INTRODUCTION

Man is the father of civilization and culture. For animals and birds this has no meaning. On the one hand, the progress of civilization and culture depends on man; on the other hand, man tries to march forward on the path of civilization and culture. Education greatly helps both. Man learns something every day and every moment. His entire life is a continuous process of education. Society produces educated persons in order to pass on civilization and culture to the coming generation.

There are many kinds of life’s needs. Some of them are biological such as food, water and sex. There are some social needs also as man wants respect from society. There are also some psychological needs as he wants to live happily. There are many sources for the fulfillment of all these needs. He can take food in many styles, wear various kinds of clothes and carry on social relationships in many ways. Education gives him knowledge of the suitability of a particular style or method. Society has its own needs, traditions and customs. The existence of a society depends on these traditions and man’s social feelings. Society wants each of its members to perform his/her duties towards it. For this, it arranges for proper education so that the knowledge of duties may be imparted to its members. Society also wants to safeguard its culture, traditions, and customs. It wants to safeguard its characteristic qualities for future. For this, it wants to give proper training to its upcoming adult generation. Therefore, it takes as its duty to arrange for the proper education of the growing generation.

Education occupies a very prominent place in the history and life of a nation. It is the most important single factor in the achievement of rapid economic development and technological progress and also in creating a social order based on the values of freedom, social justice and equal opportunity. It is very much essential for the refinement of the cultural life of a society. So long as the educational system of a civilization is sound and comprehensive, it is alive otherwise it would fall into pieces in no time.
Education is one of the most important sub-systems of a society. This sub-system is strategically very important because it generates both finite and infinite power. The quality of power helps in shaking the pattern of society. Where educational institutions turnout capable, intelligent, mentally alert and self-sufficient pupils, society becomes strong and productive. Hence, every nation has a need to develop a system of education which would be economically and socially fruitful. This would not only ensure national development in the present but would also pave the way for such development in the future. A healthy system of education would be one which ensures physical, mental, economic development and increases sensitivity of the students.

Education is important for both- the individual and the society. The working of society is impossible without education or educated persons. In fact, human life begins with education. The fulfillment of needs of human life is possible only through education.

India became politically independent in 1947. The country paid a heavy price of independence in terms of human lives, social upheaval and a shattered economy. India was torn by caste, communal and linguistic differences, which might have further vivisected the Country.

In this traumatic situation, it was felt that education is the most powerful instrument of a national unity, social transformation and economic progress. But this attempt, through education, to create a new social order based on freedom, equality and justice can only succeed if the traditional education system is revolutionized, both in content and coverage. Education has been placed in the concurrent list of the Indian Constitution yet it is basically a state subject with Central Government having vital interest in its development.

Education is the clearest and straightest road to achievement, the more the human beings become educated, the finer persons they turn out to be, the better families they establish, the healthier they are, the better work they do, and the more progressive and stable are their communities (Maclean and Lee, 1956). Education has always held a position of significance in all societies. The foremost function of education is to identify the talent and abilities of pupils and to provide maximum possible opportunities for their successive development. Education, thus directly or
indirectly, prepares a man for the ‘process of living’ and ‘good life’-individual, social, cultural, economic, aesthetic and makes him capable to adapt himself to the new situations and to solve new problems, i.e. personal, local, national and international and to decrease the tensions and frustrations in the process of achieving the goal of ‘good living’.

Education is not only essential because it performs vital economic functions like job preparation and human capital formation, but it is also required for a number of other reasons like character building, personality development and development of scientific attitude etc.

‘Everyone has the right to education’ states the Universal Declaration of Human Rights (1948), but today, over six decades after this historic text was adopted, the right to education remains an empty promise for millions of children, women and men. According to UNESCO, nearly one thousand million adults, two-thirds of them women, are unable to read or write. Some 130 million school-age children have no access to primary schooling. Each year several million more children drop out of school without the knowledge and skills they need for a healthy and productive life.

Ironically, at the same time, the economic and social development of countries around the world is hampered by shortage of skilled men and women and is confounded by widespread ignorance and indifference. Consequently, the long human dimension is finally being recognized as the end and means of true development. If the capacity of people to shape and improve their own lives is the measure of development, then basic education for all is surely a necessary condition- as well as a human right.

With the rapid technological and scientific changes in the world, all the nations (developing and developed) need a system of education geared to such drastic changes. Education, today, is expected to help the students to cope up with the stress and strain of technological advancement to adjust their life style to it, to contribute to society and above all to contribute still to the domain of knowledge. This implies that students coming out of schools and colleges need to be well equipped with certain cognitive skills, reasoning, problem solving, awareness of circumstances and perception and some such other skills. This means students should be mentally alert. Needless to say that such cognitive skill can develop primarily when one is endowed
with intellectual capacities.

Modern age is the age of technology. Technology has always been instrument in bringing efficiency and perfection. It has provided valuable help in improving the task of the students and improves the process of learning. In the present times, computer plays an important role in education. Computer education forms a part of the school and college curricula. So, it is important for every individual today, to have the basic knowledge of computers. Computers have made a dramatic impact on our society, particularly in the field of education. Computers are common tools in most of the schools and are being used increasingly in all subject areas. Although some students are enthusiastic about using computers, others may be more nervous. Computer aided learning is common tools in the organizations, it is crucial for all students to become familiar and comfortable with their use. Successful computer experiences prepare students to participate effectively in a computer-dominated society.

Over the decades academicians become used to claims that new technologies, including the introduction of teaching machines and the widespread use of television in schools, would revolutionise school practices. It has sometimes been suggested that within a finite time teachers would largely become unnecessary as the new technology takes over. In practice most of these developments have proved to offer no more than a possible tool to help teachers perform their traditional tasks. It is now abundantly clear that the development of information and communication technologies is very different. Schooling and teaching will be forced to change in a variety of ways. At one level we now have to teach computer skills, not least because career prospects for our students may be dependent on the possession of such skills. Second, we have to prepare pupils for a society, in which many traditional aspects of living have been transformed, aspects which include retailing, banking and communication by means such as email. There is no sign of this immense technological and social revolution slowing down. Computers are becoming ever more sophisticated. Just as in the past mainframe machines were largely replaced by PCs so even the newer systems, such as the Internet, are in turn threatened by yet newer developments, such as communicating via television systems. Young children seem to take most of these technologies within their stride but as educationalists, we face the twofold task of
keeping ourselves up to date and also anticipating the forms of future schooling.

Sarva Shiksha Abhiyan (SSA) was launched in 2001 with the objective to achieve Universalization of Elementary Education (UEE) and fulfill the constitutional mandate of providing free and compulsory education for life to the children of age group 6-14 years. The reduction in drop-out and repetition rate, enhancement in the achievement levels and making learning joyful are some of the objectives of SSA. It was felt that use of Information and Communication Technology (ICT) and computers in the form of Computer Aided Learning (CAL) may help in achieving the said objectives. Keeping this in view, a component of computer education was kept under the Functional Head of ‘Innovation’ in the framework of SSA. Under this component there is a provision of Rs.50 lakh per district per year available to the States for CAL.

The use of computer networks is becoming today an important part of everyday work on almost every profession. As a result of this, development of Computer Aided Learning (CAL) method came out. The goal of CAL is to develop the learning capacity of the students and increase the teaching productivity and effectiveness of Teachers with the help of advance Computer based Technology. With the normal teaching method, students would feel uninteresting and easily forget what teachers have taught. This system adopts the newest Computer Technology, illustrating with the attractive pictures & animations, playing with music & human voice. The students will feel happy & willing to study consciously. Besides, the students would also be proud to show others that they are able to use Computer. Computer Aided Learning in Upper Primary Schools does not aim at teaching intricacies and technicality of computers. It aims at providing joyful, interactive and interesting ways of learning, through illustrations, examples and interactive tools particularly designed to emphasize on the HARDSPOTS of the regular curriculum.

