

RESEARCH METHODOLOGY AND INFORMATION RETRIEVAL

CHAPTER 1

INTRODUCTION TO RESEARCH METHODOLOGY

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- Purpose and Aim of Research
- Classification of Research
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Definition of Research Methodology

What is research?



Definition of Research Methodology

- **Methodology** can be defined as a system of procedures or step by step approach use in a particular field of study.
- It is a way to systematically solve a research problem. On the other hand, **Research** is a careful investigation or inquiry specially through search for new facts in any branch of knowledge.
- Therefore, **Research Methodology** can be defined as systematic procedures and careful investigation or inquiry through search for new facts in any field of human endeavour.

Purpose and Aim of Research

The purpose of research is to discover answers to questions through the application of scientific knowledge and procedures while the aim is to find out the truth which is hidden and which has not been discovered yet or to establish (verify) an existing fact.

Classification of Research

Research can be classified in either of two ways;

- Based on the purpose i.e. the degree to which the research findings are applicable to an educational setting and the degree to which they are generalizable. Under this we have (i) Basic and (ii) Applied / Development research.
- Based on the method employed in the research.

Types of Research

Based on method employed these are the different types of research;

- Historical Research
- Descriptive Research
- Explanatory Research
- Exploratory Research
- Experimental research.

Types of Research

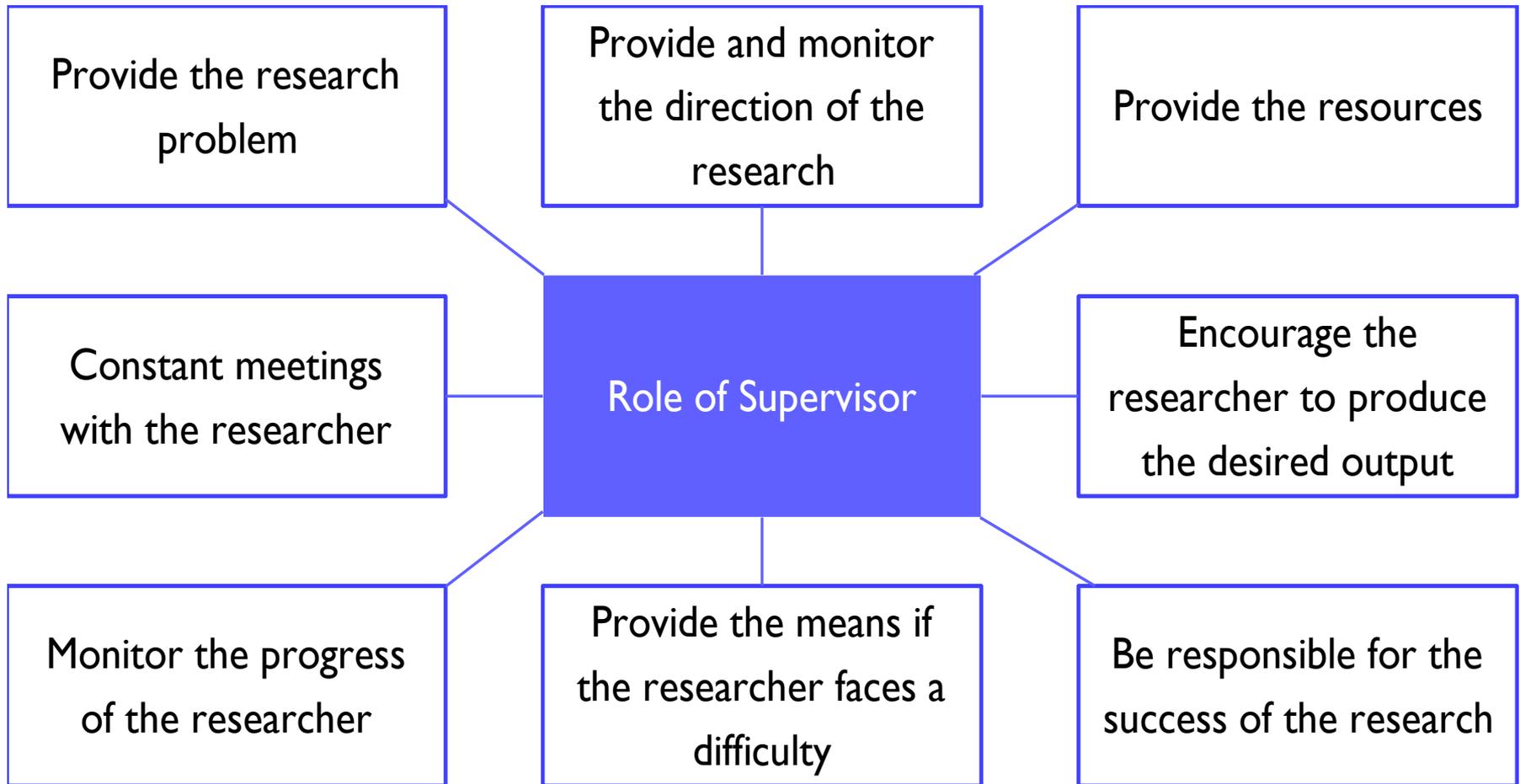
- **Historical Research-** This utilizes historical sources like document, remains etc. to study events or ideas of the past, including the philosophy of persons and groups at any remote point of time.
- **Descriptive Research-** Also called analytical research includes surveys and fact-finding enquiries of different kinds. It describes the state of affairs as it exists at present.
- **Explanatory Research-** This is used to solve a given problem or explain a particular situation.
- **Exploratory Research-** this type of research has to do with efforts to fine or discover new things. To make a breakthrough with the development of hypotheses.
- **Experimental Research-** It could be field-setting research, laboratory research or simulation research, depending upon the environment in which it is to be carried out.

Approach to Research

There are two basic approaches to research, i.e.

- **Quantitative approach** - The quantitative approach involve the generation of data which can be subjected to rigorous analysis in a formal and rigid fashion. This approach can be further sub-classified into inferential, experimental and simulation approaches to research.
- **Qualitative approach** - The qualitative approach is concerned with subjective assessment of attitudes, opinions and behaviour.

Your Supervisor



Researcher's Quality and Attributes

Hard work, doa and dedication

First class mentality

Result oriented and strong
determination to succeed

Integrity and accountability

Strong performances

Career minded and have vision
for the future

Problems in Execution

Distractions

**Poor student-supervisor
communication**

Weak fundamentals

**Difficulty in finding resources and
performing simulations**

**Not dedicated, focused and
insufficient commitment**

**Poor methodology and its
implementation**

WHY NEED TO DO RESEARCH?

- To learn something new
- To provide the evidence to underpin and inform policy- making and decision-making
- To solve problem: generation and testing of new ideas which can then lead to innovation and improvement
- To find out specific information
- To find benefit or drawback
- To compare different things
- To find answers to specific questions

Thank You for Your Attention