Review of literature reveals that a few studies/surveys have been conducted on the subject in India and abroad. However, some of the studies which are directly related to the present study conducted at the international and national levels are as under:

**International Status**

**Meltzer, Maughan & Fry (1995)** conducted a case study of undergraduate students of University of California, Los Angeles to investigate the use of library among students and to determine students’ perceptions of the library. The findings of the study revealed that majority of the students used the library to study their own material. 50% of the respondents favoured library staff over other means for seeking assistance in using library material. Majority of the students were inexperienced in using library’s online system and weigh heavily in favour of ‘print only’ materials.

**Caravello, Herschman & Mitchell (2001)** assesses information literacy skills of undergraduates at University of California, Los Angeles. Findings of the study revealed that 64.2% of the respondents were high library users. 78% of the respondents preferred web for locating current information, only 15.5% used periodical index. 18% of the sample did not know how to proceed if their online search result was too big; 82% knew to add search terms. Yet 45.5% did not know that in a Boolean statement, OR retrieves more records than AND or NOT. About half (52%) of the sample said that they would check a statistic from a newspaper in a government source before using it in a term paper, meaning the other half would just use the unverified data. The researchers also found that 62% of the sample could not identify a correct and complete journal article citation for a bibliography.

**Maughan (2001)** conducted a survey to measure the information literacy competencies of graduating seniors in selected academic departments of University of California-Berkeley. The results of the survey revealed that 83% of the respondents were able to arrange call numbers in order whereas 77% were able to identify subject headings in a library catalogue. 96% of the respondents had skills to identify reference to a journal article. The author recommended that librarians, faculty and others should work collaboratively to develop assessment strategies and instruments.

**Kavulya (2003)** carried out a study at some selected university libraries in Kenya to identify and assess the information literacy programs offered by these libraries and also to investigate the problems faced by librarians in carrying out these programs. The findings of the study revealed that all the universities under study were in the process of integrating electronic and internet based sources in their collections. Library orientation was mandatory in all the
universities. All the universities had a reference service of one kind or another. Kenyatta University and United States International University provided a detailed instruction on how to prepare search strategies, construct bibliographies, write term papers and citation practice. The University of Nairobi Library and Catholic University of Eastern Africa Library did not have reference librarians. All four universities were either using or developing electronic databases. In all the institutions communication skills course was compulsory. The main barriers faced by all the universities under study were lack of both financial and human resources and inadequate support by their parent organizations in terms of both policy and material. There was still computer illiteracy among Kenyan librarians due to the shortage of personnel to provide IT training.

Mittermeyer & Quirion (2003) conducted a survey of incoming first-year undergraduates in Quebec universities to determine their information literacy skills. The results revealed that 64.8% of the respondents were able to recognize significant words. 29.5% of the respondents had knowledge of using a library catalogue. 27.7% users had sufficient skills to use boolean operators. About half of the respondents knew that an encyclopaedia can familiarize the reader with a subject. 74.7% of the respondents understood the usefulness of periodicals. 52.7% users had good understanding of meta search engines and only 35.8% were able to interpret a bibliographic reference. The researchers also found that 78.2% of the respondents knew that bibliography can be used as a tool for finding related documents. 83.3% had skills to evaluate the information found on Internet while only 27.6% of the respondents knew when to quote a reference. The authors concluded with a hope that university authorities might implement the integration of information literacy competencies into the curriculum and affirmed the role of university libraries in their development and promotion.

Salisbury & Ellis (2003) conducted a project at the University of Melbourne to evaluate selected information literacy programs provided to the students in the Arts faculty. The results revealed that 73% of the students were able to recognise a citation to a journal article at the start of the session. By the end of the session, the number of students increased to 91%. Only 26% of the respondents were able to use boolean operators. More than 50% of the students were not able to select the correct boolean operator even after attending the session. The results of the project led to the modification of some of the information literacy programs.

Cole & Kelsey (2004) conducted a quantitative survey of post-registration nursing students to assess their skills in both computer and information literacy. The results of the survey revealed
that 17.3% of the students knew what keyword mapping was, but only 12.2% rated their understanding of it as adequate or better. Only 6.9% of the students showed their understanding of Boolean searching. Four students did not respond to the question about Boolean searching. The researchers also found that 93.6% of the students knew what the Internet was and 65.9% had often used it to access information. Nearly half of the students used e-mail (49.1%). The authors concluded with a suggestion that an introductory course should be provided to the nursing students and they should have access to computer-based learning packages.

