CHAPTER - 5
SUMMARY AND SUGGESTIONS

The research work carried out by the investigator, and the findings arrived at are summed up in this chapter under appropriate headings along with limitations, implications of the study and suggestions made for further research.

5.1 INTRODUCTION

The problem that plagues every teacher in every subject at every grade level of educational system is how to teach one lesson to a class that contains students with different skills and learning rates. The nation’s economic growth as well as national development is determined by the resources available in that country. The resource may include mineral resource, water resource, land resource, and human resource. Education plays an very important role in moulding the personality of any individual. Indian philosophy believes that education liberates man from all bondages.

According to Anscow and Heart (1992) map out some possible perspectives on educational difficulties. These perspectives are attempts to characterise alternative ways of looking at the phenomenon of educational difficulty based on different sets of assumptions that lead to different explanations different frames of reference and different kinds of question to be addressed.

The first perspective seeks to explain educational difficulties that every individual must be helped in every possible way. There is scope for growth and betterment in all civilizations for the individuals to improve and express them in well defined manner according to the worth of their peculiar persona with specific characteristic which distinguish one person
from others, and set different areas to develop up to mark in their own word to achieve their destination. In article 26 said “Everyone has the right to education. Education shall be compulsory”. The days are gone when education was the right of a few privileged. Now all have the equal right to be educated, as education has become sine quo non of civilization. The goal of education is to create individual capable of doing new things. Any system of education should contribute the all-round development, which includes physical, social, moral and intellectual. In many schools conventional method of teaching which involves mainly oral explanations is a common method of teaching. In order to create interest, concentration and curiosity some audio-visual aids may be used, which helps to grasp easily and quickly the learning concepts.

The second perspective explains educational difficulties in terms of a mismatch between the characteristics of particular children and the organisation and or curriculum arrangements made for them. Here support may be directed towards helping the child to meet the demands and expectations of system, if this is assumed to be fixed or for the time being at least unchangeable. Or it may be directed towards making modifications to the system in order to extend the range of pupils that can be accommodated. In many respects current ‘state of the art’ responses (Whole school approaches, differentiation) are informed by this perspective. Further, it is a perspective that is seen as arising as a result of dissatisfaction with the first perspective, which is seen as being a ‘deficit model’.

The third perspective explains educational difficulties in terms of curriculum limitations, using the term curriculum in a broad sense to include all the planned and, indeed, unplanned experiences offered to pupils. Thus in this perspective there is a concern with what can be learnt from the difficulties experienced by some children about the limitations
of provision currently made for all pupils. The assumption is that changes introduced for the benefit of those experiencing difficulties can improve learning for all children. Those adopting this perspective are critical of the limitations of an individual frame of reference, even where this is used to raise questions about the adequacy of curriculum organisation and practice as currently provided for all pupils. The task involves continually seeking ways of improving overall conditions for learning, with difficulties acting as indicators of how improvements might be achieved. Those who adopt this perspective are likely to favour approaches that encourage enquiry as a means of achieving improvement, various forms of partnership teaching, action research action.

The above discussions lay a much greater emphasis on practitioner research in the special needs field so that greater understanding of how educational contexts can be developed in order to foster the learning of all the children in the classroom is most likely to emerge. Taking this view into consideration, an earnest attempt has been made in this experiment to design instruction so as to reach out to all learners specially the slow learners who are in the lowest rung of the ladder and constitute about a considerable percentage of student population in India.

The students who are generally unable to cope with the work normally expected of their age group are called slow learners. These students with less that I.Q 70 to 90 traditionally labelled “dull normal” and they are generally slower to “catch on” to whatever is being taught if it involves symbolic, abstract or conceptual subject matter. They lack concentration, retention and abstract thinking. As a result, they find it very difficult to keep up with their age group.
But, these slow learners constitute such a considerable percentage of student population that they cannot be ignored. Also, one cannot conceive of any all-round national development without ensuring adequate human resource development. Effective and optimum utilisation of other resources also depends on the degree of human resource development. Children of today are the citizens of tomorrow and they are going to be the pillars of this country. Hence, it is very essential to ensure that each pillar is as strong as the other. This warrants a special computer based software package for the slow learners. Since education functions as the king-pin of national development, we have to ameliorate the learning process of slow learners also. This warrants a special computer based software package for the slow learners.

