CHAPTER VI

Summary, Major Findings, Conclusions, Educational Implications and Suggestions for Further Research
CHAPTER – VI

SUMMARY, MAJOR FINDINGS, CONCLUSIONS, EDUCATIONAL IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

This chapter deals with the summary, major findings, conclusions, educational implications and suggestions for further research.

6.1. SUMMARY

An attempt has been made to discuss the major findings of the study to throw more light on the unique findings and also to suggest comprehensive ways and means of utilizing the present information in a fruitful manner. This chapter reports a Summary of the Study under the headings: Introduction, Statement of the Problem, Title of the problem, Need for the Study, Scope of the Study, Objectives of the Study, Hypothesis of the Study, Variables Included in the Study, Tools Used, Sample Selected, Collection of Data, Scoring and Analysis, Statistical Techniques Employed, Major Findings of the Study, Conclusions, Educational Implications, Delimitations and Suggestions for further Research.

6.1.1. Introduction

Computer usage is one of the most important dealings for today’s people. This technology is substantial in almost all and everyday works. The future of any country depends on the knowledge carried by its children. Inculcating computers in curriculum develops the technological aspect of the children. Role of computers has been acknowledged in every aspect of life and its importance is something that is always emphasized. Hence, the positive development of computer attitude of children is essential both on personal and professional front.

As computer use becomes more and more important in the educational environment, the attitudes of children toward computer play an important role in their learning success and therefore, it is essential to determine the factors that influence and effect student’s attitude toward computer.
The term Computer Assisted Learning (CAL) covers a range of computer-based packages, which aim to provide interactive instruction usually in a specific subject area, and many predate the Internet. These can range from sophisticated and expensive commercial packages to applications developed by projects in other educational institutions or national initiatives to simple solutions developed by individuals with no funding or support to tackle a very local problem. The amount of time and money invested in development is high and partly because of the very subject specific nature of the education market as well as the very personalised nature of the teaching process - particularly at FE and HE level - means that commercial success is difficult to achieve and work done in one subject area rarely transfers to others subject areas.

In general, the use of computers in education through CAL has been sporadic a great deal of effort was expended with little general impact. Many of those academics that took part in that earlier crusade are now cynical about the effectiveness of computers in teaching.

There are still good reasons to use CAL rather than Internet based technologies. CAL is run either straight from a Compact Disk or floppy disk drive, or over a local network so the constraint of the internet - slow download times for multimedia materials may not apply. This, coupled with the fact that CAL technology has been around a bit longer, means that CAL packages have the potential to offer more advanced, interactive, multimedia learning experiences than it is currently reasonable to expect from the Web. This has been changing as Web technologies develop and bandwidths improve but there are currently many things that can only be achieved with CAL rather than the Web and CAL has been an integral part of the curriculum in many departments at Warwick for some time.

6.1.2. Statement of the Problem

The present study is concerned with the attitude of secondary school children towards computer assisted learning. It examines the effects of locality, management and gender on the attitude of secondary school children towards computer assisted learning. It establishes the relationship between the attitude of secondary school children towards computer assisted learning and other variables also namely; socio demographic and psychological variables.
6.1.3. Title of the Problem

The title of the present study is, “IMPACT OF GENDER, SELF-EFFICACY, INTELLIGENCE AND ACHIEVEMENT MOTIVATION ON THE ATTITUDE OF SECONDARY SCHOOL CHILDREN TOWARDS COMPUTER ASSISTED LEARNING”.

6.1.4. Need for the study

The purpose of this study is to examine the attitudes of secondary school children towards computer assisted learning. Specifically, the study has been designed to investigate the influence of locality, management and gender on children’ attitudes toward computer assisted learning.

There are numerous noteworthy computer-related technological developments that have occurred over the last 5 to 10. Among them all are (a) the acquisition of knowledge in all areas of studies that allows the children to participate in self-directed learning; (b) the emergence of low-cost, high-performance technology that provides opportunities for self-directed learning to occur in a variety of settings, (c) improved proficiencies in manipulating technologies in healthcare delivery, (d) the use of computer technology to improve children’ learning environments and enhance their knowledge and skill levels, and (e) the reduction of children’ dropout rates related to academic deficits (Chin, 2001). Finding the best way to create a technological learning environment that may improve teaching methods and learning attitudes, and reduce the number of low-performing children would benefit nursing as a discipline, and would also help to improve health outcomes across the nation. Perhaps these outcomes could become more resolute if there were empirical data about the children’ attitudes regarding the use of computer technology in baccalaureate nursing education in a gender-integrated educational milieu.

