CHAPTER -VI
FINDINGS, CONCLUSIONS, IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

6.1 Findings of the Study
On the basis of analysis of data and interpretation of results, the researcher draws a set of findings and conclusions and after the careful discussion of these findings, a wide variety of implications and suggestions must also to be focused on for further research in the related fields of this study. Following are the significant possibilities and provisions in terms of findings of this piece of research:

6.1.1 The principal presumptions accepted include:

$H_0^4$: There will be no significant difference in the mean achievement scores of male and female students in Mathematics to be taught through Educomp Smartclass teaching.

$H_0^5$: There will be no significant difference in the mean achievement scores of male and female students in Mathematics to be taught through conventional classroom teaching.

$H_0^8$: There will be no significant difference in the mean achievement scores of urban and rural VIII graders in Mathematics to be taught through Educomp Smart Classroom teaching.

$H_0^9$: There will be no significant difference in the mean achievement scores of urban and rural VIII graders in Mathematics to be taught through conventional classroom teaching.

$H_0^{13}$: There will be no significant difference in the mean retention scores of male and female students in Mathematics to be taught through Educomp Smartclass teaching.

$H_0^{14}$: There will be no significant difference in the mean retention scores of male and female students in Mathematics to be taught through conventional classroom teaching.
**H₀₁₇:** There will be no significant difference in the mean retention scores of urban and rural VIII graders in Mathematics to be taught through Educomp Smart Classroom teaching.

**H₀₁₈:** There will be no significant difference in the mean retention scores of urban and rural VIII graders in Mathematics to be taught through conventional classroom teaching.

**On the contrary, those rejected include:**

**H₀₁:** There will be no significant difference in the effects of Educomp Smartclass and Conventional Classroom teaching on the achievement in mathematics among VIII graders.

**H₀₂:** There will be no significant difference in the effects of Educomp Smartclass teaching and Conventional classroom teaching on the achievement in mathematics among male VIII graders.

**H₀₃:** There will be no significant difference in the effects of Educomp Smartclass and Conventional classroom teaching on the achievement in mathematics among female VIII graders.

**H₀₆:** There will be no significant difference in the effects of Educomp smart classroom and conventional classroom teaching on the academic achievement in mathematics among urban VIII graders.

**H₀₇:** There will be no significant difference in the effects of Educomp smart classroom and conventional classroom teaching on the academic achievement in mathematics among rural VIII graders.

**H₀₁₀:** There will be no significant difference in the effects of Educomp Smartclass and Conventional classroom teaching on the retention in mathematics among VIII graders.
**H_{011}**: There will be no significant difference in the effects of Educomp smart classroom and conventional classroom teaching on the retention in mathematics among male VIII graders.

**H_{012}**: There will be no significant difference in the effect of Educomp smart classroom and conventional classroom teaching on the retention in mathematics among female VIII graders.

**H_{015}**: There will be no significant difference in the effects of Educomp smart classroom and conventional classroom teaching on the retention in mathematics among urban VIII graders.

**H_{016}**: There will be no significant difference in the effect of Educomp Smartclass and Conventional classroom teaching on the retention in mathematics among rural VIII graders.

**6.1.2 Main Findings**

- The mean scores of achievement in mathematics of Educomp Smartclass teaching group are higher than Conventional Classroom teaching group. The Educomp Smartclass teaching helps in enhancing the achievement of students in mathematics in comparison to the conventional classroom teaching.

- The mean scores of achievement in mathematics of male students of Educomp Smartclass teaching group are higher than Conventional Classroom teaching group. The Educomp Smartclass teaching helps in enhancing the achievement of male students in mathematics in comparison to the Conventional classroom teaching.

- The mean achievement score of Educomp Smartclass teaching group is significantly higher than the mean achievement score of Conventional Classroom teaching group. The Educomp Smartclass teaching helps in enhancing the
achievement in mathematics of female students in comparison to the conventional classroom teaching.

- The mean achievement score of Educomp Smartclass teaching group male and female students is comparable. Sex has nothing to do with the achievement in mathematics among VIII Graders using Educomp Smartclass.

- The mean achievement score of male students is 44.95, which is slightly higher than the mean achievement score of female students i.e. 43.45. Sex has nothing to do with the achievement in mathematics among VIII Graders using Conventional Classroom teaching.

- The mean achievement score of experimental group is 52.00, which is significantly higher than the mean achievement score of control group i.e. 43.85. It may therefore be concluded that Educomp Smartclassroom helps in enhancing the achievement of urban students in mathematics in comparison to the conventional teaching.

- The mean achievement score of experimental group is 50.95, which is significantly higher than the mean achievement score of control group i.e. 44.55. It may therefore be concluded that Educomp Smartclassroom helps in enhancing the achievement of rural students in mathematics in comparison to the conventional teaching.