Computer-Aided Learning (CAL) is one of the solutions that shows great promise as an effective mechanism for improving education in developing countries, particularly as an outside supplement to classroom learning once developed, CAL software can be scaled quickly and without great expense, while still providing a consistent instructional environment. Since there is a general skepticism about the role of CAL in developed countries, where it must compete with highly trained teachers
and a wealth of traditional educational media, it should be noted that when CAL is implemented in developing countries, the educational benefits may be far more noticeable. The Computer Aided Learning Program creates an environment, where learning and assessment is fun and the opportunities to learn is equitable among the rural and urban children.

**NEED AND SIGNIFICANCE OF STUDY**

The National Policy on Education (NPE) and revised Programme of Action (POA) framed in the year 1986 and 1992 respectively aims to achieve 100% enrolment, retention and quality education for all children. In pursuance of this policy, numbers of programmes and schemes have been launched throughout the country. Broadly speaking the scheme of operation Black Board (OBB), Non Formal Education (NFE), District Elementary Education Programme (DPEP) etc. were launched to achieve this goal. A new programme Sarva Shiksha Abhiyan (SSA), which is a national programme, was launched in 2001 the country as an effort to universalization of elementary education by community ownership of the school system. The centrally sponsored scheme of SSA namely Information and Communication Technology (ICT) was introduced in the year 2004-05 by modifying the CLASS PROJECT (Computer Learning and Studies in Schools Project) for imparting computer education in the Government Senior Secondary Schools.

Department of Education, Government of Haryana, has taken a number of initiatives in the past years to provide IT infrastructure and IT education in the Government Senior Secondary Schools and Colleges of the state. It is in response to the demand for the quality base education with computers all over the country for the better child education in a mission mode. In Haryana, this scheme started in the year 2007 by the present State Government. About 1240 Government Senior Secondary Schools have been provided with computer hardware ranging from 4 to 20 computers under various schemes. At present, computer education is being imparted to the students in these Government Senior Secondary Schools under a ‘Free Computer Education Programme’. The service provider is providing faculties, courseware and limited consumables in these schools for teaching basic IT education to students from class VI to XII and computer education as per syllabus of the Board of School Education Haryana. As Haryana has already undergone five year of computer aided
learning programme, it becomes relevant to review and to undertake a stock of the progress made by State Governments, in the field of computer education. Such periodic academic evaluations are useful, as they are not only mirror of the past but also indicate the progress sign for the future progress.

Prior to this research study no such study was undertaken for evaluating the Computer Aided Learning (CAL) Programme (under SSA) in government schools of Haryana. Therefore, this study is a justified attempt in this direction.

**STATEMENT OF THE PROBLEM:**

EVALUATION OF COMPUTER AIDED LEARNING (CAL) PROGRAMME IN GOVERNMENT SCHOOLS OF HARYANA

**OPERATIONAL DEFINITIONS OF THE TERMS USED:**

(a) **Evaluation**

To evaluate is to assess or appraise. Evaluation is the process of examining a subject and rating it based on its important features. We determine how much or how little we value something, arriving at our judgment on the basis of criteria that we can define (Kiefer, 1997).

In the present study Evaluation refers to a systematic and qualitative assessment of Computer Aided Learning Programme in government Schools of Haryana.

(b) **Computer Aided Learning Programme**

In the state of Haryana this scheme has been started by the present state Government Under (SSA) for ‘free computer education programme providing basic IT education to students from class VI to XII and computer education as per syllabus of the Board of School Education Haryana for those students who have opted for computer education as an optional subject and IT education to empowering the teachers to generate supplementary material in digitalized form and improving quality of education with the help of computer education.

(c) **Government Schools**

The schools of the State run by State Government and imparting education from class I\textsuperscript{st} to XII.
OBJECTIVES OF THE STUDY:

1. To evaluate the implementation of Computer Aided Learning programme in Government schools of Haryana with special reference to the following aspects:
   (I) Infrastructural facilities available in schools for CAL.
   (II) Availability of number of computers in working order in schools.
   (III) Availability of Accessories/ equipments for computers.
   (IV) Availability of teachers, in position, having working knowledge of computers.
   (V) Provision of period in time table for CAL.
   (VI) Regular teaching learning through CAL in schools.
   (VII) Timely supply of CAL Grant for schools in CAL districts.

2. To study the problems being faced by schools in implementation of CAL programme due to non-functioning of computers.

DELIMITATIONS

1. The present study was delimited to 72 Government Schools of nine districts (Bhiwani, Hisar, Kaithal, Sonipat, Ambala, Jind, Rohtak, Yamunanagar and Rewari) of Haryana State.

2. The study was delimited to the period of academic sessions 2010-2011, 2011-2012 and 2012-2013.

3. The scope of the study was confined to evaluation of Computer Aided Learning programme under Sarva Shiksha Abhiyan (SSA) in govt. schools (selected for the sample) of Haryana during the period of academic session 2010-2011, 2011-2012 and 2012-2013.

RESEARCH METHOD OF THE STUDY

The purpose of present study was to evaluate the existing CAL programme of Sarva Shiksha Abhiyan in Haryana. Therefore, in order to know upto what extent the objectives of this programme had been achieved and how far this scheme had been implemented in elementary schools and what types of difficulties/problems were being faced by the heads/school teachers during the implementation of Computer Aided Learning (CAL) Programme, the researcher used the Descriptive Survey
Method, which seemed to be most appropriate to undertake such type of investigation.

**POPULATION AND SAMPLE OF THE STUDY**

The present study was carried out in order to evaluate the CAL programme of Sarva Shiksha Abhiyan in Haryana. Therefore, all the Government schools of Haryana, where computer aided learning (CAL) programme was being implemented, at elementary school stage, under SSA, constituted the population of the present study.

For drawing the sample of the present study, at the first stage, nine districts namely Bhiwani, Hisar, Ambala (of academic session 2010-11), Kaithal, Sonipat, Jind (of academic session 2011-12), Rohtak, Yamunanagar and Rewari (of academic session 2012-13) were selected randomly. At the second stage, 72 upper primary schools—eight from each sample district—were selected on purposive basis as per the provision of Computer Aided Learning Programme (under SSA) in those concerned schools. At the third stage, 01 computer teacher and 01 Head Teacher each of those 72 schools (72x2=144) along with 05 students each of those sample schools (72x5=360) were also selected on random basis for the sample of the present study. (A list of 72 sample schools is given in the Appendix-I.)

Description of the sample of present study is given in the following flow chart.
TOOLS USED

After the selection of the sample the next step was to go for suitable tools for the collection of data. In the present study, for the purpose of collecting data, the following tools were used.

- **A self-developed Observation schedule**
  It was used to record the information related to different aspects of CAL programme being implemented in government schools (included in the sample of the study). On the basis of the information recorded on this schedule, the responses of the sample subjects were also cross checked, besides other relevant information related to CAL programme. The copy of the observation schedule is given in Appendix-II.

- **A self-developed Non-directive interview schedule**
  It was developed for collecting data regarding Computer Aided Learning (CAL) programme being implemented (under SSA) in sample government schools of sample districts of Haryana.

