



Accredited with NAAC **A** Grade

12-B Status from UGC

Methodology of Social Research

MASCCC104

CENTRE FOR DISTANCE AND ONLINE EDUCATION



Accredited with NAAC **A** Grade

12-B Status from UGC

**METHODOLOGY OF
SOCIAL RESEARCH
(MASCCC104)**

REVIEW COMMITTEE

Prof. Dr. Manjula Jain
Dean (Academics)
Teerthanker Mahaveer University (TMU)

Prof. Dr. Vipin Jain
Director, CDOE
Teerthanker Mahaveer University (TMU)

Prof. Amit Kansal
Associate Dean (Academics)
Teerthanker Mahaveer University (TMU)

Prof. Dr. Manoj Rana
Jt - Director, CDOE
Teerthanker Mahaveer University (TMU)

PROGRAMME COORDINATOR

Dr. Ompal Singh
Assistant Professor
Department of Humanities
Centre for Distance and Online Education (CDOE)
Teerthanker Mahaveer University (TMU)

BLOCK PREPARATION

Ms. Ankita Singh
Department of Humanities
Centre for Distance and Online Education (CDOE)
Teerthanker Mahaveer University (TMU)

Secretarial Assistance and Composed By:

Mr. Namit Bhatnagar

COPYRIGHT	:	Teerthanker Mahaveer University
EDITION	:	2024 (Restricted Circulation)
PUBLISHED BY	:	Teerthanker Mahaveer University, Moradabad

SYLLABUS

Methodology of Social Research

Objectives

- This course plan aims to provide exposure of the students to the fundamentals of various research techniques and methods (both quantitative and qualitative).
- It tries to build upon the basic assumptions in adopting different methodologies for different kinds of research themes.

Sr. No.	Content
1	Elements of Scientific methods and various steps in social research; Objectivity/ Value Neutrality
2	Basic concepts: Concept, hypothesis, theory and facts, facts and values; Ethical Issues in Social research
3	Induction and deduction, propositions, syllogism and logical fallacies. Pure and Applied research
4	Research Design: Meaning of research design, Selecting a research design; Types of Research Design: Exploratory, descriptive; Types of Research Design: longitudinal and cross-sectional or comparative
5	Constructing an Instrument for data collection: Selecting a method for data collection, Establishing the validity and reliability of a research instrument

CONTENT

Unit 1:	Elements of Scientific Methods and Various Steps in Social Research	1
Unit 2:	Objectivity/Value Neutrality	8
Unit 3:	Basic Concepts : Fact, Concept, Theory and Hypothesis	17
Unit 4:	Ethical Issues in Social Research	35
Unit 5:	Induction and Deduction, Propositions, Syllogism and Logical Fallacies	41
Unit 6:	Pure and Applied Research	45
Unit 7:	Research Design: Meaning of Research Design, Selecting of Research Design	49
Unit 8:	Types of Research Design : Exploratory and Descriptive	53
Unit 9:	Types of Research Design: Experimental and Cross-Sectional or Comparative	58
Unit 10:	Types of Data and Their Sources	67

Unit-1: Elements of Scientific Methods and Various Steps in Social Research

Notes

CONTENTS

Objectives

Introduction

1.1 Meaning of Science

1.2 Main Elements (Characteristics) of Science

1.3 Meaning of Scientific Method

1.4 Characteristics of Scientific Method

1.5 Major Steps in Social Research

1.6 Summary

1.7 Keywords

1.8 Review Questions

1.9 Further Readings

Objectives

After studying this unit students will be able to:

- The meaning of scientific method and information on its main elements and on features.
- Different steps of social research and its information.

Introduction

Science in itself is not a subject but an object which has been obtained through scientific methods. Scientific methods are used in Natural Sciences, similarly in Social Sciences too, these are used to understand Social incidents. Therefore, it is very important for any subject matter or material to make it a science that how the matter is obtained. If scientific methods are used to understand social happenings then it will be called a Science. Stuart Chase has written that Science is related to methods and not with subject matter. The same thing is expressed by Professor Green that the meaning of science is taken by the methods it is researched. This is clear that any subject where scientific methods is used is Science whether it is Science , Natural Science or Social Sciences . Here it is important to understand the meaning of science to know what is Scientific methods.

1.1 Meaning of Science

Generally science is understood to be Subject Matter. Subjects such as Chemistry, Physics , Biology, Botany etc. are considered sciences only. Subjects which study social facts and happenings, social

Notes

groups, organizations, societies and social relations are not considered sciences. People think that studies of protons, electrons, atoms, molecules, meteors, planets, rocks, organisms, skeletons are only Sciences. This is a myth only. In fact Science in itself is not a subject but an organized knowledge obtained through scientific methods. Knowledge collected by compiling facts using scientific methods and then these changed into forming principals will be called science.

Stuart Chase wrote clarifying the meaning of Science: "Science is related to method and not to subject matter."

According to **Carl Pearson**: "All the Sciences are united in their methods and not in their subject matter."

According **Beasons and Beasons**: "This is methods and not a subject matter which is a challenge for science."

According to **Lundberg**: "To try to define Science as a subject matter creates confusion."

Landis states that Science is Science whether it is Physics or sociology.



Did You Know?

Bernards has defined science as six processes: Testing, Verification, Definitions, Classifications, organization and orientation; these also include Prediction and Application.

Pherfe has stated that scientific knowledge should be defined as an organized Science which is certain, logical and normal up to a limit.

All the statements of these Scholars make it clear that **Science is not related to any specific type of subject matter but a gradual and organized knowledge obtained by Scientific methods.**

1.2 Main Elements (Characteristics) of Science

Martidel and Mounachesi has written clarifying different elements of science that science is a way of thinking and it rises as an answer of all the problem of various thoughts. Science needs to have these different elements:

1. **Observation:** Gude and Hate have written on the importance of science that Science start with observation and to validate one has to come back to observation, A socialist should strain himself to observe carefully. Young has named observation a "purposeful study of eyes". A researcher minutely studies the incident, subject and the facts at the place of incident. Observation is very important in Science.
2. **Verification and Classification :** Verification is testing the facts . In other words verification is to authenticate the facts and result. For verification a similar situation is taken and if both are found similar in nature then it can be said that the obtained facts are verified.
3. **Generalization:** This is an important feature of Science. It means to get a general law or nature on the basis of obtained facts. The results thus found are implemented on the universe. For example, on the basis of studies on some students representatives the obtained results are implemented not only on all students but on all the students of total area.
4. **Prediction:** A main feature of Science is to have ability to predict. If on the basis of results, the future occurrences can be predicted it will be called a Science. If results obtained after research and studies, are verified then in future too they will remain facts. Thus Science has this ability of prediction.

5. **Scientific Attitude:** The subject is called Science if the student collects related facts keeping scientific attitude in mind. Gilin and Gilin have considered the Scientific Attitude very important and given five characteristics of the same:
- (i) *Objectivity:* The student remains unbiased and depicts the incidents in their real forms. It means he is influenced by his individual choice, attitude, interest, tendencies and fears.
 - (ii) *Patience:* A researcher has to be under tremendous pressure to gather the facts, to study them quickly and to finish the work and to present a report, but her should never observe or conclude under-pressure in hurry. These require patience.
 - (iii) *Hard Work:* To understand mysteries of nature and the social happening of the world is a hard task, one should have lots of dedication and willingness to work hard.
 - (iv) *Attitude of Inquisitiveness:* Researcher should continue to find out about various facts with a positive approach till he gets all the facts regarding the subject and verifies them.
 - (v) *Creative Thinking Power:* It is not enough for scientist to collect facts **but they should be inquisitive about their meanings, what could be the results and what** principals can be formed on the basis of these facts. A creative band of mind in necessary to find about new methods.

It is clear so far that for **any subject to be called a science these factors are important:**

1. Scientific methods are used to collect the information.
2. Observation method is used.
3. The facts are presented as they are and what they are.
4. Subjects and purpose should clearly mentioned.
5. The conclusions are verified.
6. The conclusions should be generalized.
7. The results should be strong enough for predictions.

1.3 Meaning of Scientific Method

After learning the meaning of Science it is important to know what are scientific methods are how it helps in study. Generally, scientific method is the one wherein the student studies any subject, problem or incident in an unbiased manner. He observes and collects facts through a questionnaire, a list or any other such module, he categorizes and grades; analyses and describes; find the relation between the fact and reason; generalizes, draws a scientific conclusion and verifies. It increases the prediction ability.

Lundberg has written in relation with Scientific method "In a broader manner Scientific method is , observation, categorization and interpretation of facts" Somewhere else he has written that "Social Scientists have this belief that the problems they encounter, can be possibly solved through intelligent and organized observation of facts and their verification , categorization and analysis. This is called Scientific Method in its original form.



Notes

Bawoulf has written."In expended form any researched method which creates and expands science is called scientific method."

