CHAPTER 5
FINDINGS, SUGGESTIONS AND CONCLUSIONS

5.1 INTRODUCTION:

The present research was carried to know the information literacy of student teachers. Based on the existing information literacy of student teachers, an information literacy programme was developed and implemented to the sample population. Data was collected through questionnaire both at pre and post-test level. This chapter enlists findings of pre and post-test with necessary explanation. By considering the findings necessary suggestions are made and the conclusion of the research is drawn. This chapter also mentioned topics for further research.

5.2 FINDINGS OF PRE-TEST AND POST-TEST:

Findings of pre-test and post-test are organized according to ACRL’s Information Literacy Competency Standards for Teacher Education and scope of these standards in the present research.

5.2.1 Findings in the pre-test and post-test related to Standard One of ACRL’s IL Standards for Teacher Education and scope of present research.

1. To know student teachers’ skills about selecting appropriate topic for searching information by considering the understanding level and previous knowledge of students, they were asked to select appropriate topic for searching. In pre-test only 12.50% student teachers found who were able to select the appropriate piece of information according to the understanding level of students. After implementation of information literacy programme the percentage of student teachers who became aware increased and reached to 79.33.
2. In order to assess the student teachers’ skill about analyzing the topic, they were asked to select correct task to be performed initially i.e. dividing the topic into important terms and concepts. In pre-test only 22.12% student teachers found who were aware about analysis skills before searching. After implementation of information literacy programme this percentage of student teacher who became aware of analyzing the topic before searching increased and reached to 88.46.

3. To understand the practice of student teacher about search term they use, they were asked to mark the term which they use while searching on internet. In pre-test 36.06% student teachers found who were aware about use and importance of standard term during searching. After implementation of information literacy programme the percentage of student teachers who became aware of use and importance of standard terms during searching increased and reached to 82.93.

4. To know the student teachers’ skills in preparing search statements, they were asked to select the appropriate word string from given options. In pre-test 48.32% student teachers found who were able to construct the appropriate word string. After implementation of information literacy programme the percentage of student teachers able to construct appropriate string increased and reached to 70.43.

5. With intention to know the awareness of student teachers about sequential search process, they were asked to mention correct course of actions during searching process. In pre-test only 3.84% student teachers found who were aware of sequential search process. After implementation of information literacy programme, 82.69% student teaches were found who became aware of sequential search process.

6. In order to know the awareness of student teachers about various information sources they were asked to mark the information source with which they are aware of. In pre-test majority of student teachers found who were unaware of various types of
information sources viz. reference, non-book, web and journals. After information literacy programme, the percentage of student teachers who became aware of various information sources is significantly increased.

7. With intention to know the understanding of student teachers about search engines they were asked about the form of results received from search engines. In pre-test only 35.82% student teachers found who were aware of form of results received from search engines. After implementation of information literacy programme, the percentage of student teachers increased and reached to 74.04.

8. In order to know the awareness of student teachers about multiple search engines, they were asked to write the names of five search engines with which they are aware. In pre-test only half of the student teachers (50.96%) could state the name of one search engine followed by 27.88% who were aware of two search engines whereas in the post-test all students are aware of at least two search engine followed by 75.96% student teachers found who became aware of three search engines.

9. In order to know the student teachers’ awareness about various types of search engines, they were asked to select the type/s of search engine with which they are aware of. In pre-test below 3% student teachers found who were aware of types of search engines. After implementation of information literacy programme, this percentage of student teachers who became aware of types of search engines increased and reached to 100.

10. In order to know the student teachers’ awareness about search techniques they were asked to select the search technique/s with which they are aware of. In pre-test only 74.52% student teachers found who were aware of single keyword searching followed by 69% found aware of multiple keyword searching. Besides these two techniques, none of the student teachers found other search techniques. After
implementation of information literacy programme this percentage of student teachers who became aware of single keyword searching, multiple keyword searching and phrase searching increased and reached to 100%. Also significant number of student teachers became aware of other search techniques.