  The description of process followed for developing this non-directive interview schedule is given as under:

  Firstly, the researcher consulted and studied the document Sarva Shiksha Abhiyan (SSA) Framework for Implementation, Ministry of Human Resource Development (MHRD), Department of School Education & Literacy, Government of India and CAL programme (under SSA) in particular. Thereafter, the research studies conducted on CAL programme were also reviewed thoroughly in order to have clarity regarding the different aspects of Computer Aided Learning (CAL) Programme covered under those studies as well as tools and techniques developed / used for evaluating / studying CAL programme which was considered to be of upmost importance for developing relevant and valid tool for the present study. Thereafter, the researcher visited 10 Government CAL schools of district Sonipat to get first-hand experience with regard to actual implementation/ status of CAL programme in govt. schools. After this background, as per the objective of the study, the researcher framed items for development of the tool, i.e., non-directive interview schedule.

  As many as 29 items were framed and submitted to subject experts, who were well acquainted with Computer Aided Learning (CAL) programme of SSA. The
experts were requested to review / finalize those items only which were relevant in the context of objectives of the research study / different aspects of computer aided learning (CAL) programme of SSA taken up for research study. After getting the suggestions of experts in the context of items of the draft of the non-directive interview schedule, the needed modification was done. Thereafter, this draft was submitted to language experts with request to correct / modify the items from the point of language / expression in order to overcome ambiguities, if any, in the items so as to ensure the objectivity therein the items. After getting suggestions of language experts regarding items of the draft of non-directive interview schedule, needed modification was done in the items in the light of the language experts’ views / suggestions. And draft of non-directive interview schedule was finalized and prepared accordingly. The researcher visited 10 Government CAL schools of Sonipat district for the field try out of the non-directive interview schedule. After actual administration of the non-directive interview schedule on Heads Teachers, Teachers and Students of those 10 CAL schools researcher further modified that non-directive interview schedule in the light of responses/ ambiguities indicated by the respondents of those 10 schools in the context of each and every item. In this way the final draft of non-directive interview schedule was prepared and on the basis of aforesaid procedure of development of non-directive interview schedule, face validating of this tool was also ascertained.

Finally, the modified non-directive interview schedule contained 50 items related to the different aspects: (I) Infrastructural facilities available in schools for CAL. (II) Availability of number of computers in working order in schools. (III) Availability of Accessories/ equipments for computers. (IV) Availability of teachers, in position, having working knowledge of computers. (V) Provision of period in time table for CAL. (VI) Regular teaching learning in schools through CAL. (VII) Timely supply of CAL Grant for schools in CAL districts, of CAL programme under SSA. (VIII) Problems faced/ being faced by the Head Teachers, Teachers and Students of CAL schools. The copy of this non-directive interview schedule is given in Appendix-III.

COLLECTION OF DATA

A self-developed Observation Schedule and a self-developed Non-Directive Interview Schedule was used for collecting data of the present research study.
SCORING PROCEDURE

For the purpose of scoring of the data the researcher counted the total number of 'Yes' / 'No' responses and percentages were calculated accordingly.

STATISTICAL TECHNIQUE(S) USED

For the purpose of analysis of data of the present study, the percentage method was applied.

In order to analyse data, besides cross checks through observation schedule, the percentages were calculated for each item of the non-directive interview schedule on the basis of responses (in 'Yes'/ 'No') of the respondents / sample subjects.

MAIN FINDINGS

The findings of the present study have been presented under five major sections. **Section-I** deals with the main findings related to the views of Head Teachers for the academic sessions 2010-11 (Bhiwani, Hisar, Ambala), 2011-12 (Kaithal, Sonipat, Jind) and 2012-13 (Rothak, Yamunanagar and Rewari) regarding different aspects of CAL programme in the respective districts. **Section-II** deals with the main findings related to the views of Teachers for the academic sessions 2010-11 (Bhiwani, Hisar, Ambala), 2011-12 (Kaithal, Sonipat, Jind) and 2012-13 (Rothak, Yamunanagar and Rewari) regarding different aspects of CAL programme in the respective districts. **Section-III** deals with the main findings related to the views of Students for the academic sessions 2010-11 (Bhiwani, Hisar, Ambala), 2011-12 (Kaithal, Sonipat, Jind) and 2012-13 (Rothak, Yamunanagar and Rewari) regarding different aspects of CAL programme in the respective districts. **Section-IV** deals with the main findings related to the composite scenario based on the views of Head Teachers, Teachers and Students for the academic sessions 2010-11 (Bhiwani, Hisar, Ambala), 2011-12 (Kaithal, Sonipat, Jind) and 2012-13 (Rothak, Yamunanagar and Rewari) regarding different aspects of CAL programme in the respective districts. **Section-V** deals with the main findings related to the Composite scenario (irrespective of academic sessions i.e., 2010-11, 2011-12 and 2012-13) based on the views of Head Teachers and Teachers regarding different aspects of CAL programme (under SSA, at elementary school level) have been presented.
SECTION- I

This section deals with the main findings related to the views of Head Teachers for the academic sessions 2010-11 (Bhiwani, Hisar, Ambala), 2011-12 (Kaithal, Sonipat, Jind) and 2012-13 (Rothak, Yamunanagar and Rewari) regarding different aspects of CAL programme in the respective districts. The main findings of this section regarding CAL aspects wise are as follows:

(A) **Infrastructural facilities available in schools**-

- Out of 24 sample schools, Head Teachers of 19 (79.2%) schools had indicated that there were adequate infrastructural facilities in the schools while 05 (20.8%) Head Teachers of schools had indicated about inadequate infrastructural facilities. Therefore, it is evident that in case of majority of the schools, the infrastructural facilities were adequate during academic session 2010-11.

- Out of 24 sample schools, Head Teachers of 18 (75%) schools had indicated that there were adequate infrastructural facilities in the schools while 06 (25%) Head Teachers of schools had indicated about inadequate infrastructural facilities. Therefore, it is evident that in case of majority of the schools, the infrastructural facilities were adequate during academic session 2011-12.

- Out of 24 sample schools, Head Teachers of 20 (83.3%) schools had indicated that there were adequate infrastructural facilities in the schools while 04 (16.7%) Head Teachers of schools had indicated about inadequate infrastructural facilities. Therefore, it is evident that in case of majority of the schools, the infrastructural facilities were adequate during academic session 2012-13.

(B) **Availability of number of computers in working order in schools**-

- Out of 24 sample schools, Head Teachers of 16 (66.7%) schools had indicated that there were adequate numbers of computers in working order while 08 (33.3%) Head Teachers of schools had indicated about inadequate number of computers in working order. Therefore, it is evident that in case of majority of the schools, the numbers of computers in working orders were adequate during academic session 2010-11.
Out of 24 sample schools, Head Teachers of 19 (79.2%) schools had indicated that there were adequate numbers of computers in working order while 05 (20.8%) Head Teachers of schools had indicated about inadequate number of computers in working order. Therefore, it is evident that in case of majority of the schools, the numbers of computers in working orders were adequate during academic session 2011-12.

Out of 24 sample schools, Head Teachers of 20 (83.3%) schools had indicated that there were adequate numbers of computers in working order while 04 (16.7%) Head Teachers of schools had indicated about inadequate number of computers in working order. Therefore, it is evident that in case of majority of the schools, the numbers of computers in working orders were adequate during academic session 2012-13.