Notes

It is written in **encyclopedia Britannica**, "Scientific method is group which expresses various processes through which science is formed. Any research process which helps to gain scientific and organized knowledge is Scientific method. Clearly any subject becomes science with the help of collected information through this method.

1.4 Characteristics of Scientific Methods

Followings are the main characteristics of Scientific Methods:

1. **Scientific Method is the base of Knowledge:** Sociologists use different scientific methods to learn existing and non existing facts. For example to collect facts Sociometry, observations method, questionnaire method, social inspection method, personal life study method, statically method, interview method, historical method etc. while studying social incident one or more of these methods are used.
2. **Facts are Collected through Observation:** A researcher himself visits the site of incident and himself studies and collected facts. There is no scope for imaginary or philosophical views. If a sociologist has to research about juvenile crime or prostitution or behaviour of crowd, he will collect the information with his own observation.
3. **Facts are Categorized and Analyzed:** It is not possible to come to a conclusion with disorganized data. It is important that obtained facts is organized in a proper manner. For this facts are bifurcated into different categories. Facts are then analyzed. To consider any subject as Science this is important that to reach the conclusion facts are categorized and analyzed.
4. **“What” is Described:** Scientific methods focus on the factual happenings. Science does not classified as what is good or bad, or what should be done and what should not be done. It depicts reality only, the form they are in. For example science explained Joint family or cast system in society the way they are, it does not tell they are good or bad.
5. **Relation between Work and Purpose:** Scientific methods tries to find about work and purpose behind any incident , facts and problems. It tries to find out reasons of problem. It says that behind any incident there are certain factors responsible not any magic or miracle. To find the reason is responsibility of a scientist. Carl Marx theory of Class struggle and Durghems theory of suicide describe relation between work and purpose.
6. **Theories are Established:** Scientific methods help in understanding relationship between facts and incidents, work and purpose analysis, categorization and finding our results. ON the basis of these results scientific laws and theories are formed.
7. **Reexamination is Possible:** Social science can also reexamine its methods and theories as physics or chemistry. In this facts recollected through scientific methods and these can be verified. Its possible to reexamine theories in social science. For example the conclusion that broken families are majorly responsible for juvenile crime can be examined and reexamined at various places.
8. **Universal Theories:** Social scientists use various methods and theories which are universal in nature. This means that if the conditions remain same these theories will be applicable in various societies in different eras. For example, it has been universally found that broken families are based on broken societies.
9. **Ability to Predict:** Any subject is considered a science if it has the ability to tell “what will happen” on the basis of “what is”. In other world on the basis of knowledge obtained through scientific methods , science has ability to predict. For example a social Scientist can tell on the basis of changes occurring in the present society that what will be the form of social system

of future, what will be the form of caste system and what will be forms of family. Existing information of Social Sciences is capable of predictions as Natural Science.

10. **Importance of Logic:** Scientific methods are based on logic, and is based on facts and sincerity. Anything can be intelligently confirmed or unconfirmed but logics are required along-with facts . Scientific methodology insists on choosing processes and instruments which are logical and rational. The method used logic in collection of facts as well. While presenting solution too logic is used. Though experienced proof and facts are required but logical explanations are also accepted. To say that logic is the basis of Scientific method is not incorrect.
11. **Objectivity:** Objectivity is very important in scientific methods, without it a conclusion can not be reached . Objectivity means to study the incidents the way they are. While using scientific method a scientist has to always be careful that his individual thoughts, opinions , emotions and point of views should not be a hindrance in unbiased study. He has to be totally objectively unbiased and depict the fact and to draw conclusions and to prove and to verify.



Task

Explain the characteristics of Scientific method.

1.5 Major Steps in Social Research

Social Research is scientific in nature and it studies any problem or incidents according to scientific method. Scientific method is normally same as social research. In this context , to start social research in a scientific method, a subject is chosen which is to be studied, While choosing it , it is kept in mind that the subject is practical in view of the research. (1) Practicality does not mean usage but to see that whether it is possible to study with the help of scientific methods. This is also important that the subject chosen should not have such a vast area that it would seem impossible to study of whatever studies are done, they are so scattered that no conclusion can be reached. New researchers normally commit this mistake that they choose a vast topic and are not able to save themselves from the lure of becoming famous overnight. But going further they fall into a vast ocean that to come back from there becomes a laughing stock for others. So the first step of this research is the most difficult part Mr. North Rope has written that a researcher can use the most difficult methods during the later steps of research but if the research work has been started in a wrong or in a superficial manner than it will be difficult to improve that. A research work is like a ship which leaves the port for a destination far away but if in the beginning there is slight mistake in navigation it can divert from its path, however skillfully a ship is built and however able the captain is. This is important that the subject is chosen in a manner that its area is limited. Mrs Yung has written that a research can be limited keeping in mind (a) the aims and interests of researcher, (b) the quantity of available material of the researcher, (c) the complications of method and principles, (d) earlier done research work related to the subject. Mr. Augburn has warned us that for research work , a topic must not be chosen about which proven facts are not available and which is difficult according to methodology.

(2) After choosing the subject, it is important that we study other research work and acquaint ourselves with the thoughts, methods and conclusions of others . According to **Mrs. Yung** , (a) to get the general knowledge about the subject ,(b) Methods to be used in research ,(c) to create the hypothesis , (d) To repeat the work done by somebody and the other parts related to the subject on which other researchers have not noticed, these can be helpful for us. After getting to know the views by other people the initial problems and complications become clear and we get to know that from which reliable sources we can get our material.

Notes

(3) The third step is to define different units related to studies. Normally a researcher finds it difficult because different units are not clarified initially. Clarifying meaning of units means clarification aim and area of studies. How unemployment tension seems easy but if they are not defined in the beginning then later on it will be seen that different informers will provide different information according to their own sources which will in future make the whole work confusing .

(4) The fourth step is to **create a hypothesis**, after collecting the initial information about the subject a researcher draws his own conclusion that this method is probably the base of his study. But he does not take it as truth unless this is verified by the facts. Mr. George Cuswell has written that hypotheses is an imaginary and temporary conclusion of subject matter which can be proven by facts only. Mr. Dunhummm has written that hypothesis provide a direction and tells to a researcher what he has to take and what to leave. Hypothesis confirms the research work and helps the researcher to forward his work but remember, hypothesis is a sudden conclusion not the last and the success depends on upto what extent it is proven to be the truth. Hypothesis is proven fact or lie, it helps improving research sources both ways.

(5) After creating hypothesis it is important to decide a **source of information and methods of studies**. **Facts are required to find out whether hypothesis is right or not**. These facts themselves speak of right or wrong.

(6) After choosing the methods and sources, the real research work starts when **inspection and collection of facts** is done. With inspection recording continues so that the nature of fact remains unchanged.

(7) After collection, to make the facts useful for research **categorization** is done, this clears many confusing aspects and clears the unrelated facts and it takes a form of scientific research. Relation between different facts also become more clear.

(8) **The conclusion and implementation** is the final step of social research which is possible after categorization and analysis. It is clear that the hypothesis Is right or wrong but is important for improvement of knowledge and science.

There are eight major steps of social research but **Prof. W.C. Schluter** has presented these into expanded form:

1. Selecting the field topic and subject for research.
2. Surveying the field to apprehend the research problem.
3. Developing a bibliography.
4. Formulating or defining the problem .
5. Differentiating and outlining the elements in the problem.
6. Classifying the elements in the problem according to their relation (direct or indirect to the data or evidence).
7. Determining the data or evidence required on the basis of the elements in the problem.
8. Ascertaining the availability of the data or evidence required.
9. Testing the solvability of the problem.
10. Collecting the data and information.
11. Systematizing and arranging the data preparatory to their analysis.
12. Analysis and interpreting the data and evidences.
13. Arranging the data for presentation.
14. Selecting and using citations, references and foot-notes.
15. Developing the form and style of the research exposition.

Self Assessment

Notes

Fill in the blanks:

1. A subject which is studied, is so scattered that no _____ conclusion is possible out of it.
2. The first stage of this social research is the most difficult part of _____ .
3. After gaining the initial knowledge of the subject matter _____ creates a principal which he has imagined.

1.6 Summary

- Under the Scientific method the facts are collected by observation, principles are established and objectivity is important.
- Before starting social research following steps are observed: (a) selection of subject (b) study books related to subject (c) define units (d) creating hypothesis (e) deciding information sources and useful methods. (f) collection and inspection of facts (g) classification (h) conclusion and implementation of laws.

1.7 Keywords

1. **Social Research:** In terms of social happenings and existing principals, to get new information and knowledge , the scientific method, which is used is social research.
2. **Scientific Methods:** Scientific Methods is collective word which expresses all those processes which help in making sciences.