11. In an interview before implementation of information literacy programme with selected student teachers it was revealed that 77.89% student teachers were satisfied below 60% with the results received from search engines regarding their requirement.

12. In order to know student teachers’ awareness about prime government publications in the field of education, they were asked to match the publications in Column “A” with its Publishers in Column “B” as indicated below

<table>
<thead>
<tr>
<th>Column “A”</th>
<th>Column “B”</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Secondary School Code</td>
<td>b. NCERT</td>
</tr>
<tr>
<td>c. Syllabus for Secondary School</td>
<td>c. NCTE</td>
</tr>
<tr>
<td>d. Curriculum framework for Teacher Education</td>
<td>d. Ministry of HRD</td>
</tr>
<tr>
<td>e. Right to Education Act</td>
<td>e. SSC Board</td>
</tr>
</tbody>
</table>

In pre-test only 4.81% student teachers found who were aware of prime government publications in the field of education. After implementation of the information literacy programme this percentage of student teachers who became aware of prime increased significantly and reached to 99.03.

5.2.2 Findings in the pre-test and post-test related to Standard Two of ACRL’s IL Standards for Teacher Education and scope of present research.

1. In order to know the understanding of student teachers about library organization, they were asked about the organization of books in a library. In pre-test 61.30% student teachers found who were aware of method of book organization in a library.
which was significant. After implementation of information literacy programme this percentage of student teachers who became aware increased and reached to 99.04.

2. In order to know the awareness of student teachers about library catalogue, they were asked about use of library catalogue. In pre-test 65.14% found who were aware of library catalogue which was significant. After implementation of information literacy programme this percentage of student teachers who became aware increased and reached to 94.95.

3. In order to know the awareness of student teachers about library OPAC, student teachers were asked about meaning OPAC. In pre-test only 19.95% student teachers found who were aware of meaning of OPAC. After implementation of information literacy programme the percentage of student teachers who became aware of meaning of OPAC increased and reached to 96.39.

4. In order to know the awareness of student teaches about use of call number they were asked about it. In pre-test only 12.02% student teachers found who were aware of use of call number to find a book in a library. After implementation of information literacy programme this percentage of student teachers who became aware of use of call number to find a book in a library increased and reached to 91.35.

5. With intention to know the awareness of student teachers about inter library loan they were asked for their strategy if their required document is not available in the library. In pre-test only 4.33% student teachers found who were aware of inter library loan. After implementation of information literacy programme this percentage of student teachers who became aware of inter library loan increased and reached to 84.38.

6. In order to know the awareness of student teachers about citation were asked to select an appropriate part of article which will lead them to other documents on that topic? In pre-test only 11.78% student teachers found who were aware about use of
citation. After implementation of information literacy programme this percentage of student teachers who became aware of use of citation increased and reached to 60.82.

7. In order to know the awareness of student teachers about index they were asked the meaning of index in a book. In pre-test only 11.06% student teachers found who were aware of meaning of index. After implementation of information literacy programme this percentage of student teachers who became aware of index in a book increased and reached to 98.80.

8. With intention to know the awareness of student teachers about bibliography they were asked the meaning of bibliography. In pre-test 68.99% student teachers found who were aware of meaning of bibliography which was substantial. After implementation of information literacy programme this percentage of student teachers who became aware of meaning of bibliography increased and reached to 99.04.

9. In order to know understanding of student teachers about quality of information, they were asked to select best criterion/criteria for selecting quality information. In pre-test only 7.93% student teachers found who were aware of criteria of selecting quality information. After implementation of information literacy programme this percentage of student teachers who became aware of criteria to select quality information increased and reached to 33.41.

5.2.3 Findings in the pre-test and post-test related to Standard Three of ACRL’s IL Standards for Teacher Education and scope of present research.

