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QUESTION PAPER

June - 2023

(Solved)

RESEARCH METHODS IN RURAL DEVELOPMENT

M.R.D.-4

Time: 3 Hours] [Maximum Marks: 100

Note: Attempt all the five questions. All questions carry equal marks.

Q. 1. Describe the role of theory in scientific research. Distinguish between 'research' and 'scientific research'.

Ans. Ref.: See Chapter-1, Page No. 7, Q. No. 2 and Page No. 1, 'Meaning of Research and Scientific Research'.

Or

What are the limitations of use of scientific method in social sciences?

Ans. Ref.: See Chapter-1, Page No. 3, 'Possibilities and Limitations of Use of Scientific Method in Social Sciences' and Page No. 7, Q. No. 3.

Q. 2. Discuss the importance of review of literature and hypothesis in a research project.

Ans. Ref.: See Chapter-4, Page No. 30, Q. No. 1 and Q. No. 2.

Or

What is research design? Explain the purpose of a research design in research project.

Ans. Ref.: See Chapter-4, Page No. 27, 'Research Design' and Page No. 30, Q. No. 3.

- Q. 3. Answer any two of the following questions:
- (a) Describe the assumptions on which the use of parametric tests is based.

Ans. Ref.: See Chapter-15, Page No. 127, Q. No. 1.

(b) Describe the assumptions on which nonparametric tests are based.

Ans. Ref.: See Chapter-15, Page No. 128, Q. No. 4 and Page No. 125, 'Non-Parametric Tests and Application of Chi-Square TEst'.

(c) What are major parts of a research report? Describe briefly the importance of each part.

Ans. Ref.: See Chapter-16, Page No. 129, 'Why and How to Write a Research Report?', 'The Beginning', Page No. 133, 'The Man Body' and Page No. 137, 'The End'.

- Q. 4. Attempt any four of the following questions:
 - (a) Types of non-probability sample.

Ans. Ref.: See Chapter-9, Page No. 73, 'Non-Probability Sampling'.

(b) Characteristics of a good sample.

Ans. Ref.: See Chapter-9, Page No. 74, 'Characteristics of a Good Sample'.

(c) Types of rating scale.

Ans. Ref.: See Chapter-10, Page No. 86, Q. No. 2.

(d) In what respects is an interview less useful than a questionnaire?

Ans. Ref.: See Chapter-11, Page No. 92, Q. No. 1 and Page No. 89, 'Limitations of the Interview'.

(e) Types of observation and the steps involved in them.

Ans. Ref.: See Chapter-11, Page No. 90, 'Types of Observation' and Page No. 90, 'Steps in Process of Observation'.

(f) Various types of documents.

Ans. Ref.: See Chapter-11, Page No. 93, Q. No. 3.

Q. 5. Write short notes on any *five* of the following:

(a) Steps involved in empirical research.

Ans. Ref.: See Chapter-5, Page No. 40, Q. No. 1.

(b) Meaning of Phenomenology.

Ans. Ref.: See Chapter-5, Page No. 33, 'Phenomenology'.

(c) Approaches in critical social research.

Ans. Ref.: See Chapter-5, Page No. 39, 'Approaches to Critical Social Research'.

(d) Steps involved in survey studies.

Ans. Ref.: See Chapter-6, Page No. 51, Q. No. 1.

(e) Purpose of correlational studies.

Ans. Ref.: See Chapter-6, Page No. 51, Q. No. 2.

(f) Observation in an experimental study.

Ans. Ref.: See Chapter-6, Page No. 47, 'Observation'.

(g) Differentiate between formative and summative evaluation.

Ans. Ref.: See Chapter-7, Page No. 59, Q. No. 1.

QUESTION PAPER

December - 2022

(Solved)

RESEARCH METHODS IN RURAL DEVELOPMENT

M.R.D.-4

Time: 3 Hours] [Maximum Marks: 100

Note: Attempt all the five questions. All questions carry equal marks.

Q. 1. Explain the method of naturalistic enquiry.

Ans. Ref.: See Chapter-8, Page No. 61, 'Naturalistic Enquiry'.

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Discuss interview as a technique and its types.

Ans. Ref.: See Chapter-11, Page No. 88, 'Interview', 'Types of Interview' and 'Techniques of Interviewing'.

Q. 2. Indicate the main steps involved in the formulation of a research problem.

Ans. Ref.: See Chapter-3, Page No. 18, 'The Research Problem' and Page No. 19, 'Formulation of Research Problem'.

Or

Describe the elements and approaches of critical social research.