- The mean achievement score of urban students is 52.00, which is slightly higher than the mean achievement score of rural students i.e. 50.95. It may therefore be concluded that Educomp Smartclassroom teaching helps in enhancing the achievement in mathematics of rural and urban students equally.
The mean achievement score of urban students is 43.85, which is slightly lower than the mean achievement score of rural students i.e. 44.55. It may therefore be concluded that Conventional classroom teaching helps in enhancing the achievement in mathematics of rural and urban students equally.

The mean achievement score of experimental group is 49.80, which is significantly higher than the mean achievement score of control group i.e. 40.075. It may therefore be concluded that Educomp Smartclass teaching helps in enhancing the retention of students in mathematics in comparison to the Conventional classroom teaching.

The mean retention score of experimental group is 50.10, which is significantly higher than the mean retention score of control group i.e. 40.85. It may therefore be concluded that Educomp Smartclass teaching helps in enhancing the retention of male students in mathematics in comparison to the conventional teaching.

The mean retention score of experimental group is 49.50, which is significantly higher than the mean retention score of control group i.e. 39.30. It may therefore be concluded that Educomp Smartclass teaching helps in enhancing the retention in mathematics of female students in comparison to the conventional classroom teaching.

The mean retention score of male students is 50.10, which is slightly higher than the mean achievement score of female students i.e. 49.50. It may therefore be concluded from the findings that sex has nothing to do with the retention in mathematics among VIII Graders using Educomp Smartclass teaching.

The mean retention score of male students is 40.85, which is slightly higher than the mean achievement score of female students i.e. 39.30. It may therefore be
concluded from the findings that sex has nothing to do with the retention in mathematics among VIII Graders using Conventional Classroom teaching.

- The mean retention score of experimental group is 50.45, which is significantly higher than the mean retention score of control group i.e. 39.80. It may therefore be concluded that Educomp Smartclass teaching helps in enhancing the retention in mathematics of urban students in comparison to the conventional classroom teaching.

- The mean retention score of experimental group is 49.15, which is significantly higher than the mean retention score of control group i.e. 40.35. It may therefore be concluded that Educomp Smartclass teaching helps in enhancing the retention in mathematics of rural students in comparison to the conventional classroom teaching.

- The mean retention score of urban students is 50.45, which is slightly higher than the mean retention score of rural students i.e. 49.15. It may therefore be concluded that Educomp Smartclassroom teaching helps in enhancing the retention in mathematics of rural and urban students equally.

- The mean retention score of urban students is 39.80, which is slightly lower than the mean achievement score of rural students i.e. 40.35. It may therefore be concluded that Conventional classroom teaching equally helps in enhancing the retention in mathematics of rural and urban students.

6.3 Discussion of Results

6.3.1 Results Related with Achievement in Mathematics

The mean scores of achievement in mathematics of Educomp Smart classroom teaching group are higher than Conventional Classroom teaching
The Educomp Smart classroom teaching helps in enhancing the achievement of students in mathematics in comparison to the conventional classroom teaching. The Educomp Smart classroom teaching helps in enhancing the achievement of male students in mathematics in comparison to the Conventional classroom teaching. The Educomp Smart classroom teaching helps in enhancing the achievement in mathematics of female students in comparison to the conventional classroom teaching. The mean achievement score of Educomp Smartclass teaching group male and female students is comparable. Sex has nothing to do with the achievement in mathematics among VIII Graders using Educomp Smartclass. The mean achievement score of male students is slightly higher than the mean achievement score of female students. Sex has nothing to do with the achievement in mathematics among VIII Graders using Conventional Classroom teaching. The mean achievement score of experimental group is significantly higher than the mean achievement score of control group. It may therefore be concluded that Educomp Smart classroom helps in enhancing the achievement of urban students in mathematics in comparison to the conventional teaching. The mean achievement score of urban students is slightly higher than the mean achievement score of rural students. It may therefore be concluded that Educomp Smart classroom helps in enhancing the achievement of rural students in mathematics in comparison to the conventional teaching. The mean achievement score of rural and urban students is slightly lower than the mean achievement score of rural students. It may therefore be concluded that Conventional classroom teaching helps in enhancing the achievement in mathematics of rural and urban students equally.

teaching with traditional classroom teaching and also found that Smart Classroom teaching helped in enhancing the achievement of learners.

