### CHAPTER VI
SUMMARY OF FINDINGS AND CONCLUSION

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CHAPTER VI

SUMMARY OF FINDINGS AND CONCLUSION

6.1 INTRODUCTION

The aim of any research work is to find a solution to the problem undertaken and the solution is generally stated in the form of conclusion. This chapter deals with major summary of findings with its cause and effect. This summary is given in terms of the discussions and conclusions in the present context and suggestions and recommendations for further study.

The present study has been carried out with the aim of evaluating the effectiveness of Blog based learning in Physics at higher secondary level. In order to find out the effectiveness of the Blog based learning, the study dealt with the comparison of learning through Blog in terms of academic achievement with the conventional method of teaching.

6.2 FINDINGS OF THE STUDY

The following are the findings of the present study;

- The post test score of control group is higher than its pre test score
- The post test score of experimental group is higher than its pre test score
- The difference between pre test scores of control group and experimental group is not significant.
- The experimental group exhibits higher post test mean scores than that of control group.
- The pre test scores of male and female students belong to control group exhibited same level.
• The post test scores of male and female students belong to control group exhibited same level.

• The pre test scores of Biology and Computer science students belong to control group exhibited same level.

• The post test scores of Biology and Computer science students belong to control group exhibited same level.

• The pre test scores of control group students who are having internet knowledge and who are not having internet knowledge, exhibited same level.

• The post test scores of control group students who are having internet knowledge and who are not having internet knowledge, exhibited same level.

• The variable frequency of using computer and its sub groups show same level of effectiveness in the Physics achievement scores of control group at pre testing condition.

• The variable frequency of using computer and its sub groups show same level of effectiveness in the Physics achievement scores of control group at post testing condition.

• The post test scores of male and female students belong to experimental group exhibited same level.

• The pre test scores of Biology and Computer science students belong to experimental group exhibited same level.

• The post test scores of Biology and Computer science students belong to experimental group exhibited same level.
• The pre test scores of experimental group students who are having internet knowledge and who are not having internet knowledge, exhibited same level.

• The post test scores of experimental group students who are having internet knowledge and who are not having internet knowledge, exhibited same level.

• The variable frequency of using computer and its sub groups show same level of effectiveness in the Physics achievement scores of experimental group at pre testing condition.

• The variable frequency of using computer and its sub groups show same level of effectiveness in the Physics achievement scores of experimental group at post testing condition.

• The experimental group shows high retention score than that of control group.

• The retention test scores of male and female students belong to control group exhibited same level.

• The retention test scores of Biology and Computer science students belong to control group exhibited same level.

• The retention test scores of control group students who are having internet knowledge and who are not having internet knowledge, exhibited same level.

• The retention scores of control group with respect to the sub groups of variable, frequency of using computer is found to be same.
• The retention test scores of male and female students belong to experimental group exhibited same level.

• The retention test scores of Biology and Computer science students belong to experimental group exhibited same level.

• The retention test scores of experimental group students who are having internet knowledge and who are not having internet knowledge, exhibited same level.

• The retention scores of experimental group with respect to the sub groups of variable, frequency of using computer is found to be same.

• The male students show higher Gain score than the female students.

• The Gain scores of Biology and Computer science students belong to control group exhibited same level.

• The Gain scores of control group students who are having internet knowledge and who are not having internet knowledge, exhibited same level.

• The Gain scores of control group with respect to the sub groups of variable, frequency of using computer is found to be same.

• The Gain scores of male and female students belong to experimental group exhibited same level.

• The Gain scores of Biology and Computer science students belong to experimental group exhibited same level.

• The Gain scores of experimental group students who are having internet knowledge and who are not having internet knowledge, exhibited same level.
• The Gain scores of experimental group with respect to the sub groups of variable, frequency of using computer is found to be same.

• The experimental group shows high gap closed and low gap unclosed than that of control group.

• The experimental group shows high effect size than that of control group.

6.3 RESULTS AND DISCUSSION

1. It is evident from the table 5.7, that the pre test mean value of control group and the pre test mean value of experimental group is not differ significantly. It is concluded that the pre test scores of control group and experimental group exhibited same level and hence the homogeneity of the group was established. Similar finding was also made by Prabha S. Chiniwar (2013), Sumathi (2013), soureche (2013),Shaik Fehameeda and Humiera Jawad (2012), Arulsamy (2005).

