

## STEPS OF RESEARCH PROCESS

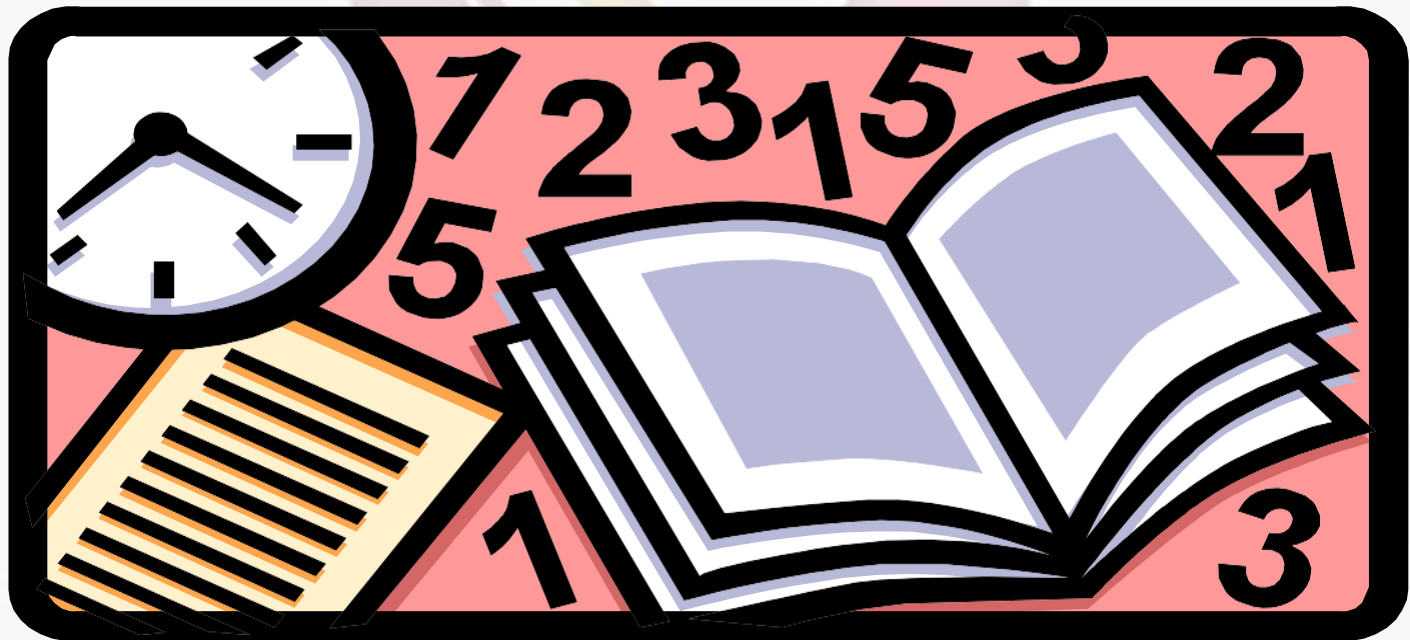
### The research process



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## STEPS IN RESEARCH PROCESS

In a qualitative study the researcher progresses in a logical sequence of the pre-determined steps.



## PHASES OF RESEARCH PROCESS

- I. The conceptual phase.
- II. Design & Planning phase.
- III. The empirical phase.
- IV. The Analytical phase.
- V. The Dissemination phase.

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## **1) THE CONCEPTUAL PHASE.**

- 1. Formulating & delimiting the problem
- 2. ROL.
- 3. Defining theoretical framework.
- 4. Formulating hypothesis

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## Contd...

### 1.1 FORMULATING & DELIMITING THE PROBLEM.

1. Develop a good research Question.
2. The RQ should have good clinical significance, practicability, & satisfy the ethical dimensions
3. A good RQ should satisfy the requisites of the methodological dimensions.

## Example

- An experimental study to assess the effectiveness of Burger allen exercise to improve the perfusion status of the renal failure patient of a selected hospital of greater Noida/ Delhi/ Pune/India.
- Design
- Variable
- Population
- Setting

## Contd...

### 1.2 ROL

1. Quantitative R is typically conducted within the context of the previous knowledge.
2. The ROL provides the foundation upon which to base the new knowledge.

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## Contd...

- 1.3 DEFINING THE THEORETICAL FRAMEWORK.
  - 1. When research is carried out in the context of theoretical framework, it can be used as a basis for generating predictions that can be tested through empirical research.

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## **1.4 FORMULATING HYPOTHESIS**

1. Hypothesis is a statement of researcher's expectations about relationships between the variables of investigation.
2. Hypothesis predicts the outcomes.

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## 2) DESIGNING & PLANNING PHASE

1. SELECTING RESEARCH DESIGN.
2. IDENTIFICATION OF THE POPULATION TO BE STUDIED.
3. SPECIFICATION OF MATERIAL & METHODS OF RESEARCH VARIABLES.
4. DESIGNING THE SAMPLING PLAN
5. FINALIZING & REVIEWING RESEARCH PLAN.
6. PILOT STUDY.

