Chapter V

Findings, Discussion, Implications and Suggestions
CHAPTER-V

FINDINGS, DISCUSSION, IMPLICATIONS AND SUGGESTIONS

5.1. INTRODUCTION

Students of standard IX had problems in lessons of Social science viz; 1. Nile Valley Civilization. 2. Mesopotamian Civilization 3. Early Chinese Civilization, 4. Europe, Greek Civilization and 5. Roman Civilization. It paved way to researcher to practice Team Based Learning in learning Social science at standard IX. Conventional methods were not enhanced the marks in Social science. Team Based Learning ensured the effective learning of Social science and it eliminated the problems of the students. It simplified the learning and retained the memory of the students. It increased scores of the learners. Hence the study substantiates that Team Based Learning is more effective than conventional methods in learning Social science in three types of schools at standard IX.

5.2. STATEMENT OF THE PROBLEM

Students of standard IX had hurdles in learning Social science in the conventional methods. Students scored less marks in the subject of Social science by the conventional methods, scoring fewer marks affect the students to select the optional subjects at Higher secondary level.

5.3. NEED AND SIGNIFICANCE OF THE STUDY

At present, the social sciences as a course of study tend to be considered as non utility subjects and are given less importance than the other subjects. However in real sense, they provide the social, cultural and analytical skills required to adjust to an increasingly interdependent world and to deal with political and economic realities. It is
believed that the social sciences merely transmit information and are text centered and moreover lecture method is followed in most schools. Learning of any subject only through lecture method is neither attain the educational objectives (i.e., Taxonomy of educational objectives: cognitive, affective and psycho motor) nor meet the current challenges of education. Conventional methods of teaching were not fruitful to the learners at secondary level in learning social science. Conventional methods failed to encourage the learners in learning social science. Hence the researcher identified the learner centred- method named Team Based Learning for eliminating difficulties and increasing the scoring in social science.

5.4. OPERATIONAL DEFINITION

Effectiveness- It refers to Team Based learning which is successful in accomplishing learner’s educational objectives in social science.

Team Based Learning –Refers to Learners-centred group leaning of learning social science

Social science –Referred the syllabus given for standard IX in Tamilnadu text book society.

Standard IX- After passing standard VIII and referred those who are studying in standard IX.
5.5. FINDINGS


2. Mean score of pre test of Experimental group is 11.16 and Post test of Experimental group is 13.98. It is proved that learning Social science through Team Based Learning is more effective than conventional method. Mean score difference between the pre test of Experimental group and Post test of Experimental group is 35.27. It is proved that learning Social science through Team Based Learning is more effective than conventional method in three types of schools.

3. Learning Social science through Team Based Learning is more effective which is ensured by the mean score of Govt. school in pre test of Experimental group is 11.00 and Post test of Experimental group is 14.37. Mean difference between the two groups is 3.37. It is proved that learning Social science through Team Based Learning is more effective than conventional method in Government school. Mean score of Aided school in pre test of Experimental group is 11.47 and Post test of Experimental group is 13.57. Mean difference between the two groups is 2.10. It is proved that learning Social science through Team Based Learning is more effective than conventional method in Aided school. Mean score of Matriculation school in pre test of Experimental group is 11.00 and Post test of Experimental group is 14.00. Means difference between the two groups is 3.00. It is proved that learning Social science through Team Based Learning is more
effective than conventional method in Aided school. Mean differences of three
types of school enhance the scores by Team Based Learning. Hence TBL is more
effective than conventional methods in learning Social science among the students
of standard IX.

4. The retention test proves that learning through the Team Based Learning retain the
learning ability. It is concluded that learning through the Team Based Learning is
stored strongly in the memory of the students.

5. There is no significant difference in achievement mean score between the Pretest of
Control groups and the Post-test of control groups in learning Social among the
students of standard IX.

6. There is no significant difference in achievement mean score of the students
between the Pre-test of control groups and the Pre-test of Experimental groups

7. There is a significant difference in achievement mean score of the students between
the Pre-test of Experimental groups and the Post-test of Experimental groups

8. There is a significant difference in achievement mean score of the students
between the Post-test of control groups and the Post-test of Experimental groups

9. There is no significant difference in achievement mean score of the students
between the Pre-test of control group and the Post-test of Control group with
respect to the schools of (a) Government (b) Aided and (c) Matriculation

10. There is a significant difference in achievement mean score of the students between the
Pre-test of Experimental group and the Post-test of Experimental group with respect to
the schools of (a) Government (b) Aided and (c) Matriculation
11. There is a significant difference in achievement mean score of the students between the Post-test of control groups and the Post-test of Experimental groups with respect to the schools of (a) Government (b) Aided and (c) Matriculation.