The traditional teacher depends on verbal exposition. But considerable visualisations of objects and process are essential for formulation of accurate concepts. What impact a visual presentation can do, any amount of verbal exposition can not do. An appropriate educational technology in the hands of a competent teacher can ensure better teaching learning process. Moreover, in a fast developing world where knowledge explosion is taking place in every sphere, it is unreasonable to expect that the spoken or written words alone could convey the volume of relevant information to the learner.

Computer based teaching is a powerful media which have become highly influential in the present day life style. They play a pivotal role in the teaching learning process also. Computer based software package help to overcome barriers. They go beyond the four walls of the classrooms. It fulfils the gap in learning. Difficult processes can be shown with ease. Inaccessible places can be viewed sitting in the cosy classroom. These computer based software package can penetrate more deeply into human character with an immediate excitement than any other
single medium. The dual effect of audio and video strengthens and enriches the understanding and expedites the mastery of the concept.

Sundararaja Rao and Rajaguru (1995) have conducted studies on slow learners but not related to effectiveness of multimedia based modular approach. Research studies reveal that the multimedia treatment is more effective to backward students than to normal students. Hence, in this study an attempt is made to find out and measure the effectiveness of multimedia based modular approach in promoting the achievement of slow learners.

5.2 STATE ENT OF THE PROBLEM

“A STUDY OF THE EFFECTIVENESS OF COMPUTER BASED TEACHING ON PROMOTING THE ACADEMIC ACHIEVEMENT OF SLOW LEARNER OF HIGHER PRIMARY SCHOOL STUDENTS OF VIJAYAPUR”.

5.3 OBJECTIVES OF THE STUDY

The following objectives were framed to;

1. Know the difference in the academic achievement of male and female students of slow learners.
2. Know the relationship between learning interest and academic achievement of slow learners.
3. Know the relationship between intelligence and academic achievement of slow learners.
4. Development of Computer Based Software package for teaching of higher primary School in the subject of Social Science.
5. Study the effect of Computer Based Teaching and academic achievement of slow learners.
5.4 RESEARCH HYPOTHESES

1. There is no significant difference in the academic achievement of scores male and female students of 8th standard.

2. There is no significant relationship between Learning interest scores and Academic achievement scores of slow learners.

3. There is no significant relationship between Intelligence scores and Academic achievement scores of slow learners.

4. There is no significant difference in the pre-test and post-test of scores of achievement through the conventional method of teaching of control /Experimental group

5. There is no significant difference in the effectiveness of conventional method of teaching and computer based teaching method.

FORMULATION OF THE HYPOTHESES

Keeping in view the objectives of the study, the specific hypotheses are formulated for testing:

1. There is no significant difference between pre-test and post-test academic achievement of the slow learners of higher primary school students in computer based and conventional teaching methods

2. There is no significant difference between pre-test and post-test academic achievement of the male slow learners of higher primary school students in computer based and conventional teaching methods

3. There is no significant difference between pre-test and post-test academic achievement of the female slow learners of higher primary school students in computer based and conventional teaching methods
4. There is no significant difference between computer based and conventional teaching methods with respect to pre-test and post-test academic achievement of the slow learners of higher primary school students.

5. There is no significant difference between computer based and conventional teaching methods with respect to pre-test and post-test academic achievement of the male slow learners of higher primary school students.

6. There is no significant difference between computer based and conventional teaching methods with respect to learning interest and intelligence scores of the slow learners of higher primary school students.

7. There is no significant difference between computer based and conventional teaching methods with respect to learning interest and intelligence scores of the male slow learners of higher primary school students.