1.8 Review Questions

1. What do you understand by Scientific Methods?
2. Explain various stages of Social Research.

Answers: Self Assessment

1. Reality
2. Research-work
3. Research scholar

1.9 Further Readings



Books

1. Social Science – Gupta, Sharma
2. Social Sciences Encyclopedia – Harikrishna Rawat.

Note

Unit-2: Objectivity/Value Neutrality

CONTENTS

Objectives

Introduction

2.1 Meaning and Characteristics of Objectivity

2.2 Need of Scientific Study: Importance of Objectivity

2.3 Difficulties in Achieving Objectivity

2.4 Mean and Methods for Achieving Objectivity

2.5 Summary

2.6 Keywords

2.7 Review Questions

2.8 Further Readings

Objectives

After studying this unit students will be able to:

- Understand the meaning of objectivity
- Know about the importance of objectivity.

Introduction

The main objective of any science, whether it is natural science or social science, is to achieve true knowledge, know the reality and reach the truth. For this, it is necessary to enquire the facts in the same form as they are originally in. Objective study is researching any event in the same form as it occurred. On the contrary, when the researcher studies the event under the influence of his beliefs, feelings, prejudices, imaginations, values, personal partialities, etc then it is known as subjective study. This type of study cannot be used to reach to a scientific conclusion because scientific conclusions are based upon objective or real facts and events. Scientific study or objective study is not individual-oriented but fact-oriented. These facts depend on real survey, tests and analysis. Since science is a medium to discover truth, it always gives importance to objective study. Therefore, scientific study is necessary to understand truth and achievement of objectivity is necessary for scientific study.

2.1 Meaning and Characteristics of Objectivity

The survey, compilation and analysis of facts in their original form is objectivity. To view a social event in its original form and represent it in the same form is objectivity. It means that when the researcher surveys the events independent of his views, feelings, values, prejudices, etc, compiles them and on that basis reaches some conclusion then we can say that there is objectivity in the study. Whether

the results obtained from study are good or bad, right or wrong, pleasing or disheartening, but the scholar presents them in the form in which they are originally in. He does not add anything from his side, does not eliminate anything as well as does not hide anything. He simply searches truth and represents it in the true form. In other words, we can say that objectivity is related to finding the truth while representing events in the original form is objectivity.

Explaining the concept of objectivity, Prof. Green has written, "The desire and ability to test the facts and evidences in an impartial way is objectivity." In this definition, there is stress on two points, one is desire for impartial study and the other is its ability. It means that the researcher should have strong will power to view and present events in the original form. Ability refers to the neutral perspective i.e. to discard one's views, feelings, values, ideals, prejudices, etc to remain independent, so that a scientific perspective is adopted for study.

Lavelle J. Kaar has written. "The world in reality is made up of different types of events independent of a person's beliefs, expectations and fears and we can understand every bit of it not from personal views and imagination but by original survey." From this definition, it is clear that the study of this happening world is only possible by unbiased survey wherein there is no importance to researcher's thoughts, values, beliefs, expectations, desires and imaginations.

According to **Fairchild**, "Objectivity refers to the ability by which a scholar or researcher is able to keep away from situations of which he himself is a part of and without any attachment or feelings is able to survey the different facts in the original form in a unbiased way and independent of prejudices."

From the above definitions we can say that objectivity is viewing and presenting events in their real form by being unbiased. The root bases of objectivity include the unbiased perspective of researcher, real survey and analysis and presentation of facts in their original form.

2.2 Need of Scientific Study: Importance of Objectivity

The main motive of research is gain knowledge or practical results. This is only possible when the study is completely objective. If the analysis is not done in a fair manner, the facts have not been compiled in the correct manner, if there is some biasness in the analysis of the facts then in such a situation, the result obtained can never be scientific, practical and objective. When there will be a deficiency of objectivity in the results, then practical knowledge cannot be gained and truth cannot be explored. Therefore, to know the reason of incidents there is very much need of objectivity in the study of especially social researches. The importance of objectivity and scientific study will be clear from the below description:

1. **To make Sociological Studies Scientific:** Some people believe that sociological studies are not scientific and that sociology is not a science. Because of their belief, it is difficult to adopt the subjective view-point of the researcher because the personal belief, prediction, and likes-dislikes of him destroy the practicality and scientificness. But if the researcher has a firm determination to preserve the objectivity then the social incidents can be studied in a objective manner. If the researcher has firm determination to find the reality of social incidents and he continuously puts efforts in this direction then social researches can be made scientific. Therefore it is necessary that the social incidents must be studied in a practical manner and scientific methods must be followed strictly as per rules. If the incidents are truly pictured then any research can be made scientific.
2. **For Successful Use of Scientific Method:** It is necessary to use scientific methodology to reach the truth. But practical and scientific results cannot be obtained from this approach itself. If it is used along with objectivity then real knowledge can be obtained and scientificness can be brought in the study. In reality, scientific approach and objectivity are the two faces of a coin. In scientific study we do the compilation, classification and analysis of social incidents

Note

but if at any moment there is deficiency of objectivity in this then scientific results cannot be obtained, for successful use of scientific method objectivity is very much necessary.

3. **To get Adequate Representative Data:** To get Adequate Representative Data for a social incident we select the units by using sampling method. This selection must be un-biased and fully objective otherwise the units representing the universe cannot be selected. Along with this such facts must be compiled that represents all the characteristics of the universe fully. Any one of various techniques such as questionnaires, interviews, analysis, etc. must be used for gathering the representative data. For this it is necessary that the techniques used for sample collection must be objective rather than based on comfort level else it will not gather representative data.
4. **For getting Data Verified:** Re-examination or verification is a test of the study and any study passes this test only when objectivity is applied at all levels. In a study objectivity only means that the study is based on true facts rather than the biased beliefs, emotions and predictions of the researcher. In any study where there is an element of these, then that study is no more scientific or practical. Re-examination and verification cannot be done of such facts. Therefore, objectivity is necessary for obtaining verified data and scientific results.
5. **To get Unprejudiced Conclusions:** The biggest accomplishment of social research is that the result must be unprejudiced. If the results obtained from such research is not certified, if their data cannot be verified, if rules and principles cannot be made based on this then there is no use of such research. It is necessary to have objectivity in any research. If one can't render the rules and principles according to this base then there is no need for this research. According to any research and study it is necessary to continue for getting registered a getting fair climax from starting to end. The research will be a waste in its absence. So researchers can access a fair climax to follow objective viewpoint and this climax stands any subject on a scientific standard.
6. **To Enrich Real Knowledge :** To remove the darkness of stupidity is the main aim of science and this work can complete at that time when one gets more knowledge related to social happening to follow the objective view point. When this types of knowledge increases then finally our knowledge of day-to-day. social life increases from this people will be relieved from confounded believes and prejudices. To gain actual knowledge, researches will have to keep control over their own ideas and preconceived notions. So they will have to follow the objective view point for this.
7. **To Explore New Field of Investigation :** When any researcher explores in the field of scientific study then he has to follow the objective view point for understanding the right reference of social happenings for finding the facts. When any researcher does a fair study about any happening and problems then he comes across the related unknown facts and has information. Any new favour come on light. Researchers does not think before for this. He comes to know about new option related to social happenings and problems, this helps him in the process of exploring avenues in new fields.



Notes

Researchers can make new planning by this new option in future. It is possible at that time when the study is completely objective or scientific.

8. **To Maintain Control over the Investigator:** Researchers do study about society, group, social happening or any problem generally related to any type. In this condition he is influenced by his own ideas, feelings and predictions. In this condition to remove that it is necessary that the study is totally scientific. This scientificness inspires for study according to objective view point. According to objectivity he can find truth and can find a scientific climax.

9. **To get Rid of Fallacies:** False perceptions create many times tension and struggle among religion and community. These type of perceptions are related to caste, religion, community, culture, state etc. On the basis of general knowledge a person follows these fallacies. Because he has no way to know the truth. Scientific study can help remove these fallacies. There is a false perception since ages in the world that is white community is the best community. So only the white community has the right to rule people and make them civilized. Now according to scientific study it has been proved that no community is less the comparison to others. So scientific study is necessary for remove false perceptions.
10. **To get Social Problems Solved:** There are many social problems involved in today's modern tough society. These social problems are like a disease unless we get rid of these problems, society cannot progress. We can get more information about social problems through scientific study. An objective view point is necessary for this type of study.

Note



Task

What is the meaning of objectivity? Describe briefly.

2.3 Difficulties in Achieving Objectivity

Here we discuss the problem which comes in case of objectivity which are as following.-

1. **Effect of Emotional Attitudes:** Every person has some social and cultural values, and perception. He feels some things are good and some are bad. In the process of personality development emotional tendencies are created which affected his behaviour. In this condition if any researcher does study about joint family, caste system, prostitution, irresponsible behaviour among students then his emotional tendency creates problems in the study an objective manner.
2. **False Idols:** Frances Bejan says that a researcher make mistakes during a study as he gets impressed with false idols. He follows the four idols – the statues of cave, office idols, market idols, caste idols. In the case of cave idols taken those mistakes which researchers do to understand any thing is because of his personal point of view. In case of idols the mistakes which a researcher does is because of more believe on some sentences. In case of market idols the mistakes which a researcher is focusing personal point of view in case of caste idols the mistake which a researcher does is because of the different type of thinking patterns. In this situation it is difficult for researcher to give climax with objectivity from the different field of limited knowledge and his point of view.

