

CHAPTER 5:

CONCLUSIONS, INFERENCES AND DISCUSSIONS

5.1 Introduction

This chapter summarizes the work done, discusses meaning of research results, address the consequences of the result by relating them to the more general conceptual framework of the research topic and offers suggestion and recommendations on the basis of the findings and conclusions. In this chapter, the focus of attention is the result or outcomes of the research and their implications.

In order to help a holistic picture of the entire study and to help the interpretation of the outcomes of the study from the point of view of the objectives, hypotheses and methodology, before presenting and discussing the findings and conclusions, the problems, objectives, methodology and hypotheses are restated.

5.2 The Study in Retrospect

The different aspects of the various stages of the present study are presented in the following heads:

5.2.1 Restatement of the Problem

Keeping in need of the study, the present study is entitled as, “A study on effect of art-integrated learning on academic achievement of the learners in science at upper primary level”.

5.2.2 Objectives of the Study

The present study was undertaken with the following objectives.

- To compare the mean scores of achievements of students using AIL and traditional approach of teaching-learning in science.

5.2.3 Hypotheses of the Study

The Present study is an experimental study. As per the objectives of the study following null hypothesis (H₀) had been formulated for the testing in the present study.

- (H0) 1: There is no significant difference between the pre-test mean scores of achievements of students using AIL and traditional approach of teaching-learning in science.
- (H0) 2: There is no significant difference between the pre-test mean scores of achievements of students using AIL and traditional approach of teaching-learning in science.

5.2.4 Methodology in Brief

Experimental method was used to conduct the present study. The design selected was pre-test post-test experimental group design (Best & Khan, 2011).

5.2.4.1 Sample selected for the Study

The sample for the study were selected from Saint Xavier's School, Jajpur Road, Jajpur District of Odisha state. The study was conducted on a final sample of 40 students, belonged to two divisions of Standard VIII (N = 20 in each group).

5.2.4.2 Tool Used for the Study

In the present study, the tool used for the purpose of collecting data was achievement-test developed by the investigator herself to measure the academic achievement of class 8 students in science.

5.2.4.3 Procedure Adopted in the Study

Since the intention of the study was to find out the effectiveness of AIL method for teaching Science to Class 8 students, the experimental method was found to be the best method to conduct the research. Out of the two groups selected for the study, one group was considered as Experimental Group and the other one as the Control Group. Before the experimentation, an Achievement test in Science, was administered in all the groups as pre-tests. Then the groups were subjected to the experimental procedure and the Experimental Group was taught using Art-Integrated Learning method and the Control Group was taught in the Traditional method. When the experiment was over, the same Achievement test was again administered to all the groups as post-test. The pre-test and post-test mean scores were subjected to analysis by using appropriate statistical techniques. The statistical technique used in the present study was t-test.

5.3 Major Inferences

Important findings of the achievement test (pre and post-tests) mean scores emerged out of the study are given below.

5.3.1 The analysis of pre-test mean-scores using the technique, test of significance of difference between Experimental and Control groups revealed that the 't' value obtained (0.15) is not significant at 0.05 level. The mean scores helped to state that the Experimental and Control groups do not differ significantly in their pre-test scores.

5.3.2 The analysis of post-test mean-scores using the technique, test of significance of difference between Experimental and Control groups revealed that the 't' value obtained (4.99) is significant at 0.05 level. So, it can be concluded that the Experimental group was in an advantageous position than the Control group with regard to their achievement in science. It suggests that Art-Integrated Learning based instruction, contributes towards raising the achievements of students in science. (Mean of Experimental group is 37.4; Mean of Control group is 30.8)

5.4 Tenability of Hypotheses

The tenability of the hypotheses is stated below:

5.4.1 Null Hypothesis (H₀) 1:

The first null hypothesis is that there is no significant difference between the pre-test mean scores of achievements of students using AIL and traditional approach of teaching-learning in science.

The finding numbered 5.3.1 shows that the Achievement in Science of Class 8 students before the experimental treatment does not differ significantly in both the experimental and control groups. So, the above hypothesis is not rejected.

5.4.2 Null Hypothesis (H₀) 2:

The second hypothesis is that there is no significant difference between the pre-test mean scores of achievements of students using AIL and traditional approach of teaching-learning in science.

The findings numbered 5.3.2 shows that after the experimental treatment, the Achievement in Science of Class 8 students taught through the AIL Approach is

significantly higher than those taught through the Traditional Approach. So, the above hypothesis is rejected.

5.5 Conclusions based on the Study

From the analysis of the statistical data, it is concluded that the AIL Approach has produced very desirable instructional results, and that these results weigh heavily in favor of accepting all the hypotheses. Findings from the study with respect to the Achievement in science reveals that the students who learned through AIL based Instructional Strategy have better achievement than those who learned through the Traditional method. Hence, it can be concluded that AIL based Instructional Strategy is more effective when compared to the Traditional Method with regard to achievement in science of students at Upper Primary Level.

5.6 Educational Implications of the Study

Arts provides opportunity to play with ideas and conceptual understanding in a visualized form. This study brings about implications and suggestions on the utility of Art Integrated Learning on the basis of the findings of the study following implications can be made.

- The present research already shown that the changing form of a traditional chalk and talk method of instruction to an AIL classroom instruction method has improved the achievement level of the students. It implies that AIL method proved to be more enjoyable in its effectiveness on achievement than the traditional classroom instruction approach. AIL class instructions are more practical and acceptable to teachers as well as to the students of all levels.
- The concept of AIL is appreciated by the teachers at primary schools. Realizing the potential of AIL the present study clearly reflects the need of such training for all teachers across their disciplinary orientation. Therefore, it is recommended that a special teacher-training programme based on AIL made an integral component of in-service teacher education programme.
- The study also reveals that art can be effectively used as medium of expression. This aspect must be incorporated in the curriculum and the textbooks at upper primary level should provide significant input to prepare a road map for effective communication through art (both performing and visual).

- The study also leads to realize the role of art as a mode of assessing effective goals of teaching. Sincere efforts should be made to incorporate this input both at training level and in transaction of school curriculum.

5.7 Suggestions for Further Research

After completion of study the researcher felt that the field of research chosen is extremely small and there remains a great deal in the area to be explored. Following studies could be conducted in Indian context further:

- Comparative study may also be carried out to study the differential impact of AIL in government and private schools.
- Virtual training programmes should also be developed, and its impact should be studied.
- A study may also be carried out to probe the uses of regional and local culture specific art forms and their effectiveness may also be compared.
- The effectiveness of AIL in relation to gender may also be studied.
- Scope of AIL across the disciplinary level i.e., secondary, and senior secondary may also be studied.
- A study should also be carried out to assess the AIL approach for value inculcation at different levels of schools.
- Interface between school and community for AIL may also be probed and its impact may be assessed.
- Effectiveness of AIL approach-based teaching- learning strategy can be studied for students exposed to ICSE curriculum.
- Effect of AIL approach can be studied in wholistic perspective i.e., cognitive, affective and psychomotor domain of learning.
- This study can be repeated for a large sample for longer duration representing all districts in the state to ensure the validity of the results.
- Similar studies can be conducted on academically disadvantaged students.
- The study was tested for teaching of science for class 8th students. This may be done for other subjects and at all levels of education.