The above crucial conditions lead the investigator to make an attempt in this area of attitude of secondary school children towards computer assisted learning.

The title of the present study is, “IMPACT OF GENDER, SELF-EFFICACY, INTELLIGENCE AND ACHIEVEMENT MOTIVATION ON THE ATTITUDE OF SECONDARY SCHOOL CHILDREN TOWARDS COMPUTER ASSISTED LEARNING”.

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6.1.5. Purpose of the Study

The present study aims at investigating the influence on the attitude of secondary school children towards computer assisted learning in relation to certain Psycho-Sociological variables the purpose of the study is an attempt to answer the following aspects.

1. What is the level of attitude of secondary school children towards computer assisted learning.
2. Whether there is any significant influence of main effects namely; locality, management and gender and their interaction effects on the attitude of secondary school children towards computer assisted learning.
3. Whether there is any impact of socio-demographic variables on the attitude of secondary school children towards computer assisted learning.
4. Whether there is any impact of psychological variables on the attitude of secondary school children towards computer assisted learning.
5. Whether it is possible to predict attitude of secondary school children towards computer assisted learning with the help of psycho-sociological variables.
6. What is the percentage of variance explained by the all independent variables in estimating attitude of secondary school children towards computer assisted learning.

6.1.6. Scope of the Study

The main intention of the study is to find the attitude of secondary school children towards computer assisted learning with gender, self-efficacy, intelligence, achievement motivation and Socio – Demographic variables. Attitude scale to measure the attitude of secondary school children towards computer assisted learning, self-efficacy, intelligence, achievement motivation measured by using the relevant instruments.

The study attempted to predict the attitude of secondary school children towards computer assisted learning with the help of different Psycho – Sociological variables.
6.1.7. Objectives of the Study

The study has been designed with the following specific objectives.

1. To know the level of attitude of secondary school children towards computer assisted learning.

2. To study the influence of main and interaction effects of locality, management and gender on the attitude of secondary school children towards computer assisted learning.

3. To establish the relationship of attitude of secondary school children towards computer assisted learning with the socio-demographic variables.

4. To establish the relationship of attitude of secondary school children towards computer assisted learning with the psychological variables.

5. Which of the all independent variables turnout to be significant predictors of attitude of secondary school children towards computer assisted learning?

6. To predict the attitude of secondary school children towards computer assisted learning with the help of socio-demographic variables and psychological variables.

6.1.8. Hypotheses of the Study

In the light of the above objectives, the following major null hypotheses have been set up for the purpose of this investigation.

1. All the secondary school children do not have the same level of attitude towards computer assisted learning.

2. Locality, management and gender do not have significant influence of main and interaction effects on the attitude of secondary school children towards computer assisted learning.

3. There would not be significant influence of socio-demographic variables on the attitude of secondary school children towards computer assisted learning.

4. There would not be significant influence of psychological variables on the attitude of secondary school children towards computer assisted learning.
5. No independent variables out of all independent variables in the study turn out to be significant predictors of attitude of secondary school children towards computer assisted learning.

6. It would not be possible to predict the attitude of secondary school children towards computer assisted learning with the help of all independent variables.

6.1.9. Variables Studied

The following variables were taken into consideration in this study.

1. **Dependent Variable**
   1. Computer Assisted Learning

2. **Independent Variables**

   I. **Socio – Demographic Variables**
   1. Locality
   2. Management
   3. Gender
   4. Annual income of the family
   5. Birth order
   6. Caste
   7. Class of study
   8. Community
   9. Economic position of the family
   10. Father education
   11. Father occupation
   12. Mother education
   13. Mother occupation
   14. Number of members in the family
   15. Type of family
II. Psychological Variables

1. Self–efficacy
2. Intelligence
3. Achievement Motivation

Total number of independent variables in present investigation is 18 (1+1+1+15=18). Total numbers of variables in the investigation are one dependent variable and eighteen independent variables.