Some perceptions also continue in this society in spite of false idols which have no base but these affect the study of researchers in a negative way.



Notes

If the researcher moves forward believing that the mental level of untouchables is low then obviously the results obtained from this will lack the objectivity.

3. **Influence of General Knowledge:** The statement of Hart is right which is that the relation of objectivity is actual knowledge not general knowledge. But many times researchers make

Note

a mistake that the actual knowledge is general knowledge. In this situation the study can not be objective. i.e. if any researcher makes hypothesis on the basis of general knowledge then resultantly he knowingly or unknowingly he focuses on those facts which prove his hypothesis and he leaves different facts knowingly. In this situation the finding of objectivity is very tough.

4. **Particularistic Fallacy:** The main reason of less objectivity in study is particularistic fallacy. The meaning is that the researcher focuses on one side or the important element of any social incident. This is particularistic fallacy. Resultantly objectivity can not be attained in the study and the solution can not be scientific according to it. Example – if a researcher says “Child offence is due to bad company and says that change of religion is due to poverty” In this situation if he ignores many view points naturally objectivity will no to show in the study.
5. **Hurry in Research Work:** Successful research work can not be completed in the hurry. The nature of social incidents is continue for long time. When any research completes in a hurry only because researcher has no more time or the results of research has to be shown to government or non-government agency, In this situation objectivity is not present. That’s the reason the evaluation of development program is not completed on an objective manner.
6. **Vested Interest of the Researcher:** Personal self-interest makes a man blind. This self-interest is the big enemy of objectivity. Person accepts fallacies facts in case of self-interest. In this case the researcher neither can give scientific climax nor the compilation of neutral facts. His compilations of facts is analogous to his self-interest or he represents the facts in pieces because by this he can give that climax which is helpful to this self-interest. These two situations are a hurdle in the way of objectivity.



Did You Know?

When the researcher considers his interest as the foremost then he cannot do the research objectively.

7. **Pressure of Interest Groups:** The pressure of self-interest group or interference also creates problems in finding objectivity. In case of self-interest group, firstly, prosperous people in financial field and secondly, powerful persons in the political field. If the effect would be positive the climax of any research then they people are able to change the climax to make pressure on researchers or not come on in light. Some times researcher come on the pressure of prosperous people and present fact like this value are not change. In the case study of labour the objectivity not comes because of self-interest group. Both prosperous and powerful people exert pressure on the researchers. The researchers come under pressure and present distorted facts objectivity of results is lost in the process.
8. **Ethnocentrism:** It mean that a person views his group, society, caste, language, religion, culture etc. to be the best vis-a-vis others in the society. According to this perception when any researcher does research then he want to prove that to the culture, value, principles, institution of his society are and wants superior to degrade the social and religious life of other people. these type of activities shows that the study will not be objective. Researcher can not do study in fair point of view. Affiliation to a political view point which supports ethnocentrism leads to biased results. These type researcher can not do study fairly. Evidently the same race is the main problem of objectivity.
9. **Complex Nature of Social Phenomena:** Because of the tough nature of social incident finding the objectivity is very tough many times in social research. Social incident is changeable. It’s changeable from time to time. The reason is that many people have variations regarding social incidents. His personality, ideas, feelings, values and situations are different. In this

situation the social relations are very complicated among different people. In this condition many times researcher finds solution on the basis of his own views, beliefs, feelings and values. Resultantly objectivity is not possible in the study.

10. **Lack of Training:** It is necessary to be well informed about research for the researchers. Otherwise the bias can come in any standard. The objectivity of the study can finish. So it is necessary to be completely eligible for the research. He must be literate in terms of getting the solution of overall search, how to select the digit, this method to accept for fact collection, and how to explain the finding of facts, how to show co-relation in different facts. Normally complete attention is not given to the training of the researcher, finally is not achieved objectivity.
11. **Moral Ideals and Values:** There must be no place in research work for the values of researcher because in this case researcher can represent the facts in pieces. In this condition the actuality of objectivity is wasted. In this reference, Lundbarg writes one common source of error in the study is that the sociologist allows the modification of the Code of Morals or compilation of facts related to their own principles. It shows that the researcher own view and principles are hurdles in the study of objectivity.
12. **Bias and Prejudices:** Lundbarg writes that bias and prejudices are the elements which create problem in every science, but the value of physical science is less in comparison to social science. The main reason is that the subject matter of physical science is very free from the effect of Common Emotional Complexes. But social incident is normally effected by this. That's the reason complete knowledge about physical facts is same by general senses. It is specified by the reference of Lundbergh that social science have more effect on bias and prejudices in comparison to physical science. That's the reason it's very difficult to find the objectivity in social study. The study of physical science can easily perform without any bias and prejudices. Because researcher is neither attached emotionally nor the results obtained from such study hurts the opinion, emotion, values, principles, culture of the researcher. Because of his bias he can favour social happening and problems or opposition. Resultantly the problem creates hurdles for finding the objectivity. The meaning of prejudices is that the researchers already suffer any prediction regarding any incident, person, and problems. Prediction creates problem for fair study, for thinking, climax for him. If a researcher understands that joint family is good then during the study of joint family he can ignore the fact on the basis of prediction. By this the climax is that single family is good instead of joint family. Because of prediction he does not conduct the study with objectivity.

The feeling is very effect are in creating bias. And that's the reason suggestion is given favourably or unfavourably without thinking much for any one, in which there is absence of rationality. Secondly when we make any perception about any person, thing, problem, incident, principles etc. and evaluate his fact of perspective, then it's called prejudice. Bias and prejudice both specify that it creates problem in the way of objective study. A person can not do work with free mind by this effect. There we also thinking about the base of bias and prejudice. What are there source? The source is as following-

1. **Bias of Researchers:** Many times researchers make the source of bias. His preconceived and biased behaviour create problem in the way of objective thinking and present climax. In this condition he leaves the important fact and finds the climax according to the ideas and feelings. The nation and interests of researchers, emotional attachments with subject, principles, values and religion etc, make the source of bias.
2. **Prejudices of Informants:** Researcher can not take help for the analysis of fact collection. He collects facts and information to seek answers and meet the informers. Informer is also a social person. He also has interests, ideas, experience, prediction etc. In this situation where he is added for the information related to study he might not give the right answer. They may also give the information which is not completely right. In which may be a

Note

mixture of truth and lies or which represent exaggeration. In this condition the climax can not be objective. Pidington has tried to understand how a informer is a source of bias and prejudice. (a). the informant can either lie or make excuses that they don't know any thing in this relation for the information they do not want to tell. (b). sometime informer can represent to exaggerate any fact because of any self-interest and may hide deliberately. (c). Many times informers give information which is according to the interest of the researcher. (d) sometimes the informants give wrong information in order to prove that he knows every thing and to make fun of the researcher.

2.4 Mean and Methods for Achieving Objectivity

As described above it is very difficult to keep objectivity in the study related to social happening. But the meaning is not that it is not impossible to get objectivity. For this it is necessary that researcher controls himself, keeps free from prejudices and adheres to a scientific point of view. Today on the basis of experience and research developed which are helpful to get objectivity in the study of social happening. These we will describe briefly.

1. **Standardisation of terms and Concepts:** Normally the usage of words in social science, Do not convey its same meaning many times. Resultantly in case of study of social science the climax which one gets is not clear. In this situation it is necessary that words used by every person at every place make the same sense. This will lead to objectivity in the field of social incident.
2. **Priority to the use of Random Sampling:** In this study it is necessary for objectivity that the selection of digits by the method of random sampling is such that every digit has the same probability of being selected from the sample. The units in the universe should be selected by using random sampling so that there is an equal possibility of each unit bring slected without any bias.
3. **Minimum Dependency on Field Investigators:** Where the collection of facts is being done by one nesearcher, he can systematically rid himself of biases and prejudices. However,when many researchers are involved, there should be no scope for personal freedom and there should be provision for full control over the researchers.
4. **Use of Questionnaire and Schedule:** There are limited questions in questionnaire and table. Standard vocabulary is used in this. Every informer goes by the same meaning of every question and the derived answer is also measurable by it. The beneficial use of that method that there is control over the researcher. By this there is objectivity in the study.
5. **Application of Mechanical Devices:** Mechanical devices are useful in increasing the objectivity in study of collection of facts, tabulation and description. Recording machine and photographs are very useful in collection of facts. Stapler machine, sorter, calculator, computer etc. are very useful in tabulation of facts and description. The main benefit of mechanical devices is that facts can not be represent in pieces of study, The fact cannot be changed. So the control continuies on the researcher and the study becomes objective.
6. **Use of Experimental Method:** The use of practical method is increasing day-by-day with the intention of more objectivity in study of social incident. This method selects two groups. In which one is the controlled group and the other is the practical group. There is no change in the controlled group whereas in practical group there is change in one element. This is to see the effect of one element in practical group, then do the comparison among practical group and controlled group. If there is any change in practical group according to comparison then

specify that it's the main element of this change. And the practical knowledge is very useful for objectivity in the study of social incident.