8. There is no significant difference between computer based and conventional teaching methods with respect to learning interest and intelligence scores of the female slow learners of higher primary school students.

9. There is no significant difference between computer based and conventional teaching methods with respect to post-test academic achievement of the slow learners of higher primary school students with pretest scores as covariate.
11. There is no significant difference between computer based and conventional teaching methods with respect to change scores from pre-test to post-test academic achievement of the slow learners of higher primary school students with pre-test scores as covariate

12. There is no significant difference between computer based and conventional teaching methods with respect to post-test academic achievement of the male slow learners of higher primary school students with pre-test scores as covariate

13. There is no significant difference between computer based and conventional teaching methods with respect to change from pre-test to post-test academic achievement of the male slow learners of higher primary school students with pre-test scores as covariate

14. There is no significant difference between computer based and conventional teaching methods with respect to post-test academic achievement of the female slow learners of higher primary school students with pre-test scores as covariate

15. There is no significant difference between computer based and conventional teaching methods with respect to change from pre-test to post-test academic achievement of the female slow learners of higher primary school students with pretest scores as covariate

16. There is no significant interaction effect of teaching methods (Computer based teaching and Conventional teaching), sex (male and females) and learning interest (low and high) on pretest academic achievement scores of the slow learners of higher primary school students.

17. There is no significant interaction effect of teaching methods (Computer based teaching and Conventional teaching), sex (male and females) and intelligence (low and high) on pre-test academic
achievement scores of the slow learners of higher primary school students

18. There is no significant interaction effect of teaching methods (Computer based teaching and Conventional teaching), learning interest (low and high) and intelligence (low and high) on pre-test academic achievement scores of the slow learners of higher primary school students

19. There is no significant interaction effect of teaching methods (Computer based teaching and Conventional teaching), sex (male and females) and learning interest (low and high) on post-test academic achievement scores of the slow learners of higher primary school students

20. There is no significant interaction effect of teaching methods (Computer based teaching and Conventional teaching), sex (male and females) and intelligence (low and high) on post-test academic achievement scores of the slow learners of higher primary school students

21. There is no significant interaction effect of teaching methods (Computer based teaching and Conventional teaching), learning interest (low and high) and intelligence (low and high) on post-test academic achievement scores of the slow learners of higher primary school students

22. There is no significant interaction effect of teaching methods (Computer based teaching and Conventional teaching), sex (male and females) and learning interest (low and high) on the changing scores of academic achievement from pre-test to post-test of slow learners of higher primary school students.

23. There is no significant interaction effect of teaching methods (Computer based teaching and Conventional teaching), sex (male
and females) and intelligence (low and high) on the changing scores of academic achievement from pre-test to post-test of slow learners of higher primary school students

24. There is no significant interaction effect of teaching methods (Computer based teaching and Conventional teaching), learning interest (low and high) and intelligence (low and high) on the changing scores of academic achievement from pre-test to post-test of slow learners of higher primary school students.

25. There is no significant relationship between pre-test and post-test academic achievement and learning interest scores of the slow learners of higher primary school students as whole.

26. There is no significant relationship between pre-test and post-test academic achievement and learning interest scores of the slow learners of higher primary school students of Computer based teaching and Conventional teaching methods.

27. There is no significant relationship between pre-test and post-test academic achievement and learning interest scores of the male and the female slow learners of higher primary school students.

28. There is no significant relationship between pre-test and post-test academic achievement and intelligence scores of the slow learners of higher primary school students as a whole.

29. There is no significant relationship between pre-test and post-test academic achievement and intelligence scores of the slow learners of higher primary school students of Computer based teaching and Conventional teaching methods.

30. There is no significant relationship between pre-test and post-test academic achievement and intelligence scores of the male and the female slow learners of higher primary school students.
31. There is no significant relationship between learning interest and intelligence scores of the slow learners of higher primary school students as a whole.
32. There is no significant relationship between learning interest and intelligence scores of the slow learners of higher primary school students in Computer based teaching method and Conventional method of teaching.