6.1.10. Methods of Study

The present study is survey type investigation. Various procedures that are followed in the construction and standardization of data gathering instruments and the tools adopted to measure the impact of different variables that are included in the study are discussed. The methods adopted in selection of the sample, collection of data, scoring and analysis are as follows.

The investigator following the scientific principles and procedures of test construction developed a preliminary attitude of secondary school children towards computer assisted learning questionnaire. Pilot study is conducted by the investigator. The pilot study of attitude of secondary school children towards computer assisted learning consists of 108 items on the sample of 200 secondary school children. The final attitude of secondary school children towards Computer Assisted Learning (CAL) is prepared after deleting, the invalid 23 items. This procedure of item analysis is adopted from the prescribed standardized procedure. For the present study, the items with ‘t’ values less than 2.58 were deleted. In this investigation 23 items were deleted and 85 items were retained for final study. For the calculation of the ‘t’ values the procedure suggested by Edwards (1957) was followed. For the purpose of scoring numerical values (weightages) were assigned to each of the five categories namely Strongly Agree (S.A.), Agree (A.), Doubtful (D.), Disagree (D.A.) and Strongly Disagree (S.D.A.) based on the Likert (1932) method. The total scores are marked on the right top corner of the sheet. A questionnaire is prepared to collect the necessary information about the pupils regarding their personal characteristics, home background and socio–economic conditions of the family. To measure the self-efficacy of the secondary school children, The Self-efficacy scale developed by
Sherer, M. et al. (1982) was adopted by Sangeetha, T. (2014) used for the present investigation. To measure the intelligence of the children, Raven’s Standard Progressive Matrices Scale (SRPM) developed by Raven, J.C. (1950) was adopted by Arunachalam Reddy, M. (2012) and it is more suitable for the purpose of present study. To measure the achievement motivation of the secondary school children Achievement Motivation scale developed by Deo and Mohan (1985) was adopted from Prathapa Reddy, M. (2011) used for the present study. A sample of 1200 secondary school children representing all categories selected by following the standardized procedures. The necessary data is collected in a planned way and are analyzed using appropriate statistical techniques and the results are interpreted accordingly.

6.1.11. Tools Used

The following tools were used in the study

1. Attitude towards computer assisted learning scale

   The investigator has developed and standardized attitude towards computer assisted learning scale to measure the attitude of secondary school children towards computer assisted learning.

2. Self-Efficacy

   To measure the Self efficacy of the secondary school children, the Self efficacy scale prepared and standardized by Ralf Schwarzer and Matthias Jerusalem (1995) was adopted.

3. Raven’s Standard Progressive Matrices (R.P.M) scale

   To measure the intelligence of the secondary school children, the Standard Progressive Matrices prepared and standardized by Raven, J.C. (1950) was adopted.

4. Achievement Motivation

   To measure the achievement motivation of the secondary school children, the achievement motivation scale prepared and standardized by Pratibha Deo and Asha Mohan (1985) was adopted.

5. Personal Data Sheet

   Personal Data Sheet is developed by the investigator, to measure the socio-economic and demographic variables
6.1.12. Sample Selected

The sample for the investigation consisted of 1200 secondary school children. The stratified random sampling was applied in three stages. In the first stage management of the school i.e. Government and Private schools, in second stage locality of the school i.e. rural and urban and third stage gender of the children i.e. boys and girls. In total 600 boys and 600 girls are included in this study. It is a 2X2X2 factorial design with 1200 sample subjects.

6.1.13. Collection of data and Scoring

The investigator personally visited intermediate schools with the permission of the head masters of the schools. The children who attended to the school on the day of collection of data are considered for the purpose of the investigation. It was provided to the concerned head masters and children of the schools. The children were given necessary instructions about the various instruments and motivated to respond genuinely to all the items. The attitude of computer assisted learning questionnaire and personal data sheet were administered in the forenoon session. The self-efficacy scale, intelligence scale and achievement motivation scale were administered in the afternoon session.

6.1.14. Statistical analysis

The data on each variable in the investigation is properly coded to suit for computer analysis.

