CHAPTER V

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter gives an idea about whole research work carried out by the researcher and results obtained by the researcher to have precise information about the work done. After testing the hypothesis, the results are systematically arranged and presented in the form of findings and conclusion. Furthermore, the researcher also gives suggestions to others looking to conduct their research on a similar topic and for further studies based on the result of the present study.

Statement of the Problem

A Study of Effectiveness of Teaching Vedic Mathematics on Students’ Achievement.

The following objectives were selected for the study:

• To study the effectiveness of Teaching through Vedic Mathematics and Conventional methods in relation to achievement of students.
• To compare the mean scores on the achievement test in Mathematics of the two groups of students to be taught through Vedic Mathematics and conventional method of teaching before the experiment treatment.

• To compare the mean scores on the achievement test in Mathematics of the two groups of students to be taught through Vedic Mathematics and conventional method of teaching after the experiment treatment.

• To find out whether Vedic mathematics is useful for all levels of students. (High achievers & Low achievers).

• To create awareness about the importance of Vedic Mathematics among students.

In order to investigate the achievement level of students the Researcher tested some of the null hypotheses.

The operational definition of the statement of the study was as follows:

**Effectiveness** : The capability of producing a desired result.

**Teaching** : The act of imparting knowledge.
**Vedic Mathematics:** Solving mathematical problems easily with the help of some sutras.

**Achievement:** The act of achieving or performing; successful performance.

The following were the Delimitations of the study

1. The study was confined to Mathematics Subject only.
2. The study was delimited to Thane District only.
3. The study was delimited to Secondary Section class only.
4. The study was delimited to English Medium Students only.
5. The study was delimited to 130 students only.
6. In Vedic mathematics there are 16 sutras. It was very descriptive and consumes a lot of time and also students may get confused if all the 16 sutras are taught to them at one time. So, to make them understand very easily and keeping the time in mind, the researcher selected only few sutras.

The variables selected for the study is as follows

**Independent variables:** Teaching Vedic mathematics

**Dependent Variable:** Students’ Achievement
Variables controlled: Teacher, Time, Average Age, and Classroom conditions.

Variables uncontrolled: I.Q. of the students, their previous achievement, socio-economic status, anxieties, self-concept, interests and attitude.

SAMPLE OF THE STUDY

The researcher used Random sampling technique for this study. Selection of the sample. 130 students of Lourdes high school, Kalyan (W) and Shankara Vidyalaya, Dombivili(E). The number of students in each group was 65. All students were selected from 7th class of the two schools. They were divided into boys group and girls group. 37 boys and 28 girls were selected in the experimental group and 41 boys and 24 girls were selected in the control group for the study.

SUMMARY

Experimental method was used in this study to evaluate the effect of Teaching Vedic Mathematics on Students’ Achievement of class
VII. Mathematics has been taught as a compulsory Subject in school subjects from class I to class X in all schools.

This study was conducted in Lourdes High School, Kalyan (W) and Shankara Vidyalaya Dombivli (E). All students were selected from 7th class of the two schools. For the sample of the study, Random sampling technique was used. 130 students of Lourdes high school, Kalyan (W) and Shankara Vidyalaya, Dombivili(E). The number of students in each group was 65.

Total sample was 130, which was divided into two groups (i.e. experimental and control) of 65 students each. Experimental group had 65 students. And also the two groups i.e. experimental group and control group students were divided into boys group and girls group. 37 boys and 28 girls were selected in the experimental group and 41 boys and 24 girls were selected in the control group for the study.

Validity of the tests was evaluated by a committee, which consisted of Mathematics teachers and Teacher Educators. Both the groups were provided same direct instruction strategy with same lesson plans and The experimental continued for six weeks soon after the
treatment was over, post test was administered on the same day and same time to measure the achievement of the sample subjects. Marks obtained in tests were marked in the tabular form for the purpose of interpretation. The means, standard deviation and t-test were used for the manipulation of data.

**FINDINGS**

The following findings were emerged as a result of the analysis of data.

1. It was found that the t-value was 0.97, which was less than the table value.
2. It was found that the t-value was 0.918, which was less than the table value.
3. It was found that the t-value was 0.86, which was less than the table value.
4. It was found that the t-value was 9.04 was greater than the table value.
5. It was found that the t-value was 13.82, which was greater than the table value.
6. It was found that the t-value was 8.43, which was greater than the table value.
7. It was found that the t-value was 8.06, which was greater than the table value.

8. It was found that the t-value was 9.52, which was greater than the table value.

9. It was found that the t-value was 0.944, which was less than the table value.

10. It was found that the t-value was 0.954, which was less than the table value.

11. It was found that the t-value was 6.52, which was greater than the table value.

12. It was found that the t-value was 6.322, which was greater than the table value.

13. It was found that the t-value was 0.529, which was less than the table value.

14. It was found that the t-value was 0.509, which was less than the table value.

15. It was found that the t-value was 0.470, which was less than the table value.

16. It was found that the t-value was 0.981, which was less than the table value.

**RECOMMENDATIONS**
• Teachers should inculcate the habit of reading books related to Vedic Mathematics.

• School should arrange guest Lectures for students. So students get inspired by the experts and try to know about Vedic Mathematics so that they can solve more problems with speed and accuracy.

• Vedic Mathematics related books to be provided in the Library.

• Vedic Mathematics books should be given for students for incentives, so that they get the chance to read and solve many problems.

• Every Mathematics teacher should have the knowledge about Vedic mathematics.

• Mathematics teachers also should have the interest to use Vedic Mathematics in his/her classroom.

• At least some periods should be allotted in the class to use Vedic Mathematics tricks. So students can actively participate in solving problems.

• The appropriate method of teaching should be applied in order to improve the attitude and achievement of students.

• Continuous assignment should be given to the students.
• The class size should be reduced to an optimum number of around 40 students in a class so that teacher can give individual attention to students.

• Schools should realize the classrooms are not meant only for transmission of knowledge but also for developing creative abilities and talents.

• Teachers should have favourable attitude towards Vedic Mathematics.

• The classroom environment should be conducive and encouraging.

**Educational Implications**

• Vedic Mathematics is a very useful technique for teaching mathematics.

• Vedic Mathematics helps the children to learn mathematics in a very efficient way.

• Vedic mathematics helps to save a lot of time of the students.

• Vedic Mathematics arouses interest of students in mathematics.

• Students enjoy learning mathematics which is considered as a boring and dull subject.
• Better student-teacher understandings and relationships, better adaptation of teaching-learning, greater satisfaction of student with his learning etc. should be maintained.

• More emphasis should be laid on meaningful learning than mechanical learning.

• Finding answers through Vedic mathematics may help to reduce the students’ anxiety level.

• Teachers should encourage and help pupils to participate in quiz programmes, exhibitions and other competitive tests related to mathematics.

• Teachers should encourage students to use their leisure time profitably by engaging in activities such as reading books related to Vedic Mathematics, collecting puzzles, solving problems and other such activities.

• Teachers must appreciate the successful activities of their children.

Conclusions

Above mentioned results indicated that students who were taught by Vedic Mathematics method showed comparatively better results than that of students who were taught by lecture method.
On the whole, it was found that Vedic Mathematics learning groups performed significantly better than the group taught by traditional method of teaching. So we can conclude that teaching through Vedic Mathematics is beneficial for the students in improving their achievement in Mathematics. Vedic Mathematics saves time during examination.