5.5 SCOPE OF THE STUDY
The researcher is confined to schools of vijayapur District and children studying in 8th standard. The study is further confined to know the achievement of the Social Science, by implementing Computer Based Teaching Technique.

5.6 NEED AND IMPORTANCE OF THE STUDY
Slow learners constitute such a significant percentage of school population that they cannot be ignored. Children of today are the future citizens and they are going to be the pillars of the country. Hence, it is essential to ensure that each pillar is as strong as the other. This envisages a computer based teaching for the slow learners.

Computer based teaching enable the slow learners to develop their skill of learning and to cope with normal students. Slow learners have limited span of attention and poor retention. They lack proper concentration also. So any convention method of classroom instruction is found inadequate for them. This necessitates developing computer based software package so that they can cope with normal students.

It is clear from different studies made in this regard that when the learning materials are presented through concrete situations, the slow learners’, concentration and attention do not differ significantly from that
of a normal child. Since computer based teaching ensure concrete presentation of instructional materials, the slow learners can surmount the problem of abstract thinking.

The slow learners evince keen interest in learning where the relationships are clearly demonstration ignites the spark of rational thinking in the minds of the slow learners. A computer based software package serves this purpose.

As the slow learners have poor retention power, they require more practice and revision when compared with normal students. A computer based teaching provides ample opportunity for all these aspects. Computer based teaching take care of the short span of attention of slow learners. Further, the computer based software package takes care of the following vital remedial programmes:
1. Grading of teaching materials taking into consideration the capacity and requirement of children.
2. Short frequent lesson instead of the long lessons.
3. Giving importance to practice, drill, review, repetition and direction.

Since computer based software package are self-contained and self-instructional, the slow learners are bound to learn at their own pace with minimum or no inhibition. The objective stated in the beginning, the sequence of learning materials presented in the body and the evaluation procedure at the end will take care of repetition, direction, drill and practice.

Moreover, computer based teaching facilitate concrete presentation, clear demonstration and better perceptual grasp. A close study of 9th standard syllabus shows that a resourceful teacher can prepare computer based software package making use of the resources locally available. A little pain taken by the teacher will ensure optimal gain for the slow learners.
Computer based teaching bear the following advantages from the slow learners’ point of view:

1. The learners are involved in the learning process and their commitment to the task is increased.
2. A large part of the software package will create interest among students as it is a novel experiment.
3. The students have the full control over the rate of study. So they can progress at their own pace.
4. The consequences of failures are reduced. Each student can master each computer based software package completely before proceeding to the next.
5. Each student can participate in the decision whether he has learned for subject matter adequately.
6. It may be practical for some software package to be checked out as study at home resulting in saving to time.
7. Each student can develop a sense of responsibility for his own learning.

All these factors emphasise that there is a growing need for computer based software package for mastery level learning and the need is, in fact, greater when the slow learner is involved in the learning process. The present study is an earnest attempt, in this regard; to develop and to measure the effectiveness of computer based teaching in teaching of slow learners.
5.7 CONSTRUCTION OF LEARNING INTEREST TOOL

The research investigator has constructed the tool to test the interest of the children. The research investigator has framed the questioner consisting of 64 items. The following components are included in the questioner, items related 1) learning interest, (2) School Environment (3) Education of Parents (4) Poverty.

110 items were framed out of them 64 items were selected. To test the validity of the questioner, the questioner was given to the experts for verification by their direction too easy and too difficulty items were removed. Their by the content validity was determined. The item consists of both positive and negative items. Each item carry one mark for Yes (V) similarly negative mark carry Zero marks (x). The duration of the test found to be 2 hour.

After constructing the questioner the pilot study was done on a sample of 20 students of slow learners. The reliability of the test also found by split of method and it was seems to be 0.96.

