

defining and redefining problems, formulating hypothesis or suggested solutions; collecting, organising and evaluating data; making deductions and reaching conclusions; and at last carefully testing the conclusions to determine whether they fit the formulating hypothesis.

Once the topic of research or study is decided then starts the task of locating the problems or gaps associated with the topic concerned. This is done with the literature review. Literature review means to study and go through the previous researches done by other people on the topic and to understand the topic better so figure out the gaps or the problems relating to the topic which hasn't been studied or dealt with previously.

When you start writing the report or research, the additional piece of information that is given at the bottom of the page is called the footnote. It helps to show in brief a particular thing that needs to be explained from the paragraph, e.g. definition, references etc. Endnotes are similar and is found at the end of a book or a research paper containing reference of the quotations used from other sources.

Bibliography shows you the entire list of the articles, book, journals, documents that were used in the literature review and to understand and get knowledge of the topic.

OBJECTIVE

The purpose of research is to discover answers to questions through the application of scientific procedures. Though each research study has its own specific purpose, we may think of research objectives as falling into a number of following broad groupings:

1. To gain familiarity with a phenomenon or to achieve new insights into it (studies with this object in view are termed as *exploratory* or *formulative* research studies);
2. To portray accurately the characteristics of a particular individual, situation or a group (studies with this object in view are known as *descriptive* research studies);
3. To determine the frequency with which something occurs or with which it is associated with something else (studies with this object in view are known as *diagnostic* research studies);
4. To test a hypothesis of a causal relationship between variables (such studies are known as *hypothesis-testing* research studies).

MOTIVATION OF RESEARCH

What makes people to undertake research? This is a question of fundamental importance. The possible motives for doing research may be either one or more of the following:

1. Desire to get a research degree along with its consequential benefits;
2. Desire to face the challenge in solving the unsolved problems, i.e., concern over practical problems initiates research;
3. Desire to get intellectual joy of doing some creative work;
4. Desire to be of service to society;
5. Desire to get respectability.

USING STATISTICS IN SURVEY/RESEARCH

Most research studies result in a large volume of raw data which must be suitably reduced so that the same can be read easily and can be used for further analysis.

Statistical measures like measures of central tendency, measures of central dispersion are used to summarise the survey/research data. Amongst the measures of central tendency, the three most important ones are the arithmetic average or mean, median and mode. Geometric mean and harmonic mean are also sometimes used. From among the measures of dispersion, variance, and its square root—the standard deviation are the most often used measures. Other measures such as mean deviation, range, etc. are also used. For comparison purpose, we use mostly the coefficient of standard deviation or the coefficient of variation.