Note

7. **Use of Statistical Measurements:** If the climax of study represents the type of general description then objectivity can come in the study because in this the researcher can represent the fact in pieces as he wishes. This problem can be removed by statistical calculation and measurement. Statistical measurement can be checked easily. That's the reason the use of statistical measurement is increasing day-by-day in the study of social calculation.
8. **Use of Group Research Method:** Research method is very useful in finishing bias. This method can be used in two ways. Firstly, the study of social incident is continued by many researchers in different places and at different times. Secondly, one researcher does the study by same method in a single incident at two similar fields. Then he compares the acquired result, and finds out the current situation. By this there is probability of objectivity increasing in the study.
9. **Application of Interdisciplinary Method:** The study on the basis of help of different scientists is called Interdisciplinary Method and the importance of this type study is increasing in present social science. Now it is felt that for any incident single element is not responsible. Example- The elements like social, financial, cultural, political, sociological are responsible for the problem of crime, poverty, corruption. Whenever the element will not be understood completely we can not understand any problem, incident or objective study of any subject.



Did You Know?

The cooperation between different advertisements is increasing day-by-day, Resultantly the study related to social incident are objective and practical.

10. **Use of Cross-Cultural Approach:** When the study about any incident or problem related to cultural field is done by the people of different cultural fields then they can do the work very fairly and objectively. Research can be biased in study related with cultural field. But when researcher does study related to many cultural fields then there is full possibility of objectivity. It's called cross-cultural approach.

Self Assessment

Fill in the blanks:

1. But this does not mean that it is impossible to achieve _____.
2. Based on the research such techniques have been _____ that help to provide objectivity in the study of social incidents.
3. In _____ usually colloquial language is used which can many times not have similar meaning.

2.5 Summary

- Prof. Green has written, "The desire and ability to test the facts and evidences in an impartial way is objectivity."
- Objectivity is mainly used for successful use of scientific methods, data verification and to explore new regions of research.

Note

2.6 Keywords

1. **Objectivity:** Objectivity is viewing and presenting events in their real form by being unbiased. The root bases of objectivity include the unbiased perspective of researcher, real survey and analysis and presentation of facts in their original form.
2. **Particularistic Fallacy:** One reason in the deficiency of objectivity is particularistic fallacy.

2.7 Review Questions

1. What is the meaning of objectivity?
2. Explain the importance of objectivity.

Answers : Self Assessment

1. Objectivity
2. Development
3. Sociology

2.8 Further Readings



Books

1. Social Sciences Encyclopedia-Harikrishna Rawat.
2. Social Science-Gupta, Sharma

Unit-3: Basic Concepts : Fact, Concept, Theory and Hypothesis

Note

CONTENTS

Objectives

Introduction

3.1 Fact

3.2 Definition and Characteristics of Fact

3.3 Social Fact

3.4 Concept

3.5 Characteristics of Concept

3.6 Importance of Concept

3.7 Theory

3.8 What is Theory?

3.9 The Elements of Theory

3.10 Meaning and Definition of Hypothesis

3.11 Qualities of a Good Hypothesis

3.12 Types of Hypothesis

3.13 Importance of Hypothesis

3.14 Limitations of Hypothesis

3.15 Main Difficulties in Formulation of Hypothesis

3.16 Summary

3.17 Keywords

3.18 Review Questions

3.19 Further Readings

Objectives

After studying this unit students will be able to:

- Understand the meaning and definition of fact.
- Know what is concept and understand it.
- Know the meaning of theory.
- Importance of formation of theory.

Note

Introduction

Every scientific system has three levels or steps namely – Fact, hypothesis, and theory. Fact, hypothesis, and theory can never be accepted as separate identities because it is very difficult to demarcate all of them from each other. During any study, when the fact changes into a hypothesis and when the hypothesis starts the formation of theories, it is just impossible to clarify. But, it is also true that they can be studied separately and individually.

Our aim in this chapter is not to analyze and explain fact, hypothesis, and theory. To understand the sociological theories, it is important to know and understand the steps serially that are involved in the formation of these processes. So, we have to be familiar with fact, hypothesis, and theory.

After selecting the topic or problem of research and study, the researcher is able to decide and presume the ‘cause and effect relationship’ of the topic. This assumption is what is called ‘hypothesis.’ For eg., if any researcher wants to study the problem ‘Increasing crime-activity in India.’ On the basis of experience and general knowledge, we can assume and say that the ‘main cause of increase in crime-rate/activity is poverty.’ This statement then is called the hypothesis.

3.1 Fact

What are Facts

In English, we have two separate words – facts and data which in Hindi has one word. But the true words are not synonyms. They actually have separate meanings in English. So, it is important to understand the difference clearly. In process of research, when the collection of responses is being done, it is called “data” in English. But when after analysis and researching, the data is “validated”, it gets the term “fact.”



Notes

To become a “fact”, the “data” has to go through a specific procedure. Though in Hindi, the ‘fact’ word is for both the contents, one has to very careful in using these words in English.

Before defining the word, ‘fact’ officially, it is very important to clarify because it is directly related to social data. Here we would like to mention the name of French Sociologist, Emile Durkheim. According to Durkheim-Social fact, is that aspect of behavior, which can be inspected/observed individually and which forces one to behave in a specific manner. The indications given by Durkheim to recognize any ‘social fact’ are its ‘exteriority’ and ‘constraint.’ We will define ‘fact’ in this context only because social science is restricted by scientific process and discipline. Thus, we can call ‘fact’ a ‘proper fact’ within certain limits only.

3.2 Definition and Characteristics of Fact

While defining the word ‘fact’, two viewpoints have been put forward.

The first viewpoint includes those definitions which have accepted a wide and extensive field. They include physics, biology, and social science. The definition given in this context are by Pauline V. Young, W.J.Goode & P.K. Hatt and May Broadbeck etc. **According to Pauline-**, ‘fact’ should be viewed in such physical, mental or emotional situations which can be confirmed by words and which can be accepted in the world of discourse.

But this indicates less towards definition and more towards methodological base while defining, Pauline Young has not limited 'fact' to only the 'still' or 'material' things but has included thought and feelings too as 'facts' especially in reference to social science.

In short, **Goode and P.K Hatt** have accepted 'fact' as an 'experience proved Reliable observation/ inspection.

May Brodbeck – While specifying the meaning of fact, Brodbeck has written that any fact pinpoints to a particular 'thing' like any situation, type of situation, proportion of house masters etc. According to him the presentation of facts help us to confirm our assumption or thoughts.

The second viewpoint of defining 'fact' is of those people who present fact only in reference to social context. Their logic is that it is used while researching on social facts only. To confirm this view, the explanation by Durkheim has been given in the beginning.

By keeping, both the views we could mention the views of Fairchild related to the definition of facts, which depicts universal viewpoint.

According to Fairchild – 'Fact' is any subject that could be presented or published in any form or level. 'Fact' is that situation in which observations and measurements there is a common agreement by other people.

According to Social World Bank – Fact has been defined as- One 'fact' is the true presentation of any certified situation that can be confirmed and proven by experience. Fact science are the results of experiments. Those statements are only 'facts' that can be proven on experienced related to any problem or situation.

On the basis of above given definitions following are the general qualities of 'fact' –

1. In social research context, we will accept that only as 'fact' whose inspection/ observation is possible in subjective form. In other words that whose subject is self-proven.
2. 'Facts' are not of individual identity and in most of the times many 'facts' are interrelated. We analyse them according to the need of research and context.
3. Fact is that form of 'truth' which is either present or past but is very much in existence. Thus we can say it is Empirical.
4. 'Fact' can be visible or material and even invisible i.e., It can be present in physical and still form of body or it can even be an abstract feeling or thought. Thus fact may be 'senses perception' or even 'extra senses perception'.
5. 'Fact' can be achieved by lonely experiences also but their reliability and validity should be able to be checked by someone else too. Then only we can accept it as 'pertinent facts', thus it should be able to examine too.
6. Facts are helpful in creating any hypothesis too and should be able to confirm it too. Thus they should be multi-oriented. They should also prove as an important link in the chain process of theory building.

After discussing the above characteristics of facts it is quiet clear that facts are collected, studied, observed and analyzed in a scientific manner. While writing about the features and qualities of facts, one very important aspect has been kept aside or kept as secondary though it is equally important.

Gideon Sjoberg and Roger Net have pointed in this direction. They have discussed that fact may be positive as well as negative and both have equal importance and social activities. Generally, in any type of study or research the positive facts are given more importance whereas the negative facts have equally important aspect in any study. Any social scientist cannot just ignore the second type of facts. Being non active or showing no action in itself is an action e.g., If a person does not stand up while the National Anthem is sung is actually is an action of negative aspect. Though it is not being performed but this 'fact' is of great importance in any study related to national feelings or patriotism.