Freeman (2004) conducted a survey of first-year undergraduate students at Armstrong Atlantic State University in Savannah, Georgia to investigate the relationship between undergraduates’ self-assessment of library skills and their opinion of library instruction. Results of the survey revealed that 82.5% of the respondents were able to use the library effectively. 55% of the respondents were able to differentiate the citation to a book and an article. The researcher also found that 80% of the respondents had skills to use library catalogue.

Franklin (2005) conducted a study of doctoral students’ opinion about the importance of seven information literacy competencies. The findings of the study revealed that students rated all but two of the information literacy competencies as important for achieving a successful outcome to a research project or course assignment. Being able to understand economic issues surrounding the use of information, and being able to understand legal issues surrounding the use of information were the competencies with the lowest average ratings at 35.6% and 59.4% respectively. However 78.3% of the respondents understood ethical issues of information use while 95.9% of the doctoral students rated the ability to critically evaluate information as important and very important.

Julien (2005) conducted a study on professional librarians for assessing their information literacy instruction level. Ninety three schools of library and information science were examined from all over the world. The data was collected through the content analysis of the web pages of the schools. The results revealed that majority of the schools did not provide any course in information literacy instruction, only a range of topics were included in curricula. The author concluded with a hope that the results may provide some guidance to the curriculum development in the area of information literacy instruction.

Azmi (2006) undertook a survey to assess the IT course taught to students of Qatar University and also to know the most preferred skills acquired by the students through this
course. The survey results revealed that finding information on the Internet was a favourable topic among the majority of the students. Formulating search strategies to retrieve relevant information as well as using search engines with advance search capabilities, were seen as very important skills by over 50% of the respondents.

**Coleman (2007)** investigated the information literacy skills of first-year students of Barnard College. The results of the project revealed that almost half of the respondents used the library once or twice a month. 80% of the respondents knew when a citation was required in a paper. 75% of the respondents found the use of an electronic index as easy or somewhat easy. The findings further revealed that 54% of the respondents were able to identify the best search statement for retrieving the maximum number of results in an online search. 51% of the respondents had skills to apply truncation in a search statement.

**Gross & Latham (2007)** investigated information literacy skills among incoming freshmen students at Florida State University. The findings revealed that 74.5% of the respondents taught themselves, 45.1% received library instruction in the school library media center, 39.2% were helped by a librarian in a public library, and 41.2% were helped by a classmate or friend. 19.6% received instruction as part of their freshman orientation on campus. 45% of the students were tested as non-proficient in their information literacy skills. Only 1 student out of 51 was tested at advanced level. The authors suggested that traditional information literacy instruction may not be effective with non-proficient students and more research is needed to develop innovative strategies for providing new kinds of information literacy education.

**King (2007)** conducted a research study to assess the information literacy competencies and proficiencies among the undergraduate arts students of the University of the Western Cape. The findings of the study revealed that majority of the respondents (51%) visited the library only after a few months followed by monthly (21%). 26.5% of the respondents were familiar with journals as the most recent information tool while only 23.2% respondents knew what the bibliography was. The study further revealed that 40.9% of the respondents were able to identify citations. Only 23.2% of the respondents were able to choose significant terms for a search statement. It was also found that only 18.8% of the respondents could correctly apply truncation techniques and only 16% had knowledge of boolean logic. 86.5% of the respondents were unaware of the need to evaluate the information available over the Internet.

**Korobili, Malliari & Christodoulou (2008)** conducted a study to examine information literacy programmes in academic libraries of Greece and Cyprus. The results revealed that
77.36% libraries offered an “orientation program”, 84.9% offered “a few-hours seminar”, 11.3% “aweek-seminar”, 32% “a program integrated in a course”, 13.20% “an online tutorial”, 47.17% “teaching information retrieval inspecific sources” and 16.98% “a course integrated in the curriculum”. 46.7% of the respondents participated in a variety of activities which they considered would contribute to the development of their teaching ability.

Baro & Fyneman (2009) undertook a survey of undergraduate students of Niger Delta University, Nigeria to determine the level of information literacy and digital literacy among them. The results of the survey revealed that 90% of the students agreed that they needed information to write their course assignments, 85% to write their seminar papers, and 80% to write their final year research paper. The findings also revealed that 60% of the students consulted the reference librarian, 56% subject experts and 64% consulted colleagues to obtain needed information. Moreover, the findings revealed that 67% of the students had skills to use library card catalogue to retrieve relevant information resources. 74% students used different search engines, 75% journals and 53% websites as sources of information. In addition, 77% of the students used email as means of communicating with others to obtain relevant information.

