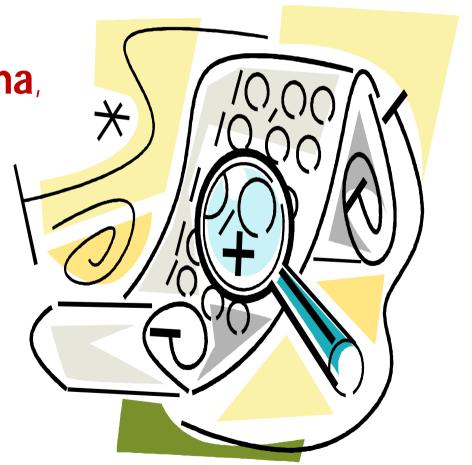
## Research: Nature & Concept

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# Scientific Method and Social Phenomena & Types of Research

#### **Scientific Attitude**

Scientific Attitude means the necessary feeling or opinion or thinking or a particular behaviour, which is necessary for acquiring scientific knowledge.

#### **Scientific Method**

The method used for acquiring scientific knowledge is called scientific method. Here scientific knowledge means systematized, verified, organized body of knowledge. So, the methods used to acquire systematized verified and organized body of knowledge is called as scientific method.

#### **Characteristics Of Scientific Method**

- It is always tested and verified.
- In scientific method the verification should provide the repetition of the information. For e.g. H O, ointment.
- It should have empirical evidences. For e.g. Wind
- While using the scientific method there should not be any bias due to
  - personal emotion
  - belief
  - prejudice in other words scientific method follows objectivity.
- Due to verification, testing, empirical and critical nature scientific method is useful for the following
  - Scientific method establishes general laws about various phenomenon
  - It is useful for solving problems
  - It helps to explain event and clarifies doubts.
  - It also refers to get the information accurately.

## **Application of Scientific Method**

- Scientific method can be used to study the social phenomena.
- There are many techniques and different type of designs available to study the social phenomena.
- All the methods used to study the phenomena insist on objectivity, empirical evidence and verification with the help of scientific method.
- New theories are formulated which is useful for accumulation of scientific knowledge.

### **Social Phenomena**

Most importantly and an apparent dimension of **social phenomena** is it involves the observable behavioral aspects of a person that influences to another person. For **example**-competition, conflict, marriage, divorce, racism, casteism, religion, atheism, social movements etc.

## Procedure for Studying Social Phenomena

- The Researcher should desire the aspects of the studying the research problem. In other wards he should study the research problem i.e. he/she should evolve a specific questions to answer or should have a specific title for research study.
- The concepts used in the research should be defined for empirical verification.
- If needed hypothesis are formulated which can help the researcher to avoid empirical wondering.
- The researcher should prepare proper tools for data collections.
- With the help of the proper tool and adequate data should be collected and it should be recorded.
- The collected data should be edited and analyzed with the help of statistical analysis
- Based on the analysis interpretation are made and conclusions are drawn.
- The conclusions are listed and the whole process should be recorded as research record in the form of approved format.

#### **General Classification of Research Methods**

There are many methods of studying social phenomena. The method should prone the reality. Some times improper use of a method may lead to wrong conclusions. In social science scientific method is used after modification according to the social situations, new methodologies are invented in order to study the social situations.

- Deduction methods where general rules are accepted or from general conclusions individual aspects are studied. In other wards from general to specific is called deduction method.
- Induction method here individual aspects are studied, based on that general conclusions are drawn.
- Historical method where past historical evidences are used.
- Comparative method where more than two aspects are compared.
- Functional method where functional aspect of a structure is given the central focus.
- Structural method where structure is given important for the research.
- Statistical method where statistics are used for research.
- Case Study method where one unit studied thoroughly or fully.
- Experimental method where cause effect relationship is studied.
- Questionnaire and interview method where the data collected through questionnaire or interview schedule.
- Sampling method where few sampling are studying to drawn conclusions.

## Social Science Research and Social Work Research

#### What is Research?

- According to Wilkinson research is a systematic scientific method develop to answer the question like what? How? And to some extent Why?
- In short research is a systematic method or rigorous investigation of a situation or problem by which questions are answered objectively with evidences or in order to generate new knowledge or validate existing knowledge.

## **Objectives of the Research (General)**

- # It helps to evolve solutions to the problem
- # To increase the knowledge
- # For the welfare of the humanity
- # To clarify the facts
- # For Social control
- # For the prediction and prevention of issues.

