CHAPTER VI
FINDINGS, SUGGESTIONS AND CONCLUSION

6.0 Introduction

This final chapter outlines the methodology, tools and summary of findings observed during the study. It further provides suggestions for future research to apply Information Technology for academic development. The chapter culminates with the conclusions.

Information Technology (IT) has attracted educators and policy makers about the need of modifying the education system to fulfill learning requirements of Net-generation students. Dubbed as ‘digital natives’, these pupils are engrossed in technology in all their activities, such that they are more interested to imbibe the complex technical skills and knowledge preferences, for which pre-digital education system seems to be unprepared. Digital natives require a technology rich environment for learning, since the advent and rapid diffusion of digital technology in the end of the 20th century has reformed the way students acquire, envision and process information. Morgan (2014) propose that in order to meet the distinctive learning needs of digital natives, teachers are required to come out of traditional instruction methods that are incoherent with the way students learn today. Understanding the usage of technology tools not only offers unique learning opportunities to students in the digital age, but they also provide them essential skills that will delineate their success in the future.

Technology integration in education has opened both optimistic and pessimistic views in the society. Bass and Rosenzweig (2001) compare technology to the example of what people felt about telephone when it was invented. Some people thought it as "network of humankind" whereas others felt it would do away with social relations and weaken the society. Similarly, Wang, Chen, and Liang (2011) opined that at first impression, technology usage among students may seem to be a waste of time; yet it is an established fact that if used constructively, it assures them with significant knowledge and social opportunities, and remain active Netizens who create and share content. Currently, whether social media is useful or disadvantageous, several students use these sites daily. With the growing popularity of social media, technology is a vital factor of success to modern students. But,
many parents are anxious about their children for spending lot of time on Facebook and other social media websites and less time in studies.

As Jhurree (2005) referred to the fact that much research in the field of technology integration in education has been conducted in technologically advanced nations, but little in the developing countries, few statistics are available from developing countries. Thus, understanding the relationship between the Information Technology (IT) and students’ academic achievement has paved way to this research.

6.1 Research Concerns Studied and Evaluated

An extensive research was carried out on awareness and use of IT for academic information among the CBSE school students in Mysore. The most significant research concerns analyzed by the researcher can be categorized into three contexts, such as:

(a) **CBSE Students:** Demographics, Computers usage (experience, access place, learning origin), Computer/IT in the Syllabus, computer access at school (also its frequency), class period exclusively for use of Library, purpose of Library visit, use of IT/Computer for different subjects, expertise in computer usage, Level of IT skills, frequency of use of technology tools, Computer usage frequency, usefulness of computer applications and information resources in academics, frequency of use of e-resources and software in academics, extent of activities that improve academic work, opinion about technology usage in academic learning, views about technology integration at school, awareness about various dangers caused in connection with computer/Internet usage, use of Social Networks.

(b) **School Library:** Library staff, IT infrastructure, Internet facilities, types of information resources provided, Software and Hardware Infrastructure, IT based applications used by the Library staff and their skill level in using these applications, various IT based tasks carried out in the Library, frequency of use of online resources by Library staff, library staff opinion on the availability of online resources for helping users to improve academically, barriers in the collection development of electronic information resources and services, frequency of electronic resources and services provided by the library, Library staff opinion on the importance of having technology for accessing information by users, important issues involved in development of school libraries in future,
Library staff opinion regarding social networks when it comes to student academics, Librarians opinion towards technology support through their Library services.

(c) Teachers: Owning computers, opinion about availability and access to Internet in Schools, place of access to Internet, availability and extent of usage of technology based tools by the Computer teachers, level of proficiency and importance about use of technology, types and frequency of technology used in classroom, number of IT devices available in schools, its frequency of use, extent of assigning the computer related work to the students (for academic purposes), opinion about importance of technology integration at school, level for knowing/accepting the technology for both self-learning and teaching, views on various issues related to Social Networking.

6.2 Methodology

Well thought out questionnaires were designed separately for the students, Library staff and Computer teachers, with the objective to collect data. The study was conducted on 29 Schools that are affiliated to Central Board of Secondary Education (CBSE) in Mysore District. The sample for the study consisted of, Students, Librarian and Computer faculty. There were 2835 respondents from CBSE Schools, out of which 29 were the computer faculties and 29 were Librarians and remaining 2777 were students from 8th to 12th standards. The collected data were analyzed and tabulated using the Statistical Package for the Social Sciences (SPSS). After receiving the questionnaires from respondents, the hypotheses was tested with the data obtained from the analysis. Necessary statistical techniques and methods were used to analyze the research data. The data was analyzed by computing percentages and by applying appropriate Statistical techniques. The content analysis technique was also used for analyzing the responses to the open ended questions. Mainly Chi-Square test and ANOVA was used for comparing the perception towards the IT used by school students for their academic achievement. After completion of the analysis, the findings were drawn and presented in the form of a report. In doing so, many graphs, charts and figures were used for clarity and visualization.
6.3 Summary of Findings

Many interesting findings were derived from this study that has been enumerated below:

6.3.1 Students: Part-A

Distribution of the Questionnaires

A total of 3219 questionnaires were distributed among the students of CBSE affiliated Schools in Mysore district, of which 2777 filled-up questionnaires were received back consisting of 86.27% responses.

Gender Wise Distribute

Table-2 shows that of the 2777 total students, 1434 (51.64%) are ‘Male’ and the remaining 1343 (48.36%) are ‘Female’.

Age Wise Distribution

Table-3 depicts that 38 (01.37%) of students are of ‘12 Years’ of age, followed by 716 (25.78%) students are of ‘13 Years’ of age, 954 (34.35%) belongs to ‘14 Years’ of age, 586 (21.10%) belongs to ‘15 Years’ of age, 293 (10.55%) belongs to ‘16 Years’ of age, 180 (06.48%) belongs to ‘17 Years’ of age, 08 (00.29%) belongs to ‘18 Years’ of age and 02 (00.07%) of students belongs to ‘19 Years’ of age.

Class Wise Distribution

Table-4 depicts that 831 (29.92%) of students are from ‘Eighth Standard’, followed by 825 (29.71%) are from ‘Ninth Standard’, 780 (28.09%) are from ‘Tenth Standard’, 166 (05.98%) are from ‘Eleventh Standard’ and 175 (06.30%) of students are from ‘Twelfth Standard’.

Table-5 depicts that all the students amounting to 2777 (100.00%) use the computers. i.e. 577 (100.00%) of Public School students and 2200 (100.00%) of Private school students use the computers.

Years of Experience in Using Computer

Table-6 depicts that 995 (35.83%) of students have ‘More than 5 years’ of experience of use of computers with mean value of 1.7859 and SD 0.41038, followed by 841 (30.28%) of students have ‘3-5 years’ of experience of use of computers with mean value of 1.8323 and SD 0.37378, about 543 (19.55%) of students have ‘1 to 3 year’
of experience of use of computers with mean value of 1.7293 and SD 0.44474 and 398 (14.33%) of students have ‘Less the 1 year’ of experience of use of computers with mean value of 1.8090 and SD 0.39355.

