

Lecture 4

What is research ?

Answers to questions can be obtained through different ways

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graph TD; A[Answers to questions can be obtained through different ways] --> B[Informal way not based on scientific procedures]; A --> C[Scientific way based on conventional expectations];
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Informal way not based on scientific procedures

Scientific way based on conventional expectations

4.1. Research is among the ways we use to answers to questions and solutions to problems. This implies three possibilities:

- a. The research is undertaken in a framework , a design , a conception of a set of philosophies.
- b. Tested procedures, methods and techniques are used because they are valid and reliable.
- c. Research must be unbiased and objective.

4.2.The researcher orientation:

your orientation in research,that is your philosophical perceptions, may come from many paradigms and approaches in research. This is why this orientation may be :

- positivist/empiricist: which uses quantitative methods.
- constructivist/interpretist: which uses qualitative methods.
- phenomenological: which studies people in their natural setting and environment.

The choice of one of these approaches depends also on the academic discipline in which you have been trained.

The concept of validity can be applied to any aspect of the Research process you are using. It means that you have used correct and appropriate procedures to find answers to questions.

The concept of reliability means that you have used measurement procedures that lead to repeatability of results and accuracy.

Unbiased and objective research means that you have not introduced your own interest, and that your conclusion are drawn to the best of your ability.

Subjectivity is when you are conditioned by your educational background, ideology or philosophy.

4.3. Variations in research:

Research differs from one academic field to another.

The research process is different between physical and social sciences. This is due to the nature of each field.

physical sciences: strictly controlled at each step

social sciences: strict and rigid control is not enforced

However, their broad aim is similar: combination to knowledge.

4.4. Research and non-research activity :

- Research can be technical and complex when formulating theories or laws.
- Research can be very simple when designed to provide answers to questions in day-to-day activities.
- The difference between research and non-research is in the way we find answers to questions.
- Hence, the difference is made by methodology.
- The act of research is different and specific. It engages the research in :
 - ❖ Examining carefully ,
 - ❖ Testing and trying ,
 - ❖ In being systematic.

4.5. Applications of research:

are the concern of many individuals:

- The service provider, the one who presents it.
- The administration, or the manager.
- The consumer.
- The professional.

Each of these has a role to place and objectives to achieve. Hence, they attempt to answer different questions, for they hold different views

4.5.1. The service provider:

may ask the following questions:

- how many people are using my product ?
- why some people do not use my product ?
- how effective is the service ?
- how can the product be improved ?
- how satisfied are the users of the product ?
- what problems does the product present ?
- how can we innovate the product ?

One example of product: mobile telephone.

4.5.2. The manager:

is likely to ask questions such as:

- Which types of product are needed by people
- What do people need ?
- How many service providers are needed ?
- how can I train the staff ?
- How many cases can a worker handle a day ?
- How can I evaluate the effectiveness of workers ?
- How can the service of product be made more popular ?

One example of product: a car.

4.5.3. The consumer:

has different objectives. He asks the questions:

- Am I getting value for my money ?
- How efficient are service providers ?
- Where is the evidence ?

One example:internet service/internet provider.

4.5.4. The questions of the professional are specific:

- Which intervention is best for a problem ?
- What is the relation between 1 and 2 ?
- How valid is a theory ?
- How can I measure attitudes to a product ?
- How do people decide ?

One example: the conduct/behaviour of a researcher.

Each actor has a specific role to play. All contribute to the obtaining of better results.

Key words:

- **Informal:** marked by absence of formality, ordinary, casual.
- **Conventional expectations:** expectations based on conventions, rules, and norms.
- **Framework:** supporting structure, basic conceptual structure.
- **Conception:** a product of abstract or reflective thinking.
- **Design:** a layout, plan, programme, a conception of something to be executed.
- **Set of philosophies:** set of ideas and ways of thinking and conceiving things.
- **Theory:** an idea presented as possibly true, ideas used to explain facts or events.
- **Law:** rule, conduct or action formally and officially accepted.
- **Applications of research:** how research can be used in various fields.

End of lecture,

Thank you.

Homework:

Find out more about pure research and
applied research.