The hypotheses given in Chapter 1 have been tested and proved by using data collected for the study. The hypotheses of the study are:

1. That the students do not have the skills to select significant terms while executing a search strategy.
2. That the students do not have familiarity with various searching tools and techniques.
3. That the students do not have the skills to choose appropriate document type according to their need.
4. That the students do not have the skills to evaluate the information.
5. That the students understand ethical, legal and economic issues regarding the use of information.

Testing of Hypotheses

1. That the students do not have the skills to select significant terms while executing a search strategy.

Information literate should require an understanding of the appropriate search terms when executing the strategy. The inclusion of non-significant words reduces the number of results obtained while the omission of significant words renders the strategy too broad and will retrieve irrelevant results. Analysis and Interpretation of data reveals that majority of the respondents do not have the skills to select significant words while executing a search strategy. Table 5.5 (a) shows that only 25.3% of the respondents are able to recognize significant words with variation among universities ranging from 7.9% for PUP to 36% for GNDU. However, majority of the respondents (74.7%) selected a very restrictive search strategy which includes the non-significant term “impact.”

Table 5.6 (a) indicates that only 18.1% of the respondents selected right answer (d), which includes all the important concepts. A majority of the respondents (37.4%) chose an answer in which one of the important concepts was missing. 31.1% of the respondents retained the wording of the question and did not realize that although “country” was an important concept, it needed to be translated into a more significant word for the search strategy. On the basis of the findings, we can say that the hypothesis is proved.

2. That the students do not have familiarity with various searching tools and techniques.

A good search strategy requires an understanding of the structure and the content of the fields in a library catalogue in order to select the appropriate search indexes when executing the strategy.
Also knowledge of Boolean logic and wildcard/truncation, used by more search tools, is essential for developing a sound search strategy. Respondents were asked to find all the documents on “Nuclear Deal” in a library catalogue. The analysis of table 5.7 (a) reveals that only 26.1% of the respondents of all the universities chose the right answer (c) that is they would search the subject field to look for documents on ‘Nuclear Deal.’ The answer (a), search by title, is selected by majority of the respondents (51.3%).

In another question, respondents were asked about the boolean operator they would use to include synonyms in their search statement. The answer of this should be “OR.” This tells the system to include in the search results all the documents that contain one or more of the query terms. This basic concept escaped most of the respondents. Table 5.8 (a) indicates that only 25.9% of the respondents chose the right answer. A majority of the respondents selected the “AND” operator (51%) which has the opposite effect to “OR” in limiting the search to documents containing all the terms. 2 respondents of GNDU chose the ‘+’ symbol which often represents boolean operator “AND.” Table 5.9 (a) shows that majority of the respondents (95.6%) do not have the knowledge about wildcard/truncations. Therefore, findings of the study reveals that majority of the respondents do not have familiarity with various searching tools and techniques. Hence, the hypothesis stands vindicated.

3. That the students do not have the skills to choose appropriate document type according to their need.

The respondents were asked questions to assess their understanding with characteristics of various document types. Information literate should be able to choose appropriate document type, whether print or electronic, according to the requirement. In a question, the respondents were asked about the document from which one can become familiar with a subject. Whether print or electronic, an encyclopedia is a basic reference tool that makes it easier to learn about a subject by giving an overview of the topic. The result of table 5.10 (a) shows that 54.6% respondents of all the universities recognize the usefulness of encyclopedias.

In a similar question, respondents were asked about the document that contains more recent information than other document types. Table 5.11 (a) shows that 56.3% of the total respondents selected the right answer, i.e. ‘journal.’ The second most preferred response was given in favour of ‘encyclopedia’ by 19.1% of the respondents that may not be treated as most recent information source. The findings of the study reveal that though more than 50% of the
respondents have the skills to choose appropriate document type according to their need, more than 40% do not possess such skills. Therefore, the hypothesis is partially proved.

4. That the students do not have the skills to evaluate the information.

The abundance of information available over Internet and proliferation of sources in varying forms and formats poses greater challenge for people to differentiate the relevant from this deluge of information. As everyone in this information age is free to publish on Internet and the information available on Internet is not always evaluated or checked, the users should be made aware of the need to critically evaluate it and should have sufficient skills to locate, retrieve and select the most relevant information. The analysis of table 5.16 (a) reveals that 53.1% of the respondents felt the need to evaluate the information before using it for desired purpose. Table 5.17 (a) exhibits the evaluation parameters used by the respondents for evaluating the electronic information resources. Among those who preferred to evaluate the information, 66.4% respondents consider ‘authenticity’ as the most important criteria for evaluation, followed by ‘reliability’ (49.4%). Other parameters for evaluation of Internet resources are used by the respondents in the range of 38% to 45% respectively. Therefore, based on the findings of the study we can say that though more than 50% respondents of all the universities prefer to evaluate the information, more than 45% do not feel any need to do so and lack such skills. Hence, the hypothesis is partially proved.