**Place of Access to Computer and Internet**

Table-7 depicts that 2691 (96.90%) of students access computers from ‘School’, followed by 1490 (53.66%) of students access computer from ‘Home’, 792 (27.08%) of students access to computer from all the options like ‘Home, School, Cyber Café And Friends Home’, 486 (17.50%) of students access computer from ‘Cyber Café’ and 192 (69.11%) of students access computer from ‘Friends Home’.

Table-9 depicts that 1767 (63.63%) of students access to Internet from ‘Home’ and 1861 (67.01%) of students access to Internet from ‘School’.

Table-11 depicts that 1196 (43.07%) of students access to computer at school individually with mean 1.8445 and SD 0.36255, followed by 1101 (39.65%) of students access to computer at school in pairs with mean 1.7675 and SD 0.42263, 274 (9.87%) of students access to computer at school in small groups with mean 1.7153 and SD 0.45208 and 206 (07.42%) of students access to computer at school as a whole class with mean 1.7233 and SD 0.44846.

Table-12 depicts that 1896 (68.28%) of students use the computers ‘Weekly’ with mean 1.8244 and SD 0.38061, followed by 422 (15.20%) of students use the computers ‘Daily’ with mean 1.8389 and SD 0.36809, 252 (09.07%) of students use the computers ‘Monthly’ with mean 1.5238 and SD 0.50043 and 207 (07.45%) of students use the computers ‘Once or twice a year’ with mean 1.7295 and SD 0.44531.

**Taught to Use Computer**

Table-8 depicts that 1305 (46.99%) of students ‘Learn by self’ to use computer, followed by 976 (35.15%) of students are taught to use computer by ‘School teacher’, 429 (15.45%) of students are taught to use computer by their ‘Father’, 373 (13.43%) of students are taught to use computer by ‘Brother’, 347 (12.50%) of students are taught to use computer by their ‘Friends’, 199 (07.17%) of students are taught to use computer by their ‘Sister’, 185 (06.66%) of students are taught to use computer by their ‘Mother’ and 129 (04.65%) of students are taught to use computer by their ‘Computer courses’.
Exclusive library period

Table-13 depicts that 2158 (77.71%) of students opine as ‘Yes’ that they have class period exclusively for use of library and 619 (22.29%) of students opine as ‘No’ that they do not have class period exclusively for use of library.

Table-13 also depicts that 419 (85.10%) of students of Public schools and 1667 (75.77%) of students of Private schools opine as ‘Yes’ that they have class period exclusively for use of library and 86 (14.90%) of students of Public Schools and 533 (24.23%) of students of Private schools opine as ‘No’ that they do not have class period exclusively for use of library.

Table-13 depicts that 2777(100.00%) of students visit the library for reading ‘Newspapers’, followed by 2775 (99.93%) of students visit the library for reading ‘Textbooks’, 1825 (65.72%) for reading ‘Magazines’,1084 (39.03%) for reading ‘Novel-Fiction’, 1117 (40.22%) for reading ‘Comics / Graphic Novels’, 971 (34.97%) for reading ‘Science Fiction’, 848 (30.54%) for reading ‘Sports related books’, 601 (21.64%) for using computer, 522(18.80%) for reading ‘Biographies’, 514 (18.51%) for reading ‘Poetry’,462 (16.64%) for reading ‘Humor’ and 384 (13.83%) of students visit the library for reading ‘Non-Fiction’ books.

Table-13 also depicts that 577 (100.00%) of Public school students visit the library for reading ‘Newspapers’, followed by 575 (99.65%) of Public school students visit the library for reading ‘Textbooks’, 403 (69.84%) for reading ‘Magazines’, 273 (47.31%) for reading ‘Comics / Graphic Novels’, 268 (46.45%) for reading ‘Novel-Fiction’, 212(36.74%) for reading ‘Science Fiction’, 169 (29.29%) for reading ‘Sports related books’, 121 (20.97%) for using computer, 112 (19.41%) for reading ‘Biographies’, 98 (16.98%) for reading ‘Poetry’, 97 (16.81%) for reading ‘Humor’ and 90 (15.60%) of Public school students visit the library for reading ‘Non-Fiction’ books.

Use of Computer for Learning Subjects

Table-14 depict that 2777 (100.00%) of students use computers for ‘Information Technology’ related subject, followed by 1652 (59.49%) of students use to access ‘Biology’ related subject, 1610 (57.98%) of students use to access ‘Social Science’, 1537 (55.35%) for ‘Physics’, 1532 (55.17%) for ‘Chemistry’, 1456 (52.43%) for ‘Geography’, 1270 (45.73%) for ‘Mathematics’, 1218 (43.86%) for ‘Music’, 1023
(36.84%) for ‘Language’ and 973 (35.04%) of students use computers to access ‘Sports’ related subject.

**Basic Computer Knowledge**

Table-15 also depicts that among Public School students 213 (36.92%) are good in using word processing, followed by 196 (33.97%) of Public school students are very good in Power Point Presentation, 186 (32.24%) are good in installing programmes, 283 (49.05%) of are expert in downloading pictures/files/music from a digital camera/mobile phone, 172 (29.81%) are good in printing, 160 (27.73%) are good in scanning, 197 (34.14%) are expert in burning CD/DVD, 146 (25.30%) are good in arranging videos/films, 172 (33.62%) are good in using graphic arts and 251 (43.50%) of Public School students are expert in using storage devices.

Table-15 also depicts that among Private School students 903 (41.05%) are good in using word processing, followed by 689 (31.342%) each of Private school students are expert and very good in Power Point Presentation, 809 (36.77%) are good in installing programmes, 1006 (45.73%) of are expert in downloading pictures/files/music from a digital camera/mobile phone, 764 (34.73%) are expert in printing, 638 (29.00%) are good in scanning, 662 (30.09%) are good in burning CD/DVD, 659 (29.95%) are good in arranging videos/films, 753 (34.23%) are good in using graphic arts and 990 (45.00%) of Private School students are expert in using storage devices.

Table-16 also depicts that among Public School students 244 (42.29%) are having expert skill in using search engines, followed by 225 (38.99%) of Public school students are expert skilled in Chatting, 177 (30.68%) are expert skilled in Internet phone, 157 (27.21%) are fairly skilled on online image editor, 156 (27.04%) are fairly skilled on online shopping, 233 (40.38%) are expert skilled on Social Networks, 191 (33.10%) are fairly skilled on educational Blogs/Forum, 224 (38.82%) are expert skilled with sending e-mails, 296 (51.30%) are expert skilled in downloading music/movies and 307 (53.21%) of Public school students are expert skilled towards listening music on the Internet.

Table-16 also depicts that among Private School students 940 (42.73%) are having expert skill in using search engines, followed by 792 (36.00%) of Private school students are expert skilled in Chatting, 630 (28.64%) are fair skilled in Internet
phone, 671 (30.50%) are fairly skilled on online image editor, 661 (30.05%) are fairly skilled on online shopping, 824 (37.45%) are expert skilled on Social Networks, 747 (33.95%) are fairly skilled on educational Blogs/Forum, 782 (35.55%) are expert skilled with sending e-mails, 1100 (50.00%) are expert skilled in downloading music/movies and 1104 (50.18%) of Private school students are expert skilled towards listening music on the Internet.