### Social Science Research

Social science research is focused on finding reasons for human behavior.

Social Science Research is conducted using the scientific method: ask a question, form a hypothesis, conduct empirical research, draw a conclusion, and evaluate the conclusion.

#### **Social Work Research**

**Social work research** deals with systematic, scientific investigation of problem, provision of solution, selection of solution and evaluation of social work practice.

## **Objectives of Social Work Research**

- To add knowledge to social work profession.
- To verify the existing knowledge and techniques in social work
- To evaluate the social practice
- To test the efficiency of social work practice in a specific situation.
- To improve the social work education
- To find out the cause of the problems and to evolve remedies especially for the social problem
- It helps to initiate social reforms
- Based on social work research social planning can be evolved
- It helps to formulate social policies
- It helps to evolve new models for solving social problem

## Scope of Social Work Research

- Scope means an application of particular aspect or utilizing of research for various benefits.
- In social welfare social work research is very well recognized social welfare department and social welfare board are allotting resources for social work research.
- In planning commission social work research are carried out for development
- Now social research has entered into all the fields like medical, developmental, correctional management and family welfare.
- Social work research has gained importance in evaluation of project especially funded by Inte-rnational funding agency.
- Many of the vital social problems can be solved only through social work research.

## Type of Research

Research can be classified based on its uses and its subject /discipline.

Based on the uses it is divided into two types. They are-

- 1. Pure Research (Academic Research) and
- 2. Action Research

Based on the subject/discipline research is classified as economic research, Historical research, biological research, physical research, medical research, social science research and social work research etc.

## Pure Research

**Pure Research** or academic research or basic research, which is used to add knowledge.

Basic Research- it is driven by a scientist's curiosity or interest in a scientific question. The main motivation is to expand man's knowledge, not to create or invent sometimes. There is no obvious commercial value to the discoveries that result from basic research.

For example, basic science investigations probe for answers to questions such as-

- How did the universe begin?
- What is water composed of?
- How do HIV spreads?
- What is the specific genetic code of the Covid-19?

### **Action Research**

**Action research** or applied or functional research where research is used for providing a solution or an action. It refers to scientific study and research that seeks to solve practical problems. Applied research is used to find solutions to everyday problems, cure illness and develop innovative technologies, rather than to acquire knowledge for knowledge's sake.

For example, applied researchers may investigate ways to-

- Improve horticultural fruit production
- Treat or cure a specific disease
- Improve the hygienic environment at homes, offices
- Improve the ways of transportation

#### PARTICIPATORY RESEARCH

**Participatory research** integrates scientific investigation with education and political action. Researchers work with members of a community to understand and resolve community problems, to empower community members, and to democratize research.

The methods of participatory research include group discussions of personal experience, interviews, surveys, and analysis of public documents. Topics that have been investigated with this approach include community issues such as polluted water supplies and the school curriculum, employment issues such as working conditions and unionization, and theoretical issues about consent and resistance to domination.

## Characteristics of Participatory Research

- (1) participation by the people being studied;
- (2) inclusion of popular knowledge;
- (3) a focus on power and empowerment;
- (4) consciousness raising and education of the participants; and
- (5) political action. A precise definition should be avoided so that each group that does participatory research can be free to develop some of its own methods.

## Interdisciplinary research

Interdisciplinary research is a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of Research practice.

(Committee on Facilitating Interdisciplinary Research, Committee on Science, Engineering, and Public Policy (2004). *Facilitating interdisciplinary research*. National Academies. Washington: National Academy Press, p. 2.)

## The 5 Significant Advantages of Interdisciplinary Research

- 1. A Wider Audience as the Result of Interdisciplinary Research
- 2. Better Explanatory and Predictive Work
- 3. Better Normative Work
- 4. Inspiration to Confront Questions That May Not Otherwise Occur to You
- 5. A Response to the Hyper-specialization That Is Taking Over Many Academic Quarters

#### **Evaluative research**

**Evaluation research** is referred to as evaluative research, also known as program **evaluation**, refer to research purpose instead of a specific method.

**Evaluation research** is the systematic assessment of the worth or merit of time, money, effort and resources spent in order to achieve a goal.

Evaluation research can be defined as a type of study that uses standard social research methods for evaluative purposes, as a specific research methodology, and as an assessment process that employs special techniques unique to the evaluation of social programs.

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## THANK YOU