Note

3.3 Social Fact

It is said generally the 'social fact' is a very complex thought which has the qualities of exteriority, constraint and appearance.



Did You Know?

According to Durkhiem ,Sociology does not study all the human activities. Actually social fact is the only subject of study in sociology.

Durkhiem views the social facts as "things". In his book, "The Rules of Sociological Methods" he has used the word 'things' in four main references which are as follows:-

1. Social facts are the 'things' that have specific qualities and these qualities can be seen in the outer appearance.
2. Social facts are the things that can be known only through experiences.
3. Social facts are those things whose identity depends on the society and not the humans.
4. Social facts are those things that can be viewed in the outer or exterior level only.

According to Durkhiem social facts actually show the social awareness thus these facts are actual representative of social incidences or situations. Through the research and studies it is thus possible to know and understand the specifications of these social situations and problems. Because these social facts are termed as 'things' or 'objects', the objectivity of any research may be measured too, thus the social facts may be accepted as 'scientific facts'. As told ,above the attainment of objectivity is possible and leads to scientific nature of the facts. The acceptance of social facts in scientific form is because they are not just imaginary or in the air. These social facts are based on solid social grounds and this base gives the feeling of scientific consciousness.

Any social fact is a part of human behavior (that includes the power to think, feel, react and rationalize things) which from the view of the researcher is an 'object' to study and whose nature is constraint.

From this view point we can say that any behaviour , activity, thought , which could be inspected and examined, is a social fact , e.g., 'god' is not a social fact as no one can examine, inspect and study him.

While defining social fact Durkhiem has written that social fact is that any type of behavior that is capable of laying pressure on the outer behaviour of the human.

He has further clarified that facts include those behaviour activities, for thinking or doing anything, which are outward for humans but control his behaviour by pressurizing him.

Thus it is quiet clear that in each society there are some specific facts or ways and methods of thinking working or feeling that lay a constraint effect on a person, these facts are not accepted as zoological or psychological facts but it is more logical to accept them as social facts. In this reference Durkhiem has clarified that these 'facts' cannot be placed in the group of biological facts as they are affected by individual's activities also. They can neither be a part of physiological processes as it deals with consciousness of one's mind . So the best is to use the word "sociological facts" for them as they are the creator of a specific type of situations.

After the study of above definitions we can summarize the social facts with two specific characteristics, that have been stressed by Durkhiem too :

1. **Exteriority** – The social incidences and social activities originate from members of society only but once a social fact is developed, it does not remain as one individual but works with an independent exterior identity and experiences.

2. **Constraint**— As is explained earlier, the social facts are not a one man show. A group of people or society form it so it very strong but once it is made,each member or person is constrained or forced to follow that fact as a part of social activities. It also affects the interests and liking of each social individual. Durkhiem has given examples of various societies where the norms, values, civic sense, religious beliefs, financial management,human behaviour are set on the basis of ‘social facts’.

Note

3.4 Concept

What is Concept?

In general ,concept can be called as prefix also. In scientific research, concept is for direct representation, classification and knowledge. It has an important place in theory formation. At the primary level of theory formation, the actual situations are converted into factual situations. Then they are managed or analyzed in a logical manner and formation of any theory is done on that basis. Concepts are not stable but there are continuous changes and development in their meanings.

Every scientific system has a particular set of terminology. The words used in that terminology are the same as common man’s words but their meanings are different and special sometimes. There are many such words that are actually a part of common language but when it comes to scientific system, the meaning is different. E.g., In sociology and human sciences, the words society, community, culture committee etc. are used in some specific meanings. Here, we could see the example of word ‘uncultured ’ which we use commonly in our daily conversation but positive use of this word in our sociology is unscientific and impractical. In social language any uneducated person may be called ‘uncultured ’ but in human science the word uncultured is beyond imagination whether it is a barbaric action also.

When we analyze any concept, then sometimes it becomes difficult to say whether the words are just terminology or they represent any concept or view. These words are represented, society, culture etc. The question arises here that what should be the address to such thought and concepts, we will discuss this as the feature of any concept.

First of all let us take this for granted that the words used in scientific system are standardized and their form becomes as that of concepts. New words are added in the scientific terminology regularly, we use them in analysis too and gradually they start being used in the same type of meaning ,thus forming them as a concept . But the basic difference between a word and concept is that of the dimension of meaning communication ,e.g., one word may give the meaning of one word only but the ‘concept ’ is not limited to any literal meaning only and it gives a broad dimensional meaning of that word.

In scientific system, we use minimum words to express any class, group or complex, thus called concept. There are two important things in it. First, the class,facts or complexes pointed out by any particular concept will be limited to those facts and complexes permanently. It is not that one can change the meaning dimension of any concept and increase or decrease as per need. Secondly, the total communicated dimension of the concept not only tell about their nature, but also separate the total dimension of meaning communication from any concept. E.g., In cultural human science, concepts related to culture and civilization not only clarify meaning dimension but also separate the two also while forming any concept the researcher must be careful.



Task

What is concept? Explain.

Note

Definition of Concept

According to sociology world bank – “A particular set of terminology or words are used to express scientific base for any problems or situation in general views, may be called a concept. Any concept is actually a set of words presented to express any responses related to things, people, situations, relations etc. of a specific group or class”. In social research we create ‘concepts’ on the basis of experience creating facts which point out towards a particular meaning or response. **Pollin Young** has accepted the concepts as ‘process indicators’ in place of ‘word indicators’. Thus any concept not only indicates towards any specific features or characteristics of any fact but also indicates towards the nature changes and processes of facts in a systematic and logical manner. These ‘concepts’ generalize all the changes and processes of the facts that have been studied and analyzed in systematic and logical methods. In short, Pollin Young has defined concept as, “A short or summarized definition of a class or group of facts is a concept”.



Did You Know?

Russell L. Ackoff is of the view that concepts are needed for the creation of a problem and finding solution to the problem. The definition of concept-encompasses words and variety based meaning of the problem or situation of sociology/society.

3.5 Characteristics of Concept

On the basis of various definition we can list the main characteristics of concept as below :-

1. Concept may be defined as a summarized definition in very few words.
2. Concept is just an indicator of behavioral standard and not complete analysis.
3. Concept is formulated on the basis of scientific thought fullness.
4. Concept has a logical base and it is formed by direct knowledge, original observation and actual experiences which give it power.
5. Concept is not the short form of theory but it tells us about qualities of a class or category in short as a fact.
6. Changes can be made in concepts according to need of times.
7. Concept is a short and systematic statement it depicts a particular behaviour standard.
8. The nature of concept is dynamic or changeable because many times changes become a necessity according to particular time, place, instruments used and also to obtain new facts.
9. Concept is not the summary but represents a class of facts in short.
10. Concept is the only main base, on the basis of which useful hypothesis may be formulated for further studies and researches.

3.6 Importance of Concept

The ultimate goal of scientific discovery is to make laws which are actually the planning of indirect concepts. Any researcher who has the aim to observe the experienced responses and analyze them, has to take help and support of conceptual composition. In sociology, where the terminology used is that of common man, many words like family, marriage, caste, class etc, have a different meaning. The concepts aim to be very clear and to the point so that the researchers do not get misguided.

Note

Marton says that laws are made from concepts. Concept in themselves are not the laws. When various concepts are put together, they form hypothesis and theories, which in turn when studied and analyzed and proven, give birth to any law or form a law.

It can be said the pre-situations, incidents are summarized on the basis experiences, then it is present by word or words in short, giving rise to any concepts.



Notes

We differentiate and describe the various types of rounds on the basis of their qualities with help of concepts, thus we can say that concepts help in presentation or expression.

In the researches, concept help a lot in understanding the problems and situations.

Concepts play a vital role in formation of any law. Each and every word of concept expresses a particular aspect of the social world which is of great importance from the view point of specific goals.

Concepts create a specific language of the study through which circulation or rotation is possible. Researchers using any concept understand the meaning of that concept in exactly the way it must be understood.

Goode and Haute has written in this reference that , any concept which is related to science should be very specific in meaning and should be fit to send in specific meaning. They should not be unclear or doubtful at any cost. In fact they should be created in such a way that even the minutest detail of their formation should be clear and understood.

Actually the importance and success of any concept depends on its clarity of the meaning and use.

From the point of view of law formation, it is very important that the concept should be unfactual concept in base), experience based concept laws are formed and specific experienced situations may be well explained and discussed.

The importance of concepts is further clarified in Goode and haute's work. The process of developing the concept is helpful in collecting the experience oriented knowledge and drawing conclusions. To understand the qualities of a particular set or class of facts, to study them, to regularize and classify them is only possible on the basis of concepts only. Thus, concepts are of great help in our creating new thoughts.