12. There is no significant difference in achievement mean score of the students between the Pre-test of control groups and the Pre-test of Experimental groups with respect to the schools of (a) Government (b) Aided and (c) Matriculation.

13. There is no significant difference in achievement mean score among the students of three types of school involved in the Pre-test of control groups in learning Social science at standard IX.

14. There is no significant difference in achievement mean score among the students of three types of school involved in the Post-test of control groups in learning Social science at standard IX.

15. There is no significant difference in achievement mean score among the students of three types of school involved in the Pre-test of Experimental groups in learning Social science at standard IX.

16. There is no significant difference in achievement mean score among the students of three types of school involved in the Post-test of Experimental groups in learning Social science at standard IX.
17. There is no significant difference in achievement mean score Pre-test of control group between
   (a) Government school and Aided school.
   (b) Government school and Matriculation school
   (c) Aided school and Matriculation

18. There is no significant difference in achievement mean score Post-test of control group between
   (a) Government school and Aided school.
   (b) Government school and Matriculation school
   (c) Aided school and Matriculation

19. There is no significant difference in achievement mean score Pre-test of Experimental group between
   (a) Government school and Aided school.
   (b) Government school and Matriculation school
   (c) Aided school and Matriculation.

20. There is no significant difference in achievement mean score Post-test of Experimental group between
   (a) Government school and Aided school.
   (b) Government school and Matriculation school
   (c) Aided school and Matriculation
21. There is no significant difference in achievement mean score of the students between the Pre-test of control group and the Post-test of Control group with respect to (a) Nile Valley Civilization (b) Mesopotamian Civilization (c) Early Chinese Civilization (d) Europe Greek Civilization and (e) Roman Civilization.

22. There is a significant difference in achievement mean score of the students between the Pre-test of Experimental group and the Post-test of Experimental group with respect to (a) Nile Valley Civilization (b) Mesopotamian Civilization (c) Early Chinese Civilization (d) Europe Greek Civilization and (e) Roman Civilization.

23. There is a significant difference in achievement mean score of the students between the Post-test of control groups and the Post-test of Experimental groups with respect to (a) Nile Valley Civilization (b) Mesopotamian Civilization (c) Early Chinese Civilization (d) Europe Greek Civilization and (e) Roman Civilization.

24. There is no significant difference in achievement mean score of the students between the Pre-test of control groups and the Pre-test of Experimental groups with respect to (a) Nile Valley Civilization (b) Mesopotamian Civilization (c) Early Chinese Civilization (d) Europe Greek Civilization and (e) Roman Civilization.

25. There is a significant difference in achievement mean score of the students between the Pre-test of Experimental group and the Post-test of Experimental group in Government School with respect to (a) Nile Valley Civilization (b) Mesopotamian Civilization (c) Early Chinese Civilization (d) Europe Greek Civilization and (e) Roman Civilization.

26. There is no significant difference in achievement mean score of the students between the Pre-test of control group and the Post-test of Control group in Government School.
Government School with respect to (a) Nile Valley Civilization (b) Mesopotamian Civilization (c) Early Chinese Civilization (d) Europe Greek Civilization and (e) Roman Civilization.

27. There is a significant difference in achievement mean score of the students between the Pre-test of Experimental group and the Post-test of Experimental group in Aided School with respect to (a) Nile Valley Civilization (b) Mesopotamian Civilization (c) Early Chinese Civilization (d) Europe Greek Civilization and (e) Roman Civilization.

28. There is no significant difference in achievement mean score of the students between the Pre-test of control group and the Post-test of Control group in Aided School with respect to (a) Nile Valley Civilization (b) Mesopotamian Civilization (c) Early Chinese Civilization (d) Europe Greek Civilization and (e) Roman Civilization.

29. There is a significant difference in achievement mean score of the students between the Pre-test of Experimental group and the Post-test of Experimental group in Matriculation School with respect to (a) Nile Valley Civilization (b) Mesopotamian Civilization (c) Early Chinese Civilization (d) Europe Greek Civilization and (e) Roman Civilization.

