



## **UNIT-1**

# **STEPS OF SCIENTIFIC RESEARCH METHOD**

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## OBJECTIVES

At the end of the class, students will be able to:

- define scientific method.
- enumerate the characteristics of scientific research method.
- describe the steps of scientific method.

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## SCIENTIFIC METHOD

Scientific methods are defined as controlled, systematic investigations that are rooted in objective reality and that aim to develop general knowledge about natural phenomena.

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## CHARACTERISTICS OF SCIENTIFIC METHODS

Based on the above definition, the characteristics of scientific methods are as follows:

- They are orderly and systematic processes.
- Scientists attempt to control external factors that are not under direct investigation.
- Their findings are based on the empirical evidences.

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## CONTD.....

- Findings of scientific methods can be generalized, which means that they can be used in situations other than the one under study.
- They are based on assumptions or hypotheses.
- They are basically conducted to develop or test theories.

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## STEPS OF SCIENTIFIC METHOD

The steps of scientific methods depend on the type of the study, which follows either a qualitative or a quantitative approach.

However, the main steps used in any scientific method or approach are as follows:

1. Selecting the topic and identifying the problem.

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## CONTD....

2. Defining the objectives of the study.
3. Reviewing the literature from theory and other related studies.
4. Defining concepts and variables to be studied.
5. Stating hypothesis about expected observations or phenomenon to be studied.
6. Identifying assumptions and implications.

- Determining the ethical implication of the proposed study.
- Describing the research design and methods for data collection.
- Defining study population and sample.
- Planning the data analysis and discussion.

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## CONTD.....

- Collecting data from subjects.
- Analysing and interpreting data.
- Communicating findings of the study

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# School of Nursing

Course Code : BSCN3005

Course Name: Nursing Research & Statistics

# Thank-you