Procedure of conducting learning interest test on the students

At the experimental period a researcher has conducted the pre-test, and post-test to the slow learners of experimental group and control group. The researcher supervised and did not allow any students to copy others. 2 hour was given for completion of the test. The students comfortably solve the paper and returns there papers. The researcher collected all the paper evaluated, and scored.
5.8 DEVELOPMENT OF COMPUTER BASED PACKAGE

The major objective of the study was to develop computer based software package of the social science subject of 8th standard. In the development of computer based package, the guidelines given by the NCERT have been followed, by the researcher. In social science, one unit from history, Shri Krishndeverya unit were selected for the purpose of this study. The above unit was divided into eight conceptual sub-units. Each sub-unit constituted the subject content for development of one computer based software package.

After developing the package the researcher visited different school for implementing packages. Every school the researcher visited one week for conventional method and one week for experimental method by taking 45 minutes class. Total the researcher has taken 45 days of classes respectively.

The above provisions enable the students to make self study with the help of the computer based software package. The software packages thus developed were then subjected to individual and group try outs and necessary correction, modification, refinements etc. Were made in the software package. Both the try outs ensured better refinement and perfection of software package. The agreement of views of experts was collected for knowing the content validity.

During 45 days the students were taught through computer based teaching technique. This technique was implemented for teaching the social science subject. The related lesson was divided in to 8 units. These units are taught by using picturization (Audio – Video). The separate software package was prepared which will be displayed during the presentation.

Package validation cannot be done only the subject to be taught through package was assessed by the subject experts and content validity
was found and concurrent validity was found to be 0.67. As it is a software package print cannot be produced. The necessary care was taken in the development of the package.

Everyday two classes were handled by implementing. So package which was prepared on the basis of computer based teaching.

5.9 METHODOLOGY

The various steps followed in the methodology of this study are development of computer based software packages for Social science subject of std VIII. Construction of learning interest tool, identifying slow learners, sampling technique, design of the study, administration of tool for pre-test, post-test and employing appropriate statistical techniques for arriving scientific conclusion.

5.10 IDENTIFYING SLOW LEARNERS

For the purpose of this investigation the slow learners were identified on the basis of a three phase process. The phases are:

1. Identifying phase,
2. Scientific confirmatory phase,
3. Counter-check phase

For the first phase, the third measure recommended by Tansley and Gulliford(1962) which incorporates first, second and fourth measures of Chintamani Kar (1982) was followed. In the second phase, identified slow learners were subjected to a scientific confirmatory test. For this purpose, Standard Progressive Matrices designed by Raven J.C. and successfully and effectively used by Soundararaja Rao and Rajaguru (1995) in Indian setting was administered to them as a scientific confirmatory test. In the confirmatory test, those who got less score (9-15/60 or below 25th percentile point) and took more time, were classified as slow learners. Lastly these slow learners were counter-checked on the basis of their rate of learning as suggested by Kirk (1972).
The researcher has followed a three phase process to identify the slow learners. An educational assessment of the students brings to light the slow learners. This educational assessment was made with the help of the concerned, class teachers who spend most of the time with those students, by direct observation, and scrutiny of relevant school records. This type assessment provides a detailed description of the child in the school setting. In the second phase, the researcher has administered Standard progressive Matrices designed by J.C Revens, and the last phase was countercheck phase. The researcher has took “rate of learning”. Slow learners, gifted and average children can be classified on the basis of their “rate learning”. The bright students took less time, the average students took about half an hour while the slow learners couldn’t make it even in an hour time.

5.11 SAMPLE DESIGN

For the purpose of this investigation, 200 slow learners of 8th standard from Government Higher Primary School Students of Vijayapur District were selected. Out of that 80 students of slow learners were finally selected for the study, two groups were formed following systematic purposive random sampling technique.

This study helps to assess how for computer based teaching enables the slow learners to cope with normal students.