**Frequency of usage of Online/Offline Technology Tools for academic purpose**

Table-17 also depicts that 167 (28.94%) of Public school students frequently use video sharing websites, followed by 198 (34.32%) of Public school students never use Smartphone and apps, 156 (27.04%) frequently use e-book reader, 214 (37.09%) never used digital cameras, 178 (30.85%) frequently use portable gaming devices, 169 (29.29%) never use HD TV, 267 (46.27%) never used MP3 player/music devices, 201 (34.84%) never use Laptops and 195 (33.80%) of Public school students most frequently use Table-PCs.

Table-17 also depicts that 708 (32.18%) of Private school students frequently use video sharing websites, followed by 762 (34.64%) of Private school students never use Smartphone and apps, 641 (29.14%) frequently use e-book reader, 794 (36.09%) never used digital cameras, 656 (29.82%) frequently use portable gaming devices, 665 (30.23%) never use HD TV, 945 (42.95%) never used MP3 player/music devices, 722 (32.82%) never use Laptops and 685 (31.14%) of Private school students most frequently use Table-PCs.

**Usage of Computers**

Table-18 also depicts that 207 (35.88%) of Public school students occasionally use computers for learning more easily, followed by 228 (39.51%) of Public school students occasionally use computers to get texts and pictures for class work, 205 (35.53%) of Public school students occasionally use computers to better communicate, 231 (40.03%) of Public school students occasionally use in order to have fast access to current information, 211 (36.57%) of Public school students occasionally use to enhance self-creativity, 187 (32.41%) of Public school students extensively use for chatting, 196 (33.97%) of Public school students occasionally use to send e-mail, 249 (43.15%) of Public school students extensively use for surfing the
internet listening to music and 204 (35.36%) of Public school students extensively use for watching videos.

Table-18 also depicts that 926 (42.09%) of Private school students occasionally use computers for learning more easily, followed by 830 (37.73%) of Public school students occasionally use computers to get texts and pictures for class work, 898 (40.82%) of Private school students occasionally use computers to better communicate, 925 (42.05%) of Private school students occasionally use in order to have fast access to current information, 888 (40.36%) of Private school students occasionally use for chatting, 816 (37.09%) of Private school students occasionally use to send e-mail, 857 (38.95%) of Private school students extensively use for surfing the internet listening to music and 775 (35.23%) of Private school students extensively use for watching videos.

Table-19 also depicts 200 (34.66%) of Public school students found that newsgroups are of Limited Value, followed by 189 (32.76%) of Public school students found that chat are Essential, 251 (43.50%) of Public school students found that online encyclopedias are Valuable, 320 (55.46%) of Public school students found that Wikipedia are Valuable, 243 (42.11%) of Public school students found that online dictionaries are Valuable, 184 (31.89%) of Public school students found that e-books are of Limited Value, 190 (32.93%) of Public school students found that word processing are of Limited Value, 185 (32.06%) of Public school students found that social networking sites are of Limited Value and 244 (42.29%) of Public school students found that educational websites are Valuable.

Table-19 also depicts 784 (35.64%) of Private school students found that newsgroups of Limited Value, followed by 722 (32.82%) of Private school students found that chat of Limited Value, 964 (43.82%) of Private school students found that online encyclopedias are Valuable, 1173 (53.32%) of Private school students found that Wikipedia are Valuable, 862 (39.18%) of Private school students found that online dictionaries are Valuable, 661 (30.05%) of Private school students found that e-books are of Limited Value, 660 (30.00%) of Private school students found that word processing are Valuable, 687 (31.23%) of Private school students found that social networking sites are of Limited Value and 861 (39.14%) of Private school students found that educational websites are Valuable.
Frequency of Use of E-resources

The Table-20 also depicts that 193 (33.45%) of Public school students almost daily use e-books which meets the academic needs, 194 (33.62%) of Public school students one / twice a year use e-maps, 197 (34.14%) of Public school students one / twice a year use e-poster/images, 187 (32.41%) of Public school students one / twice a year use CD/DVD databases, 198 (34.32%) of Public school students one / twice a year use educational blogs, 192 (33.28%) of Public school students one / twice a year use of online databases, 210 (36.40%) of Public school students one / twice a year use of online encyclopedias and 176 (30.50%) of Public school students one / twice a year use lectures notes and handouts to meets the academic needs.

The Table-20 also depicts that 719 (32.68%) of Private school students almost daily use e-books which meets the academic needs, 676 (30.73%) of Private school students one / twice a year use e-maps, 697 (31.68%) of Private school students one / twice a year use e-poster/images, 749 (34.05%) of Private school students one / twice a year use CD/DVD databases, 714 (32.45%) of Private school students one / twice a year use educational blogs, 742 (33.73%) of Private school students one / twice a year use online databases, 730 (33.18%) of Private school students one / twice a year use online encyclopedias and 698 (31.73%) of Private school students almost daily use lectures notes and handouts to meets the academic needs.

Table-21 also depicts that 307 (53.21%) of Public school students use audio creation software to moderate extent, followed by 271 (46.97%) of Public school students use video sharing websites to moderate extent, 292 (50.61%) of Public school students use visualisation creation software to moderate extent, 286 (49.57%) of Public school students use graphics software to moderate extent, 275 (47.66%) of Public school students use video creation software to moderate extent, 280 (48.53%) of Public school students use cognitive resources to moderate extent, 302 (52.34%) of Public school students use Wikis to moderate extent, 299 (51.82%) of Public school students use textbooks published online through publisher website to moderate extent.

Table-21 also depicts that 1139 (51.77%) of Private school students use audio creation software to moderate extent, followed by 1066 (48.45%) of Private school students use video sharing websites to moderate extent, 1128 (51.27%) of Private school students use visualisation creation software to moderate extent, 1123 (51.05%) of Private school students use graphics software to moderate extent, 1064 (48.36%) of
Private school students use video creation software to moderate extent, 1066 (48.45%) of Private school students use cognitive resources to moderate extent, 1121 (50.95%) of Public school students use Wikis to moderate extent, 1106 (50.27%) of Public school students use textbooks published online through publisher website to moderate extent.

**Use of Various Software for Academic Assignment**

Table-22 depicts that 230 (39.86%) of Public school students use graphics software few times in a week, followed by 261 (45.23%) of Public school students use educational related software few times in a week, 234 (40.55%) of Public school students use web browsers few times in a week, 208 (36.05%) of Public school students use audio creation software few times in a week, 210 (36.40%) of Public school students use video creation software few times in a week, 224 (38.82%) of Public school students use word processors few times in a week, 194 (33.62%) of Public school students use programming languages few times in a week and 201 (34.84%) of Public school students use simulations or play educational games few times in a week.

Table-22 depicts that 767 (34.86%) of Private school students use graphics software few times in a week, followed by 941 (42.77%) of Private school students use educational related software few times in a week, 856 (38.91%) of Private school students use web browsers few times in a week, 728 (33.09%) of Private school students use audio creation software few times in a week, 685 (31.14%) of Private school students use video creation software few times in a week, 868 (39.45%) of Private school students use word processors few times in a week, 728 (33.09%) of Private school students use programming languages few times in a week and 775 (35.23%) of Private school students use simulations or play educational games few times in a week.