Ans. Ref.: See Chapter-5, Page No. 37, 'Elements of Critical Social Research' and Page No. 39, 'Approaches in Critical Social Research'.

- Q. 3. Answer the following questions:
- (a) Explain in brief the salient features of experimental research.

Ans. Ref.: See Chapter-6, Page No. 46, 'Three Characteristics of Experimental Research'.

(b) Discuss various steps in the formulation of research proposal.

Ans. Ref.: See Chapter-4, Page No. 25, 'Introduction' and 'Preparing Research Proposal'.

(c) Discuss the various stages of action research.

Ans. Ref.: See Chapter-7, Page No. 59, 'Stages of Action Research'.

- Q. 4. Attempt the following:
- (a) Characteristics of scientific research

Ans. Ref.: See Chapter-1, Page No. 2, 'Scientific Research' and 'Conceptual Foundations of Scientific Research'.

(b) Models of evaluation research

Ans. Ref.: See Chapter-7, Page No. 54, 'Evaluation Research Models'.

(c) Research design

Ans. Ref.: See Chapter-4, Page No. 27, 'Research Design'.

- (d) Non-probability sampling
- Ans. Ref.: See Chapter-9, Page No. 73-74, 'Non-probability Sampling'.
 - (e) Attitude scale

Ans. Ref.: See Chapter-10, Page No. 83, 'Attitude Scale'.

(f) Types of descriptive research

Ans. Ref.: See Chapter-6, Page No. 47, 'Types of Descriptive Research'.

- Q. 5. Write short notes on the following:
- (a) Characteristics of Correlational studies

Ans. Ref.: See Chapter-6, Page No. 45, 'Characteristics of Correlational Studies'.

- (b) Non-participant observation
- **Ans. Ref.:** See Chapter-11, Page No. 90, 'Non-Participant Observation'.

Sample Preview of The Chapter

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RESEARCH METHODS IN RURAL DEVELOPMENT

RESEARCH IN RURAL DEVELOPMENT

Introduction to Research: Purpose, Nature and Scope



INTRODUCTION

When we take out useful and authentic information about a process or phenomenon it is called a research. Most of the times it is referred to a systematic inquiry or a scientific approach for various complex phenomenon or a process to acquire knowledge. The main focus in approach of the study is the objectivity. It also helps in studying the problems of the society, and acquiring the knowledge of various aspects of human experiences. It is even more important is how the scientific approach can be helpful in understanding human social phenomenon. We have to first understand the meaning of research and then scientific approach and its methods when applying to social sciences. In the last its application to the rural development after finding out the problems faced in rural development.

CHAPTER AT A GLANCE

MEANING OF RESEARCH AND SCIENTIFIC RESEARCH

Research

In most of the cases we observe certain objects or phenomena with biases. This may lead to a right decision while the observation was wrong on the contrary, a wrong decision while the observation was right. Here, comes a big question of whether the observation was error free. One must be aware of the limitations that may occur during observation. When we try to increase the knowledge or want to create a new knowledge base with the help of observation or any other method is called research with all the limitations, errors and the basics are taken into consideration.

Research is considered to be a systematic and critical investigation. The professionals face many problems while practicing rural development programs and research in this field helps them in application of methods to solve their problems. This also helps in finding out the effectiveness of the methods and techniques used in them. The development officers can decide on measures to be taken for the client with the help of the information provided by the research, it also helps them in suggesting alternative or modification programs. There are some examples of the same:

- The data of actual and potential effectiveness is required by worker of all individuals, families and couples in a particular rural community.
- The worker may want to know the effectiveness of a role play over group discussion for knowledge enhancement of members of a group.
- To change the objectives of a particular program a community worker may want to know about the views of the people in the community.
- For a self help group a director may want to know the effectiveness of scheme of generating income by women for women empowerment.

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 After launching a new program, the administrator's concern for its effective implementation, these are some of the concerns by various departments that require application of research in rural development.

All the concerned departments involved in the rural development may use the research data and can make a difference while using them in application. The effectiveness of the development programs increases with the help of guided findings of the research, as they help in evaluation of programs and practices.

Scientific Research

Science covers various aspects such as descriptions, explanations and understandings of natural phenomena of the object. Research helps increasing the knowledge through systematic and critical investigation. Thus, we can also refer research as systematic and critical investigation of any natural phenomena and finding out a relation and understanding it properly.