2. The table 5.8 revealed that the post test mean value of control group and the post test mean value of experimental group differs significantly. Hence there exists significant difference between post test scores of control group and experimental group with respect to learning Physics at higher secondary level. The result showed that the experimental group exhibits higher post test mean score than that of control group with reference to learning Physics at higher secondary level. The finding indicates that the Blog based learning is effective than the conventional method of teaching Physics at higher secondary level. This finding is supported by the technology related studies made by Deepa (2016), ShazliHasan Khan (2016), Bal (1992), Ram Mehar and Vipin Kumar (2013), Cheng (2009),

3. The result of the retention score shows significant difference between control group and experimental group. The experimental group shows high retention score than that of control group. The finding reveals that the Blog based learning has high memory retention than the conventional method of teaching at higher secondary level. This finding is consistent with technology related research findings made by Praveen Dhar (2012), Megha M. Uplaneet et al. (2011), Sivakumar (2014).

4. There is no significant difference exist between pre test scores and post test scores of control group in terms of gender. Hence the pre test scores and post test scores of male and female students belong to control group exhibited same level in learning Physics at higher secondary level. So, the sub variable gender was not significantly influenced the achievement level of the learner in the control group. Similar finding is supported by the study done by Ravichandran and Saravanakumar (2014).

5. There is no significant difference exist between pre test scores and post test scores of control group in terms of optional subject in learning Physics at higher secondary level. Hence the pre test scores and post test scores of Biology and Computer science students belong to control group exhibited same level in learning Physics at higher secondary level. So, the sub
variable optional subject did not significantly influenced the achievement level of the learner in the control group.

6. There is no significant difference exist between pre test scores and post test scores of control group in terms of internet knowledge in learning Physics at higher secondary level. Hence the pre test scores and post test scores of control group students who are having internet knowledge and who are not having internet knowledge, exhibited same level in learning Physics at higher secondary level.

7. There is no significant difference exist between post test scores of experimental group in terms of gender in learning Physics at Higher secondary level. Hence the post test scores of male and female students belong to experimental group exhibited same level in learning Physics at higher secondary level. The finding shows that the Blog based learning did not significantly influenced by the sub variable gender. This finding is supported by the technology related study made by Ravichandran and Saravanakumar (2014).

8. There is no significant difference exist between pre test scores and post test scores of experimental group in terms of optional subject in learning Physics at higher secondary level. Hence the pre test scores and post test scores of Biology and Computer science students belong to experimental group exhibited same level in learning Physics at higher secondary level. The finding indicates that the Blog based learning was not significantly influenced by the sub variable optional subjects.
9. There is no significant difference exist between pre test scores and post test scores of experimental group in terms of internet knowledge in learning Physics at higher secondary level. Hence the pre test scores and post test scores of experimental group students who are having internet knowledge and who are not having internet knowledge, exhibited same level in learning Physics at higher secondary level. The finding reveals that the Blog based learning was not significantly influenced by the sub variable knowledge on internet usage.

10. There exists no significant difference in the achievement scores of control group at pre test and post test scores with respect to frequency of using computer. The sub variable frequency of using computer and its sub groups show same level in the achievement scores of control group at pre and post tests. Hence, it is infers that the influence of the sub variable frequency of using computer was not at significant level.

11. There exists no significant difference in the achievement scores of experimental group at pre and post tests scores with respect to frequency of using computer. The sub variable frequency of using computer and its sub groups show same level in the achievement scores of experimental group at pre and post tests. The finding indicates that the Blog based learning did not significantly influenced by the sub variable frequency of using computer.

12. The table 5.41 indicates that the gap closure percentage of the control group shows low percentage of Gain ratio, on the other hand the gap closure percentage of experimental group shows higher percentage of Gain ratio. It is evident that the experimental group shows high gap closed than the
control group. Hence, there exists significant difference between control
group and experimental group in the Gap closure gain ratio in learning
Physics at higher secondary level. Hence the experimental group shows
high gap closed and low gap unclosed than the control group. Hence, this
study reveals that the gain ratio is more for the experimental group than the
control group.

13. The effect size result indicates (table 5.42), significant difference between
the experimental group and control group. The effect size is high in the
experimental group than that of control group. Hence the experimental
group found to have superior effect size than the control group. The
finding indicates that the Blog based learning is effective than the
conventional method of teaching Physics at higher secondary level. This is
in congruence with the result of Young Park et.al.,(2011), Daniel Churchill
Alison Hramiak et.al.,(2009), sumathi (2013), HemantLata Sharma and
Sunita Sharma (2014), Samson Chandradoss (2011), Sumathi and
Krishnakumar (2013).