5.12 DATA COLLECTION

At the end of the experimental period a post-test was conducted to the slow learners of experimental group and control group also, to measure their retention of acquired information’s. Post test was administered to them after a lapse of one month’s period. The responses given by the two groups formed the vital data required for the analysis. The scores of the two groups in the pre-test and post-test, were scored and chart was prepared where all the scores of the student were put in a row.
5.13 SCORING PROCEDURE
The learning interest test consisted of 64 yes/No questions. The total score of the test is 64. For each correct answer, the score is ‘one’ and for each wrong answer the score is ‘Zero’. The answer key to the learning interest test is given in Appendix –VI

5.14 STATISTICAL TECHNIQUES USED IN THE STUDY
The data thus obtained were analyzed by using appropriate statistical techniques as, descriptive statistics,(Mean, Standard Deviation) and differential analysis including paired ‘t’ test, unpaired ‘t’-test, analysis of covariance, three way ANOVA with interaction design and correlation analysis using SPSS 21.0 statistical software.

5.15 MAJOR FINDINGS OF THE STUDY
1. The post-test academic achievement scores of the slow learners of higher primary school students is higher as compared to pre-test scores in conventional method of teaching. Further, the post-test academic achievement scores has increased from pre-test to 41.17% of the slow learners of higher primary school students in computer based teaching method as compared to 25.48% in conventional method of teaching.
2. The post-test academic achievement scores of the female slow learners of higher primary school students were higher as compared to pre-test scores in conventional method of teaching. Further, the post-test academic achievement scores has increased from pre-test to 38.82% of the female slow learners of higher primary school students in computer based teaching method as compared to 29.27% in conventional method of teaching.
3. The change in the scores of academic achievement from pre-test to post-test of the slow learners of higher primary school students was
significantly higher in computer based teaching as compared to conventional method teaching.

4. The change in the scores of academic achievement from pre-test to post-test of the male slow learners of higher primary school students were significantly higher in computer based teaching as compared to conventional method teaching.

5. The change in the scores of academic achievement from pre-test to post-test of the female slow learners of higher primary school students were significantly higher in computer based teaching as compared to conventional method teaching.

6. The learning interest scores of the slow learners of higher primary school students were similar in computer based teaching and conventional method teaching.

7. The intelligence scores of the slow learners of higher primary school students were similar in computer based teaching and conventional method teaching.

8. The learning interest scores of the male slow learners of higher primary school students were similar in computer based teaching and conventional method teaching.

9. The intelligence scores of the male slow learners of higher primary school students were similar in computer based teaching and conventional method teaching.

10. The learning interest scores of the female slow learners of higher primary school students were similar in computer based teaching and conventional method teaching.

11. The intelligence scores of the female slow learners of higher primary school students were similar in computer based teaching and conventional method teaching.
12. The adjusted mean of post-test was significantly higher in computer based teaching as compared to conventional method of teaching.

13. The adjusted mean of change in the scores from pre-test to post-test of the slow learners of higher primary school students was significantly higher in computer based teaching as compared to conventional method of teaching.

14. The adjusted mean of post-test was significantly higher in computer based teaching as compared to conventional method of teaching of the male slow learners of higher primary school students with pre-test scores as covariate.

15. The adjusted mean of post-test was significantly higher in computer based teaching as compared to conventional method of teaching of the female slow learners of higher primary school students with pre-test scores as covariate.

16. The adjusted mean of change in the scores from pre-test to post-test of the female slow learners of higher primary school students is significantly higher in computer based teaching as compared to conventional method of teaching with pre-test scores as covariate.

17. The male and the female slow learners of higher primary school students with low and high learning interest in Computer based teaching and Conventional method of teaching have similar pre-test academic achievement scores.

18. The male and the female slow learners of higher primary school students with low and high intelligence in Computer based teaching and Conventional method of teaching have similar pre-test academic achievement scores.

19. The slow learners of higher primary school students with low and high learning interest, intelligence in Computer based teaching and
Conventional method of teaching have similar pre-test academic achievement scores.