CONCEPTUAL FOUNDATIONS OF SCIENTIFIC RESEARCH

Facts and Theory

Human behaviour is dynamic and complex in understanding that social sciences deals. Thus, guided conditions are not suitable for investigations. This generally creates a problem of subjectivity and individualistic generalization. Scientific research starts with the factual data collection and then moving on to theory part of it. For the data to be useful enough all the facts must be organized which means a mechanism to be developed for organizing the facts and making them meaningful for achieving objective. The facts are collected through observed investigations by the scientists. The facts are collected and get accumulated which needs to be organized and classified according to the need for meaningful findings. The isolated facts are then integrated with the conceptual scheme by which we enter the scientific domain this helps in greater understanding of the nature and significance, this also proves that the facts are put properly in their scientific perspective. The theories must be identified for the relationship in data, it also must be formulated as a set of interrelated concepts, definitions and propositions to represent a systematic view for the relationship and phenomena amongst variables, which may explain the phenomena. The scientists are able to draw general

statement by observing the results. This can be explained with an example where in Boyle's Law it is shown that the effect of changes in the gases by increase in by the temperature with a general summary such as "When pressure is held constant as a temperature of a gas increases its volume is increased and as the temperature of the gas is decreased its volume is decreased". This statement also directs us to the phenomena of what to expect in the changes in the temperature of gas. Van Dalen also states that as facts underlines theory, theories underline facts which derive their significance from the theoretical framework. In the early stage of scientific development the research is mainly confined to specific and particular problems, but in the later stages it strives that has helped the earlier progress possible. A more meaningful and realistic structure is attained by organizing all tiny and rigorously defined knowledge, which is the function of theory.

Hypothesis and Theory

A generalization is based on broader phenomena when we take cases in hypothesis. The inter-relation in facts explained by theories which range from simple theories to most refined once, there are laws for generality. When new facts are discovered which fail to accommodate in the old theory it is best to abandon or amend. It can also be subsumed by wider theory. Most of the theories generated do not present timeless truth but they may be considered as a framework for the more recent situation. Thus, most of the old theories need modification with new facts and evidence which contradict the earlier generalization.

Purpose of Theory

A theory serves many purposes of development of science. Such as theory first summarizes the existing knowledge and put it in order of a particular area. There is a deeper understanding of the data and helps in retaining and translating practical findings into an adaptable form. One example of this is the oxidation in daily life which brings focus of many chemical reactions. Next in observed events it provides provisional explanation. The relationship of the variables and their nature can be identified. A theory can help identifying the relation between speed and efficiency in the people of subject along with other variables such as reward, motivation and practice. Thirdly one can predict the occurrence of phenomena with the help of the theory. It

INTRODUCTION TO RESEARCH: PURPOSE, NATURE AND SCOPE / 3

also helps investigating and postulating to discover hidden phenomena. Theory may also provide some missing sequences found during compilation of periodic table. Other missing elements can also be found out which are anticipated by the theory. Thus, we may say that theory stimulates new knowledge by leading into further inquiry.

Developing a Theory

A theory is generally built upon collected facts. It is the investigator who searches and makes intellectual guesses to know the facts and find the missing links, with putting hypothesis forward. They also work out the consequences to be followed from the hypothesis and find facts which are consistent. A wide generalization and a conceptualized framework of the theory is formed. Theory is based on the evidences which help us in advancing our knowledge further. After the explanation of the framework we start looking for the facts for either to confirm or deny the theory with a conceptual framework for testing our evidences. Most of the terms of the theories are difficult to observe directly. Best example is that gravity cannot be directly observed but its effect can be easily observed. Here, both gravity and gravitation are theoretical terms. There are many theories termed as a motivational behavioural factor. Similarly, motivation is also not directly observable because it is a theoretical term or as a construct which is a scientist's imagination.

SCIENTIFIC APPROACH

The method of research and the nature of its content need appreciation for knowledge. All the methods used for scientific research are called scientific methods. There are mainly three basic steps according to George Lundberg (1946) – systematic observation, classification and interpretation of the data. These methods help find out verifiable facts, and bring the confidence of validity in forming conclusion. A systematic observation means aiming at discovering facts as they are because investigations are the most critical part to form conclusions. The scientific methods are classes of objects not the individual objects for university and to be able to predict about phenomena with accuracy.

Use of Scientific Method in Social Science

Human behaviour is basically complex and dynamic in nature which falls under social sciences. It becomes difficult to investigate human behaviour under guided conditions because this may create problems in research specifically in subjectivity and individualistic generalization. But on the other hand the importance of scientific methods is not decreased due to problems arising out of nature and content of social sciences. Scientific methods have their own limitations due to some inherent defects of social sciences when we study social phenomenon because they help in arriving to valid generalizations.