Kingsley & Kingsley (2009) conducted a case study of first-year graduate level health science students of University of Nevada, Las Vegas to assess their information literacy skills with clinical relevance. Students were given a review article of vaccines against caries and were then asked to provide answers related to content and also to use specific web-based online technologies to find more recently published peer-reviewed citations. The results revealed that many students demonstrated lack of proficiency with information literacy and the technology dependent application skills. The author suggested that dental curricula should incorporate substantial components of ICT, e-learning and specific guidance for acquiring the skills for filtering and establishing the quality of current information.

Klaib (2009) conducted a study to investigate the resources and methods used in information instruction provided at private university libraries in Jordan. Results revealed that more than 50% of the libraries used library catalogue, printed books, printed references, internet, and CD-ROM indexes as resources for providing information literacy instruction and did not use electronic resources. The study showed weakness in various methods of information literacy instruction in most private university libraries in Jordan. The study plan of 85.7% private universities did not include credit or non-credit courses specialised in library & information
science. The author found that information literacy instruction programmes offered to students of Zarqa Private University concentrated more on theoretical aspects than practical aspects.

**Korobili, Malliari & Christodoulou (2009)** investigated information literacy skills among the students of Technological Education Institute of Thessaloniki, Greece. The findings of the study revealed that more than 30% of the respondents never used electronic sources available from the library and 6.7% respondents never used Internet. 23.3% attended an information literacy course integrated in the curriculum and 7.3% attended a library seminar. The findings further revealed that 64.5% of the students considered that an information literacy course should be integrated in their curriculum.

**Rehman & Alfaresi (2009)** conducted a study to examine the status of information literacy skills among female students in Kuwaiti high schools. The results of the study revealed that 82.4% of the students had necessary skills in catalogue searching. 33.7% students were familiar with the usefulness of encyclopedia and similar percent of students had concept identification skills. The findings also revealed that about half of the students were aware of the need to evaluate the information and only 20.7% students had knowledge of boolean operators. The researchers concluded with the suggestions that course contents should be reviewed and teachers of the schools should be made aware of the information literacy content and should be skilled in appropriate pedagogical techniques.

**Ali et al. (2010)** conducted a case study to assess information literacy skills of engineering students at the diploma level of a Malaysian college. The results revealed that most of the respondents were not able to distinguish between significant and non-significant terms. Only 16.3% of the respondents chose the correct Boolean operator OR to get more search results. It was also found that 81.8% did not know the use of a thesaurus in searching the preferred terms for a particular database. 26.5% of the respondents knew the usefulness of encyclopaedias in providing an overview or summary of a topic and 24.5% recognized journal as the latest information tool. 16.3% of the respondents had knowledge about meta search engines. 85.7% of the respondents could not interpret a citation or recognize the corresponding document type and 81.6% did not know what a bibliography was. Only 8.2% of the respondents knew that the most efficient search tool to find journal articles was a database. A very small percentage of respondents (6.1%) knew the criteria to evaluate an Internet site and only 4.1% of the respondents knew when to include a reference to an article they cited.

**Samson (2010)** conducted a study to determine the information literacy competencies of the students of University of Philippines. The results revealed that 44.17% of the respondents had
skills to determine the nature and extent of information needed. 73.92% of the respondents were able to critically evaluate the information and 76.63% of the respondents understood economic, legal and social issues surrounding the use of information. Most of the respondents agreed that information literacy should be made a part of the curriculum.

Baro (2011) conducted a survey of more than 60 library schools in Africa to investigate the state of information literacy education. In order to collect data, the researcher used both e-mail questioning and content analysis of web pages of the schools. The survey results revealed that a majority of the schools did not offer information literacy as a stand-alone course in their curricula; it was briefly discussed as a topic in related courses. The researcher concluded with the suggestion that all the library schools in Africa should review their school curriculum to include information literacy course and the university authorities in Africa should employ qualified staff with technological experience to teach information literacy and also provide the required technological tools in the departments.

Baro & Endouware (2011) conducted a survey of College of Health Sciences in Niger Delta University (Nigeria) to assess the information literacy skills among medical students. The results of the survey revealed that 30.4% of the students ranked medical journals as the most consulted source of information followed by textbooks. The students did not have necessary skills to search electronic databases.42.2% of the students critically judged the relevance of the sources before using them. Problems faced by the students in searching information were also described in detail. The authors suggested that practical training sessions on using electronic databases in medical sciences should be incorporated into medical school curriculum.