The analysis was carried out on the basis of objectives of the investigation and hypotheses formulated by employing appropriate statistical techniques.

Frequency distribution table was prepared for the total sample. Measures of central tendency, measures of dispersion, percentages, skewness, kurtosis and standard error of mean were computed wherever necessary. The inferential statistical techniques such as ‘t’ test (critical ratio) and ‘F’ test were employed to test different hypotheses. Multiple ‘R’ was computed by carrying out Step - wise Multiple Regression analysis to find out whether it would be possible to predict computer assisted learning of Secondary school children. The obtained numerical results are adumbrated by graphical representations.
The significant levels employed with respective symbols are given below:

* Indicates significant at 0.05 level  
** Indicates significant at 0.01 level  
@ Indicates not significant at 0.05 level

6.2. MAJOR FINDINGS OF THE STUDY

The statistical treatment of the data reveals the following major findings of the study

6.2.1 Distribution characteristics of attitude of secondary school children towards computer assisted learning scores

1. The mean value is 259.78. The median and mode values are 266.00 and 245.00. The values of skewness is -0.310 and kurtosis is -0.620. For normal distribution the value of skewness is 0.00 and kurtosis is 3.00. Hence the frequency distribution is negatively skewed and lepto kurtic. (The values skewness and Kurtosis are computed based on moments; Aggarwal, 1990). It implies that the scores are massed at the high / right end of the scale and are spread out gradually towards low / left end of the scale. The distribution is high peaked than the normal distribution. On the whole the attitude towards computer assisted learning of the Secondary school children is positive, because mean attitude towards computer assisted learning is greater than 50 percent.

2. There are 600 Rural secondary school children and 600 Urban secondary school children (Total sample N = 1200). It is observed from the Tables – 9 and 10 that the mean of attitude towards computer assisted learning of Rural secondary school children (263.36) is high than the mean of attitude towards computer assisted learning of Urban secondary school children (256.20). The standard deviation of attitude towards computer assisted learning of Rural secondary school children (91.600) is high than the standard deviation of attitude towards computer assisted learning of Urban secondary school children (75.460). The values of skewness are negative for all distributions. It implies that the scores are massed at high / right end of the scale and are spread out gradually towards the low / left end of the scale. The values of
kurtosis for attitude towards computer assisted learning of Rural and Urban secondary school children are -0.440, and -0.840 respectively. Hence all the distributions of attitude towards computer assisted learning scores for Rural and Urban secondary school children are slightly leptokurtic. It implies that the distributions are high peaked than the normal distribution.

3. There are 600 Government secondary school children and 600 Private secondary school children (Total sample N = 1200). It is observed from the Tables – 11 and 12 that the mean of attitude towards computer assisted learning of Government secondary school children (266.29) is high than the mean of attitude towards computer assisted learning of Private secondary school children (253.27). The standard deviation of attitude towards computer assisted learning of Government secondary school children (89.320) is high than the standard deviation of attitude towards computer assisted learning of Private secondary school children (77.76). The values of skewness for Government and Private secondary schools are negative. It implies that the scores are massed at high / right end of the scale and are spread out gradually towards the low / left end of the scale. The values of kurtosis for attitude towards computer assisted learning of Government and Private secondary school children are -0.860 and -0.120 respectively. Hence all the distributions of attitude towards computer assisted learning scores for Government and Private secondary school children are slightly leptokurtic. It implies that the distributions are high peaked than the normal distribution.

4. There are 600 boys secondary school children and 600 girls secondary school children (Total sample N = 1200). It is observed from the Tables – 13 and 14 that the mean of attitude towards computer assisted learning of girls (264.99) is high than the mean of attitude towards computer assisted learning of boys (254.56). The standard deviation of attitude towards computer assisted learning of boys (86.640) is high than the standard deviation of attitude towards computer assisted learning of girls (80.930). The values of skewness are negative for all distributions. It implies that the scores are massed at high / right end of the scale and are spread out gradually towards the low / left end of the scale. The values of kurtosis for
attitude towards computer assisted learning of boys and girls are -0.740, and -0.430 respectively. Hence all the distributions of attitude towards computer assisted learning scores for boys and girls secondary school children are slightly leptokurtic. It implies that the distributions are high peaked than the normal distribution.