It is found that the Blog based learning is effective in learning Physics at
higher secondary level. The achievement of the students who learned through Blog
is found to be higher than through conventional method. It shows that as an
emerging tool, Blogging is known to be a way for students to learn and develop
their knowledge and skills. It is also found that the students have understood that
Blog is also a platform of knowledge sharing. The study suggests that Blogs can
constitute a dynamic forum that fosters learning motivation, understanding of how
to harness the unique communicative elements of the Blog. Further Blogging provides an opportunity to a social constructivist learning environment where the teacher and the students can experience a community practice. Blog facilitates to the students for their expression of thoughts, learning and sharing of each other’s knowledge and enhancing the students understanding of the concepts that they have learnt as their classroom teaching.

Blog enhances intrinsic motivation of the learners. Blog based learning helps to learn versatile subject based concepts in various forms (text, pictures, audio, video and animated) within the stipulated time, thereby widening the existing level of knowledge. Blogs facilitate to learn in virtual condition, update with present scenario, foster learners’ autonomy and boost scholastic achievement of the students. Blog inculcate positive attitude of the students towards learning a subject through digital media. It instills active participation and interest of the learner in the learning process. Blog based learning enhances the existing competencies and skills. It helps to express their thoughts, learning and sharing knowledge in both formal and informal mode. Finally, it is concluded that the Blog based learning (BBL) is more effective than the conventional method in learning Physics at higher secondary level. This finding was supported by Alice Jeya Bharathiet et. al., (2009) & Sumathi and Krishnakumar (2013).

6.4 RECOMMENDATIONS OF THE STUDY

The following are the recommendations given by the investigator based on the insight gained from the present study;
• In this present study, students learned Physics effectively through Blog based learning than conventional method of teaching. The effectiveness of Blog based learning has been established beyond the shadow of doubt. Hence, the newer instructional technology using Blog based learning can be introduced for the school students.

• The higher secondary students learned Physics through Blog and conventional method. In this study, the investigator identified that the achievement scores and retention scores are high for students who are learned through Blog than conventional method. Since, the Blog is an effective tool for teaching – learning process to enhance achievement in Physics, the school educational administration may insist the school teachers to develop a Blog on their own to educate their students through Blogs.

• The Department of School Education may conduct an in service training programme on developing Blogs for school teachers.

• The authorities of school education may take an initiative to create a school Blogs for interaction of students with teachers by which absent students may learn through Blogs. Similarly teachers’ Blog may be created for discussion of teachers among themselves.

• The Tamil Nadu Teacher Education University (TNTEU) should include in their curriculum, Blogs as a compulsory component under practical stream and hence, the pre service teachers may be well acquainted with learning Blogs.
• For school teachers, training modules and other relevant teaching documents can be published in the Blog.

• A comprehensive Blog directory stating the subject of the Blog can be published for continuous updating.

• The School Education Department may conduct workshop on the development and usage of learning Blog for students.

• The Educational Administration may insist the Administrator to monitor the learning Blogs and to provide proper feedback for the students and teachers.

6.5 SUGGESTION FOR FURTHER RESEARCH

The following are the some possible areas for further research;

• The present study can be extended to students of Arts and Science College, Engineering College, Agriculture College, B.Ed. College, Law College or Medical College.

• A study on the awareness of Blogging of school students and their interest in Blogging may be taken up.

• A study may be undertaken to identify the factors that influence teachers and students to use Blogs in education.

• The present study conducted in Coimbatore district alone. The further research can be initiated in other districts of Tamil Nadu or other states of India.
• The present study can be attempted with some other variables in order to get a different picture.

• A survey study could be undertaken to find out the attitude towards implementation of Blogs in teaching learning process.

6.6 CONCLUSION

The rapid changing global technology plays an important role to ensure the effective teaching learning process. Blog based learning have been implemented successfully in the developed countries. In India, both the teacher and students should be given adequate training to utilize the Blog based learning process. The Indian Government and the Tamilnadu Government should modify the curriculum in order to incorporate the new technology in the teaching learning process. In this study, the students learned Physics effectively through Blog based learning. Hence the Blog Based Learning (BBL) could be effectively used in the teaching learning process. This would enrich the concept clarity of the subject at anytime from anywhere.