5. That the students understand ethical, legal and economic issues regarding the use of information.

Every user of information either a researcher writing research paper or a student preparing class material, must include a list of works cited and consulted. It is the ethical responsibility of users to acknowledge the work of others. Information literate must have the skills to use the information ethically and avoid plagiarism. When repeating someone’s words, it is imperative to quote the name of the author of the original text so that readers may be able to locate the text. Table 5.18 (a) shows that majority of the respondents (85.1%) are familiar with the principles of ethical use of information. When using information, they are either quoting the name of author or develop new concepts/ideas from it.

ICT affects various issues such as copyright protection, intellectual freedom, privacy and security. Reader must respect intellectual property of copyright holder and should not represent work related to others as his/her own. Information literate must follow laws, regulations,
institutional policies and etiquette related to the access and use of information resources. The respondents were asked about their understanding of intellectual property right, copyright laws and fair use of copyrighted material. The results of table 5.19 (a) show that 80.2% of the respondents have an understanding of what constitutes plagiarism and do not violate the copyright law. They either seek the consent of the copyright holder or make fair use of information.

Information literate must understand socio-economic issues surrounding the use of information. He/she must identify and discuss issues related to free v/s fee based access to information. It must be imperative for users to pay attention regarding relevance of information in comparison to money paid for information. The analysis of table 5.20 (a) shows that 50.7% of the respondents paid regularly for accessing information. When asked by the researcher about the return on money invested on getting information, majority of the respondents (85.9%) stated that they received fruitful return for the amount paid for information. Thus findings of the study reveal that majority of the respondents understand ethical, legal and economic issues regarding use of information. Therefore, the hypothesis is fully established.

Findings of the study
The major findings of the study are put under the following five themes:

- Concept identification
- Search strategy
- Document types
- Search tools
- Use of results

Frequency of visiting the library

- 44.4% of the respondents visit the library ‘daily’, 31.9% ‘2-3 times in a week’, 13.2% ‘once a week’ and 9.6% ‘rarely.’
- University-wise, majority of the respondents of GADVASU visit the library ‘daily’ (63.2%) followed by PUP (60.3%).
- Faculty-wise, SS&H group excels in the percentage for ‘daily’ with 46.4% while S&T group excels in ‘2-3 times in a week’ with 34.7% responses.
- Status-wise, both the students and researchers visit the library ‘daily’ with 44.2% and 45.2% responses respectively.
• Gender-wise, in contrast to males, female respondents dominate the percentage of ‘daily’ by a margin of 8.5%.

Sources consulted to locate information
• ‘Internet’ is the most preferred source to locate the information with 87.1% responses followed by ‘library catalogues’ (59.6%) and ‘teachers/professionals’ (47.9%).
• University-wise, all the respondents of GADVASU prefer ‘Internet’ followed by PUP (96.3%) and PAU (92%).
• Faculty-wise, for all the sources, the percentage of S&T group exceeds to that of the corresponding SS&H group by a slight margin.
• Status-wise, researchers show a greater preference for all the sources consulted without exception.
• Gender-wise, males prefer to consult ‘Internet’ (88.2%) and ‘library catalogues (59.8%) while females take help from ‘teachers/professionals’ (48.7%).

Purpose of using information
• 78.4% respondents of all the universities use information ‘to update knowledge’ followed by ‘to support research’ (39.2%) and ‘preparing course material for classroom learning’ (38%). The purpose ‘to write paper for seminar/workshop’ is the one that motivates the least (23.9%).
• University-wise, PUP comes on top for ‘updating knowledge’ with 89.5% responses followed by GADVASU (78.9%) and GNDU (76.4%).
• Faculty-wise, S&T group shows a higher percentage for all the purposes than SS&H group except for ‘to prepare course material for classroom learning.’
• Status-wise, students require information mainly ‘to update knowledge’ (79.7%) and ‘to prepare course material’ (42.1%) while researchers require information mainly ‘to support research’ (61.9%) and ‘to write paper for seminar/workshop’ (33.5%).
• Gender-wise, both males and females find ‘to update knowledge’ as the main purpose for using information. But the percentage of males is higher (82.1%) than the females (74.7%).