Table-23 also depicts that 159 (27.56%) of Public school students opine that they agree with it helps them to do their work faster, followed by 200 (34.66%) of Public school students opine that they agree with extent learning beyond the classroom, 174 (30.16%) of Public school students opine that they agree which allows them to take control of their own learning, 200 (34.66%) of Public school students opine that they agree which is an efficient way to store their work, 188 (32.58%) of Public school
students opine that they agree which allows them to produce higher quality work, 188 (32.58%) of Public school students opine that they agree which better prepares them for getting into graduate school, 203 (35.18%) of Public school students opine that they agree which better prepares them for entering best career, 204 (35.36%) of Public school students opine that they agree which makes learning more creative, 202 (35.01%) of Public school students opine that they agree which make learning more engaging and 214 (37.09%) of Public school students opine that they agree which helps them think out of the box.

Table-23 also depicts that 760 (34.55%) of Private school students opine that they strongly agree with it helps them to do their work faster, followed by 724 (32.91%) of Private school students opine that they agree with extent learning beyond the classroom, 697 (31.68%) of Private school students opine that they agree which allows them to take control of their own learning, 716 (32.55%) of Private school students opine that they agree which is an efficient way to store their work, 715 (32.50%) of Private school students opine that they agree which allows them to produce higher quality work, 733 (33.32%) of Private school students opine that they agree which better prepares them for getting into graduate school, 758 (34.45%) of Private school students opine that they agree which better prepares them for entering best career, 744 (33.82%) of Private school students opine that they strongly agree which makes learning more creative, 674 (30.64%) of Private school students opine that they agree which make learning more engaging and 767 (34.86%) of Private school students opine that they agree which helps them think out of the box.

**Infrastructure level**

Table-24 depicts that 2201 (79.25%) of students opine that the IT has been implemented to ‘High level’ and 576 (20.74%) of students opine as IT has been implemented to ‘Low level’.

Table-24 also depicts that 513 (88.90%) of Public school students opine that the IT has been implemented to ‘High level’ compared to, 1688 (76.72%) of Private school students.

**Awareness about Harms involved in Computer/Internet usage**

Table-25 depicts that 2608 (93.91%) of students opine as ‘Yes’ they Know the harms/danger caused in connection with computer/Internet usage and 169 (06.08%)
of students opine as ‘No’ they do not Known the harms/danger caused in connection with computer/Internet usage.

Table-26 depicts that 2277 (87.31%) of students know the harm caused by the Virus, followed by 2213 (84.85%) of students know the harm caused by the fake demands for payment and bills via e-mail, 1533 (58.78%) accidentally buying something, 1333 (51.11%) becoming a computer/Internet addict, 1229 (47.12%) pictures that might scare you, 1040 (39.88%) Somebody miss use the Computer, 1032 (39.57%) being insulted in a chat room and 938 (35.97%) of students know the harm danger caused by being threatened by a stranger.

Use of Social Networks

Table-27 depicts that 2391 (86.10%) of students opine as social networks are good for all purposes, followed by 2266 (81.60%) of students opine as social networks are useful as we use it for, 1259 (45.34%) opine as use of social networks as dangerous, 856 (30.82%) of students opine social networks as not useful and 416 (14.98%) of students opine social network as useful for academic purposes.

Table-28 depicts that 2775 (99.93%) of students opine that they use social media for posting photos, followed by 2711 (97.62%) of students use social media for playing games, 2377 (85.60%) for chatting,1471 (52.97%) for blogging, 1310 (47.17%) for participating in social studying activities, 1271 (45.77%) for uploading music, 1163 (41.88%) for participate in geo-tagging activities, 1070 (38.53%) for participating on online forums or bulletin boards and 511 (18.40%) of students use social media for communicating with teachers/friends.

Table-29 depicts that 2087 (75.15%) of students opine as compared to real life, followed by 2008 (72.31%) of students opine as knowledge, 1529 (55.06%) opine as affect the study timings, 1388 (49.98%) opine as academic interests, 1272 (45.80%) opine as effective tools for e-learning, 1182 (42.56%) opine as help them with their homework and 949 (34.17%) of students opine as effective in communication

Table-30 depicts that 2528 (91.03%) of students use ‘Face book’, followed 1931 (69.54%) of students prefer ‘Google+’, 1290 (46.45%) use ‘You Tube’ and 413 (14.87%) of students use ‘Twitter’

Table-31 depicts that 1216 (43.79%) of students access ‘One’ social networking sites with mean value 1.8413 and SD 0.36556, followed by 1127 (40.58%) of students
access ‘Two’ social networking sites with mean value 1.8580 and SD 0.34917, 294 (10.59%) of students access ‘Three’ social networking sites with mean value 1.5442 and SD 0.49889 and 140 (05.04%) of students access ‘Four and Above’ social networking sites with mean value 1.3571 and SD 0.48088.

Table-32 depicts that 1252 (45.08%) of students spent ‘1 Hour’ every day to access social media with mean value 1.8096 and SD 0.39278, followed by 768 (27.66%) of students spent ‘30 Min’ every day to access social media with mean value 1.8398 and SD 0.36699, 533 (19.19%) of students spent ‘2 Hours’ every day to access social media with mean value 1.7620 and SD 0.42624 and 224 (08.07%) of students spent ‘More than 2 Hours’ every day to access social media with mean value 1.6218 and SD 0.48595.

Table-33 depicts that 2377 (85.60%) of students subscribe ‘Entertainment’ via social networking sites, followed by 1348 (48.54%) of students subscribe ‘Education’ via social networking sites, 1512 (54.45%) of students subscribe ‘Informational’ via social networking sites and 989(35.61%) of students subscribe ‘for others like sports etc.’ via social networking sites.

6.3.2 Librarians: Part-B

Gender Wise Distribution

Table-35 shows that of the 29 total librarians, 09 (31.03%) are ‘Male’ and the remaining 20 (68.96%) are ‘Female’.

Categorization of Library Staff

Table-36 indicates that out of 51 staff working in CBSE School libraries, 20 (39.21%) are Professionals, followed by 14 (27.45%) are Non-Professionals, about 11 (21.56%) of library staff are clerks, binder, peon etc and the Semi Professionals who assist the Professionals staffs in carrying out various library operations accounted for 06 (11.76%) of the total staff

Table-37 deals with professional qualification of the library staff. M.L.I.Sc is the qualification of 10 (34.48%) library staff, followed by 07 (24.14%) of library staffs have B.L.I.Sc. This is followed by the qualification of 06 (20.69%) library staff having D.L.I.Sc, about 04 (13.79%) of library staffs have the qualification of M.Phil
and 02 (06.89%) of library staffs have professionals qualification like P.G.D.L.S, C.C.L.S.

**Internet Facility in the library**

Table-38 depicts that 14 (48.28%) of CBSE School libraries have Internet facility and 15 (51.72%) of libraries do not

**Infrastructure in the Library**

Table-40 depicts that all the school libraries amounting to 29 (100.00%) each have ‘Text Books’, ‘Story book’, ‘Maps’, ‘Posters/Images’ and ‘News Papers’ in their collection, followed by 28 (96.55%) have ‘Novels’ and 26 (89.65%) of school libraries have ‘Magazines’.