6.3.2 Results Related with Retention in Mathematics

- Educomp Smartclass teaching helps in enhancing the retention of students in mathematics in comparison to the Conventional classroom teaching.
- Educomp Smartclass teaching helps in enhancing the retention of male students in mathematics in comparison to the conventional teaching.
- Educomp Smartclass teaching helps in enhancing the retention in mathematics of female students in comparison to the conventional classroom teaching.
- The mean retention score of male students is comparable with the mean achievement score of female students. It may therefore be concluded from the findings that sex has nothing to do with the retention in mathematics among VIII Graders using Educomp Smartclass teaching.
- The mean retention score of male students is comparable with the mean achievement score of female students. It may therefore be concluded from the findings that sex has nothing to do with the retention in mathematics among VIII Graders using Conventional Classroom teaching.
- The mean retention score of experimental group is significantly higher than the mean retention score of control group. It may therefore be concluded that Educomp Smartclass teaching helps in enhancing the retention in mathematics of urban students in comparison to the conventional classroom teaching.
- The mean retention score of experimental group is significantly higher than the mean retention score of control group. It may therefore be concluded that Educomp Smartclass teaching helps in enhancing the retention in mathematics of rural students in comparison to the conventional classroom teaching.
- The mean retention score of urban students is comparable with the mean retention score of rural students. It may therefore be concluded that Educomp Smartclassroom teaching helps in enhancing the retention in mathematics of rural and urban students equally.
• The mean retention score of urban students is comparable with the mean achievement score of rural students. It may therefore be concluded that Conventional classroom teaching equally helps in enhancing the retention in mathematics of rural and urban students.

Ram Mehar & Anuradha (2014) in their research investigated the effect of smart class instructions on retention in Chemistry in relation to academic anxiety on IX class students selected from two different schools of Chandigarh (UT) and found similar results.

6.4 Conclusions
The study provides very important recommendations for teacher training institutions. Considering the present widespread use of Educomp Smart classroom at all gradess and for all subjects, it is very important that during pre-service teacher training, future teachers should master the smart technology. NCTE and SCERTS should include Smart classroom as a mandatory facility in teacher training institutions so that future teachers could be skilled for smart classroom teaching. The future teachers will acquire the skill of smart technology during pre-service teacher training; in-service training may also be given to the existing teachers to teach them the skills for smart classroom teaching that is teaching efficiently, interestingly, technically and meaningfully.

6.5 Educational Implications
The present investigation shows that this shift from a traditional ‘chalk and talk’ method to Educomp Smartclass teaching method not only enriches teaching learning of the classroom, it also improves their achievement and retention in mathematics in a significant way. It shows that Educomp Smartclass teaching method proves to be more successful in its effectiveness on achievement and retention in comparison to the traditional classroom method. It proves more practical and is widely acceptable to learners. It also minimises individual differences and enables all types of learners to perform better. It has many other advantages.

- Educomp Smartclass can be substituted for almost anything in the classroom: blackboard, charts, book, TV, encyclopedias, models, map, library and many more.
Educomp Smartclass can be used as a supplement in a large group classroom teaching. It is easier to control learners in Educomp Smartclass than in the traditional classroom.

Educomp Smartclass can be used individually, in small or large groups by the teachers. Educomp Smartclass suggests a new role for the teacher. Earlier the teacher who used to be the only source of information for the passive learners in the classroom, has now changed to a facilitator in the teaching-learning process and brings a whole world of knowledge in the classroom:

- Educomp Smartclass helps students in active learning.
- Educomp Smartclass draws diagrams easily and accurately.
- Educomp Smartclass takes the learners in real life situations.
- Educomp Smartclass

The teacher can easily monitor the involvement of learners of all levels; high achievers, average and low level achievers and learners can be motivated for better performance.

Educomp Smartclass can be used to enhance teaching by presenting information in different ways and in different forms. Pupils can manipulate and make changes to information so that they can develop understanding of the relationship between different types of information or through the process of changing that information dynamically.

Educomp Smartclass used learning sessions in class may act as a source of edutainment (education plus entertainment) as well. The sessions may include games, recreational activities like solving puzzles and riddles, holding group discussions on some general topics related to current affairs to create more interest among students. So, teacher becomes more resourceful.

Important skills such as critical thinking, creative problem solving and synthesis of knowledge can easily be accomplished through Educomp Smartclass used learning in the class.

Findings of this research show that Educomp Smartclass can be considered as a big agent for change in education, and there is a possibility for research in this area of research. Educomp Smartclass used teaching can replace the traditional teaching methods and make it more effective. The findings show that Educomp Smartclass plays a very
important role in Mathematics teaching-learning, so, educationists should develop clear understanding of the conditions, circumstances, means and mechanisms through which Educomp Smartclass can be closely connected to the young students and particularly for mathematics teaching.

6.6 Suggestions for further Study

- This study could be reproduced to find out how Educomp Smartclass teaching affects the various abilities of the students as cognitive, emotional, social, personal and motivational aspects.
- There is a need to investigate Educomp Smartclass used teaching method with other methods of teaching at different grade levels.
- The study could be reinvestigated on a larger sample for validation and for a longer duration of time to study the effects on non-cognitive variable like social skills or some personality variables which take more time to bring about a change.
- There is a need to study the combined effects of Educomp Smartclass used teaching with other institutional treatments.
- Research is needed to study the effect of Educomp Smartclass on special groups of learners e.g. gifted, the learning disabled and other special groups’ students.
- Research need to be conducted with school subjects other than mathematics and to find out the extent of effect of Educomp Smartclass on different school subjects.