(C) Availability of Accessories / equipments related to computers in schools -

Out of 24 sample schools, Head Teachers of 15 (62.5%) had indicated that there were adequate Accessories / equipments while 09 (37.5%) Head Teachers of schools had indicated about inadequate Accessories / equipments related to CAL. Therefore, it is evident that in case of majority of the schools, the availability of Accessories / equipments related to Computer Aided Learning Programme (CAL) was adequate during academic session 2010-11.

Out of 24 sample schools, Head Teachers of 13 (54.2%) had indicated that there were adequate Accessories / equipments while 11 (45.8%) Head Teachers of schools had indicated about inadequate Accessories / equipments related to CAL. Therefore, it is evident that in case of majority of the schools, the availability of Accessories / equipments related to Computer Aided Learning Programme (CAL) was adequate during academic session 2011-12.

Out of 24 sample schools, Head Teachers of 15 (62.5%) had indicated that there were adequate Accessories / equipments while 09 (37.5%) Head Teachers of schools had indicated about inadequate Accessories / equipments related to CAL. Therefore, it is evident that in case of majority of the schools, the availability of Accessories / equipments related to Computer Aided Learning Programme (CAL) was adequate during academic session 2012-13.
(D) Availability of teacher(s), in position, having working knowledge of computers in schools –

- Out of 24 sample schools, Head Teachers of 15 (62.5%) had indicated that there was/ were adequate teacher(s), in position, having working knowledge of computers while 09 (37.5%) Head Teachers of schools had indicated about inadequate teacher(s), in position, having working knowledge of computers. Therefore, it is evident that in case of majority of the schools, the availability of teacher(s), in position, having working knowledge of computers was adequate during academic session 2010-11.

- Out of 24 sample schools, Head Teachers of 15 (62.5%) had indicated that there was/ were adequate teacher(s), in position, having working knowledge of computers while 09 (37.5%) Head Teachers of schools had indicated about inadequate teacher(s), in position, having working knowledge of computers. Therefore, it is evident that in case of majority of the schools, the availability of teacher(s), in position, having working knowledge of computers was adequate during academic session 2011-12.

- Out of 24 sample schools, Head Teachers of 14 (58.3%) had indicated that there was/ were adequate teacher(s), in position, having working knowledge of computers while 10 (41.7%) Head Teachers of schools had indicated about inadequate teacher(s), in position, having working knowledge of computers. Therefore, it is evident that in case of majority of the schools, the availability of teacher(s), in position, having working knowledge of computers was adequate during academic session 2012-13.

(E) Provision of CAL period in time table in schools –

- Out of 24 sample schools, Head Teachers of 12 (50%) had indicated that there was a provision of CAL period in time table while 12 (50%) Head Teachers of schools had indicated about no provision of CAL period in time table. Therefore, it is evident that equal majority of the schools, were had adequate Provision of period in time table in school related to Computer Aided Learning Programme (CAL) during academic session 2010-11.

- Out of 24 sample schools, Head Teachers of 14 (58.3%) had indicated that there was a provision of CAL period in time table while 10 (41.7%) Head
Teachers of schools had indicated about no provision of CAL period in time table. Therefore, it is evident that majority of the schools, were had adequate provision of period in time table in school related to Computer Aided Learning Programme (CAL) during academic session 2011-12.

- Out of 24 sample schools, Head Teachers of 15 (62.5%) had indicated that there was a provision of CAL period in time table while 09 (37.5%) Head Teachers of schools had indicated about no provision of CAL period in time table. Therefore, it is evident that equal majority of the schools, were had adequate provision of period in time table in school related to Computer Aided Learning Programme (CAL) during academic session 2012-13.

(F) Regular Teaching Learning through CAL in schools –

- Out of 24 sample schools, in 13 (54.2%) schools regular teaching learning through CAL was there while in 11 (45.8%) schools regular teaching learning through CAL was not indicated by the Head Teacher. It is evident that in majority of sample schools, regular teaching learning through CAL was indicated by the Head Teacher during academic session 2010-11.
- Out of 24 sample schools, in 10 (41.7%) schools regular teaching learning through CAL was there while in 14 (58.3%) schools regular teaching learning through CAL was not indicated by the Head Teachers. It is evident that in majority of sample schools, regular teaching learning through CAL was not indicated by the Head Teachers during academic session 2011-12.
- Out of 24 sample schools, in 12 (50%) schools regular teaching learning through CAL was there while in 12 (50%) schools regular teaching learning through CAL was not indicated by the Head Teachers. It is evident that in equal majority of sample schools, regular teaching learning through CAL was not indicated by the Head Teachers during academic session 2012-13.

(G) Timely supply of CAL Grant in schools –

- Out of 24 sample schools, Head Teachers of 20 (83.3%) schools had indicated that they had received/receiving grant within the stipulated period while 04 (16.7%) Head Teachers of schools had indicated about indicated that the CAL grant was not timely made available. It is evident that majority of the schools
had received/ receiving grant within the stipulated period related to Computer Aided Learning Programme (CAL) during academic session 2010-11.

- Out of 24 sample schools, Head Teachers of 17 (70.9%) schools had indicated that they had received/ receiving CAL grant within the stipulated period while 07 (29.1%) Head Teachers of schools had indicated about indicated that the CAL grant was not timely made available. It is evident that majority of the schools had received/ receiving CAL grant within the stipulated period related to Computer Aided Learning Programme (CAL) during academic session 2011-12.

- Out of 24 sample schools, Head Teachers of 19 (79.2%) schools had indicated that they had received/ receiving grant within the stipulated period while 05 (20.8%) Head Teachers of schools had indicated that the CAL grant was not timely made available. It is evident that majority of the schools had received/ receiving grant within the stipulated period related to Computer Aided Learning Programme (CAL) during academic session 2012-13.

(H) Problems being faced by schools in implementation of CAL –

- Out of 24 sample schools, Head Teachers of 19 (79.2%) schools faced/ were facing problems in implementation of CAL programme due to non-functioning of computers while 05 (20.8%) Head Teachers of schools had not faced any problem related to functioning of computers. It indicates that majority of the schools had problem(s) in implementation of CAL programme due to non-functioning of computers in schools during academic session 2010-11.

- Out of 24 sample schools, Head Teachers of 16 (66.7%) schools faced/ were facing problems in implementation of CAL programme due to non-functioning of computers while 08 (33.3%) Head Teachers of schools had not faced any problem related to functioning of computers. It indicates that majority of the schools had problem(s) in implementation of CAL programme due to non-functioning of computers in schools during academic session 2011-12.

- Out of 24 sample schools, Head Teachers of 15 (62.5%) schools faced/ were facing problems in implementation of CAL programme due to non-
functioning of computers while 09 (37.5%) Head Teachers of schools had not faced any problem related to functioning of computers. It indicates that majority of the schools had faced/ were facing problem(s) in implementation of CAL programme due to non-functioning of computers in schools during academic session 2012-13.

(I) **Numbers of schools wherein the problems related to non-functioning of computer(s) solved/ not solved within 15 days**-

- Out of 19 sample schools, Head Teachers of 07 (36.8%) schools had indicated that problems related to non-functioning of computer(s) were solved /being solved within 15 days while 12 (63.2%) Head Teachers of schools indicated that such problems had not been solved /solved within 15 days and take more than one/two month(s) to solved/ solved problems related to non-functioning of computers. It indicates majority of the schools had problem(s) regarding non-functioning of computers in schools during academic session 2010-11.