A researcher, who collects new facts, soon experiences that with clarifying the actual meaning of the facts, their complete development is not possible. And this only possible by developing the concepts properly. Thus we can say that concepts are a part of scientific methods only and without their proper and correct use, the sociological research cannot be given an objective form. In the end, we can conclude in Morten's words that our observation and collected facts may be very important and useful, But in the absence of concepts no research remains important and becomes valueless.

Self Assessment

Fill in the blanks:

1. The ultimate aim of scientific researches is to formulate _____ .
2. The meaning of family, marriage, relatives etc., is different in _____ than the common meaning.
3. The process of developing the concept is helpful in collecting the _____ knowledge and drawing conclusions.

Note

3.7 Theory

The use of the word 'theory' is quite common in the social sciences and have also highlighted its importance. But when we try to understand the meaning of the word (theory), we are confronted by the various meanings and definitions which are not only contradictory to each other but also create doubts. Theory, theoretical orientation, theoretical frame of reference, theoretical model etc., are the various words used by the various social researchers. Sometimes they are used as synonyms and in some places they give opposite meanings.

Theory is a generalization expressed by the help of concepts. Theoretical orientation means the formation or origin of any views from a particular type of literature e.g., Marxists originate from the works of Marx who was the originator of a particular type of political thought. Theoretical frame of reference refers to a particular statement that comes from another science as its base e.g., Many theories of astrology have their base in astronomy. Similarly theoretical sketch is the detailed form of any theory. Generally all the theories are one of the available links of various concepts, They also define the limits of work.

Research design theory represents this aspect of theories. Models are actually not the substitute word for theories but sometimes small models are put together and included in the list of theories.

Percy S. Cohen, has thrown light, in his book 'Modern Social Theory', on theories which clears all our doubts related to theory and the importance of theory is also cleared out. He says that the word theory is like an open cheque whose value depends on the usage done by the user and his methods of usage. Cohen holds the view that when any statement is called a theory then it is placed not just as mere facts but more than that. The importance of statement as a theory lies in the value of it which should be more than any statement. Facts are those statements only which we believe have happened. Sometimes due to some doubts we assume and co-relate some incidences with any theory. But Cohen has cleared this point and mentioned that facts are related with a series of incidents. This has been clarified by this example. E.g., If somebody says that he saw a leaf fall. This is just one statement. If he had said that he sees often the leaves falling, then he actually clubs or puts together a series of incidents which is actually a complex fact. But if he would have said that all the leaves fall sometime or the other compulsorily then it is not a 'mere fact' but presents a theory, because what he has said is not just an incident but represents a theory as talks of 'all' the leaves which he has not seen as no one can inspect all the fallen leaves which are uncountable.

Sometimes it is said that some theories are just general facts. But this is not true. Every theory can be well placed little ahead of general facts. Similarly, when same thing is said about statements, it is very clear that they are also not mere statements but little ahead, stand in the category of facts. It is important to clarify here that though all the theories are more than mere facts, but all the statements that are in the category of facts cannot be placed in the category of theories. In researches, a hypothesis is formed on the basis of facts and is just a mere guess that statements are related to the social problems. This 'guess' or 'hypothesis' is not the theory. It is just a guess about particular events or particular complex of events whose validation and reliability is yet to be examined and rechecked. The truth of any hypothesis is done by various scientific methods and then on their basis, related concepts are formulated that help in the formation of theories.

3.8 What is Theory?

Since time immemorial, human race has marked for the betterment of their races, culture and society. This 'linked reflective thought process' started with the evolution of humans. They continuously observed, experimented and formed theories on their basis. To save and protect their identity race, group or nation, all the experience holders name to transfer their knowledge and experiences to the

Note

next generations in a very systematic manner. This trend of transfer of experiences related to culture, nature society etc, it is very important and necessary. These theory-based experiences need not be philosophical only in nature but they may be related to day-to-day problems, e.g., of agriculture, family, nature etc. In India, the theories related to the experiences of seasons and climate are very important and proved scientifically correct in many fields, thus they are very popular also. Their popularity is not just cultural or conservative in nature. It is purely 'empirical, investigative in nature. Within certain limits, with the help of a certain process, any theory may be examined again and again. Eventually, the difference on the basic form of theory amongst the intellectuals is termed as attitudinal gap. Example—One group of intellectuals believes that it is not necessary that the theory should be examined or ready for examination. This includes the experiences of religious theories etc. The other view point states that theories should be not only easy to understand and interpret but their meaning should also be well understood and examination could be done easily. This group includes many thoughtful researches. The believer of empirical research also follows, this view point. Even in physics, both aspects of theory are accepted. Behind the formation of any theory lies the experience of thousands of years. The gap of these thousands of years is actually the marker of our capacity. In this way we can say that theories are not bounded by time period and any region in particular when our experiences are repeated again and again, then it takes a very systematic form and this takes the form of any theory. In this process of theory-formation, some words are chosen and repeatedly used which indicate towards a particular thought are like creepers, that take the help of any tree to spread and grow. They do not die even if the tree dies. The tree is the word on which the creeper rests. Similarly, the thoughts have to rest on words and as the thoughts grow words also modify and grow. Mentally or written, these thoughts are expressed in some words which are set and reliable. And when these experiences take up a fixed form, theories are formed. Those words which alone represent a set meaning are called in English as terminology. These words which give the meaning of empirical systems of representations, become concepts and on the basis of these originated and examined words, along with concept, give rise to theory formation.

Self Assessment

Fill in the blanks:

4. Theories related to agriculture are practically _____ from one generation to the other.
5. There can be an experience of thousands of years behind any theory and there are such experiences, and this gap is the measure of their _____.
6. Originated and examined words and concepts together form _____.

3.9 The Elements of Theory

J.H.Turner has mentioned four main elements of theory, which are given below -

1. Concepts
2. Variables
3. Statements
4. Formats

While analyzing these four elements of theories, Turner has tried to clarify these are only main basics that form any theory. The following discussion on these points are to prove his views-

(I) Concept—Concepts represent any incident out of the total reality, we separate some parts to understand. This is called concept. Concept is the representation or word (or group of words) which

Note

gives the meaning of reality. E.g., The word group indicates to two or more people or leaders etc. in reality. By concept of word 'socialization', we mean how any human accepts his surroundings for his role in society. 'Crime' word gives the concept of any behaviour which is harmful socially, culturally and civically. Thus the concept gives an outline of any reality and helps us to understand it.

The utility of concept can be explained below-

1. Concepts are created by definitions. The defined word, when used as concept, it helps to analyze the incidents. Each individual understands that reality only which is expressed by concept .E.g., when we form a concept by the word. We take the reality as one group interfering with the goal achievements of the other group.
2. A common meaning is circulated by concept scientists take the meaning of one concept as the same i.e., each scientist will accept the same meaning. But, the concepts are not always neutral. e.g., in math, the fixed symbol has a fixed and neutral meaning, but in social sciences the concepts are not neutral. So many scientists use units in place of concepts.
3. With the help of classifications, concepts is often classified. This helps to analyze properly.
4. The actual form of abstract reality is expressed by concepts. Concepts are of two types:-

(a) Referent Concepts—These concepts give the clear meaning of the situations or incidents. E.g., crime, violence, breakups, changes etc.

(b) Non- Referent Concepts—This group includes those concepts which talk about qualities or things which are not visible. But these are used in the analysis of actual theory formation and have a great impact on social life, situations and instances e.g., God, hell-heaven, social balance etc. are not materialistic but their knowledge has a social background. The symbols of math are mere symbols but help in analysis of the facts and concepts.

The indirect or abstract form of these concepts have created a problem. In this regular changeable world, how can the concepts give important and necessary knowledge. To clarify this problem operational definitions or concepts are formulated. The researcher or scientist changes or makes his own operational definitions according to the situation. In his research work, the concept will disclose or open only to the limit he wants to expose in the operational definitions: in any work if 'criminal' is defined as a person sentenced punishment from court, patient is the one who has registered himself as a patient in any hospital. "Rural leader" is the one who is elected in any local election and holds a post.

Reality is defined and classified with the help of concepts .To give the truth a systematic form concepts are used.

(II) Variables—These are also concepts but they present two types of concepts . First, they just give names to the incidents. Second, they differentiate the classifications e.g. : children of age 5-10 yrs., children of age 11-15 yrs. Joint families with more jointness and joint families with less jointness. Such types of concept differences is termed as variable concepts.

Talcott Parson's stresses on the process of theory building while discussing about theories, whereas Mortain defines theory as the definitions of any formula. But both the sociologists accept that theory originates from facts only. In Parson's definitions stress is laid upon these known facts as the basics of origin of concepts. When these concepts co-relate and combine together in a planned way, they present an important truth and give birth to a theory. In this way no specific difference is seen in both these fact based definitions of theory. Mortain's definitions is accepted by P.Loomis also.

According to Loomis—Those concepts which have been put together in logical form after inspection, make a theory.