Table-5.41.1 depicts that all 29 (100.00%) of school libraries are having Excel, PowerPoint, Info Centre and School website, followed by 27 (93.10%) of school libraries have Chat related Software, followed by the school libraries have ‘Social Networking’, ‘Google Docs’, ‘Web based Learning Games’, ‘Reading Renaissance/Accelerated Reader’, ‘Google Earth’, ‘Maps’, ‘Google Applications’, ‘Blogs’ and ‘Wikis’ amounts to 25 (86.21%) each. About 24 (82.75%) of school libraries have ‘Microsoft word’, 14 (48.28%) of schools use ‘Educational Websites’ available via Web, 13 (44.83%) of school libraries have ‘You Tube’, 11 (37.93%) have ‘Audio, Video and other Multimedia’, 09 (31.03%) have Audio/Video Podcasts and 05 (17.24%) of school libraries have ‘Skype’.

Table-42 depicts all the 29 (100.00%) of each school libraries are having E-Maps, CD/DVDs, E-Teaching materials and E-reference resources like Dictionaries, Encyclopedias etc., followed by each 26 (89.65%) of school libraries have E-Posters/Images and E-Drawings Books, 24 (82.75%) have ‘Online story books’, 23 (79.31%) have Games materials, each of 20 (68.97%) of libraries have ‘E-Books’ and ‘E-Newspapers’, 12 (41.38%) have ‘OPAC/Web OPAC’, 02 (06.89%) of each have ‘E-Magazines’ and ‘Video Cassettes related to educational resources’ and 01 (03.44%) of colleges have Audio Cassettes related to educational resources.

Table-43 depicts that 29 (100.00%) library staffs use Internet search engines, followed by 27 (93.10%) Presentation / graphics, 26 (89.66%) Email, 25 (86.21%) Spread sheet Software, 20 (68.97%) use Blogs, each of 18 (62.07%) of school library staffs use Word processing software and Social Network, 17 (58.62%) use Database software, 12
Metadata software, 11 (37.93%) E-books, 10 (34.48%) use Web
development software, 09 (31.03%) Image editing software and 07 (24.14%) school
library staffs use E-journals.

**Skill Level in Using IT Tools/library Services**

Table-44 depicts that 29 (100.00%) of library staffs are Somewhat Skilled towards the
use of computer, followed by 29 (100.00%) are Very Skilled in using basic software
programs like Microsoft Word, Excel etc., 29 (100.00%) of library staffs are
Somewhat Skilled in sending and receiving e-mail messages, 29 (100.00%) of library
staffs are very skilled of printing out information, 29 (100.00%) of library staffs are
Very Skilled of troubleshooting computer problems, 29 (100.00%) are unskilled in
looking up specific factual information on the Internet, using a search engine, 29
(100.00%) are very skilled in Integrating technology into classroom assignments and
29 (100.00%) of library staffs are somewhat skilled in creating multimedia
presentations.

Table-45 depicts that 03 (10.34%) of school libraries host the library website on a
server in the library, followed by 07 (24.14%) of libraries provide access to the
Internet for staff within the library, 15 (51.72%) of school libraries maintain Digital
Library and 11 (37.93%) of schools provide the Internet access inside the library for
the users.

Table-50 depicts that 29 (100.00%) of library staff opine that desktop computers and
associated equipment are important in the library, followed by 29 (100.00%) online
library catalogue are important, 29 (100.00%) enhanced connectivity (more
bandwidth, more speed) are important, 29 (100.00%) technical training are important,
29 (100.00%) online databases are important, 29 (100.00%) website development
tool software are important, 29 (100.00%) information security are important and 29
(100.00%) of library staff opine that software installation / up gradation are
important in the library.

**Frequency of Providing Online Resources to Support Teachers/Students**

Table-46 depicts that 29 (100.00%) of School library staffs daily Create
instructional materials/handouts for users, followed by 29 (100.00%) of library
staffs use Once-Twice in a week for enhancing classroom instruction, 29 (100.00%)
use Once-Twice in a week for getting information or pictures for use in lessons, 29
(100.00%) use Once-Twice in a Week for providing instruction on specific computer application, 29 (100.00%) use Once-Twice in a week for creating homework assignment, 29 (100.00%) of school library staffs use Once-Twice in a month for creating web-based courses or tutorials for student, about 28 (96.55%) of school library staffs use Once-Twice in a month and 01 (03.44%) of school library staffs use Once-Twice in a Week to Create web-based courses or tutorials for teachers.

The Table-49 depicts that 20 (68.96%) of library staffs opine that the faculty and students never use E-Books, followed by 20 (68.96%) of library staffs opine that the faculty and students never use E-Magazines, 15(51.72%) of faculty and students occasionally use Online story book, 15(51.72%) of faculty and students occasionally use E-Maps, 15(51.72%) of faculty and students occasionally use E-Posters/Images, 15(51.72%) of faculty and students occasionally use CD/DVDs, 15(51.72%) of faculty and students frequently use Audio Cassettes (educational resources), 15(51.72%) of faculty and students frequently use Video Cassettes (educational resources), 15(51.72%) of faculty and students frequently use Microforms, 15(51.72%) of faculty and students frequently use E-Drawings Books, 15(51.72%) of faculty and students occasionally use E-Project, Reports, 15(51.72%) of faculty and students occasionally use E-Tutorials, 15(51.72%) of faculty and students occasionally use E-Teaching materials, 15(51.72%) of faculty and students occasionally use E-reference resources, 15(51.72%) of faculty and students frequently use E-Newspapers and 29(100.00%) of library staffs opine that the faculty and students most frequently use OPAC/Web OPAC.
Opinion on the Role of Online Resources in Academics

Table-47 depicts that 20 (68.96%) of School library staff opine that online resources has definitely Strengthened students research skills, followed by 07 (24.13%) Not much and 02 (06.89%) of library staff opine as Not all time. About 29 (100.00%) of School library staffs opine as definitely online resources has Improved the quality of students work, 29 (100.00%) opine as definitely Helped students to work more effectively in groups, 29 (100.00%) opine as definitely Enhanced students interest and motivation, 29 (100.00%) opine as definitely Increased creative and critical thinking, 29 (100.00%) opine as definitely Facilitated collaborative work efforts, 29 (100.00%) opine as definitely Promoted the role of the teachers as facilitators, 29 (100.00%) opine as definitely Engaged students in interdisciplinary activities, 29 (100.00%) opine as definitely Incorporated skills relevant to the workplace and 29 (100.00%) opine as definitely Created more access to the library beyond the scheduled school day.

Barriers in the collection and Issues to be Handing in School Libraries

Table-48 depicts that 29 (100.00%) of School library staffs Moderately agree with the barrier caused is due to Lack of funds in the development of collection of Electronic Information Resources and Services, followed by 29 (100.00%) of library staff opine as Moderately agree with the barrier caused due to Lack of skills and knowledge to use e-information resources among Students/Teachers, 29 (100.00%) are Moderately agree with the barrier caused due to Lack of support from School/college administration, 29 (100.00%) are Moderately agree with the barrier caused due to Lack of ICT/ electronic infrastructure facilities, 29 (100.00%) are Moderately agree with the barrier caused due to Lack of trained staff, 29 (100.00%) of library staff opine as disagree with the barrier caused due to Cost of electronic resources is high.

