Chapter-V
Findings, Recommendations and Conclusion

5.1. Introduction

The major findings of the study and the recommendations are given in this chapter. The recommendations are given in this chapter will be more helpful to the government and school authorities to bridge the digital divide in the use of ICT.

5.2. Findings of the study

1. The study found out that 94.96% of urban students used computer while, only 12.48% of rural students used computer for various purposes.

2. On the whole, the majority of rural students used computer in their school library (Mean=2.00) followed by Cybercafé (Mean=1.98), computer coaching centres (Mean=1.94), Neighbor/Friends’ home (Mean=1.92) and Home (Mean=1.64).

3. It is observed from the study that the rural students used computer once in a week (34.61%) while 25% of students used 2-3 days in a week. Only 19.23% of students used computer once in a month.
4. Both rural and urban students expressed that they learnt computer with the help of school teachers which receives the highest mean score (Rural=3.33, Urban=3.66).

5. The study has found that the majority of rural students used computer for project work (Mean=3.79) which has received the highest mean score followed by to play computer games (Mean=3.63) and class assignments (Mean=3.47).

6. The majority of the rural and urban students used “Paint” application which has received the highest mean score (Mean=3.52) followed by MS-Word (Mean=3.11), WordPad (Mean=2.66), Notepad (Mean=2.60), MS-Excel (Mean=2.48) and MS-PowerPoint (Mean=2.40) respectively.

7. The majority (96.79%) of rural students and urban students (96.82%) opined that they faced problems while using computer.

8. The study observed that the majority of rural students faced frequent power supply (Mean=3.75) followed by lack of computer skills (Mean=3.10), lack of knowledge about computer applications (Mean=2.88), lack of support from parents (Mean=2.66) and inadequate computer at schools (Mean=2.63).

9. The urban students opined that the inadequate computers at school (Mean=4.18), lack of knowledge about various computer applications (Mean=3.14), lack of computer skills (Mean=3.13)
and electric power failure (Mean=2.71) are the major problems faced by the urban students.

10. The majority of rural school students opined that have not used computer mainly because of the inconvenience to use computer at school (Mean=4.18) and they do not know how to use computer (Mean=3.67).

11. The gender-wise reasons for not using computer shows that the majority of male (Mean=3.96) and female (Mean=4.07) students have not used computer because of the inconvenience to use computer at school.

12. It is observed from the study that the majority (97.69%) of urban students used Internet while only 20.23% of rural students used Internet. The Gender-wise use of Internet shows that, 63.25% of male and 58.91% of female students used Internet.

13. The result of the study has also found that the majority of rural students used Internet in their parents’ mobile (63.77%) followed by Cybercafé (27.55%). Similarly, 96.02% of urban students used Internet using their parents’ mobile followed by school (87.93%), cybercafé (72.25%) and Home (54.37%).

14. The study has found that the majority of male (92.97%) and female (88.74%) used Internet in their parents’ mobile followed by School (Male-74.76%, Female-77.49%), Cybercafé (Male-65.11%, Female-65.32%) and Home (Male-50.59%, Female-49.15%).
15. The study has identified that the rural students used the Internet occasionally (38.58%) while 33.07% of students used the Internet 2-3 days a week. Surprisingly, 39.36% of the urban students used the Internet every day followed by once in a week (27.22%) and 2-3 days in a week (26.04%).

16. The study has found that most of the male students used the Internet every day (33.09%) followed by 2-3 days in a week (30.47%), and once in a week (24.76%). 36.22% of female students used every day followed by once in a week (26.39%) and 2-3 days in a week (24.76%).

17. The study also reveals that majority of rural students used the Internet for searching information (Mean=3.66) followed by for project work (Mean=3.52), for playing games/entertainment/fun (Mean=3.08), Listening/downloading music (Mean=2.83) and for checking news/weather/sports (Mean=2.81).

18. The most of the urban students used the Internet for searching information (Mean=4.38) followed by to play games/entertainment/fun (Mean=4.01), for project work (Mean=3.76), General browsing/searching (Mean=3.28) and also to prepare notes (Mean=3.06).

19. It is also observed from the study that the majority of the male and female students used the Internet for searching the information (Male =4.20, Female=4.34) followed by play
games/entertainment/fun (Male = 3.92, Female = 3.79) and project information (Male = 3.66, Female = 3.79).

20. The study has identified that the female students also used the Internet to play games/entertainment/fun and for project work (Mean = 3.79) followed by general browsing/searching (Mean = 3.20).