- Out of 16 sample schools, Head Teachers of 07 (43.7%) schools had indicated that problems related to non-functioning of computer(s) were solved /being solved within 15 days while 09 (56.3%) Head Teachers of schools indicated that such problems had not been solved /solved within 15 days and take more than one/two month(s) to solved/ solved problems related to non-functioning of computers. It indicates majority of the schools had problem(s) regarding non-functioning of computers in schools during academic session 2011-12.

- Out of 15 sample schools, Head Teachers of 04 (26.7%) schools had indicated that problems related to non-functioning of computer(s) were solved /being solved within 15 days while 11 (73.3%) Head Teachers of schools indicated that such problems had not been solved /solved within 15 days and take more than one/two month(s) to solved/ solved problems related to non-functioning of computers. It indicates majority of the schools had problem(s) regarding non-functioning of computers in schools during academic session 2012-13.

**SECTION- II**

This section deals with the main findings related to the views of Teachers (having working knowledge of computer) for the academic sessions 2010-11 (Bhiwani, Hisar, Ambala), 2011-12 (Kaithal, Sonipat, Jind) and 2012-13 (Rothak,
Yamunanagar and Rewari) regarding different aspects of CAL programme in the respective districts. The main findings of this section regarding CAL aspects wise are as follows:

(A) **Infrastructural facilities available in schools**-

- Out of 24 sample schools, Teachers (having working knowledge of computer) of 17 (70.8%) schools had indicated that there were adequate infrastructural facilities in the schools while 07 (29.2%) Teachers (having working knowledge of computer) of schools had indicated about inadequate infrastructural facilities. Therefore, it is evident that in case of majority of the schools, the infrastructural facilities were adequate during academic session 2010-11.

- Out of 24 sample schools, Teachers (having working knowledge of computer) of 16 (66.7%) schools had indicated that there were adequate infrastructural facilities in the schools while 08 (33.3%) Teachers (having working knowledge of computer) of schools had indicated about inadequate infrastructural facilities. Therefore, it is evident that in case of majority of the schools, the infrastructural facilities were adequate during academic session 2011-12.

- Out of 24 sample schools, Teachers (having working knowledge of computer) of 21 (87.5%) schools had indicated that there were adequate infrastructural facilities in the schools while 03 (12.5%) Teachers (having working knowledge of computer) of schools had indicated about inadequate infrastructural facilities. Therefore, it is evident that in case of majority of the schools, the infrastructural facilities were adequate during academic session 2012-13.

(B) **Availability of number of computers in working order in schools**-

- Out of 24 sample schools, Teachers (having working knowledge of computer) of 17 (70.8%) schools had indicated that there were adequate numbers of computers in working order while 07 (29.2%) Teachers (having working knowledge of computer) of schools had indicated about inadequate number of computers in working order. Therefore, it is evident that in case of majority of
the schools, the numbers of computers in working orders were adequate during academic session 2010-11.

- Out of 24 sample schools, Teachers (having working knowledge of computer) of 19 (79.2%) schools had indicated that there were adequate numbers of computers in working order while 05 (20.8%) Teachers (having working knowledge of computer) of schools had indicated about inadequate number of computers in working order. Therefore, it is evident that in case of majority of the schools, the numbers of computers in working orders were adequate during academic session 2011-12.

- Out of 24 sample schools, Teachers (having working knowledge of computer) of 18 (75%) schools had indicated that there were adequate numbers of computers in working order while 06 (25%) Teachers (having working knowledge of computer) of schools had indicated about inadequate number of computers in working order. Therefore, it is evident that in case of majority of the schools, the numbers of computers in working orders were adequate during academic session 2012-13.

(C) **Availability of Accessories / equipments related to computers in schools**

- Out of 24 sample schools, Teachers (having working knowledge of computer) of 16 (66.7%) had indicated that there were adequate Accessories / equipments while 08 (33.3%) Teachers (having working knowledge of computer) of schools had indicated about inadequate Accessories / equipments related to CAL. Therefore, it is evident that in case of majority of the schools, the availability of Accessories / equipments related to Computer Aided Learning Programme (CAL) was adequate during academic session 2010-11.

- Out of 24 sample schools, Teachers (having working knowledge of computer) of 17 (70.9%) had indicated that there were adequate Accessories / equipments while 07 (29.1%) Teachers (having working knowledge of computer) of schools had indicated about inadequate Accessories / equipments related to CAL. Therefore, it is evident that in case of majority of the schools, the availability of Accessories / equipments related to Computer Aided Learning Programme (CAL) was adequate during academic session 2011-12.
• Out of 24 sample schools, Teachers (having working knowledge of computer) of 15 (62.5%) had indicated that there were adequate Accessories / equipments while 09 (37.5%) Teachers (having working knowledge of computer) of schools had indicated about inadequate Accessories / equipments related to CAL. Therefore, it is evident that in case of majority of the schools, the availability of Accessories / equipments related to Computer Aided Learning Programme (CAL) was adequate during academic session 2012-13.

(D) **Availability of teacher(s), in position, having working knowledge of computers in schools** –

• Out of 24 sample schools, Teachers (having working knowledge of computer) of 15 (62.5%) had indicated that there was/ were adequate teacher(s), in position, having working knowledge of computers while 09 (37.5%) Teachers (having working knowledge of computer) of schools had indicated about inadequate teacher(s), in position, having working knowledge of computers. Therefore, it is evident that in case of majority of the schools, the availability of teacher(s), in position, having working knowledge of computers was adequate during academic session 2010-11.

• Out of 24 sample schools, Teachers (having working knowledge of computer) of 14 (58.3%) had indicated that there was/ were adequate teacher(s), in position, having working knowledge of computers while 10 (41.7%) Teachers (having working knowledge of computer) of schools had indicated about inadequate teacher(s), in position, having working knowledge of computers. Therefore, it is evident that in case of majority of the schools, the availability of teacher(s), in position, having working knowledge of computers was adequate during academic session 2011-12.

• Out of 24 sample schools, Teachers (having working knowledge of computer) of 12 (50%) had indicated that there was/ were adequate teacher(s), in position, having working knowledge of computers while 12 (50%) Teachers (having working knowledge of computer) of schools had indicated about inadequate teacher(s), in position, having working knowledge of computers. Therefore, it is evident that in case of equal majority of the schools, the
availability of teacher(s), in position, having working knowledge of computers was adequate during academic session 2012-13.

(E) **Provision of CAL period in time table in schools** –

- Out of 24 sample schools, Teachers (having working knowledge of computer) of 12 (50%) had indicated that there was a provision of CAL period in time table while 12 (50%) Teachers (having working knowledge of computer) of schools had indicated about no provision of CAL period in time table. Therefore, it is evident that equal majority of the schools, were had adequate provision of period in time table in school related to Computer Aided Learning Programme (CAL) during academic session 2010-11.

- Out of 24 sample schools, Teachers (having working knowledge of computer) of 14 (58.3%) had indicated that there was a provision of CAL period in time table while 10 (41.7%) Teachers (having working knowledge of computer) of schools had indicated about no provision of CAL period in time table. Therefore, it is evident that majority of the schools, were had adequate provision of period in time table in school related to Computer Aided Learning Programme (CAL) during academic session 2011-12.

- Out of 24 sample schools, Teachers (having working knowledge of computer) of 15 (62.5%) had indicated that there was a provision of CAL period in time table while 09 (37.5%) Teachers (having working knowledge of computer) of schools had indicated about no provision of CAL period in time table. Therefore, it is evident that majority of the schools, were had adequate provision of period in time table in school related to Computer Aided Learning Programme (CAL) during academic session 2012-13.