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## 2.1 SELECTION OF RESEARCH DESIGN.

1. Research design is the overall plan to obtain answers to RQ.
2. The design specifies the various types of R approaches that will adopted.
3. As to how the researcher plans to implement specific controls to enhance the interpretability of the results.
4. There are two major types of research – Experimental & Non experimental.

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## 2.2 IDENTIFYING THE POPULATION TO BE STUDIED.

1. The term population refers to the aggregate or totality of all the objects, members that conform to a set of specifications.
2. The researcher identifies the population during the planning phase.
3. The researcher must know the characteristics of the study participants.

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## 2.3 DESIGNING THE SAMPLING PLAN.

1. As entire population cannot be studied researcher uses a small fraction of the population.-sample.
2. The researcher employs many methods to obtain the sample.
3. In applying the methods the researcher ensures representativeness of the selected sample.
4. Methods of sampling include-probability & non-probability sampling techniques.

## 2.4 SPECIFYING METHODS TO MEASURE THE RESEARCH VARIABLES.

1. The researcher must develop a method to observe & measure research variable as accurately as possible.
2. A variety of quantitative data collection approaches exist, e.g..bio-physiological measurements, self reports, observation.
3. Data collection methods vary depending on the RQ & methodology.
4. The task of measuring research variables & to develop data collection plan is a complex process.

## 2.5 FINALIZING & RE-VIEWING THE RESEARCH PLAN.

1. Researchers must finalize the research plan by individuals, groups before the actual implementation.
2. The researcher must have their research plan approved by special committees as to ensure that the plan does not violate ethical principles.

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## 2.6 CONDUCTING PILOT STUDY & REVISION.

1. The primary focus of the pilot study is to assess the adequacy of the data collection plan.
2. The researcher needs to know the adequacy of the technical equipment.
3. The tool for data collection is validated & is termed as pre-testing.
4. Pilot study should be carried out with care as a major study.
5. The pilot study subjects should be chosen from the same population as of the main study.



## **3) THE EMPIRICAL PHASE.**

1. COLLECTION OF DATA.
2. TABULATION OF DATA FOR ANALYSIS.

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## 3.1 COLLECTING THE DATA.

1. The researcher establishes plans & specifies the procedure for data collection.  
*(when, where , how , from whom, consent etc.)*
2. Collection of data involves clerical & administrative works.
3. The researcher ensures confidentiality of the data collected.

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## 3.2 PREPARING THE DATA FOR ANALYSIS.

1. The investigator, transforms the data collected into manageable form (coding) & categorize the collected data into meaningful categories.
2. The above said may be done manually or by transferring the information on to computer files.

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## 4) ANALYTICAL PHASE.

1. ANALYSING THE DATA.
2. INTERPRETING THE RESULTS.

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## 4.1 ANALYSING THE DATA.

1. The data collected do not answer our RQ.
2. The data needs to be processed & analyses in orderly & coherent fashion.
3. Quantitative information is generally analyzed through statistical procedures.
4. It involves usage of broad range techniques. E.g., Descriptive & Analytical statistics.

## 4.2 INTERPRETING THE RESULTS.

1. Before communicating the results, they must be organized & interpreted.
2. This helps to examine the implications of findings within a broader context.
3. The researcher reflects, supports his / her finding with the consistency of the existing literature.

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## 5) DISSEMINATION PHASE

1. COMMUNICATING THE FINDINGS.
2. UTILIZATION OF THE STUDY FINDINGS.

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## 5.1 COMMUNICATING THE FINDINGS.

1. The results of research finding are of not use if they are not communicated.
2. The final task of the project is to prepare research report.
3. The reports could take various forms as papers, dissertations, journal articles, professional conferences.



## 5.2 UTILIZATION OF RESEARCH FINDING.

The concluding step of a high quality study is to plan for utilization in the real world.

A large, faint watermark logo of Galgotias University is centered on the slide. It features a stylized circular emblem with three curved, overlapping bands in shades of yellow, blue, and red, resembling a 'G' or a globe. Below the emblem, the text 'GALGOTIAS UNIVERSITY' is written in a large, light grey, serif font, with 'GALGOTIAS' on the top line and 'UNIVERSITY' on the bottom line.

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# School of Nursing

Course Code : BSCN3005

Course Name: Nursing Research & Statistics



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Name of the Faculty: Mrs. Shilpa Katoch

Program Name: B.Sc. Nursing

## REFERENCES

- Polit Denise F., Hungler Bernadette P. Nursing research principles and methods. 6<sup>th</sup> ed. New York: Lippincott Williams & Wiklkins Publishers; 2004.
- Sharma Suresh K. Nursing research & statistics. 2<sup>nd</sup> ed. New Delhi: Elsevier publications; 2015.

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**THANK  
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