Preferred format for information
• Majority of the respondents (75.9%) prefer to read ‘both print and electronic format.’ Only 17% prefer to read ‘print only’ and 7.2% ‘electronic only.’
- University wise, PUP has the highest percentage of respondents (89.9%) and GADVASU the lowest (47.4%) who prefer to read ‘both print and electronic format’.
- Faculty-wise, SS&H faculty excel in their preference for ‘both print and electronic format’ (76.5%) and ‘print format alone’ (17.2%) while the S&T respondents excel in their preference for ‘electronic format alone’ (8%).
- Status-wise, for ‘both print and electronic format’, the percentage increases with the rising status i.e. 74.4% for the students and 83.2% for the researchers. The preference for the ‘print format alone’ ranks next but the percentage decreases with the rise of status. ‘Electronic format alone’ is the least used by both the categories of respondents.
- Gender-wise, females show the greater preference for ‘both print and electronic format’ (79.6%) than the males (72.3%).

THEME I: CONCEPT IDENTIFICATION

Significant words
- Only 25.3% of the respondents are able to recognize significant words. Majority of the respondents (74.7%) did not choose the most efficient strategy or admitted that they did not know the answer.
- University-wise, GNDU shows the highest percentage of respondents (36%) and PUP has the lowest (7.9%) who are able to identify significant words.
- Faculty-wise, SS&H group (27.2%) is more able to recognize significant words in a search statement than the S&T group (23.4%).
- Status-wise, researchers (25.8%) have more ability to identify difference between significant words and non-significant words in comparison to students (23.2%).
- Gender-wise, male respondents lead the concept identification skills than females by a margin of 4%.

THEME II: SEARCH STRATEGY

Search fields
- Only 26.1% of the respondents of all the universities have knowledge of the structure and the content of the fields in a library catalogue.
University-wise, PUC shows the highest percentage of respondents (37.7%) and PUP has the lowest (16.5%) who know how information is structured and indexed in a search tool like catalogue.

Faculty-wise, SS&H respondents exceed their counterparts with a margin of 11.1%.

Status-wise, researchers (33.5%) have more familiarity with a library catalogue than the students (24.6%).

Gender-wise, the percentages of both the genders are almost identical with slight difference in favour of females.

**Boolean operator “OR”**

- Only 25.9% of the respondents have skills to use boolean operators.
- University-wise, the percentage varies ranging from 12.7% (PUP) to 42.1% (GADVASU).
- Faculty-wise, SS&H respondents (30.1%) are more familiar with “OR” operator than S&T respondents (21.6%).
- Status-wise, a slight variation is seen among both categories of respondents. Research scholars lead by a margin of 3.8%.
- Gender-wise, there is a slight variation in the responses of both the categories. Males lead by a margin of 2.9%.

**Wildcard/Truncations**

- Majority of the respondents (95.6%) do not have knowledge about wildcard/truncations.
- University-wise, none of the respondents of PAU has knowledge about wildcard/truncations while the responses of all other universities are less than 10%.
- Faculty-wise, although the percentages of both the faculties are quite low but we can say that SS&H group (6.8%) is more familiar with wildcard/truncations than S&T group (2%).
- Status-wise, the percentage decreases with the rise of status. Students lead by a margin of 2.2%.
- Gender-wise, the percentage of both the categories of respondents is almost identical.

**THEME III: DOCUMENT TYPES**

**Encyclopedias**

- Only 54.6% of the respondents recognize the usefulness of encyclopedias.
University-wise, GADVASU shows the highest percentage of respondents (73.7%) followed by PAU (64.8%). The responses of GNDU, PUC and PUP are almost identical.

Faculty-wise, the percentage of both the faculties is almost same.

Status-wise, more students (55.5%) understand the usefulness of encyclopedia than the research scholars (50.3%).

Gender-wise, the responses are almost identical with a slight difference.

**Periodicals**

- 56.3% of the respondents understand the characteristics of journal as more recent information tool.
- University-wise, a significant variation is seen, ranging from 31.6% for GADVASU to 62.5% for PAU.
- Faculty-wise, SS&H group (57.3%) exceed to that of S&T group (55.2%).
- Status-wise, research scholars (58.1%) are more familiar with journal articles than students (50.6%) as they regularly consult these sources for their research purposes.
- Gender-wise, female respondents lead by a margin of 4.8%.