21. The result of the study reveals that rural students faced the various problems viz., lack of Internet speed (Mean = 3.24) followed by lack of knowledge about search engines (Mean = 2.93), lack of knowledge about searching skills (Mean = 2.77), lack of knowledge about the available information on the Internet (Mean = 2.76) and electric power failure (Mean = 2.67).

22. The urban students also faced various problems viz., inadequate computers at school (Mean = 4.61) and low Internet speed (Mean = 4.6). The lack of knowledge about the available information on the Internet was also another problem faced by the students (Mean = 3.97).

23. The majority of male students have faced inadequate computers at school and low Internet speed (Mean = 4.17) and (Mean = 4.15) respectively. Similarly, female students faced the problem of inadequate computers at school (Mean = 4.41) followed by low Internet speed (Mean = 4.22), lack of knowledge on the available
information on the Internet (Mean=3.84) and lack of knowledge about search engines (Mean=3.81).

24. The rural students have not used the Internet mainly because of lack of Internet facility at school (Mean=4.48) followed by lack of Internet connectivity at home (Mean=4.39), lack of Internet skills (Mean=3.85) and due to the high cost of Internet (Mean=3.81).

25. The main reasons for not using Internet by urban students is because of lack of Internet facility at school and lack of Internet skills (Mean score is 5.00 each). Other reasons are lack of Internet connectivity at home and Internet cost is high (Mean=4.54 each).

26. It is observed from the study that the majority of male students have not used the Internet mainly because of the lack of Internet facility at school (Mean=4.40) followed by lack of Internet skills (Mean=3.75) and Internet cost is very high (Mean=3.73). Similarly, female students have also mentioned that they do not used the Internet because of lack of Internet facility at school (Mean=4.61), do not have Internet connectivity at home (Mean=4.43), lack of Internet skills (Mean=4.08) and the Internet cost is high (Mean=3.98).

27. The study found that only 14.65% of rural students used school library while 94.17% of urban students used it. More than half of the male (58.58%) and female (54.49%) students used school
library. The study also reveals that 41.42% of male and 45.51% female students have not used school library.

28. The rural students used school library once in a week (67.21%) and 2-3 days in a week (22.40%). 51.22% of urban students used school library 2-3 days in a week and 48.77% of urban students used it once in a week.

29. The study reveals 52.44% of the male students used school library once in a week while 46.27% of students used it 2-3 days in a week. 49.51% of female students used school library once in a week while 49.23% of used it 2-3 days in a week.

30. The study found that majority of rural students visited school library to read story books (Mean=4.01) and to read subject books (Mean=4.00). The urban students visited school library to borrow library materials (Mean=4.40) followed by to read subject books (Mean=4.42), to read story books (Mean=4.01).

31. The study reveals that the majority of male students visited school library to read subject books (Mean=4.36) and also to borrow library materials (Mean=4.35). Likewise, female students visited school library to borrow library materials where the mean value (4.45) is greater than the rest of the variables viz., to read subject books (Mean=4.39) and to read story books (Mean=4.04).

32. The majority of students opined that use of school library has made an impact on their academic performance (99.46%).
33. The majority of the rural students opined that the use of school library helped to increase the reading habits (Mean=4.52) and helped in proper study habit (Mean=4.50).

34. The urban students have opined that use of school library helped them to increase memory power (Mean=4.57), followed by increased reading habits and helped in proper study habit (Mean=4.56 each) and helped them to know more about general knowledge (Mean=4.48).

35. Considerable number of male students have opined that the use of school library helped to enhance their memory power (Mean=4.56) and helped in proper study habit (Mean=4.53) and increased reading habits (Mean=4.45).

36. The most of the female students opined that use of school library has helped in proper study habit (4.59), followed by increased reading habits (Mean=4.56), increased memory power (Mean=4.51) and also increased self-confidence (Mean=4.49).

37. The rural students have opined that the presence of a library in school will help to enhance the reading habits (Mean=4.60) followed by increase the use of various information resources (Mean=4.49), helps to increase memory power (Mean=4.47) and helps to improve proper study habit (Mean=4.44).

38. The urban students also mentioned that the presence of a library in school will help to enhance memory power and helps to learn
about various components of a computer (Mean=5.00 each) and also helps to increase reading habits (Mean=4.74).

39. The result of the study has found out that majority of male students opined that having a library in school will help to increase the reading habits (Mean=4.58) followed by helps to use of various information resources (Mean=4.55), increase memory power (Mean=4.53) and to improve proper study habit (Mean=4.45).

40. The female students have mentioned that having a library in school will help to increase the reading habits (Mean=4.66), helps to increase memory power (Mean=4.54) and to improve proper study habit and to use of various information resources (Mean=4.48 each).