McKinney, Jones & Turkington (2011) conducted a case study at the University of Sheffield to investigate the students’ and staff’s perception towards inquiry-based learning task and to know whether this task helped students in building information literacy capabilities. The findings revealed that 74.5% of the respondents were familiar with the content of journals. 77% respondents knew that an abstract was the exact summary of any work. The results also revealed that 58.4% respondents were able to evaluate the sources of information.

Moghaddam & Nahangi (2011) conducted a comparative study of information literacy skills of students of ordinary and intelligent high schools in Hamedan, Iran. The findings of the study revealed that 21.4% intelligent school students had skills to access information effectively while only 3.3% ordinary school students had it. Only 4.9% of ordinary school
students had a high score in evaluating information critically whereas percentage of intelligent school students was 31.9%. The findings further revealed that while only 10.5% of ordinary school students were in a high state regarding using information accurately, this rate of intelligent school students was 34.6%. The authors recommended that mandatory lessons on research methods and information literacy should be provided to the students.

Shoeb (2011) conducted a study to assess information literacy competency among undergraduate business students of a private university of Bangladesh. The findings of the study revealed that 51.5% students had classes on finding and using information. 53% of the students had good computer facilities to access while 51.5% had Internet access before admission at the university. 19.7% of the respondents had high level of skills in determining their information needs. Only 16.7% of the respondents had sufficient skills to evaluate the information and 78.6% of the respondents did not have knowledge of ethics of information use.

Duncan & Varcoe (2012) conducted a survey of students of a Georgian College in Ontario to examine their information literacy skills and also to measure the effectiveness of information literacy models delivered to them. The results of the survey revealed that 75.8% of the respondents preferred search engines to find information followed by websites (51.6%), consulting teachers and library staff (19.4%) and using wikipedia (17.7%). 93.5% of the respondents had knowledge about the criteria used for evaluation of Internet resources. The findings further revealed that 51.6% respondents were familiar with the ethics of information use and about 70% of the students understood the issues related with copyright. 74% of the respondents were able to identify a citation from a given statement. It was also found that 54.1% of the respondents had knowledge about the boolean operators.

Pinto et al. (2012) carried out a survey of doctoral students of information science of four universities in Spain and Latin America to find out students’ perceptions of their own information literacy competency. The results of the survey revealed that 63% of the respondents rated themselves sufficient in determining their information needs. 75.6% of the respondents were able to identify source according to their information needs. The findings further showed that 61% of the respondents needed training in organization and evaluation of the quality of information.

Demo (2013) undertook a survey of undergraduate students of Polytechnic University of Tirana, Albania to assess their information literacy skills. The results revealed that majority (64%) of the students preferred search engines for locating information followed by asking
friends (58%), library professionals (34%) and faculty (22%). Only 10% of the respondents consulted library catalogue to locate the needed information. The findings further revealed that 94% of the respondents had good understanding of the structure and content of the fields in a library catalogue. Only 20% students had familiarity with boolean operators.

**Wahoush & Banfield (2013)** conducted an online survey to examine the frequency and use of information sources and resources among undergraduate nursing students. The use of electronic sources of information was the most reported sources by both students and registered nurses. Limited access to the hospital library was the biggest challenge for accessing information.

**National Status**

**Devi & Devi (2006)** conducted a survey to study the problems associated with information literacy programmes within some selected academic libraries of Manipur. The survey results revealed that the library professionals were not able to contribute towards the information literacy promotion. Majority of the staff was not able to handle the computer, however they were interested to go for training. The authors concluded that government should make efforts in preparing policy guidelines and standards at national level.

**Maharana & Mishra (2007)** undertook a survey of teachers of different postgraduate departments of Sambalpur University to assess their digital information literacy skills. The results of the survey revealed that 82.86% of the respondents indicated that they needed electronic information from e-journals. Electronic articles and theses and dissertations were needed by 77.14% and 68.57% respectively. 92.8% respondents needed e-resources to keep their knowledge up-to-date, followed by research support (80%), preparing course materials (65.72%), writing papers for publication (61.43%), seminar/workshop (57.14%), and carrying out projects (37.14%). 71.43% of the respondents had knowledge of Internet applications. It was also found that 60% teachers had working knowledge of MS-Office or other DTP tools, followed by multimedia (25.72%) and only 8.57% teachers knew about programming language applications. 85.71% of the teachers used search engines for searching the Internet and only 28.57% of the teachers used subject gateways, online bibliographic databases (22.86%), digital libraries (20%) and meta search engines (18%). 85.72% of the teachers preferred to evaluate the information found on the internet. Authenticity and reliability were the most important parameters considered for evaluation.