30. There is no significant difference in achievement mean score of the students between the Pre-test of control group and the Post-test of Control group in Matriculation School with respect to (a) Nile Valley Civilization (b) Mesopotamian Civilization (c) Early Chinese Civilization (d) Europe Greek Civilization and (e) Roman Civilization.
31. There is a significant difference in achievement mean score of the students between the Post-test of Experimental group and Retention test with respect to (a) Government School (b) Aided School and (c) Matriculation school.

5.6. DISCUSSIONS


2. Learning Social science through Team Based Learning is more effective than conventional method in Aided school. Mean differences of three types of school enhance the scores by Team Based Learning. Hence TBL is more effective than conventional methods in learning Social science among the students of standard IX. Supported study was Chung et al., (2009). The premise of TBL is to promote active and effective learning through small group interactions across a semester supported the study of Michaeelsen et al., 2002. Hake supported the study by his survey study.

3. Mean difference in Team Based Learning, Government school is (3.37) higher than Matriculation school (3.00) but Matriculation school is lower (2.10) than two types of school.

4. Case study substantiates that Team Based Learning is more effective than conventional methods in learning Environmental education.

5. It is proved that conventional method is better mean value in Government school but lower mean value in Matriculation school. Mean scores of three schools were not achieved significant level.
6. Mean score of the students between the Pre-test of Experimental group and the Post-test of Experimental group with respect to the schools of (a) Government (b) Aided and (c) Matriculation are 9.60, 7.47 and 8.07. Government school had better than Matriculation, Matriculation was better than Aided school but Aided was lower in mean score.

7. Mean score of the students between the Post-test of Control group and the Post-test of Experimental group with respect to the schools of (a) Government (b) Aided and (c) Matriculation are 8.18, 6.46 and 8.93. Matriculation school had better than Government school, Government school is better than Aided school but Aided is lower in mean score.

8. Three schools were appeared little bit difference in achievement mean score Pre-test of control group between (a) Government school and Aided school (b) Government school and Matriculation school and (c) Aided school and Matriculation.

9. It confirms the pre-experimental of the three schools have the same conditions but little bit difference is appeared.

10. It confirms the post-experimental of the three schools have the same conditions but little bit difference is appeared. Marie Thomas, Ph.D. Professor of Psychology California State University San Marcos Email: mthomas@csusm.edu My discovery of TBL in 2002 supported the TBL.

11. There is no significant difference in achievement mean score Post-test of Experimental group between (a) Government school and Aided school (b) Government school and Matriculation school and (c) Aided school and Matriculation.
12. Nile Valley Civilization, Mesopotamian Civilization, Early Chinese Civilization, Europe Greek Civilization and Roman Civilization are 7.88, 3.17, 5.56, 6.86, and 5.50 respectively is greater than the table value 2.04 at 0.05 level. Hence there is significant difference in achievement mean score of the students between the Pre-test of Experimental group and the Post-test of Experimental group with respect to (a) Nile Valley Civilization (b) Mesopotamian Civilization (c) Early Chinese Civilization (d) Europe Greek Civilization and (e) Roman Civilization.

13. The achievement mean score of the students between the Post-test of control groups and the Post-test of Experimental groups with respect to Nile Valley Civilization, Mesopotamian Civilization, Early Chinese Civilization, Europe Greek Civilization and Roman Civilization are 7.26, 2.87, 4.93, 5.37 and 8.13 respectively. It confirmed the highest marks in Roman Civilization (8.13) and lowest scoring in Mesopotamian Civilization (2.87).

14. Mean score of three types of schools are (a) Nile Valley Civilization (7.85) (b) Mesopotamian Civilization (3.17) (c) Early Chinese Civilization (5.56) (d) Europe Greek Civilization (6.86) and (e) Roman Civilization (5.50).


16. TBL is strongly recommended by John W. Schmidt, Debra A. Woll in Team-Based Learning for Medical School Students with a Weak Science Background.
17. The retention test proves that learning through the Team Based Learning retains the learning ability. It is concluded that learning through the Team Based Learning is stored strongly in the memory of the students. The premise of TBL is to promote active and effective learning through small group interactions across a semester (Michaelsen et al., 2002).