Table-51 depicts that 11 (37.93%) of library staffs opine as unimportant for Being able to hire staff with technical skills, followed by 25 (86.20%) of library staffs opine as unimportant for Providing current staff with more access to technical training, 26 (89.66%) Overcoming staff resistance to technology are unimportant, 29 (100.00%) of library staffs opine Improving staff digitization skills as important, 15(51.72%) opine Having adequate technical support for my library as important, 16 (55.17%) opine having adequate Internet bandwidth for my library as important, 15(51.72%) opine
Improving my library’s website as important, 15 (51.72%) opine as Increasing the number of staff desktop computers as somehow important, 15 (51.72%) opine Increasing the number of students desktop computers as important, 27 (93.10%) opine Increasing the number of library catalogue (OPAC) computers as important, 15 (51.72%) opine Increasing the capability of my library’s desktop computers as somehow important, 15 (51.72%) opine as Keeping library equipment secure from viruses and other security problems as somehow important, 16 (55.17%) opine as Replacing obsolete technology in a regular schedule as somehow important, 14 (48.28%) opine as Managing technology issues of filtering as unimportant, 15 (51.72%) opine as Adding more online information resources as somehow important, 15 (51.72%) opine as Adding more wireless technology (Wi-Fi) as Unimportant, 15 (51.72%) opine Improving the level of user technical skills is somehow important, 16 (55.17%) opine as Providing users with access to technology training as somehow important and 28 (96.55%) opine as Coping with the speed of technological change as important.

**Opinion about Role of Social Networks**

Table-52 depicts that 29 (100.00%) of library staffs agree with the statement of ‘Social network sites influence the academic performance negatively, because they distract them from their studies’, followed by 29 (100.00%) of library staffs agree with the statement of using social network sites require spending money and are wastage of time and by this way it will affect their academic life, 29 (100.00%) of library staffs agree with the statement of addiction to social network sites is problematic issue that affects their academic life, 29 (100.00%) of library staffs agree with the statement of they find hard concentrating on study knowing that they can play online games and visit these sites just by logging into them, 29 (100.00%) of library staffs agree with the statement that they drop their academic grades after involving in social network sites, 29 (100.00%) of library staffs agree with the statement as Social network sites are more personal /social compare to be used for educationally, 29 (100.00%) of library staffs agree with the statement as the usage of social network sites is useful in higher educational institute because they are an effective communication application, 29 (100.00%) of library staffs agree with the statement as group discussions can be arranged with students classmates using social network site, 29 (100.00%) of library staffs agree with the statement as an appointment can be fixed with lecturer through social network sites, 29 (100.00%) of
library staffs agree with the statement as Social network site is helpful in students because students can receive announcements from lecturers and faculty, 29 (100.00%) of library staffs agree with the statement as Social network sites help in students studies because they can discuss assignments with friends, 29 (100.00%) of library staffs agree with the statement as social network sites improves students interaction with classmates and lecturers, 29 (100.00%) of library staffs agree with the statement as Students use social network sites to facilitate academic activities and coordinate with friends.

Table-53 depicts that 27 (93.10%) of library staffs opine as ‘Yes’ i.e. Social networking sites are affecting students’ way of speaking/writing/academic achievements in their day to day life and 02 (06.89%) opine as ‘No’.

Table-54 depicts that 14 (48.27%) of Librarians opinion towards technology support their library services as adequate, followed by 08 (27.58%) of Librarians opinion towards technology support their library services as inadequate, 07(24.13%) of Librarians opinion towards technology support their library services as do not know.

6.3.3 Computer Teachers: Part-C

School Wise Distribution

Table-56 shows that of the 29 total computer teachers, 04 (13.79%) are from ‘Public School’ and the remaining 25 (86.20%) are from ‘Private School’

Gender Wise Distribution

Table-57 shows that of the 29 total computer teachers, 09 (31.03%) are ‘Male’ and the remaining 20 (68.96%) are ‘Female’.

Educational Qualification

Table-58 deals with educational qualification of the computer teachers. The Bachelor’s degree is the qualification of 08 (27.58%) Computer teachers and Master’s degree is the qualification of 21 (72.41%) Computer teachers.

Age Group

Table-60 depicts that 02 (06.89%) of Computer teachers come under age group of ‘Below 20’ years, followed by 05 (17.24%) fall under ‘21-25’ years of age group,
**Technology Tool Availability**

Table-62 shows that of the all 29(100.00%) of schools are having Computers i.e. 04 (100.00%) are from ‘Public School’ and the remaining 25 (100.00%) are from ‘Private School’ are having Computers.

Table-63 shows that of the all 29(100.00%) of schools are having access to Internet i.e. 04 (100.00%) are from ‘Public School’ and the remaining 25 (100.00%) are from ‘Private School’ are having facility to access to Internet.

Table-63 depicts that 25 (86.20%) of Computer teachers access to Internet from ‘School’, followed by 20 (68.96%) access from ‘Home’ and 08 (27.58%) of Computer teachers access to Internet from ‘Cyber Centre’.

Table-65 depicts that 29 (100.00%) of Computer teachers opine ‘Yes’ they have Computers in the classroom, followed by 29 (100.00%) opine ‘Yes’ they have Computers elsewhere in the school, 29 (100.00%) opine ‘Yes’ they have Computers at home, 25(86.20%) opine ‘Yes’ they have access to Internet elsewhere in the school, 23(79.31%) opine ‘Yes’ they have Smart board facility and 06 (20.68%) opine as ‘No’, 29 (100.00%) opine ‘Yes’ they have Overhead Projector, 29 (100.00%) opine ‘Yes’ they have Computer Projector System, 22 (75.86%) opine ‘Yes’ they have Television/Video, 18 (62.06%) have Radio/ Cassette Recorder and 11 (37.93%) opine as ‘No’ and 29 (100.00%) of Computer teachers opine as ‘Yes’ they have Video Camera.