1. In order to know the practice of student teachers about information organization, they were provided with a hypothetical situation and asked to organize the information appropriately. In pre-test 52.16% student teachers found who were aware about the skills to organization information appropriately. After implementation of information
literacy programme this percentage of student teachers who became aware of skills in appropriate organization of information increased and reached to 91.11.

2. In order to know the understanding of student teachers about systematic and logical storing of information, they were provided with a hypothetical situation and asked to store the information systematically. In pre-test 43.27% student teachers found who were able to store information systematically and logically. After implementation of information literacy programme this percentage of student teachers who became able to store information systematically and logically increased to reached to 74.52.

3. In order to know the awareness of student teachers about APA reference style, they were provided with the reference in APA style and asked to match the fields accordingly. In pre-test only 32.69 student teachers found aware of APA reference style. After implementation of information literacy programme this percentage of student teachers who became aware of APA reference style increased and reached to 85.10.

4. In order to know the understanding of student teachers about analysis of retrieved information, they were provided with a hypothetical situation and asked to decide their next action. In pre-test only 23.08% student teachers found who were aware of importance of analysis of retrieved information. After implementation of information literacy programme this percentage of student teachers who became aware of importance of analysis of retrieved information increased and reached to 50.96.

5.2.4 Findings in the pre-test and post-test related to Standard Four of ACRL’s IL Standards for Teacher Education and scope of present research.

1. In order to know the awareness of student teachers about interdisciplinary approach in information searching, they were given a hypothetical situation and asked to take appropriate decision about selecting the source. In pre-test only 25% student teachers
found who were aware of skills in interdisciplinary approach in searching information. After implementation of information literacy programme, this percentage of student teachers who became aware increased and reached to 61.54.

2. In order to know the ability of student teachers about incorporating new information, they were asked to select an appropriate option that indicates towards appropriate incorporation of new information. In pre-test 81.73% student teachers found who were able to incorporate new information. After implementation of information literacy programme this percentage of student teachers who became aware increased and reached to 99.04.

3. With intention to know the awareness of student teachers about method of synthesis, they were asked the meaning of paraphrasing. In pre-test only 23.32% student teachers found who were aware of correct meaning of paraphrasing. After implementation of information literacy programme this percentage of student teachers who became aware increased and reached to 92.31.

4. In order to know the understanding of student teachers about repackaging, they were asked the correct meaning of repackaging. In pre-test only 9.38% student teachers found who were aware of correct meaning of repackaging. After implementation of information literacy programme this percentage increased and reached to 89.18.

5. In order to know the understanding of student teachers about effective communication of retrieved information, they were provided with a hypothetical situation and asked to select appropriate mode of communication. In pre-test only 32.21% student teachers found aware of modes of effective communication. After implementation of information literacy programme, this percentage of student teachers increased and reached to 86.30.
5.2.5 Findings in the pre-test and post-test related to Standard Five of ACRL’s IL Standards for Teacher Education and scope of present research.

1. Student teachers were asked about their frequency of evaluation of information. In pre-test majority of student teachers found who were not evaluate the information regularly. After implementation of information literacy programme significant number of student teaches found who became aware of importance of evaluation of information.

2. Student teaches were asked to mark the criterion/criteria of evaluation with which they use to evaluate information. In pre-test 68.51% student teachers found who evaluate the information against usefulness followed by 48.32% against authenticity. After implementation of information literacy programme the percentage regarding these two and other criteria of evaluation increased significantly and reached above 80.

5.2.6 Findings in the pre-test and post-test related to Standard Six of ACRL’s Information Literacy Standards for Teacher Education and scope of present research.

1. In order to know the awareness of student teaches, they were asked to select the intellectual properties covered by copyright law. In pre-test majority of student teaches found who were not aware of copyright law. After implementation of information literacy programme the percentage of student teaches who became aware about copyright law increased significantly.

