial measures are practised after reliable diagnostic findings.

In the present study, on the basis of analysis of errors of students already made in items of the identification (or on the basis of diagnostic test) of concepts in which errors are committed, nature of errors and possible causes of errors of students, remedial materials developed. On the basis of these, remediation provided to the students, researcher tried to find out the effect of such materials on the performance or achievement of the students particularly in general science.

#### 5.2 STATEMENT OF THE PROBLEM:-

"A study of the Effect of Remedial Teaching on Achievement of Class VII Students in General Science"

#### 5.3 VARIABLES:-

Every researcher deliberately manipulates, controls or observes the conditions or characteristics which determines the events in which he/ she is interested. These conditions or characteristics are called "variables"

According to Kerlinger, variable is a property that takes on different values, something that varies is a symbol to which numerals or values are assigned.

Here, researcher used the following variables.

> INDEPENDENT VARIABLE: Remedial teaching

> DEPENDENT VARIABLE: Achievement in general Science

➤ DEMOGRAPHIC VARIABLE: Boys, Girls.

#### 5.4 OBJECTIVES :-

- 1. To study the effect of remedial material used in general science at upper primary stage. (Class VII)
- 2. To investigate the effect of gender on learning science at upper primary stage.
- 3. To identify the mistakes committed by class VII students in general science.
- 4. To analyze the sources and causes of these mistakes and to identify the emerging trends.
- 5. To suggest how the achievement level of students of upper primary stage may be increased.

#### 5.5 HYPOTHESIS:-

- 1. There will be significant difference in students achievement in general science after remedial teaching.
- 2. There will be significant difference in girls achievement in general science after remedial teaching.
- 3. There will be significant difference in boys achievement in general science after remedial teaching.
- 4. There will be effect of remedial materials on gender in achievement in general science.
- 5. There will be significant difference in students achievement related to the concept of digestive system after remedial teaching.
- 6. There will be significant difference in students achievement related to the concept of respiratory system after remedial teaching.
- 7. There will be significant difference in students achievement related to the concept of circulatory system after remedial teaching.

8. There will be significant difference in students achievement related to the concept of excretory system after remedial teaching.

#### 5.6 <u>DELIMITATIONS OF THE STUDY</u>:-

The study has to be limited to the constraints of expertise and time of the investigator.

- 1. Due to lack of time and resources small data have been used.
- 2. The sample chosen is restricted to just one class i.e. VII grade.
- 3. The experiment was limited to only one unit "Sustenance of the Individuals" in General Science of Class VII.
- 4. The experiment was restricted to only one school in which most of the students belongs to the deprived section of the society.

#### **5.7 SAMPLE:-**

In the present study, the researcher used purposive sampling. The students of class VII of Bonnie Foi Sr. Sec. School, Narela Shankari, Bhopal has been selected for sampling. The low achievers were taken from the school on the basis of their academic achievement.

Boys -	17
Girls -	13
Total -	30

#### 5.8 RESEARCH TOOL:-

A diagnostic test on the topic "Sustenance of the Individual" was prepared and administered on the sample.

The diagnostic test was used as pre-test as well as post test.

The purpose of the diagnostic test was to find out the difference

among boys and girls due to remedial teaching. The researcher personally met the principal of the school and administered the test on students of class VII.

#### 5.9 STATISTICS USED :-

In this study, the researcher tried to find out the difference in achievement in general science of the students by using remedial materials, so descriptive statistics like mean, standard deviation and some quantitative analysis like coefficient of correlation and 't' test were used. For studying the effect of remediation, 't' test was used. The significance of difference among the categories were determined by calculating 't' value.

#### 5.10 FINDINGS:-

According to the study conducted on class VII students for finding the effect of remedial teaching on achievement in general science following results have finally emerged from the study.

1. To find out the significant difference in achievement in general science by using remedial materials, the researcher compared the data of post test from pre test. After use of 't' value, it was found that the observed 't' value (17.7) was higher than the critical 't' value (2.76) at 29 degree of freedom at 0.01 level of significance.