5. The mean attitude towards computer assisted learning for the secondary school children of Government is the highest (266.29) among all the groups and the lowest (253.27) for the secondary school children of Private. The standard deviation of attitude towards computer assisted learning scores for the secondary school children of urban secondary school children is the highest (91.600) among all the groups and the lowest (75.460) for the rural secondary school children. The values of skewness for all the distributions are negatively skewed, it implies that scores are massed at high / right end of the scale and are spread out gradually towards the low / left end of the scale. The values of kurtosis for all distributions are leptokurtic. It implies that the distributions are high peaked than the normal distribution.

6.2.2. Factorial design

6. There is significant main effect of management at 0.01 level and gender at 0.05 level on the attitude of secondary school children towards computer assisted learning.

7. There is significant two factor interaction effects of management Vs gender at 0.01 level and locality Vs gender at 0.05 level on the attitude of secondary school children towards computer assisted learning.

8. There is significant three factor interaction effects of locality Vs management Vs gender at 0.01 level on the attitude of secondary school children towards computer assisted learning.

6.2.3. The impact of Socio – demographic variables on the attitude of secondary school children towards computer assisted learning

9. There is significant influence of management at 0.01 level on the attitude of secondary school children towards computer assisted learning.
10. There is significant influence of gender at 0.05 level on the attitude of secondary school children towards computer assisted learning.

11. There is significant influence of annual income of the family at 0.01 level on the attitude of secondary school children towards computer assisted learning.

12. There is significant influence of caste at 0.01 level on the attitude of secondary school children towards computer assisted learning.

13. There is significant influence of class of study at 0.05 level on the attitude of secondary school children towards computer assisted learning.

14. There is significant influence of community at 0.01 level on the attitude of secondary school children towards computer assisted learning.

15. There is significant influence of economic position of the family at 0.05 level on the attitude of secondary school children towards computer assisted learning.

16. There is significant influence of father education at 0.01 level on the attitude of secondary school children towards computer assisted learning.

17. There is significant influence of mother occupation at 0.01 level on the attitude of secondary school children towards computer assisted learning.

18. There is significant influence of type of family at 0.01 level on the attitude of secondary school children towards computer assisted learning.

6.2.4. The impact of psychological variables on the attitude of secondary school children towards computer assisted learning

19. There is significant influence of self efficacy at 0.01 level on the attitude of secondary school children towards computer assisted learning.

20. There is significant influence of achievement motivation at 0.01 level on the attitude of secondary school children towards computer assisted learning.

6.2.5. Step – Wise Multiple Regression - Analysis

21. In the summary of the last step (9th) of step-wise multiple regression analysis to predict attitude towards computer assisted learning score with the help of socio - demographic variables (1 – 18) as independent variables, the value of $R^2$ is 0.083. This shows that these nine variables put together could explain 8.30 percent of variance in the dependent variable (ATCAL).
The regression equation at the end of 9th step could be written as:


Hence it is concluded that attitude towards computer assisted learning score could best be predicted with the help of Caste, Community, Mother Occupation, Economic Position of the Family, Type of Family, Locality, Class of Study, Annual Income of the family and Management among the eighteen (1 – 18) socio-demographic variables.

6.3. CONCLUSIONS

In the light of the findings presented in preceding pages, the following conclusions are drawn.

1. The Frequency distribution of attitude of secondary school children towards computer assisted learning is very nearer to normal distribution.
2. All the secondary school children do not have same attitude towards computer assisted learning.
3. Management and Gender have significant main effect on the attitude of secondary school children towards computer assisted learning.
4. Locality Vs Gender and Management Vs Gender have significant two factor interaction effects on the attitude of secondary school children towards computer assisted learning.
5. Locality Vs Management Vs Gender have significant three factor interaction effects on the attitude of secondary school children towards computer assisted learning.
6. Management has significant influence on the attitude of secondary school children towards computer assisted learning.
7. Gender has significant influence on the attitude of secondary school children towards computer assisted learning.
8. Annual income of the family has significant influence on the attitude of secondary school children towards computer assisted learning.
9. Caste has significant influence on the attitude of secondary school children towards computer assisted learning.

