Methodology

The present chapter deals with the methodology used in the study under the following headings:

1. Selection of the problem
2. Scope of the study
3. Objectives of the study
4. Hypotheses
5. Methodology of the research
6. Tools used for the research
7. Pilot survey
8. Sampling
9. Sample population
10. Data collection
11. Data processing and analysis

1. Selection of the problem

The selection of a research problem is the most important factor that one has to make in doing research. In fact it is a very vital work for a researcher because the range of potential topics for social research is as broad as the range of social behavior itself. As we know, every problem may not be researchable and, therefore, if researcher has not been able to select the problem properly, his efforts may not yield the required result.
and then in some cases it may lead to disappointment and frustration of researcher.

The problem for the present study is entitled “Awareness and Use of ICT Applications: Comparative study among PG and UG students of Faculty of Arts and Faculty of Social Sciences”.

2. Scope and Limitation of the Study

The scope of the study is confined to the PG and UG students of arts and social science faculties of AMU, Aligarh. In this study awareness and use of ICT applications to meet the requirements of the students has been questioned and tested as per the mentioned objectives and hypotheses.

3. Objectives of the study

To know whether students are literate in ICT after the spread of ICT applications in every field of life. The objectives of the study are as follows:

1. To know the awareness and use of ICT applications among PG and UG students of arts and social science faculty.
2. To know the reasons for which the students use ICT applications.
3. To find out the frequency of using ICT applications.
4. To find out the kind of activities that students engage themselves in by using ICT applications.
5. To study the proficiency of the respondents in using ICT applications.
6. To find out the problems faced while working with ICT.

4. Hypothesis

Following are the hypothesis of related study-

1. Most of the PG and UG students of arts and social science faculty are aware of and use ICT applications.

2. Most of the users use computers/ICT applications very frequently at home.

3. Majority of the respondents are expert in using ICT applications.

4. Internet surfing for personal purpose is the most favorable activity among the students.

5. PG students use more ICT applications in comparison to UG students.

5. Methodology of the research

Scientific investigation involves careful and proper adoption of the research design, use of standardization tools and tests, identifying adequate sample by using appropriate sampling techniques, sound procedure for collection of data and then after careful tabulation, the use of appropriate statistical technique for analyzing the data. For the present study, investigator used questionnaire, personal interview and observation methodology. There are several techniques available for collection of data, some methods of data used by the investigator, are given here as under-
Observation Method-

Observation is a well established technique for collection of data. The research may or may not have direct contact or communication with the people whose behavior is being recorded. In this method researcher has to observe the required phenomenon by himself. By involving himself, researcher will be able to keep his eye on the entire activity for the collection of accurate data and ascertain direct inferences. This method is very useful in natural and physical sciences, but its utility cannot be simply neglected in social science also. Observation provides an opportunity for empirical study that is first hand collection of facts and there is scientific precision in this method as facts and related information is collected in a natural situation. From observation, investigator can very well relate cause and effect relationship.

Personal Interview-

Interview is a form of measurement that is specially being applied in descriptive research where opinions and attitudes of respondents are necessary. Interviewing is a well-established method of data collection. In the research interview thus, the interviewer asks specific questions pertaining to research objectives/criteria and the respondents restricts his/her answers to specific questions posed by the interviewer.
The interview method is time consuming and can be very costly if the number of respondents is more, far and widely positioned. Personal interview is of two types usually known as structured or formal and unstructured or informal interview.

**Questionnaire Method**

Questionnaire is a tool to collect data from diverse large and widely scattered population groups. Questionnaires are a popular means of collecting data, but are difficult to design and often require many rewrites before an acceptable questionnaire is produced. Questionnaire is the structured set of questions usually sent by mail, though sometimes it is delivered by hand also. Questionnaire should be standardized, its anonymity can be assured and questionnaire should be designed to meet the specific purpose of the research. Questionnaire should have a practical orientation in simple and native language to allow the use of large sample.

6. **Tools used for the research**

Questionnaire, observation and personal interview are used for the study for collecting necessary data.

7. **Pilot Survey**

A pilot survey is very useful when the actual survey is to be on a big scale as it may provide data which will allow costs to be trimmed. Pilot survey
should duplicate, as near as possible, the survey which is to be made because it may reveal snags in the proposed questions and methods. Also, a pilot survey will give an estimate of the non-response rate and it will also give a guide as to the adequacy of the sampling frame chosen. However, it will certainly result in important improvements to the questionnaire and may influence the scope and perhaps necessity of the main survey.

The investigator distributed questionnaire among 5 Postgraduate and 5 Undergraduate students of arts and social science faculty for the pilot survey, which was very helpful in modifying questionnaire for actual survey.

8. Sampling

Sampling refers to the investigations of a part of the whole population or universe. A sampling procedure is a technique of selecting a sample from a given population. In short, sample represents the whole population and by observing the sample, certain influences may be made about the population.

The important consideration in selecting the sample is to see that it is closely representative of the universe. The size of the sample may not be a guarantee of its being representative of the population.
9. Sample population

The present study is conducted on a sample of 45 PG and 45 UG students from the total population of about 3000 students of arts and social science faculty. The total numbers of 100 questionnaires were distributed among the users. The total numbers of 90 filled questionnaires were returned back from the PG UG students, so 90 questionnaires were selected for the analysis of data.

10. Data Collection

Collection of data is the most vital part of a research. It is like collecting raw material to manufacture an end product. It is as important as collecting ingredients in a recipe before cooking a delicious dish. To carry on research successfully, data or information should be collected from proper sources. The more valid is the source of information the more reliable will be the information received, therefore, more correct will be the result achieved.

The investigator visited Arts and Social Science faculties, AMU Aligarh. Questionnaires were distributed to the UG and PG students and filled questionnaire were collected from the respondents.

11. Data processing and analysis

The data collected during research has to be processed and analyzed as laid down in research plan. The processing of data primarily means
editing, coding, classification, and the tabulation of the data, so that they are agreeable and open to discussion. The method of converting raw data into meaningful statements includes data processing, data analysis, and data interpretation and presentation.

The data collection through the questionnaire, observation and informal interview are organized and tabulated by using statistical methods, tables and percentage.