Table-68 depicts that 24 (82.75%) of computer teachers opine that they have ‘01’ Desktop computers in the classroom and 05 (17.24%) have ‘2-3’ Desktop computers in the classrooms, followed by 26 (89.65%) have ‘Above 07’ Desktop computers in the lab/media center and 03 (10.34%) have ‘5-6’ Desktop computers in the lab/media center. About 20 (68.96%) have ‘01’ Desktop computers in the library and 09 (31.03%) have ‘2-3’ Desktop computers in the library, 29 (100.00%) have ‘01’ Printer in their room, 29 (100.00%) have ‘01’ Shared laptop computers and 29 (100.00%) have ‘01’ Smart board in the classroom.
**Level of Proficiency and Importance related to use of Technology**

Table-66 depicts that 13 (44.82%) of Computer teachers have Proficiency of Learning how to use a new piece of software to Moderately strong, 11(37.93%) Very strong and 05 (17.24%) opine as adequate. About 29 (100.00%) of Computer teachers have proficiency of Very strong to use internet for general searching, followed by 17 (58.62%) of Computer teachers have proficiency of Moderately strong to Searching for content specific instruction on the internet, 09 (31.03%) Very strong, 03 (10.34%) opine as adequate. About 29 (100.00%) of Computer teachers have proficiency of Very strong to Use software productivity tools like word processing, database, spreadsheets, presentation tools etc., 29 (100.00%) of Computer teachers have proficiency of Very strong towards teaching or sharing with others how to use technology, 25 (86.20%) of Computer teachers have proficiency of moderately strong and 04 (13.79) Very strong towards Integrating technology into daily lessons, 27 (93.10%) of Computer teachers have proficiency of Very strong and 02 (06.89%) moderately strong of Using technology in support of curriculum standards, 22 (75.86%) of Computer teachers have proficiency of Very strong and 07(24.13%) moderately strong in Designing academic activities that will integrate technology, 18 (62.06%) of Computer teachers have proficiency of adequate, 07(24.13%) opine as very strong, 04 (13.79%) opine as Moderately strong in Creating and maintaining web pages. About 29 (100.00%) of Computer teachers have proficiency of Very strong towards Recognizing the ethical use of technology.

**Technologies tools Used in Teaching and Leaning**

Table-67 depicts 20 (68.89%) of Computer teachers use Word Processors like Word etc daily and 09 (31.03%) use weekly in the classroom, followed by 20 (68.96%) of Computer teachers use Spreadsheets like Excel etc. weekly, 07 (24.13%) use monthly and 02 (06.89%) use daily. About 24 (82.75%) of Computer teachers use Presentation Software like PowerPoint etc. daily, 22 (06.89%) use weekly, 03 (10.34%) use monthly, followed by 25 (86.20%) use Web Page Development Tools like FrontPage monthly and 04 (13.79%) use weekly. About 22 (75.86%) use Search Engines like Google, Yahoo! etc. daily and 07 (24.13%) use weekly, followed by 19 (65.51%) use Electronic Mail weekly and 10 (34.48%) use daily. 18 (62.06%) use Discussion Lists and Newsgroups monthly and 06 (20.68%) use daily, 05 (17.24%) use weekly. About 11(37.93%) use Chat or Forum monthly, 10 (34.48%) use weekly and 08(27.58%) use
daily. About 21 (72.41%) use Electronic Encyclopedia or atlas monthly, 06 (20.68%) use weekly and 02 (06.89%) use daily. About 23 (79.31%) use Instructional Films like video, CD, VCD etc. monthly, 03 (10.34%) use daily and 02 (06.89%) use weekly. About 26 (89.65%) use Student data management software weekly and 03 (10.34%) use daily. About 24 (82.75%) use Blogs/Wikis use weekly and 05 (17.24%) use daily. About 20 (68.96%) use News or bulletin boards monthly, 07 (24.13%) use weekly and 02(06.89%) use daily. About 28 (96.55%) use Social Networks like Facebook, Twitter daily and 01 (03.44%) use weekly.

Table-69 depicts that 26 (89.65%) of computer teachers assign students for work that involves using computers or the Internet like Solve problems/analyze data to large extent, 02 (06.89%) to Moderate extent and 01 (03.44%) to Small extent, followed by 28 (96.55%) Use computer applications such as word processing, spreadsheets to Large extent and 01 (03.44%) to moderate extent, 23 (79.31%) use for the purpose of Graphical presentation of materials to Large extent, 04 (13.79%) use to Moderate extent and 02 (06.89%) to small extent. About 17 (58.62%) use Demonstrations/simulations for large extent and 06 (20.68%) each for Moderate extent and Small extent. About 29 (100.00%) use Produce multimedia reports/projects to large extent, 28 (96.55%) use for research using CD-ROM to large extent and 01 (03.44%) use to moderate extent. About 29 (100.00%) use for research using the Internet to large extent and About 29 (100.00%) use to correspond with experts, authors, students from other schools, etc., via e-mail or Internet to large extent.

Table-70 depicts the extent of use of Computers/Internet for various Academic Activities by the Computer teachers at School. About 29 (100.00%) of Computer teachers use computers/ Internet for academic activities like Create instructional materials i.e., handouts, tests, etc. to a lot extent, followed by 29 (100.00%) of Computer teachers use to gather information for planning lessons to a lot extent, 25 (86.20%) use to access model lesson plans to a lot extent and 04 (13.79%) use to little extent, about 26 (89.65%) access research and best practices for teaching to a lot extent and 03 (10.34%) use to little extent, 29 (100.00%) use multimedia presentations for the classroom to a lot extent, 22 (75.86%) not at all use to maintain administrative record keeping i.e., grades, attendance, etc and 07 (24.13%) use to a little extent, 23 (79.31%) use to communicate with colleagues/other professionals to a lot extent and 06 (20.68%) use to little extent, 29 (100.00%) use to communicate with
students/parents to a lot extent, 29 (100.00%) use to Communicate with students outside the classroom/classroom hours to a lot extent, 28 (96.55%) use to Post homework or other class requirements or project information to a lot extent and 01 (03.44%) use to little extent at school.

Table-71 depicts that 29 (100.00%) of Computer teachers opine the use technology to improve classroom instruction as very important, followed by 29 (100.00%) opine as use of technology improves students’ performance as very important, 25 (86.20%) opine as using technology to enhance student collaboration/sharing as very important and 04 (13.79%) opine as somewhat important. About 29 (100.00%) opine as increasing teacher proficiency in use of technology as very important, 21 (72.41%) opine as preparing students for future jobs as very important, 07 (24.13%) as little important and 01 (03.44%) as slightly important. About 27 (93.10%) opine as improving students test scores as very important and 02 (06.89%) as little important, 28 (96.55%) opine as promoting active learning strategies as very important and 01 (03.44%) as little important, 26 (89.65%) opine as supporting instructional reform as very important and 03 (10.34%) as little important, 14 (48.27%) opine as satisfying parents and community interests as very important, 08 (27.58%) as little important and 07 (24.13%) as slightly important. About 29 (100.00%) opine as Improving students computer skills and abilities as very important and 03 (10.34%) opine as little important, 29 (100.00%) opine about target level of technology i.e. students/computer ratio as very important.

Table-72 depicts that 22 (75.86%) of Computer teachers rate more time to learn to use software as minor and 07 (24.13%) rate as average, 29(100.00%) rate more time to integrate technology into my curriculum as average, 27 (93.10%) rate more training to use technology as minor and 02 (06.89%) as average, 29(100.00%) rate more support from administration when it comes to my technology needs as average, 24 (82.75%) rate more technical support to keep computers and software running as minor, 03 (10.34%) rate as average and 02 (06.89%) rate as moderately strong, 22 (75.86%) rate access to more students computers as moderately strong and 07 (24.13%) as necessary, 29 (100.00%) rate more curriculum-based software as necessary, 27 (93.10%) rate as more reliable access to the internet for students as moderately strong and 02 (06.89%) as necessary, 28(96.55%) rate as more opportunities to collaborate with colleagues on how to use technology in my discipline as moderately strong and
01 (03.44%) as necessary, 29(100.00%) rate faster access to the internet as necessary, 24 (82.75%) rate more interaction with my media specialist/instructional technology specialist for technology needs as moderately strong and 05 (17.24%) as necessary, 26 (89.65%) rate options for professional development in the areas of technology as moderately strong and 03 (10.34%) as necessary, 27 (93.10%) rate tools to help me stay current on new technological trends as necessary and 02 (06.89%) rate as moderately strong, 26 (89.65%) rate more equipment to integrate technology in my classroom as moderately strong and 03 (10.34%) rate as necessary, 22 (75.86%) rate help aligning the integration of technology with the implementation of educational standards as moderately strong and 07 (24.13%) rate as necessary. About 21 (72.41%) rate parents to support my efforts to integrate technology in the classroom as average, 05 (17.24%) rate as necessary and 03 (10.34%) as moderately strong.