10. Class of study has significant influence on the attitude of secondary school children towards computer assisted learning.

11. Community has significant influence on the attitude of secondary school children towards computer assisted learning.

12. Economic position of the family has significant influence on the attitude of secondary school children towards computer assisted learning.

13. Father education has significant influence on the attitude of secondary school children towards computer assisted learning.

14. Mother occupation has significant influence on the attitude of secondary school children towards computer assisted learning.

15. Type of family has significant influence on the attitude of secondary school children towards computer assisted learning.

16. Self efficacy has significant influence on the attitude of secondary school children towards computer assisted learning.

17. Achievement motivation has significant influence on the attitude of secondary school children towards computer assisted learning.

18. It is possible to predict the attitude of secondary school children towards computer assisted learning with help of different sets of independent variables.

19. It is possible to develop, the regression equations for predicting the attitude of secondary school children towards computer assisted learning with the help of different sets of independent variables.

6.4. EDUCATIONAL IMPLICATIONS AND RECOMMENDATIONS

On the basis of the results of the present investigation the following recommendations are suggested:

1. Management has influence on the attitude of secondary school children towards computer assisted learning. It is observed that attitude of Government school children have positive than Private school children. It is advised to provide technological facilities for Private school children.
2. Gender has influence on the attitude of secondary school children towards computer assisted learning. It is observed that attitude of girls have positive than boys. It is advised to provide guidance and counseling facilities for boys.

3. Annual income of the family has influence on the attitude of secondary school children towards computer assisted learning. It is observed that attitude of low group of annual income of the family children have positive than high group of annual income of the family children. Government has to take necessary steps for scholarships and hostel facilities to the poor children on the basis of annual income of the family of the children.

4. Caste has influence on the attitude of secondary school children towards computer assisted learning. It is observed that attitude of OC children have positive than ST children. Common hostel facility may be provided for OC, BC, SC and ST children.

5. Class of study has influence on the attitude of secondary school children towards computer assisted learning. It is observed that attitude of IX class children have positive than VIII class children. It is advised to provide extra facilities for VIII class children.

6. Community has influence on the attitude of secondary school children towards computer assisted learning. It is observed that attitude of Christian children have positive than Muslim children. Common hostel and computer facilities may be provided for various community children.

7. Economic position of the family has influence on the attitude of secondary school children towards computer assisted learning. It is observed that attitude of middle class children have positive than poor children. It is advised to provide economic facilities for various groups of economic position of the family.

8. Father education has influence on the attitude of secondary school children towards computer assisted learning. It is observed that attitude of can read only father group children have positive than post graduation and professional educational father group children. It is advised to provide educational facilities for fathers.
9. Mother occupation has influence on the attitude of secondary school children towards computer assisted learning. It is observed that attitude of employee mother group children have better than non – employee mother group children. It is advised to provide employment facilities for mothers.

10. Type of family has influence on the attitude of secondary school children towards computer assisted learning. It is observed that attitude of joint family group children have positive than nuclear family group children. Government has to take necessary steps for good amenities to the nuclear family children.

11. Self efficacy has influence on the attitude of secondary school children towards computer assisted learning. It is observed that attitude of low group of self efficacy children have better than medium group of self efficacy children. It is advised to provide guidance facilities for various groups of self efficacy children.

12. Achievement motivation has influence on the attitude of secondary school children towards computer assisted learning. It is observed that attitude of high group of achievement motivation children have better than medium group of achievement motivation children. It is advised to provide guidance facilities for various groups of achievement motivation children.

13. Seminars and workshops should be conducted regularly under the supervision of the highly officials.

14. The teaching methods with help of computer which are practicable in nature should be included in the curriculum of secondary level.

15. Assignments, project works should be given through computer knowledge;

16. Enthuse children from affluent families to visit net centers and render any possible assistance to the needy there.

17. Inspire senior children in higher classes to participate in computer knowledge etc;

18. Making hobby to read good computer knowledge books;

19. Proper interests may be developed among pupils to utilize the mass – media in better way.
20. Providing opportunities in problem solving skills through computer.