41. The majority of students have opined that they need a school librarian (99.15%) while only very few of them have mentioned that they do not need librarian (0.84%).

42. The rural students opined that the librarian helps to use library resources/Materials (Mean=4.54), the librarian helps to improve the reading skills (Mean=4.52), guide to improve the knowledge (Mean=4.49) and helps to use information resources (Mean=4.34).

43. The majority of urban students opined that the librarian can teach about various components of computers, Internet sources and services and help to make use of various educational databases
(4.53 each). The students also opined that the librarian also helps to improve reading skills (Mean=4.47) and teach about search strategies of search engines (Mean=4.14).

44. It is observed from the study that the majority of male students have opined that the librarian helps to improve reading skills (Mean=4.50) followed by librarian helps to use library resources/Materials (Mean=4.47), guide to improve the knowledge (Mean=4.42) and can teach about Internet sources and services (Mean=4.30).

45. The female students have opined that the librarian can teach about various components of computers, he can teach about Internet sources and services and helps to make use of various educational databases (4.53 each). They also have opined that librarian helps to use library resources/Materials (Mean=4.55), helps to improve reading skills and guide to improve the knowledge (4.51each).

46. It is observed that rural students (Mean=2.00) used audio/video materials in school library, followed by Computers, Internet, e-mail, Chatting, Social Networks and Playing games. The urban students also mentioned that they used audio/video materials (Mean=3.59) followed by playing games (Mean=2.72), computers (Mean=2.49) and Internet in their school library (2.40).

47. The majority of students (97.45%) opined that the use of ICT in school library will bridge the digital divide.
48. The study reveals that the majority of rural students opined that the use of ICT in school library helps to learn about various components of computer, it also helps to learn various computer applications and helps to learn about Internet sources and services (4.00 each).

49. The use of ICT in school library helps to learn various computer applications (Mean=4.28) followed by to learn about Internet sources and services (Mean=4.27), to know the various web browsers (Mean=4.13) and helps to learn about various components of computer (Mean=4.12).

5.3. Recommendations of the study

Based on the findings of the study, the following recommendations are made:

1. Most of the rural students have not used computer compared to urban students. The reasons for not using computer are due to a lack of skills and knowledge, non-availability of computers, poor maintenance of computer laboratories, and lack of support from the teachers as well as parents. Thus, the school authority should provide computer facilities to the rural students.

2. It is also observed from the findings of the study that both the rural and urban school students faced frequent power failure while using computer at schools. During the personal visit to various schools, the researcher has also noticed that, there were no Uninterrupted Power
Supply (UPS) facilities in the computer laboratories of both rural and urban schools.

In this context, the state government and school authorities should provide the UPS facility to both rural and urban schools. A few rural schools have UPS facility but not properly maintained.

3. Most of the rural and urban students opined that the inadequate computer, lack of computer skills and lack of knowledge about computer applications are the major problems to use computers. This clearly shows that the majority of rural schools have no computer teacher to teach computer applications to the rural students. Therefore, the state government should appoint a permanent computer teacher to these schools.

However, few private schools have appointed computer teachers on a part-time basis. In few schools, the students stated that they learnt computers with the help of school teacher. This clearly indicates that the students are mainly dependent on the teachers to learn computer and its applications. Therefore, the teacher should be trained frequently and the school management should send their teachers to attend ICT oriented workshop and seminars to acquire new ICT skills and competencies.

6. The majority of rural school students have not used the Internet because of lack of Internet facility at school as well as at home. Lack of support from teachers and parents is also one of the reasons for
not using Internet. But, today the Internet is playing a vital role in teaching and learning process. In fact, the use of Internet is very essential to the students for their academic work. A plethora of information is available on the web which can be utilized in teaching and learning process. Therefore, the parents should encourage the children to make use of Internet sources and services for their academic work.

7. It is also noticed that in few rural and urban schools, the computers sit idle because of hardware/software malfunctions. Therefore, the teachers should be trained to do some simple equipment troubleshooting and minor repairs of the hardware themselves. They should not have to wait for overburdened technology coordinators to get around to them. One solution is to train a few classroom teachers to perform mid-level repairs, software installations, and other operations that require only moderate amounts of technical knowledge.

8. Computer literacy plays an important role in enhancing a children’s ability to succeed in school and in the later life. Many children in low-income families are not able to access and use computers. This means that they have fewer opportunities to learn, explore, and communicate digitally, and fewer chances to develop the workforce skills.
Early childhood education can play a valuable role in ensuring that low-income children can access technology and learn how to use it. Thus the government and school authorities should provide minimum ICT infrastructure to rural schools.