(F) **Regular Teaching Learning through CAL in schools** –

- Out of 24 sample schools, in 12 (50%) schools regular teaching learning through CAL was there while in 12 (50%) schools regular teaching learning through CAL was not indicated by the Teachers (having working knowledge of computer). It is evident that in equal majority of sample schools, regular teaching learning through CAL was indicated by the Teachers (having working knowledge of computer) during academic session 2010-11.
• Out of 24 sample schools, in 11 (45.8%) schools regular teaching learning through CAL was there while in 13 (54.2%) schools regular teaching learning through CAL was not indicated by the Teachers (having working knowledge of computer). It is evident that in majority of sample schools, regular teaching learning through CAL was not indicated by the Teachers (having working knowledge of computer) during academic session 2011-12.

• Out of 24 sample schools, in 13 (54.2%) schools regular teaching learning through CAL was there while in 11 (45.8%) schools regular teaching learning through CAL was not indicated by the Teachers (having working knowledge of computer). It is evident that in majority of sample schools, regular teaching learning through CAL was indicated by the Teachers (having working knowledge of computer) during academic session 2012-13.

(G) **Timely supply of CAL Grant in schools** –

• Out of 24 sample schools, Teachers (having working knowledge of computer) of 20 (83.3%) schools had indicated that they had received/ receiving grant within the stipulated period while 04 (16.7%) Teachers (having working knowledge of computer) of schools had indicated about indicated that the CAL grant was not timely made available. It is evident that majority of the schools had received/ receiving grant within the stipulated period related to Computer Aided Learning Programme (CAL) during academic session 2010-11.

• Out of 24 sample schools, Teachers (having working knowledge of computer) of 16 (66.7%) schools had indicated that they had received/ receiving CAL grant within the stipulated period while 08 (33.3%) Teachers (having working knowledge of computer) of schools had indicated that the CAL grant was not timely made available. It is evident that majority of the schools had received/ receiving CAL grant within the stipulated period related to Computer Aided Learning Programme (CAL) during academic session 2011-12.

• Out of 24 sample schools, Teachers (having working knowledge of computer) of 19 (79.2%) schools had indicated that they had received/ receiving grant within the stipulated period while 05 (20.8%) Teachers (having working knowledge of computer) of schools had indicated that the CAL grant was not
timely made available. It is evident that majority of the schools had received/receiving grant within the stipulated period related to Computer Aided Learning Programme (CAL) during academic session 2012-13.

(H) Problems being faced by schools in implementation of CAL –

- Out of 24 sample schools, Teachers (having working knowledge of computer) of 18 (75%) schools faced/ were facing problems in implementation of CAL programme due to non-functioning of computers while 06 (25%) Teachers (having working knowledge of computer) of schools had not faced any problem related to functioning of computers. It indicates that majority of the schools had problem(s) in implementation of CAL programme due to non-functioning of computers in schools during academic session 2010-11.

- Out of 24 sample schools, Teachers (having working knowledge of computer) of 16 (66.7%) schools faced/ were facing problems in implementation of CAL programme due to non-functioning of computers while 08 (33.3%) Teachers (having working knowledge of computer) of schools had not faced any problem related to functioning of computers. It indicates that majority of the schools had problem(s) in implementation of CAL programme due to non-functioning of computers in schools during academic session 2011-12.

- Out of 24 sample schools, Teachers (having working knowledge of computer) of 15 (62.5%) schools faced/ were facing problems in implementation of CAL programme due to non-functioning of computers while 09 (37.5%) Teachers (having working knowledge of computer) of schools had not faced any problems related to functioning of computers. It indicates that majority of the schools had faced/ were facing problem(s) in implementation of CAL programme due to non-functioning of computers in schools during academic session 2012-13.

(I) Numbers of schools wherein the problems related to non-functioning of computer(s) solved/ not solved within 15 days-

- Out of 18 sample schools, Teachers (having working knowledge of computer) of 08 (44.4%) schools had indicated that problems related to non-functioning of computer(s) were solved /being solved within 15 days while 10 (55.5%) Teachers (having working knowledge of computer) of schools indicated that
such problems had not been solved/solved within 15 days and take more than one/two month(s) to solved/solved problems related to non-functioning of computers. It indicates majority of the schools had problem(s) regarding non-functioning of computers in schools during academic session 2010-11.

- Out of 16 sample schools, Teachers (having working knowledge of computer) of 07 (43.7%) schools had indicated that problems related to non-functioning of computer(s) were solved/being solved within 15 days while 09 (56.3%) Teachers (having working knowledge of computer) of schools indicated that such problems had not been solved/solved within 15 days and take more than one/two month(s) to solved/solved problems related to non-functioning of computers. It indicates majority of the schools had problem(s) regarding non-functioning of computers in schools during academic session 2011-12.

- Out of 15 sample schools, Teachers (having working knowledge of computer) of 06 (40%) schools had indicated that problems related to non-functioning of computer(s) were solved/being solved within 15 days while 09 (60%) Teachers (having working knowledge of computer) of schools indicated that such problems had not been solved/solved within 15 days and take more than one/two month(s) to solved/solved problems related to non-functioning of computers. It indicates majority of the schools had problem(s) regarding non-functioning of computers in schools during academic session 2012-13.

SECTION- III

This section deals with the main findings related to the views of Students regarding different aspects of CAL programme for the academic sessions 2010-11 (Bhiwani, Hisar, Ambala), 2011-12 (Kaithal, Sonipat, Jind) and 2012-13 (Rothak, Yamunanagar and Rewari) in the respective districts. The main findings of this section regarding CAL aspects wise are as follows:

(A) Infrastructural facilities available in schools-

- Out of 120 students of 24 sample schools, 76 (63.3%) students had indicated that there were adequate infrastructural facilities while 44 (36.7%) students had indicated about inadequate infrastructural facilities. Therefore, it is evident that majority of students of 24 sample schools of three districts of
academic session 2010-11 indicated that there were adequate infrastructural facilities in their school.

- Out of 120 students of 24 sample schools, 75 (62.5%) students had indicated that there were adequate infrastructural facilities while 45 (37.5%) students had indicated about inadequate infrastructural facilities. Therefore, it is evident that majority of students of 24 sample schools of three districts of academic session 2011-12 indicated that there were adequate infrastructural facilities in their school.

- Out of 120 students of 24 sample schools, 80 (66.7%) students had indicated that there were adequate infrastructural facilities while 40 (33.3%) students had indicated about inadequate infrastructural facilities. Therefore, it is evident that majority of students of 24 sample schools of three districts of academic session 2012-13 indicated that there were adequate infrastructural facilities in their school.

(B) Availability of number of computers in working order in schools-

- Out of 120 students of 24 sample schools, 75 (62.5%) students had indicated that there were adequate numbers of computers in working order while 45 (37.5%) students had indicated about inadequate numbers of computers in working order. Therefore, it is evident that majority of students of 24 sample schools of three districts of academic session 2010-11 indicated that there were adequate numbers of computers in working orders in their school.

- Out of 120 students of 24 sample schools, 85 (70.8%) students had indicated that there were adequate numbers of computers in working order while 35 (29.2%) students had indicated about inadequate numbers of computers in working order. Therefore, it is evident that majority of students of 24 sample schools of three districts of academic session 2011-12 indicated that there were adequate numbers of computers in working orders in their school.

- Out of 120 students of 24 sample schools, 85 (70.8%) students had indicated that there were adequate numbers of computers in working order while 35 (29.2%) students had indicated about inadequate numbers of computers in working order. Therefore, it is evident that majority of students of 24 sample
schools of three districts of academic session 2012-13 indicated that there were adequate numbers of computers in working orders in their school.