Possibilities and Limitations of Use of Scientific Method in Social Sciences

Social sciences is much more complex than social science are largely natural sciences as it deals with the human beings. Researches based on social sciences emanates notion of research and application in complex human settings. It is the researcher to decide the right and responsive methodology, whereas it contradicts the obsessive use of complex quantitative methods. Thus, the best techniques way is to choose a balance of qualitative and quantitative techniques based on the nature of the problem. Discovering human behavioural principles is difficult but not impossible only thing is that the scientists need to carryout observations very carefully just like done in the natural sciences. It is very difficult to achieve quantitative measurements which are supplemented by qualitative judgements because of human behaviour this causes a drawback in the social science research area. Exact science is more quantitative in measurements and unit social science is more qualitative. For example, when we talk about indiscipline we cannot measure it. In general sciences there are generalization of theories which is not possible in social science, it cannot even predict events accurately. The basic object of science will be difficult to be realized in social science which has many limitations in application of scientific approach social science.

Complexity of Subject Matter

There is an inherent complexity in the subjectmatter of social science. There are specific physical and biological phenomena with limited number of variables in natural science on the basis of which universal laws are established. For example the Boyles' Law deals with relation between phenomena that are apparently are the same all over the world. On the other hand in social science they have to deal with the human behaviour and

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development together as an individual and along with a group. These variables are acting independently and also are interacting at the same time which puts forward the complex human behaviour. Here the subject or each individual is unique due the environment, emotional behaviour, social behaviour and application of his overall personality. Social scientists have to deal with the behaviour of an individual in the group and the influence of the group on an individual. There may be youth leaders, their siblings, family members and community people each as variable contributing to his behavioural phenomena as observed in different settings. This makes it a difficult task for the researchers to generalize and they have to be very cautious as the data obtained in one group may not prove to be valid for the other group.

Difficulties in Observation

Observation is more difficult in social science rather than in natural science which is more subjective in social science as the observer needs to interpret frequently. Generally, a person responds to an investigation only in accordance with other's behaviour. Some behaviours such as motives, values and attitudes cannot be inspected. The observers have to be subjective in interpreting the behaviours whether they indicate particular motive, value or attitude. Sometimes the observations and assessments of the findings are influenced by the social scientist's own values, attitudes. In case of natural scientists they study the phenomena requiring little subjective interpretation.

Difficulties in Replication

It is an easy task for a chemist to test chemical reaction in a test tube and find out the observation and others can repeat it as well. But this kind of replication is not possible in social science even when it is in the same community for one reason that social phenomena are singular and cannot be repeated for purposes of observation.

Interaction between as Observer and Subjects

The observation in social phenomena changes which may not have occurred otherwise. The example of Hawthorne shows that the change in the productivity of the workers was due to the fact that they knew they were singled out for investigations and not due to the changed working conditions. This shows that the presence of observer change the behaviour of their

human subjects. Instead hidden cameras and audio recording can help but in most of the social science response of the human subjects is more important.

Difficulties in Control

There is less possibilities of controlled experiments on human subjects as compared to the natural sciences. There are many problems and complexities involved in research of human subjects. In natural sciences rigid control in laboratories is possible but not so in case of human subjects. The social scientists have to deal with multiple variables at the same time and work under less precise conditions. The task of identifying these variables is very difficult but they try to do this.

Problems of Measurement

For any experiment there has to be some measurement of the factors involved but in case of social sciences the tools are much less perfect and specific. There is nothing like a ruler, thermometer or other laboratory instruments to compare with in social science instead we have to deal with human behaviour which is complicated due to various determining factors affecting independently or by interaction. The statistical devices that help analyzing data in social sciences take care of very few factors. These devices help researchers attribute variance only at the time of measurement. The factors that have influenced in the past in development are not measurable in present influencing the course of development. It becomes very difficult for the researchers to generalize anything from education to research in the field with the complicated factors. They have to conduct many studies before attempting to generalization. Only if the initial figures remain consistent one feels confident in making broad generalizations. There has been a great success in the field of social sciences regardless of these handicaps due to improvement in more systematic methodology and investigation and rigorous research activities.

CLASSIFICATION OF RESEARCH

There is specific research for each study as all are different but still there are some common purposes for all of them which fall in following category:

Exploratory or Formulative Research

The research studies are sometimes done with a purpose of getting new insight into a phenomena get into precise studies and sometimes to develop hypothesis for explanatory research studies.