9. Very less percent of rural students used MS-Office applications that i.e., MS-Word, MS-Excel, MS-PowerPoint etc., as compared to the urban students. So these applications should be taught in rural schools.

10. Computer literate students may enjoy improved job opportunities later in life, or maybe poised to take better advantage of online resources. Thus, it is suggested that school administrators should provide computer facility at school to maximize the students’ achievements in the use computer and Internet and reducing racial and socioeconomic disparities.

11. Because of lack of library facility, majority of rural students have not used school library. The students who use the school library also tend to hold more positive attitudes towards reading than the students who do not use it. Therefore, there is a need to provide library facility in rural schools.

12. The study found that the use of school library has made an impact on their academic performance of the students. A new way of learning is needed to the students which prepares them to work in a complex information environment. Thus the government and school authority
should provide library facility in schools. It is observed from the study that very less percentage of students used school library every day. In this context, the school authority should spare one hour per a day in their time-table completely for library use.

13. Very less percentage of rural students used school library only to borrow library books as compared to urban students. Whereas, the most of the urban students used school library for various purpose viz., easy access to books; friendly environment etc. In this context, the Government and school authorities should provide more number of books in rural school libraries.

14. On the whole, majority of students opined that a library in school very much needed in the school. The presence of library will help them to increase reading habits, memory power and, improve proper study habit. They also opined that it will help to use various information resources. To address this, school management should develop a comprehensive school library programme, ensuring that the school library is well-stocked with materials and resources and well-integrated into the school curriculum.

15. On the other hand, majority of students opined that the use of ICT in school library helps them to learn about various components of the computer, computer applications and Internet sources and services.

Further, it is observed from the study that the use of ICT in school library helps to use of various search engines, search
strategies of search engines and also about various web browsers. Thus the libraries should be equipped with computer and ICT for the users so that they can easily obtain the need-based information.

16. An increased number of users, a greater demand for library materials, and an increase in the amount of material being published, new electronic formats and sources are the growing needs for ICT in school. The school libraries have not made equal progress in rural and urban areas. Therefore, the school authority, the government and the Librarian must help to develop ICT-based libraries to meet the changing demands of the rural and urban school students.

17. The study has identified that the students demand for a school librarian. Therefore, the Government and school authority should appoint a qualified librarian because school librarian plays a vital part in creating awareness among students to learn through vast resources and multiple communication channels. Teachers cannot do this alone. School librarians are primary agents in schools for 21st-century learners.

18. The study found that the majority of rural students have not used computer and Internet in school library. Most of the students indicated that they are unable to use ICT due to the lack of computer and Internet facility in school library. Therefore, it is essential to have computer and Internet facility in school library.
19. It is observed from the study that the majority of rural students have not used audio/video materials in their school library because of the lack of such materials. So it is necessary to have audio/video materials in the rural school library.

20. The study strongly recommends that all the rural and urban school libraries should have well-equipped furniture, sufficient space and other basic infrastructure such as drinking water facility, seating arrangements and so on. The Government and school authority should provide these facilities to both rural and urban school libraries.
5.4. Conclusion

The findings of the study have enlightened the ICT literacy competencies among the rural and urban students. The result of the study shows the various interesting results with respect to the expectations of rural students in the use of school library and use of ICT in school library. First, it is found that only a few rural students have access to the computer compared to urban students. This clearly indicates that the percentage of students who have no access to computer in rural high schools is comparatively high. Secondly, when the rural students were asked to indicate the reasons for not using computer, the most of students opined that they have not used computer because of inconveniences to use in the school, the skill-gap and the lack of support from teachers and parents, and non-availability of computers at home and schools are the main reasons for not using computer. The access to computer in urban schools is comparably better and predominantly available at home which implies a better socioeconomic condition. This clearly indicates that the high positive attitude of the urban students towards the use of computer.

This clearly indicates that the computer is very much needed by the rural students not only for their study but also to get information on various topics. Therefore, the local government and school authorities should understand the expectations, demands of the student and try their level best to provide a basic ICT infrastructure in the rural
schools. This will not only help the students to learn computer but also helps to cope up with the advancement in the field of ICT.

The study has also found that the majority of students in a rural school have not used the library in the school. The students who use the library also tend to have more positive attitude towards the reading than the students who do not use it. It is evident from the study that the majority of rural students have not used computer and Internet in school library due to the lack of computer and Internet facility. ICT has changed the library activities and moreover, it plays a vital role in the field of school education. Therefore, it is essential to provide computer and Internet facility in school libraries. Thus the government and school authorities should provide the library facility along with ICT infrastructure in libraries.