**Karisiddappa & Rajgoli (2008)** conducted a survey of selected library and information centres of higher learning and research at Bangalore city in view of the information literacy
programmes and practices and training aids used in these institutions. The results of the survey revealed that all the libraries selected for survey provided information literacy programmes but in the case of R&D sector, these programmes were not conducted at frequent intervals. In 78.26% of the libraries, librarians conducted information literacy programmes whereas 13.04% libraries invited guest professionals and 8.70% arranged demonstrations from publishers and representatives. In all the libraries, respondents were offered guidance and training in using catalogues and 86.95% of the libraries introduced users to library websites, internet searching and databases. The authors concluded with a suggestion that copyright issues related to electronic information access and use should also form part of the information literacy programmes and interactive tutorials and expert lectures should also be organised for the users.

Sharma (2008) undertook a survey of teachers and research scholars of different universities in north-western India to assess their frequency of visiting and consulting the library. The results showed that the respondents of all the universities under study were frequent library visitors. The findings of the study revealed that 38.4% of the respondents visited the library ‘daily’, 32% ‘2-3 times in a week’, 19.7% ‘once a week’, 5.42% ‘once a month’ and 4.35% ‘2-3 times in a month.’

Choudhury & Sethi (2009) conducted a comprehensive study to assess the computer literacy of library professionals of three academic libraries of major universities of Orissa. The results of the study indicated that 55.55% of library professionals had knowledge of M.S. Office, 22.22% of multimedia applications and 11.11% of programming languages. 55.55% professionals preferred to evaluate the information found from the Internet. The results also revealed that 77.77% of the professionals preferred to use search engines than online bibliographic databases (22.22%). Only 11.11% of the professionals had familiarity with meta search engines and subject gateways/web portals.

Singh, Agarwal & Jawahar (2009) in their study assessed the level of ICT literacy among the professional, semi-professional and non-professional staff of Banaras Hindu University Library System. The findings of the study revealed that 53.65% professional staff, 38.63% semi-professional and only 28.86% non-professional staff of the library was ICT literate. The authors recommended the massive injection of funds into purchase of ICT facilities for university library system and provision of training and retraining opportunities for professionals in computer literacy.
**Hadimani & Rajgoli (2010)** conducted a case study of College of Agriculture, Raichur (Karnataka, India) to assess the information literacy competency among the undergraduate students. The findings of the study revealed that 94.44% of the students were aware of the need of information and all of them consulted library staff for finding information. 72.22% of the respondents also consulted faculty. It was also found that 91.11% of the respondents preferred to evaluate the information. 83.33% students had knowledge about copyright and intellectual property rights. The authors recommended the inclusion of information literacy component in the agricultural education curriculum.

**Sasikala & Dhanraju (2011)** conducted a study to assess the competency level of information literacy among the science students of Andhra University. The findings of the study revealed that majority (94%) of the students used books frequently followed by reference books (44%). It was found that for locating information in a library, 64.53% of the students approached library catalogue while only 18% consulted bibliographies. 22% of the students knew that encyclopedia was the basic source used for getting broad introduction about a topic while only 14.18% students had knowledge about bibliography. The findings further revealed that only 18.43% of the students had capability of searching a library catalogue. 66.66% students had familiarity with MS Word, 57% accessed websites, 38.3% e-mail, 30.49% search engines, and 27.66% e-resources and only 20.56% students preferred online databases. Only 17.73% students had skills to apply truncation techniques and 15.60% had knowledge about boolean operators. The study also found that 70.2% of the students preferred to evaluate the information available over Internet and 69% students had knowledge about copyright and copyright infringement.

**Moghaddaszadeh & Nikam (2012)** carried out a survey of faculty members and research scholars of Bangalore University to explore their attitude towards information literacy. The findings of the study revealed that 68.6% of the respondents were able to identify different types of potential sources for information. 70.5% of the respondents preferred to evaluate the information sources and 65.6% of the respondents understood many of the ethical, legal and socio-economic issues surrounding information and information technology.

A review of the literature reveals that no such study/survey has been undertaken in the area of Punjab on the subject of information literacy. So the need was felt to do a comprehensive study on information literacy among the students of universities of Punjab and Chandigarh.

References