**Internet based resources**

- ‘Search engine’ is the only search tool which is highly used by most of the respondents (74.9%) followed by ‘websites’ (55.5%) and ‘wikipedia’ (55.5%). The other information sources in order of preference are ‘e-resources’ (49.4%), ‘online bibliographic databases’ (28.9%) and ‘subject gateways/portals’ (15.6%). The least preference is shown towards ‘blogs’ (14.3%).
- University-wise, PUP shows the highest preference for ‘search engines’ (88.8%), ‘wikipedia’ (80.5%), ‘e-resources’ (79.8%) and ‘online bibliographic databases’ (44.2%). GADVASU shows the highest preference for ‘websites’ (78.9%), GNDU for ‘blogs’ (24%) and PUC for ‘subject gateways/portals’ (17.3%).
- Faculty-wise, except for ‘e-resources’ and ‘wikipedia’, for all other sources, SS&H respondents excel by a significant margin up to 8%.
- Status-wise, except for ‘blogs’, research scholars show the highest preference for all the sources available over Internet. For ‘blogs’, students lead by a margin of 7.1%.
- Gender-wise, males show a greater preference for all the resources with only exception of ‘e-resources’ where females lead by a margin of 3.3%.
THEME IV: SEARCH TOOLS

Meta search engines
- Only 23.7% of the respondents have knowledge about meta search engines. The results reveal that students do not have a good understanding of this type of tool and may believe that Google and Dogpile do more or less the same thing.
- University-wise, PUP shows the highest percentage of respondents (37.1%) whereas only 1 (5.3%) respondent of GADVASU is able to correctly interpret a meta search engine.
- Faculty-wise, the responses of both the groups are almost identical with a slight difference.
- Status-wise, students have more skills in using meta search engines than the research scholars. They lead by a margin of 9.9%.
- Gender-wise, females (28.9%) are more familiar with meta searching tools than their counterparts (18.6%).

THEME V: USE OF RESULTS

Reading citations
- Majority of the respondents (80.4%) are unable to identify the citations associated with a journal article.
- University-wise, GADVASU holds the top position with 47.4% responses and PUP the lowest position with 4.9% responses in identifying citations. The responses of other universities are almost identical.
- Faculty-wise, SS&H group (22.7%) is more able to interpret a bibliographic reference from a given citation than the S&T group (16.5%).
- Status-wise, research scholars lead by a margin of 4.3%.
- Gender-wise, more males (22.5%) show the ability to identify a citation than the females (16.7%).

Bibliographies
- Only 31.4% of the respondents are familiar with the bibliography as a tool for finding other documents.
- University-wise, greater variation is seen among universities with GADVASU being the lowest with 15.8% responses and PUC having the highest responses (38%).
• Faculty-wise, while 39% of SS&H respondents are familiar with bibliography, only 23.6% of the S&T respondents understand the value of bibliographic references.
• Status-wise, more researchers (42.6%) are familiar with bibliography than the students (29.1%).
• Gender-wise, the responses of males and females are almost identical with slight difference. Males lead by a margin of 2.3%.

Evaluating Information (Internet)
• In testing the relevance of Internet resources used by the respondents of all the universities, it is found that 53.1% of the respondents prefer to evaluate the information found on the Internet. Among them 66.4% consider ‘authenticity’ as the most important criteria for evaluation, followed by ‘reliability’ (49.4%).
• University-wise, PUP has the highest percentage for all the parameters used for evaluation of Internet resources ranging from 55.9% for ‘timeliness’ to 91.5% for ‘authenticity.’
• Faculty-wise, except for ‘authenticity’ and ‘timeliness’, for all other parameters, S&T group leads by a slight margin.
• Status-wise, except for ‘authenticity’ where the researchers lead by a margin of 8.5%, for all other parameters, the percentage of students is more than the researchers.
• Gender-wise, majority of the respondents of both the categories consider ‘authenticity’ as a major parameter for evaluation. For all the parameters, female respondents lead by a margin of 15% to 20%.

Ethical use of information
• Majority of the respondents (85.1%) understand the ethics of information use. They either quote the name of original author or develop new concepts or ideas after reading. However 8.6% of the respondents are not aware of the need to quote name of the author of original text when paraphrasing and do plagiarism and 5.7% have no idea at all about using information ethically. In the ‘others’ category, 5 respondents state that they sometimes copy word for word but give proper reference of it.
• University-wise, PAU shows the highest percentage (54.5%) followed by GNDU (50.4%). 57.9% of the respondents of GADVASU state that they develop new concepts and ideas after reading carefully someone else’s article.
- Faculty-wise, the responses of both the faculties are almost identical.
- Status-wise, more research scholars (48.4%) follow the principles of ethical use of information and develop new concepts and ideas. Almost similar percentage of students state that they are bound by ethics to give credit to author of the original text while using his/her information.
- Gender-wise, both the categories of respondents are equally aware about the ethical use of information.