5.7. CONCLUSION

The study substantiates that Team Based Learning is more effective than conventional methods in learning social science. Team Based Learning accelerates the learners in way of happy incidents in learning social science. TBL reduces the learning impediments of the students through social incorporated peer mixed learning. In this learning, teachers are facilitators instead of teaching and coaching the subjects. It is a learner-centered methods to acquire the necessary competency in the subject. The study may be useful to enhance competency of all types of learners in different levels.

5.8. EDUCATIONAL IMPLIEDATIONS

The study revealed that the Team Based Learning helped in enhancing the achievement of students in Social science significantly. Hence the study recommends the followings as Educational implications of the study.

1. The study explores the five important elements of Team Based learning viz: Positive interdependence, Individual accountability, face-to-face interaction, Social skills and Group processing, which ensured the effective learning in Social science among the students. By accelerating the students through the five elements with help of the teachers may assure simplifying the learning and eliminating the problems of learning Social science. It is also recommended by Roger and David Johnson, at the University of Minnesota.
2. Team Based Learning can be facilitated by the teachers for group formation and allotting areas of problems of the students. Special in-service programme on Team learning may be organized by Government to encourage such a social mobilized learner-centered method of teaching.

3. It is one of the constructivist learnings, which lime lights on mental representation of learners. Individual and group interaction based learning is happened. Teachers have to train the students before team forming in the class room.

4. Patricia Hrynchak and Helen Batty provide an excellent analysis of the theoretical basis of team based learning (2012). They argue that team-based learning incorporates the main elements of constructivist learning, in which the “focus is on the mental representation of information by the learner” (Svinicki 2004, p. 242; Kaufman 2003):

5. A training to the students may be arranged to encounter inconsistencies between preconceptions and new experiences to provide a basis for development of new understandings. A focus on relevant problems accompanied by group interaction promotes learning.

6. Role of Teachers in Team Based Learning

   Team-based learning is consistent with all of these elements. The teacher establishes the learning objectives and chooses the problems on which the students will focus but then acts as a guide while teams work toward their solution to the problem. A careful choice of problems can help reveal common student misconceptions and the constant interaction and debate among team members allows learners to compare their current understandings with those of other team members and to construct new understandings. Group interaction and a focus on relevant problems is an inherent element of
team-based learning. Finally, team-based learning provides several opportunities for reflection: during the group readiness assessment test; while hearing other teams’ reports of their conclusions; and during the peer evaluation process, which often includes self-evaluation.

7. Team-based Learning (TBL) is a teaching paradigm that requires students to complete an individual RAT (Individual Readiness Assessment Test) after they complete the reading for each unit. It can be activated among the learners.

8. Team-based Learning (TBL) is a teaching paradigm that involves a specific order of learning activities: 1. Students complete unit reading on their own to gain a basic understanding, 2. Students complete an Individual Readiness Assessment Test (RAT), and 3. Students complete a Team RAT. This process is repeated to the students for each unit within a course. It increases the reading ability of the students also.

9. Learning activities of TBL consisted of individual reading assignments, completion of individual readiness assurance tool, followed by a team assignment and completion of a group readiness assurance tool. Accelerating the suggested activities can enhance the learning of the students.

10. Teachers may try to avoid monotonous conventional method and try to implement TBL in the classroom transactions.

5.9. SUGGESTIONS FOR FURTHER RESEARCH

A research study would be incomplete if it doesn’t provide necessary guidelines as well as potential research topics, for further exploration. The following suggestions are made for further research in this area.
• This study was conducted for students in Coimbatore district only. This may be extended to the whole state of Tamilnadu and other states in the country.

• The students studying in standard IX alone were taken for this study. This can be extended to other levels like higher secondary, arts and science colleges and professional colleges also.

• Effectiveness of TBL in learning Social science may be conducted in other branches of sciences and languages also.

• This may be extended to the students of other patterns of education such as CBSE, ICSE and etc.

• A study may be carried out to explore the attitudes of teachers and students towards the utilization of the innovative techniques in teaching and learning the social science concepts.

• A study may be conducted to explore the problems encountered by the students in learning the concepts through different teaching methods.

• A comparative study may be carried out to explore the relationship between the attitude of teachers towards utilizing the techniques and their competency in teaching.

• Pros and cons of TBL in teaching learning process.

• A study may be conducted to identify the roles of teachers and school authorities in implementing the different teaching methods at school level.

• Effectiveness of TBL in distance education for different subjects.