(C) **Availability of Accessories / equipments related to computers in schools -**

- Out of 120 students of 24 sample schools, 75 (62.5%) students had indicated that there were adequate accessories / equipments while 45 (37.5%) students had indicated about adequate Accessories / equipments related to CAL. Therefore, it is evident that majority of students of 24 sample schools of three districts of academic session 2010-11 indicated that there were adequate numbers of accessories / equipments related to Computer Aided Learning Programme (CAL) in their school.

- Out of 120 students of 24 sample schools, 76 (63.3%) students had indicated that there were adequate accessories / equipments while 44 (36.7%) students had indicated about adequate Accessories / equipments related to CAL. Therefore, it is evident that majority of students of 24 sample schools of three districts of academic session 2011-12 indicated that there were adequate numbers of accessories / equipments related to Computer Aided Learning Programme (CAL) in their school.

- Out of 120 students of 24 sample schools, 79 (65.8%) students had indicated that there were adequate accessories / equipments while 41 (34.2%) students had indicated about adequate Accessories / equipments related to CAL. Therefore, it is evident that majority of students of 24 sample schools of three districts of academic session 2012-13 indicated that there were adequate numbers of accessories / equipments related to Computer Aided Learning Programme (CAL) in their school.

(D) **Regular Teaching Learning through CAL in schools –**

- Out of 120 students of 24 sample schools, 43 (35.8%) students indicated that there was regular teaching learning through CAL while 77 (64.2%) students responded that there was no regular teaching learning through CAL. Therefore, it is evident that majority of students of 24 sample schools of three districts of academic session 2010-11 indicated that there were inadequate regular teaching learning through CAL in their school.
Out of 120 students of 24 sample schools, 53 (44.2%) students indicated that there was regular teaching learning through CAL while 67 (55.8%) students responded that there was no regular teaching learning through CAL. Therefore, it is evident that majority of students of 24 sample schools of three districts of academic session 2011-12 indicated that there were inadequate regular teaching learning through CAL in their school.

Out of 120 students of 24 sample schools, 54 (45%) students indicated that there was regular teaching learning through CAL while 66 (55%) students responded that there was no regular teaching learning through CAL. Therefore, it is evident that majority of students of 24 sample schools of three districts of academic session 2012-13 indicated that there were inadequate regular teaching learning through CAL in their school.

Problems being faced by students due to non-functioning of Computers –

Out of 120 students of 24 sample schools, 75 (62.5%) students faced/ were facing problems regarding functioning of computers of CAL programme while 45 (37.5%) students indicated that they had not faced any problem regarding functioning of computers. Therefore, it is evident that majority of students of 24 sample schools of three districts of academic session 2010-11 indicated that they were faced/ were facing problems regarding functioning of computers of CAL programme in their school.

Out of 120 students of 24 sample schools, 84 (70%) students faced/ were facing problems regarding functioning of computers of CAL programme while 36 (30%) students indicated that they had not faced any problem regarding functioning of computers. Therefore, it is evident that majority of students of 24 sample schools of three districts of academic session 2011-12 indicated that they were faced/ were facing problems regarding functioning of computers of CAL programme in their school.

Out of 120 students of 24 sample schools, 78 (65%) students faced/ were facing problems regarding functioning of computers of CAL programme while 42 (35%) students indicated that they had not faced any problem regarding functioning of computers. Therefore, it is evident that majority of students of 24 sample schools of three districts of academic session 2012-13
indicated that they were faced/ were facing problems regarding functioning of computers of CAL programme in their school.

(F)  Problems of students solved/ not solved within 15 days regarding non-functioning of computer –

- Out of 75 students of 24 sample schools, 33 (44%) students had indicated that problems related to non-functioning of computer(s) were solved /being solved within 15 days while 42 (56%) students indicated that such problems had not been solved /being solved within 15 days and such problems were attended after more than one/two month(s). On the basis of majority of students’ responses the problem(s) regarding non-functioning of computers in schools were not solved/ being solved within 15 days during academic session 2010-11.

- Out of 84 students of 24 sample schools, 35 (41.7%) students had indicated that problems related to non-functioning of computer(s) were solved /being solved within 15 days while 49 (58.3%) students indicated that such problems had not been solved /being solved within 15 days and such problems were attended after more than one/two month(s). On the basis of majority of students’ responses the problem(s) regarding non-functioning of computers in schools were not solved/ being solved within 15 days during academic session 2011-12.

- Out of 84 students of 24 sample schools, 35 (41.7%) students had indicated that problems related to non-functioning of computer(s) were solved /being solved within 15 days while 49 (58.3%) students indicated that such problems had not been solved /being solved within 15 days and such problems were attended after more than one/two month(s). On the basis of majority of students’ responses the problem(s) regarding non-functioning of computers in schools were not solved/ being solved within 15 days during academic session 2012-13.

SECTION-IV

This section deals with the main findings related to the composite scenario based on the views of Head Teachers, Teachers and Students for the academic sessions 2010-11 (Bhiwani, Hisar, Ambala), 2011-12 (Kaithal, Sonipat, Jind) and 2012-13 (Rothak, Yamunanagar and Rewari) regarding different aspects of CAL
programme in the respective districts. The main findings of this section respondent wise are as follows:

(A) Composite scenario of different aspects/activities related to Computer Aided Learning (CAL) Programme –

a(i) (as viewed by Head Teachers)

- In districts Bhiwani and Hisar the overall scenario of implementation of CAL programme in government schools (under SSA) was almost of the same level whereas in case of district Ambala, it was quite satisfactory and going on very well during the academic session 2010-11.
- In districts Kaithal and Jind the overall scenario of implementation of CAL programme in government schools (under SSA) was almost of the same level whereas in case of district Sonipat, it was quite satisfactory and going on very well during the academic session 2011-12.
- In districts Yamunanagar and Rewari the overall implementation of CAL programme in government schools (under SSA) was almost of the same level whereas in case of district Rohtak, it was quite satisfactory and going on very well during the academic session 2012-13.

a(ii) (as viewed by Teachers)

- In districts Bhiwani and Hisar the overall scenario of implementation of CAL programme in government schools (under SSA) was almost of the same level whereas in case of district Ambala, it was quite satisfactory and going on very well during the academic session 2010-11.
- In districts Kaithal and Jind the overall scenario of implementation of CAL programme in government schools (under SSA) was almost of the same level whereas in case of district Sonipat, it was quite satisfactory and going on very well during the academic session 2011-12.
- In districts Yamunanagar and Rewari the overall implementation of CAL programme in government schools (under SSA) was almost of the same level whereas in case of district Rohtak, it was quite satisfactory and going on very well during the academic session 2012-13.

a(iii) (as viewed by Students)

- In districts Bhiwani and Hisar the overall scenario of implementation of CAL
programme in government schools (under SSA) was almost of the same level whereas in case of district Ambala, it was quite satisfactory and going on very well during the academic session 2010-11.

- In districts Kaithal and Jind the overall scenario of implementation of CAL programme in government schools (under SSA) was almost of the same level whereas in case of district Sonipat, it was quite satisfactory and going on very well during the academic session 2011-12.

- In districts Yamunanagar and Rewari the overall implementation of CAL programme in government schools (under SSA) was almost of the same level whereas in case of district Rohtak, it was quite satisfactory and going on very well during the academic session 2012-13.