**Legal use of information**

- Majority of the respondents (80.2%) respect the intellectual property of the author. 59.1% of the respondents make ‘fair use of information’, 21.1% ‘seek permission from copyright holder’. 11% of the respondents violate the copyright law and copy the whole text without getting consent of the copyright holder.
- University-wise, 88.8% respondents of PUP are aware of ‘fair use of information’ which is the highest in comparison to other universities. GADVASU shows the highest percentage of respondents (36.8%) for ‘seeking permission from copyright holder’ and PUP shows the lowest (5.6%).
- Faculty-wise, not much difference is seen among the responses of both the faculties.
- Status-wise, almost equal percentage of students and researchers has skills to use information legally.
- Gender-wise, females (64%) have more understanding of ‘fair use of information’ than males (54.4%).

**Economic use of information**

- 50.7% of the respondents state that they regularly pay money for accessing information. Among those who paid the money, 85.9% received fruitful return for the amount paid on information.
- University-wise, GADVASU holds the first rank with 100% responses followed by PUP (92.7%) and PUC (85.6%).
- Faculty-wise, the responses of both the faculties are almost identical with a slight difference in the favour of SS&H in the case of amount paid on information as well as the return received from it.
• Status-wise, more students (51.5%) pay money for accessing information than the research scholars (46.5%). In contrast to this, research scholars (90.3%) possess sufficient skills to select relevant information than their counterparts (85%).

• Gender-wise, females lead by a margin of 8% in paying the money for getting information and by a margin of 4.2% in getting the return on the money paid for information.

IT skills

• Among the various IT skills, ‘social networking’ comes to the fore with 85.1% responses followed by ‘M.S. Office’ (83.8%), ‘e-mail’ (80.7%) and ‘multimedia applications’ (49.7%). The least preferred IT skills in order of preference are ‘blogs’ (24.2%), ‘programming languages’ (23%), ‘desktop publishing tools’ (21%) and ‘web designing’ (20.6%).

• University-wise, PUP shows the highest percentage for ‘e-mail’ (98.1%) and ‘social networking’ (94.8%). Similarly, PAU shows the highest percentage for ‘M.S. Office’ (95.5%), ‘multimedia applications’ (61.4%) and ‘desktop publishing tools’ (34.1%), PUC for ‘web designing’ (26.4%) and ‘blogs’ (38.7%) and GNDU for ‘programming languages’ (33.2%).

• Faculty-wise, except for ‘web designing’ and ‘blogs’, S&T group excels by a significant difference ranging from 0.7% for ‘desktop publishing tools’ to 17.2% for ‘multimedia applications.’

• Status-wise, except for ‘M.S. Office’ and ‘e-mail’, for all other IT skills, students have higher percentage than research scholars. For ‘M.S. Office’ and ‘e-mail’, researchers lead by a margin of 5.5% and 8.4% respectively.

• Gender-wise, female respondents have the highest percentage for ‘M.S. Office’ (84.4%) and ‘blogs’ (26.7%) than their counterparts. For all other IT skills, male respondents lead with a significant difference.

Frequency of updating the Blog

• 50% of the respondents update their blog ‘daily’ or ‘2-3 times in a week.’ 25.5% respondents are those who once created their blog but rarely or seldom updated it.
• University-wise, greater variation is seen among the responses of all the universities. Only 2 respondents of GADVASU have blogs and they update their blog regularly. 30.7% of the respondents of GNDU update their blog ‘daily.’

• Faculty-wise, while more SS&H respondents (29.5%) update their blog ‘daily’, the respondents of S&T faculty (26.4%) update it ‘2-3 times in a week. For those who seldom update their blogs, S&T respondents lead by 5.8%.

• Status-wise, for those who update their blog ‘daily’ or ‘2-3 times in a week’, the responses of both the categories are almost identical. While more students (26.5%) update their blog ‘once a week’, only 12.9% of the researchers do so.

• Gender-wise, in the case of updating blog ‘daily’ or ‘2-3 times in a week’, males have higher percentage than females and in case of updating blog ‘once a week’, females have higher percentage (26.7%) than males (22%).