This shows that the use of remedial materials increased the achievement of students in general science. In other words, it is indicated that there is significant difference on students achievement in general science by remedial teaching.

2. To asses the effect of remedial teaching on gender in achievement in general science, the researcher compared the mean score of

difference of pre test and post test of boys and girls. After use of 't' test, it was found that the observed 't' value (0.831) was lower than the critical 't' value at 28 degree of freedom at 0.05 level of significance. This show that there is no effect of remedial teaching on gender in achievement in general science.

- 3. In pretest, only 6 students have scored marks in between 70% to 75% but in post test 15 students have scored marks in between 70% to 75%, 11 students have scored marks in between 77.5% to 87.5% and 2 students have scored 90% marks showing the effectiveness of remedial teaching.
- 4. It emerges from the study that the learning of technical terms, presents a difficulty, Mostly, students committed errors pertaining to technical terms.
- 5. The backwardness of class VII students in general science is due to the poor command over basic skills.
- 6. The low achievers find difficulty in learning definations of the processes like respiration, excretion, circulation etc. This is due to the lack of emphasis on the practical application of these definitions.
- 7. The students find difficulty in retension of factual information like chambers in heart, lobes in lungs etc.
- 8. A few of other wrong response may be due to the facts that the teacher while teaching did not emphasize observational studies like counting heart beat in minute and respiratory movements.

The results obtained by the researcher is also supported by Dhall and Shanker et, al (2000) conducted study on topic "Effect of Using Remedial Materials in Mathematics on Achievement of Slow Learners".

The results of the present study are also supported by Thakore (1980), Dubey (1986), Desai (1986), Verma (1986) and Bhardwaj (1987) in their studies. These studies are mentioned in chapter '2' ie. Review of related literature.

#### 5.11 CONCLUSION AND RECOMMENDATIONS:-

On the basis of the above study conducted it may be stated that remedial teaching is essentially good teaching which takes the pupil at his own level and by intrinsic methods of motivation leads him to increased standards of competence. It is based upon a careful diagnosis of defects and is geared to the needs and interests of pupil. The teaching of low achievers with remedial materials prepared after diagnostic test has increased their achievement, indicating that the remedial material is actually effective.

Mostly students committed error pertaining to technical terms. Whenever technical terms are presented, they should be properly written on the black board, drawing the attention of the pupil to spelling, pronounciation, meaning and application of the terms. More number of suitable aids like charts and models may be used in the class room while teaching. Drawing diagrams is yet another important area of skill which has a direct impact on the students performance in science tests.

The teacher should adopt friendly, helpful and sympathetic attitude towards students who feel deficient in the subject, and always try to win their confidence. The teacher must give drilling exercises for various terminology occurring during teaching of general science.

The teacher should try to repeat the definitions of the terms at intervals. The teacher should emphasize the practical application of these definitions. Special attention should be provided to train the pupils in translation while teaching different life processes, the teacher should use suitable diagrams and if possible models. This will enable the students to learn the names of the various organs and their functions.

#### 5.12 EDUCATIONAL IMPLICATIONS:-

- 1. As found that the achievement of students learning through remedial material was significantly higher so this strategy can be implemented in classroom practices in order to improve the learning of the (low achievers) students.
- 2. This strategy can be implemented for all the subjects at school level.
- 3. The remedial teaching is effective for all students irrespective of their gender.

#### 5.13 <u>RECOMMENDATIONS FOR FURTHER STUDY</u> :-

The present study being exploratory in nature brings into lime light several topics, in which further research can be conducted. The following aspects are recommended for further research.

- The study can be undertaken with a large sample for precise results.
- Rural environment can be consolidated with urban one for a wider scope.
- The findings can be validated with other subjects as well.

- Different grade levels can be selected.
- An extensive research may be used in future research.

## It will be interesting to study the effect of remedial materials keeping in focus the following variables:-

- 1. Age and gender of the respondents.
- 2. Mental age and educational age of the students.
- 3. Social and economic background of the respondents.
- 4. Personality adjustment and other non-intellectual factors.