20. The male and the female slow learners of higher primary school students with low and high learning interest in Computer based teaching and Conventional method of teaching have similar post-test academic achievement scores.

21. The male and the female slow learners of higher primary school students with low and high intelligence in Computer based teaching and Conventional method of teaching have similar post-test academic achievement scores.

22. The slow learners of higher primary school students with low and high learning interest, intelligence in Computer based teaching and Conventional method of teaching have similar post-test academic achievement scores.

23. The male and the female slow learners of higher primary school students with low and high learning interest in Computer based teaching and Conventional method of teaching have similar change scores of academic achievement from pre-test to post-test.

24. The slow learners of higher primary school students with low and high learning interest, intelligence in Computer based teaching and Conventional method of teaching have similar change in the scores of academic achievement from pre-test to post-test.

25. The male and the female slow learners of higher primary school students with low and high intelligence in Computer based teaching and Conventional method of teaching have similar change in the scores of academic achievement from pre-test to post-test.

26. The slow learners of higher primary school students with low and high learning interest, intelligence in Computer based teaching and
Conventional method of teaching have similar change in the scores of academic achievement from pre-test to post-test.

27. The post-test academic achievement and learning interest scores of the slow learners of higher primary school students are dependent on each other as a whole.

28. The post-test academic achievement and learning interest scores of the slow learners of higher primary school students is dependent on each other in Computer based teaching method.

29. The post-test academic achievement and learning interest scores of the female slow learners of higher primary school students is dependent on each other.

30. The post-test academic achievement and intelligence scores of the slow learners of higher primary school students is dependent on each other as a whole.

31. The post-test academic achievement and intelligence scores of the slow learners of higher primary school students are dependent on each other in Conventional method of teaching.

32. The post-test academic achievement and intelligence scores of the slow learners of higher primary school students is dependent on each other in Conventional method of teaching.

33. The learning interest and intelligence scores of the slow learners of higher primary school students is dependent on each other as a whole.

34. The learning interest and intelligence scores of the slow learners of higher primary school students are dependent on each other in Conventional method of teaching.

5.16. DISCUSSION AND CONCLUSION

While describing educationally subnormal children we can observe two broad distinctions: one group of children have limited intellectual
endowment or depressed and there are others, whose ability is not so limited but have more difficulty in learning than the average children. The former group is termed as slow learners, the latter group is called underachievers. Slow learners are those students who are unable to cope with the normally expected of their age group. In the early grades most of the children have problem in reading and arithmetic are labelled slow learners. But it doesn’t mean that they are dull but they learn so slowly as that they lack behind in developmental readiness to grasp concepts that are within their reach.

Their learning rate is low and they lack behind in academic achievement. They are the students who are unable to keep up with their age mates in academic achievement. They found weak in almost all subjects. They remain in the lowest rung of the ladder. They struggle even for near passing. In this study the researcher had made an attempt to know the use and effectiveness of computer based teaching for the slow learners.

The researcher has taken help of expertise, the resource persons for the development of computer based software package for the social science subject. Video cassettes and audio cassettes are developed based on the subject. The students are made to learn according to their convenience at their own rate. As for computer based teaching each student could not be provided separate computer. They had to use available computer on term basis. The achievement marks used in this study are obtained from the first semester marks. Through this computer based software package better pupil participation and involvement in participation. This study probes into the learning difficulties of slow learners and puts forth some suggestions to slow learning.

To improve the teaching effectiveness the methods of teaching should be changed according to the topic. The teacher should select the
suitable method of teaching according to the content. The teacher should be aware of the different methods of teaching. Teacher must know the use and application of new technologies like operating CD players, and computer. The computer based teaching technique is most effective. The teacher therefore should have thorough knowledge of computer and CAI script writing so that the teacher can easily convert the content into computer based software package. The computer based teaching method was most effective and suitable to the Shri KrishnaDevaraya and it will be suitable for the other topics in the science subject. Therefore, this method can be implemented in the classroom regularly in teaching social science.