**IL workshop/seminar attended**

• Only 44.6% of the respondents attended the workshop or seminar on effective use of information organized by their respective universities. Among those who attended the workshop or seminar, majority of them (89.6%) found the seminar/workshop on information literacy helpful for them to make effective use of information.

• University-wise, while 62.5% respondents of PUP attended the seminar on information literacy, only 25.2% respondents of GNDU did so.

• Status-wise, more research scholars (53.5%) have attended the seminar on information literacy than the students (42.8%). The variation in receiving return from it is in reverse order. While 90.4% of the students have received benefit from it, only 86.7% of the researchers have done so.

• Gender-wise, 52% of the females and 37.3% of the males attended seminar/workshop on information literacy. Regarding the benefit they got from it to make effective use of information, the responses of both the genders are almost identical.

**Inclusion of IL instruction in curriculum**

• Majority of the respondents (76.2%) have information literacy instruction content in their curriculum. However, the respondents (23.8%) who did not have literacy content in their curriculum wanted that it should be included in the curriculum of their respective courses.
• University-wise, a greater variation is seen ranging from 61.6% for GNDU to 94.4% for PUP.
• Faculty-wise, the curriculum of SS&H group (78%) contains more information literacy related content than S&T group (74.4%).
• Status-wise, the responses of both the categories of respondents are almost identical with a slight difference.
• Gender-wise, more female respondents (78.2%) state that their curriculum contains information literacy content than male respondents (74.2%).

Recommendations
On the basis of findings of the study, the following recommendations are put forward:

• The students and researchers should be encouraged by the university authorities to attend seminars, workshops, conferences, training programme on searching tools and techniques and use of search engines, especially meta search engines, to perform competently in this information age.
• Only 24.2% of the respondents have skills of using ‘blogs’, ‘programming languages’ (23%), desktop publishing tools’ (21%) and ‘web designing’ (20.6%). Therefore, it is suggested that more training sessions should be arranged in the libraries to develop in them the requisite skills.
• The university libraries should organize group instructions on the use of Internet facilities provided in the libraries.
• The students of the universities should be practically trained how to search/browse the electronic information and do its evaluation. This will equip the students with needed information retrieval skills.
• The university libraries should have separate funding to start information literacy programmes to educate the students.
• There should be collaboration among academic faculty, library staff, IT professionals and administrators in the implementation of information literacy programmes. These should be learner-centred and discipline oriented.
• Universities should appoint qualified staff with technological experience to teach information literacy and also provide them the required infrastructure.
• The ‘Information and Research Skills’ course should be made a part of the curriculum for all the courses of the universities. This should include locating, interpreting, analyzing, synthesizing, evaluating, using and communicating information.
• Learning environment should be created to allow students unlimited access to multiple resources in and around classroom.
• University libraries should provide alerting services such as E-mail Alert or SMS Alert about the new additions of the library to all its members.
• The faculty and the librarian should collaborate to develop and demonstrate tutorials on intellectual property rights, copyright laws and electronic access to information.
• Universities and research centres of the country should conduct more research on information literacy from time to time to determine users’ information literacy skills.
• Information literacy should be promoted as integral to a national information strategy or policy, as in New Zealand. Left to their own devices the bureaucrats of national governments are likely to focus any such strategies or policies narrowly on ICT, or which the library community will be left to react in frustration at their narrowness of vision and understanding. It will be better for library associations to be proactive and identify issues, strategies and policies and then seek endorsement and ownership by governments and others (Baro, 2011).

Conclusion
The aim of the study was to determine information literacy skills of students and research scholars of five universities of Punjab and Chandigarh. The findings of the study show that information literacy level of the students and researchers in the universities under study does not comply with Information Literacy Competency Standards for Higher Education formulated and reviewed by the ACRL standards committee. The inclusion of information literacy content in curriculum is the need of the hour. It is expected that university authorities would review the curriculum of all faculties to include information and research skills course in order to produce information literate citizens. Information literacy skills cannot be developed in isolation of the library context and practices (Rehman & Alfaresi, 2009). The need of the hour is that teachers and librarians should work collaboratively to produce information literacy content and to make the students aware about the new technology and techniques for effective use of information.
Scope for future research

The present study concentrates to assess information literacy skills among the students of universities of Punjab and Chandigarh.

- User studies may be carried out from time to time with a view to assess the level of information literacy among the students and research scholars. The similar study may be conducted involving faculty of various universities.
- Similar user studies may be carried out in other regions of India to determine and ascertain the information literacy skills of the users.
- Comparison of information literacy skills among different faculties can be conducted.

References