2. In order to know awareness of student teachers about plagiarism, they were asked to select the ethical practice of using other’s idea in their writings. In pre-test only 18.75% found who were aware of plagiarism. After implementation of information
literacy programme this percentage of student teachers who became aware increased and reached to 53.13.

5.2.7 Findings from the analysis of comparison of percentage of student teachers in pre-test and post-test according to score interval.

1. In case of college 1, in pre-test majority of student teaches i.e. 43.05% were in the score interval 11-15. After implementation of information literacy programme, majority of student teachers i.e. 44.43% shifted in the score interval of 21-25.

2. In case of college 2, in pre-test majority of student teaches i.e. 47.36% were in the score interval 11-15. After implementation of information literacy programme, majority of student teachers i.e. 65.86% shifted in the score interval of 21-25.

3. In case of college 3, in pre-test majority of student teaches i.e. 50% were in the score range 11-15. After implementation of information literacy programme, majority of student teachers i.e. 38.29% shifted in the score interval of 21-25 followed by 34.04% student teachers shifted in the score interval 26-30.

4. In case of college 4, in pre-test majority of student teaches i.e. 39.47% were in the score range 11-15 and 28.94% student teachers were in score interval 6-10. After implementation of information literacy programme, majority of student teachers i.e. 56.96% shifted in the score interval of 21-25.

5. In pre-test majority of student teachers i.e. 44.97% in all four selected colleges were in the score interval 11-15. After implementation of information literacy programme, 52.13% student teachers in all four selected colleges shifted in the score interval 21-25.
5.3 SUGGESTIONS:

Based on the findings of the present research the researcher is herewith suggesting following suggestions:

1. Librarians of teacher education colleges should try to change the attitudes of student teachers and teacher educators towards information and its dimensions.

2. At the beginning of teacher education course, librarian should not keep himself limited with only orientation of library; instead, he should make student teachers well aware of all the information sources and their relevance in teaching-learning process.

3. Teacher educators should insist student teachers to refer various information sources during practice and school lessons and should make them compulsory to give the citations.

4. Activity based library hour should be made compulsory in each teacher training college.

5. At least one library project should be included in the syllabus of pre-service teacher education colleges.

6. Information literacy programme should be organized and implemented for whole academic year so as to develop cognitive and analytical skills of student teachers.

7. Librarian should develop and implement information literacy programmes.

8. During information literacy programme more emphasis should be given on project based learning and real world problem solving.

9. The programme developed and implemented in this research is proved as effective. Therefore, researcher suggests that the same programme should be included as a "open course" in the syllabus of pre-service teacher education of Savitribai Phule Pune University (Attached in Appendix V).
5.4 CONCLUSION:

Information literacy programme, if designed according to the needs of student teachers and implemented pedagogically could be effective. As information literacy is not an independent entity, it should always be tied with specific subject so that the students in that specific subject could be able to deal with the information in that subject confidently. Moreover, researcher thinks that an emphasis should be given on the longer duration and strong collaboration among librarian, teacher educators and policy makers. Attitude of student teachers and teacher educators towards the information and its dimensions should be changed and it is the job of the librarian. Librarian needs to add values in his librarianship and should adopt a new role as a Blended Librarian. He should come out of the library and spare his time more with students as he is the only authentic person who can teach and inculcate the information literacy. By the end, it could be stated that there is a strong need of starting the information literacy movement in India and library professionals should lead this movement which will help all citizens to survive easily and confidently in this information era.

5.5 AREAS FOR FURTHER RESEARCH:

An Information Literacy is the crucial and vast area in research in the field of library and information science. Following can be the areas for further research in the area of Information Literacy.

1. Comparison of various teaching methods and learning techniques applied in implementing Information Literacy Programme.

2. Implementing an Information Literacy Programme by using various Teaching Models.
3. Developing and implementing information literacy programmes for Teacher Educators and Researchers in the field of Teacher Education.

4. Developing and implementing an Information Literacy Programme through Micro Teaching.