(B) Composite scenario of problems being faced by the respondents- Head Teachers, Teachers and Students related to Computer Aided Learning (CAL) Programme –

b(i) (as viewed by Head Teachers)

- In districts Bhiwani and Ambala the overall scenario of Problems being faced by schools in implementation of CAL due to non-functioning of computers programme in government schools (under SSA) was equally un-satisfactory almost of the same level whereas in case of district Hisar, it was quite higher and not going on very well during the academic session 2010-11.

- In districts Kaithal and Jind the overall scenario of Problems being faced by schools in implementation of CAL due to non-functioning of computers programme in government schools (under SSA) was equally un-satisfactory almost of the same level whereas in case of district Sonipat, it was quite higher and not going on very well during the academic session 2011-12.

- In districts Yamunanagar and Rewari the overall scenario of Problems being faced by schools in implementation of CAL due to non-functioning of computers programme in government schools (under SSA) was equally un-satisfactory almost of the same level whereas in case of district Rohtak, it was quite higher and not going on very well during the academic session 2012-13.
b(ii) (as viewed by Teachers)

- In districts Bhiwani and Ambala the overall scenario of Problems being faced by schools in implementation of CAL due to non-functioning of computers programme in government schools (under SSA) was equally un-satisfactory almost of the same level whereas in case of district Hisar, it was quite higher and not going on very well during the academic session 2010-11.

- In districts Kaithal and Jind the overall scenario of Problems being faced by schools in implementation of CAL due to non-functioning of computers programme in government schools (under SSA) was equally un-satisfactory almost of the same level whereas in case of district Sonipat, it was quite higher and not going on very well during the academic session 2011-12.

- In districts Rohtak and Rewari the overall scenario of Problems being faced by schools in implementation of CAL due to non-functioning of computers programme in government schools (under SSA) was equally un-satisfactory almost of the same level whereas in case of district Yamunanagar, it was quite higher and not going on very well during the academic session 2012-13.

b(iii) (as viewed by Students)

- In all the three districts, Bhiwani, Hisar and Ambala the overall scenario of problems being faced by students due to non-functioning of computers in government schools (under SSA) was equally un-satisfactory almost of the same level and not going on well during the academic session 2010-11.

- In districts Kaithal and Sonipat the overall scenario of problems being faced by students due to non-functioning of computers programme in government schools (under SSA) was equally un-satisfactory almost of the same level whereas in case of district Jind, it was quite higher and not going on very well during the academic session 2011-12.

- In all three districts Rohtak, Yamunanagar and Rewari the overall scenario of problems being faced by students due to non-functioning of computers in government schools (under SSA) was equally un-satisfactory almost of the same level whereas in case of district Yamunanagar, it was quite higher and not going on very well during the academic session 2012-13.
SECTION-V

This section deals with the main findings related to the Composite scenario (irrespective of academic sessions i.e., 2010-11, 2011-12 and 2012-13) based on the views of Head Teachers and Teachers regarding different aspects of CAL programme (under SSA, at elementary school level). The main findings of this section are as follows:

- Sonipat district was found to be the 1st best performing district with the total positive responses (in Yes) of respondents, including both Head teachers as well as Teachers, i.e. 57 (89.1%) in the implementation of Computer Aided Learning (CAL) Programme (irrespective of academic sessions-2010-11, 2011-12 and 2012-13) at Elementary school Level. Whereas Rohtak district was found to be the 2nd best performing district with the total positive responses (in Yes) of respondents, including both Head teachers as well as Teachers, i.e. 50 (78.1%) in the implementation of Computer Aided Learning (CAL) Programme (irrespective of academic sessions-2010-11, 2011-12 and 2012-13) at Elementary school level and Ambala district was found to be the 3rd best performing district with the total positive responses (in Yes) of respondents, including both Head teachers as well as Teachers, i.e. 47 (73.4%) in the implementation of Computer Aided Learning (CAL) (irrespective of academic sessions-2010-11, 2011-12 and 2012-13) Programme at Elementary school Level.

EDUCATIONAL IMPLICATIONS

The present research study was an attempt to evaluate Computer Aided Learning (CAL) programme in govt. schools of Haryana under Sarva Shiksha Abhiyan which is the national flagship programme of the country, having a clear time frame for Universal Elementary Education and a response to the demand for quality basic education all over the country. Sarva Shiksha Abhiyan (SSA) also provides an opportunity for promoting social justice through basic education and is also an effort for effectively involving the Panchayat Raj Institutions, School Management Committees, Parent-Teacher Associations, Mother Teacher Associations and other grass root level structures in the management of elementary schools.
Furthermore, this Computer Aided Learning (CAL) programme (of Sarva Shiksha Abhiyan) is an expression of political will for universal elementary education across the country with a partnership of Central, State and Local Governments. Sarva Shiksha Abhiyan also aimed at providing opportunity to the states to develop their own vision of Elementary Education and to implement the same.

Therefore, the present study has its implications for Educational Planners, Policy Makers, Educational Administrators, Principals/Heads of Schools, Teachers, Members of School Management Committees, Community Leaders, Voluntary Organizations, Central and State Governments, State Project Directorates, Project Approval Board (PAB) of Ministry of Human Resource Development (MHRD), Government of India, Educationists, Researchers and different Academic Bodies associated with School Education and other bodies related to Elementary Education directly or indirectly in order to review their contribution, role and responsibilities in the organization, implementation and time to time assessment of outcomes of school education under Sarva Shiksha Abhiyan (SSA).

Beside this, the present study has its implications for the organizers and implementation officials/authorities of Computer Aided Learning (CAL) programme under Sarva Shiksha Abhiyan to see whether the main strategies of Sarva Shiksha Abhiyan have been effectively operationalized viz. institutional reforms, sustainable financing, community ownership, institutional capacity building, improvement in quality of education, community based monitoring with full transparency, accountability towards community, priority to education of girls, district elementary education plans.

Keeping in view the findings of the present study, the initiatives supposed to be taken by the Sarva Shiksha Abhiyan functionaries and authorities for the successful re-continuation of Computer Aided Learning (CAL) programme at Elementary School Level under SSA as this scheme has been discontinued w.e.f. academic session 2014-15 because no fundamental assist once/grant has been released /provided to State community, in under Haryana, for Computer Aided Learning (CAL) programme which was one of the components of Sarva Shiksha Abhiyan (SSA) in order to achieve the goal of Universalisation of Elementary Education (UEE) in the

SUGGESTIONS FOR THE FURTHER RESEARCH

Generally, one of the outcomes of conducting any research study is to generate avenues for further researches with focused priority areas. The present study is entitled, “Evaluation of Computer Aided Learning (CAL) programme in Government Schools of Haryana”. Similar studies can be conducted in the State of Haryana and on other States of the country as well and also in different socio-cultural contexts.

The present study was based on a sample particularly drawn from limited geographical areas of nine districts of Haryana- Bhiwani, Hisar, Kaithal, Sonipat, Ambala, Jind, Rohtak, Yamunanagar and Rewari and was confined to 72 Government Upper Primary Schools only. A similar study can be carried out with larger sample and can also be carried out in the regions dominated by Socio-culturally disadvantaged sections of the society/educationally backward districts/blocks of different states.

The present study was delimited to the Upper Primary Education (class 1st to 8th) only. A similar study can be also be conducted at the secondary school stage.

The present Study covers provisions of implementation of computer aided learning programme in government schools of Haryana under Sarva Shiksha Abhiyan (SSA). Similar studies can be also conducted in the context of component, Children with Special Needs (CWSN), Teaching Learning, Maintenance and Repair Grants also.