5.17 EDUCATIONAL IMPlications OF THE STUDY

Slow learners, being slow to catch on, mostly expect from their parents that they should not develop in them fear about studies, avoid creating tense atmosphere at home, must help them in studies, and they should try to understand their problems related to studies, should not criticize their weaknesses in the presence of others, should provide material related to their studies and should not expect beyond their abilities. Siblings should not neglect the weaker among the weaker ones and should not demoralize them.

A clear picture of educational programmes meant for the slow learners will enable the teachers to explain effectively. In order to identify the slow learner some remedial programmes for slow learners should be taken up by the teacher.

Teacher should motivate the slow learners to realize that they are not being ignored. Motivation is not only the technique to improve the behaviour of slow learner but also there is a need for reinforcing on ongoing behaviour. In order to encourage them, teachers must give verbal
motivations. The teacher can make use of appropriate illustrations, examples, teaching aids and computer based teaching for creating motivational atmosphere. Effective teaching can also be done with the help of slides, over head projects in the class. Of all the students, the slow learners are those who need individual attention from the teachers.

So it becomes an essential duty of the teachers to develop good work habits in slow learners. How to study each subject, how to tackle the problems related to the subject and how to make response for the question and how to carry out the projects, enriching activities should be well explained to the slow learners. If the work habit of the slow learner is developed they will be able to attain a moderate degree of success within considerable period of time. Through computer based teaching the effective learning will takes place. So it is very useful for the slow learners. Computer based teaching programmes as an instructional teaching and the teaching will be effective.

Slow learners have been found to possess learning interest than normal children’s. The teacher should use device for training or teaching the slow learners to create learning interest. Guidance from psychologist and other experts may also be obtained in this regard.

5.18 Limitations of the Study
1. The present study is restricted to students of slow learners of the 8th Standard Higher Primary Government School.
2. The problem is being studied specially to the Social Science Subject only.
3. The sample consists of only 80 students of slow learners selected on the basis of teachers’ observation and by administering only Standard Progressive Matrices test which was found to be adequate to identify the slow learners.
4. For all the selected subjects, only one unit each were included for the study.
5. The experiment was conducted for a period of 45 working days @ 45 minutes per day.
6. As for computer based teaching, each student could not be provided with separate computer and they had to use the available, three computers on turn basis.
7. The computer based software package used in the study was also developed by making use of the technical expertise available at the district level.

5.19 SUGGESTIONS FOR FURTHER STUDY
1. In this study computer based teaching technique was applied to students of the slow learners studying in VIII standard kannada medium.
2. A parallel study can be made to find out the effectiveness of computer based teaching at high school and at higher secondary levels.
3. A parallel study can be conducted to find out the effectiveness of computer based teaching with special reference to under achievers.
4. A parallel study can be undertaken to assess the effectiveness of computer based teaching with reference to all the students including average and above average students.
5. Three components of multimedia have been included in this study. A separate study may be attempted to assess inter media effectiveness and also to assess the relative effectiveness of each component.
6. A study can be made to assess the relationship between the nature of the subject and media effectiveness.
7. A separate study can be undertaken to assess the effectiveness of computer based teaching with teacher support system and without teacher support system.
8. A comparative study can be made in rural and urban areas, by selecting students from both the areas.

9. A study can be undertaken to assess the attitude of the students and the teachers of high school and middle schools towards computer based teaching.

5.20 CONCLUSION

To improve the teaching effectiveness the methods of teaching should be changed according to the topic. The teacher should select suitable method of teaching according to the content. The teacher should be aware of the different methods of teaching. Teacher must know the use and application of new technologies like operating CD and Computers. The computer based teaching technique is most effective so the teacher should have thorough knowledge of computer CAI script writing so that the teacher can easily convert into computer based software package. The computer based teaching method was more effective and suitable to the Shri KrishnaDeveraya and it will be suitable for