21. Special care / attention should be given to the educationally challenged personnel.

22. Since good library facilities are associated with the positive attitude towards computer assisted learning, school managements are advised to equip their libraries with the books and well equipped computer laboratory that are liked by the children.

23. Teach life stories of eminent characters in the epics and history, poems, patriotic songs, environmental hygiene etc through computer assistance;

24. Invite distinguished persons to talk to the children and parents on the need for and importance of leading a computer based learning;

25. Motivate children to write short notes on computer based topics from the school library books. This will also encourage the development of reading habit;

26. Organize visits to government hospitals, orphanages, homes for blind, deaf & dumb, mentally retarded and various organizations etc. for various uses of computer;

27. There is a great need to educate the parents and society on computer which goes a long way in shaping the children to be computer based.

28. Moreover, teacher should try to create interest among the children through their method of teaching and co – curricular activities through computer assistance.

29. Organize occasionally common gatherings of children of various classes to bridge the gap in the level of their awareness and absorption capacity of computer knowledge;

30. Collaborative use of technology (in pairs or small groups) is usually more effective than individual use, though some children, especially younger children, may need support in collaborating effectively.

31. Technology can be used very effectively as a short but focused intervention to improve learning, particularly when there is regular and frequent use (about
three times a week) over the course of about a term (5-10 weeks). Sustained use over a longer period is usually less effective at improving attainment.

32. Remedial and tutorial use of technology can be particularly effective for lower attaining pupils or those with special educational needs or those from disadvantaged backgrounds in providing intensive support to enable them to catch up with their peers.

33. In researched interventions, technology is best used as a supplement to normal teaching rather than as a replacement for it. This suggests some caution in the way in which technology is adopted or embedded in schools.

34. Tested gains in attainment tend to be greater in mathematics and science (compared with literacy for example) though this is also a more general finding in meta-analysis and may be at least partly a measurement artifact. In literacy, the impact tends to be greater in writing interventions compared with reading or spelling.

35. Training and professional development for teachers is an important component of successful approaches. At least a full day’s support or on-going professional inquiry-based approaches appear the most successful. The implication is that such support should go beyond teaching skills in technology use and focus on the effective pedagogical use of the technology to support teaching and learning aims.

6.5. DELIMITATIONS OF THE STUDY AND SUGGESTIONS FOR FURTHER RESEARCH

The following suggestions are considered for the research

1. Similar study can be carried out on other sample subjects of other states.

2. The study is confined only to secondary school children. A similar investigation may be conducted by taking children from different classes also, namely VI, VII and X classes, intermediate, post-graduate courses.

3. The study may be undertaken to cover the other age groups.

4. Many social factors like home environment, modernization, atavism and so on may be examined for their effect on attitude towards computer assisted learning.
5. Many psychological factors like self concepts, study habits, personality factors, self-esteem, religiosity, emotional maturity and cognitive development and so on may be examined for their effect on attitude towards computer assisted learning.

6. Other significant factors like emotional maturity, parental commitment, parental behavior, child rearing practice may be studied for their effect on attitude towards computer assisted learning.

7. Experimental designs may be developed in order to test different methods of teaching and their effect on attitude towards computer assisted learning.

8. Some projects related to attitude towards computer assisted learning for enhancing competency among the teachers in the educational system may be taken up.

9. A cross cultural study may be conducted for the Tribal and Non-Tribal groups; Indians and abroad like American, Tibetans etc., for comparing their attitude towards computer assisted learning.

10. The present study is confined to 1200 secondary school children. It is suggested that future researchers may undertake studies with larger sample.

11. This is a presage–product study in the area of attitude towards computer assisted learning presage–process, process–product and presage–process–product studies may be undertaken in the area of attitude towards computer assisted learning.

12. Only very few socio-demographic variables and psycho-sociological variables are studied in the present study. Some other variables like merits, attendance, regularity of children etc. may help to know their impact on the attitude towards computer assisted learning.

Let there be an optimistic view on educational issues like these in the years to come.

“EVERYBODY SHOULD LEARN HOW TO PROGRAMME A COMPUTER BECAUSE IT TEACHES YOU HOW TO THINK”

- STEVE JOBS