**Opinion on impact of Social Networking site**

Table-73 depicts Negative Impacts Social Network Sites. About 27 (93.10%) of Computer teachers agree and 02 (06.89%) disagree with social network sites influence the academic performance negatively, because they distract them from their studies, followed by 28 (96.55%) agree and 01 (03.44%) disagree with using social network sites require spending money and are wastage of time and by this way it will affect their academic life, 23 (79.31%) agree and 06 (20.68%) disagree with addiction to social network sites is problematic issue that affects their academic life, 22(75.86%) agree and 07 (24.13%) disagree with they find hard concentrating on study knowing that they can play online games and visit these sites just by logging into them, 21 (72.41%) agree and 08 (27.58%) disagree with they drop their academic grades after involving in social network sites, 28 (96.55%) agree and 01 (03.44%) disagree with Social network sites are more personal/social compare to be used for educationally.

Table-74 depicts that 26 (89.65%) of Computer teachers opine as ‘Yes’ the social media sites improve students’ knowledge about educational products and services and 03 (10.34%) opine as ‘No’.
Table-76 depicts that all the 29 (100.00%) of Computer teachers opine as ‘Yes’ they find the information regarding students career, academic interests on social networking sites. i.e. 04 (100.00%) of Private School and 25 (100.00%) of Private school teacher opine as ‘Yes’.

6.4 Suggestions

The research findings have provided a substantial account of insights and suggestions that can be used to improve technology integration in gaining academic information in schools:

1. More planning for implementation of latest technology infrastructure is necessary in schools, since majority of students are using computer at schools rather than other places.

2. Librarian should implement effective technology tools in the libraries.

3. The Librarians should create a learning environment to inculcate reading and writing habits among school students.

4. More informative and interactive Library websites and Institutional Repositories (IR) should be created.

5. The Teachers should actively participate and put maximum effort in realization of technology integration in classrooms.

6. The Teachers should give more flexibility to use computers in labs. Also simultaneously monitor and guide students towards using online resources.

7. The Teachers should accept and adapt themselves to advanced technology tools that can be applied in classroom teaching.

8. The Teachers and Librarians should be provided adequate training on Information Technology (IT), with special reference to Education Technology.

9. The students are suggested to use social network (which they are found to be very active in) more for academic purpose (e.g. sharing education resources, creating field of interest forums, referring scientific blogs etc.)

10. Private schools should provide more IT based facilities.

11. The school library should increase their e-resources collection.
10. Private schools should provide more IT based facilities.

11. The school library should increase their e-resources collection.

12. The students should mainly focus on learning IT skills that help in their academic development.

13. The Librarians and Teachers should create awareness regarding e-resources (like NCERT e-books, educational blogs etc.)

14. Students are required to utilize Internet facilities more for academics than other purposes like social networks.

15. More IT facilities should be provided by school libraries to orient students towards e-resources along with print resources and also encourage towards its usage.

16. Teachers and Librarians should channelize and train the students towards constructive use of computers and Internet.

17. School Libraries should be provided with sufficient IT infrastructure by School Management.

18. The Teachers and Librarians should educate the students with essential IT skills to search Web for obtaining academic information.

19. There is a necessity to provide Internet facilities to school libraries by School Management to enhance search and retrieval of academic information.

20. The schools should organize IT oriented programs for students and staff to keep them updated with latest technologies.

6.5 Directions for Further Research

The present study of research with the focus on education technology application in secondary schools for academic achievement, offers possibilities for further research on the following areas:

- The current study focus on CBSE schools students of Mysore district, the further research can orient on to other district’s CBSE schools.
- The comparative research can be carried out with reference to IT infrastructure for CBSE versus State board School Libraries.
• The availability and usage of e-resources in CBSE school libraries can be another area of research.
• A comparative study could be done on State board and CBSE schools students in other districts or states, based on IT infrastructure.
• Studies on the Psychological and Sociological impact of Information Technology on school students can be carried out.
• Comparison on ideal shift in student learning in traditional and technology-based school libraries, can be a novel research.

6.6 Conclusion
Education is an integral part of human evolution, which is continuously evolving with newer technological applications day after day. In this context, the present study is an attempt to understand the awareness and use of Information Technology for academic information among the students of CBSE schools in Mysore district. A well-structured questionnaire was designed and informal interviews were held to obtain data from the respondents (Students, Librarians, Computer teachers). The important factors that defined the questionnaire includes: Students demographic data, computer awareness, prolongation of usage, place of computer & Internet access, IT as a part of syllabus, availability of computer in school for individual access, frequency of usage of computer, exclusive Library class, purpose of visiting Library, Library infrastructure, hardware, software, IT usage in learning subjects, computer knowledge and skill level, use of online/ offline technology tools in academics, purpose and frequency of usage, usefulness of computer applications, e-resources frequency of usage, IT activities that improve learning, IT tools frequency of usage, opinion about IT in academics, implementation of IT in schools, threats involved in Internet usage, use of social network, opinion about social network, social media- its frequency, communities & types.

Librarian’s demographic data, availability of print & e-resources, library IT infrastructure, usage of IT applications, skill level, frequency, opinion on e-resources availability, barriers involved in building e-resources, importance of IT in Library, important issues in Library enhancement and pros and cons of social media.

Teacher’s demographic data, subject specialization, school type, computer & Internet place of access, availability of IT tools in classroom, technology used in teaching,
motivating students to use IT tools, importance of IT elements in teaching, IT knowledge, pros and cons of social media.

The comprehensive attitude of respondents towards Information Technology (IT) found to be welcoming. This is supported by factors like the positivity shown by respondents in optimum usage of IT tools, best infrastructure in schools, proficient IT knowledge etc. However, since majority of students are using computer at schools, it is a need of the hour to equip the schools with more and more latest IT tools. Also, the students should mainly focus on learning IT skills that help in their academic development. It is necessary that the Librarians and Teachers should create more awareness regarding e-resources (like NCERT e-books, educational blogs etc.). Further, they should channelize students towards constructive use of computers and Internet. Moreover, the Teachers and Librarians should be provided adequate training on Information Technology (IT), with special reference to Education Technology. The current research anticipate librarians and teachers should actively participate and put maximum effort in realization of technology integration in classrooms which should be efficiently used by students for effective learning and model a successful future.

6.7 References


Wang, Qingya; Chen, Wei; and Liang, Yu, "The Effects of Social Media on College Students" (2011).