In this way like Mortain, Loomis also accepts theory as the systematic unification of concepts.

On the basis of above given definitions three important conclusions may be drawn— (1) Theories and concepts are based on those facts only which have been proven and validated. (2) Theory is a systematic presentation of concepts. (3) Theory is an easy and good link to present our detailed surveys/inspection in a planned manner.

Jyonesberg and Rogernet have defined scientific theory as a descriptive detailed link of examinations. According to them all researches or inspection which are joined by meaningful theory are representations of empirical meanings. On this basis only, Jyonesberg and Rogernet have discussed the three dimensions of theory (1) A detailed logical form or structure. (2) Those generalizations which give a experienced facts. (3) Those assumptions which are related to scientific methodology and nature of facts.

The 'facts' discussed by Tallcut and Paarrson related to theory is same what has been named as 'dimensions' by Jyonesberg and Rogernet.

Paarrson has said the same thing in a statement for as, A theoretical management empirical with reference to logical generalization of group of concepts and is interdependent.

This statement, according Parrsons again makes a control and boundary about concepts. He has said that how can the concepts be planned 'or which concepts can be planned. For this he has given a base that the concept should be logically interdependent. In this way all the concepts which we refer in forming a theory should be interlinked and prove each other.

The contemporary methodologists have presented an easier form of Paarrsons definitions. Jyoneberg and Rogernet have written that scientific theory is one of the links of detailed inspections. From a more specific and logical viewpoint, theory is a set of statements or inter-related propositions which are more meaningful in empirical forms. They are also very meaningful for those assumptions which are used by a researcher in his methodology which he uses in his research and data.

The above definition also throws light on the other practical and behavioural aspects of the process of scientific theory formation. It says that theories are empirically meaningful and are important for those assumptions which any researcher reforms, examines, inspects and rechecks again and again.

In short it may be said that theories are based on our experiences that are logical and interdependent too. But these experiences should be well checked and validated again and again, so that they are able to take the form of concepts when these concepts are logically set in a planned manner, then they are called 'Theory'.

According to J.H.Turner – Theory is a mental activity. It is the development process of thoughts which explains why and how incidents or activity or situation takes place.

According to Michele Heralombus – Theory is set of such kind of thoughts, that claims how anything works.

According to World Bank – Theory is a set or group of concepts which exhibit the reasonable or logical relations between different variables. This is a generalization of various groups of facts which is derived after being properly proven . Theory is actually a method of giving an answer to the "why's" and "how's" related to any problem or incidents or situations.

3.10 Meaning and Definition of Hypothesis

Hypothesis is the term given to the statement, present in the field of theory, which can be checked and rechecked. It is also the statement between two or more variables which can be examined by experience. Hypothesis is an accurate assumption which is done for temporary acceptance of mentioning facts or conditions for analysis. This is also for help and guidance of further research work. Hypothesis plays a very important role in giving scientific form to the researches. This is in fact an important condition for successful research. To understand the meaning of hypothesis discussion on various definitions is essential.

Note

Many learned people have defined it as below :

According to Webster new international dictionary of the English language, "Hypothesis is a thought, situation or theory which is initially accepted but later analyzed and researched for logical results. Also to check the earlier result by comparisons and obtain the ultimate truth".

Loundberg said that, "Hypothesis is a generalized statement which has to be still checked and proven."

Goode and Haute, mention that, "Hypothesis is a type of assumption which can be or has to be checked and still to be proved as true."

P.V. Young said, that "any thought that is conveyer of important discovery, can be called as working hypothesis."

Bogardus calls, "Hypothesis as a proposition which has to be still examined and inspected."

Pete H. Marmin- "Hypothesis is a general assumption."

Town Sand- Hypothesis is an answer to the question of the research topic.

M.H.Gopal - "It is a temporary solution or answer based on some known and received facts from observation and is accepted to understand or search the way for some other specific problem."

From the above definitions it is very clear that - Hypothesis is a pre- thought conclusion, statement, generalization, abstraction or assumption which the researcher formulates for his research and then collects data and information's to prove it. Any hypothesis establishes a relationship between various variables. It also provides a base or foundation for any social research work, giving motivation for collecting new information and knowledge. Hypothesis is also often compared to the North Star which guides the researcher in the right direction. In the absence of hypothesis the researcher may not be able to move even a single step ahead.

3.11 Qualities of a Good Hypothesis

Any hypothesis should not be just like a dream world or castle in the air, but should prove as a guide to the researcher. For this it must possess certain important qualities, as below:

- (i) **Clarity** – These are two important things that should be very clear in any hypothesis. One is the long usage and second is the concept. The words used in it should be able to carry the word with correct meaning, work and thought it is carrying. The specific words and definitions used should be explained very clearly. The words contained should be clear to others too so that they too get the correct meaning. The clarity of the hypothesis depends on the wisdom and experience of the researcher to a great extent.
- (ii) **Empirical Referents** – The concepts used in hypothesis should be such that they may be re-examined along with the facts as base. The hypothesis is not formed to express the civic or moral values as to what is good and what is bad. It is just a concept which has to be examined on the scientific base. Thus the various social value concepts , e.g., joint family is good, remarriage is bad, dowry is a black spot etc. are the concepts that should not form hypothesis.
- (iii) **Specificity** – The hypothesis should be related to any specific aspect of the study subject. If any type of hypothesis is presented in general words, it is difficult to ascertain its examination with unlimited field. Such hypothesis become useless from the view point of fact collection also. Thus it is reasonable to make small and specific hypothesis which help in fact collection, systematic research and ultimately drawing conclusions.

- (iv) **Related to Available Techniques**—While formulating any hypothesis, it must be kept in mind that there must be techniques available to check their truth, validity and reliability. For this, it is also important that the researcher should have enough knowledge about these techniques too. Those hypothesis which cannot be examined and rechecked are of no use from the view point of research so it is quite clear that hypothesis should be well in limits of scientific techniques. But it does not mean that new methods and techniques may not be developed. At present many scientists have developed many new techniques for better reexamination and assessments of hypothesis for validation and reliability test.

Note



Did You Know?

Goode and Haute say that the theory writer who does not know about the techniques available to reflect his hypothesis, he can never form good and useful questions successfully.

- (v) **Related to By a of Theory**—Goode and Haute have mentioned that many researchers of new generation often ignore this fact of hypothesis that any hypothesis is always related to some theory or the other. They choose such topics which they feel are interesting. They do not keep in mind whether their research will help to prove the earlier set theories or not.
- (vi) **Simplicity**—An excellent hypothesis must possess the quality of simplicity too. It means these unnecessary factors should be excluded from it because they make the hypothesis complex and unfit for examination. Mrs. Young holds the view that the researcher who is well aware of his problems and situations can formulate a good hypothesis easily. According to her 'simplicity', is like an instrument which is very sharp and can 'chop out' all unnecessary concepts and analysis from the main useful hypothesis. So simplicity is compared with 'William O Clans Razor', too. But too much of simplicity may be dangerous too as any hypothesis should not be so simple that any layman could use it, so this quality should be used carefully too.

3.12 Types of Hypothesis

There are a large variety of hypothesis used by sociologists and socialists, they may be based on various types related to social facts, situations, incidences, nature of social problems, aims of hypothesis and types of facts etc. Various intellectuals have mentioned various types of hypothesis out of which we will explain some of them here :-

Goode and Haute have mentioned three main types of hypothesis :

- 1. Related to Empirical Uniformities**—These hypothesis are based on general knowledge of humans, logical sentences, daily experiences, proverbs, statements and beliefs etc. e.g., Fox is cunning most among animals. In such hypothesis the common fact is the only main focus of research.
- 2. Concerned with Complex Ideal Types**—Such type of hypothesis have one common general fact or conclusion which is taken as a basic fact and other related facts to this basic one is checked or re-examined. Most of such hypothesis are related to minority groups and ecological conditions, e.g., Burges had formulated a hypothesis in his research work stating that centrally circular cities are symptoms of development nature. Such types of hypothesis have the aim to re-examine the inter-relationship between the pre-formulated hypothesis. In such hypothesis, the relation between various factors is rechecked logically and conclusions derived. Thus they are termed as relational hypothesis. Because these hypothesis are based

Note

on logical conclusions, they are of great help in theory formation too. Durkheim had developed the following relationship hypothesis in his famous writing 'Suicides':

- (a) The rate of suicide is more in cities than villages.
- (b) Males commit more suicide than females.

3. **Related to Analytical Variables**—Some hypothesis are related to analysis of some variables. Any social problem or incident is the joint result of few factors. Out of these, any one factor may be the main cause and the other factor helps in or enhancing that problem. E.g., Juvenile Delinquency or children involvement in crime is basically due to mental disorder and weakness, as believed by most of the psychologists and psychiatrists. They also hold the opinion that the mental health may be inherited. Such type of hypothesis may also be called as "causal hypothesis". In this, it is analyzed that if one factor is changed then how far will the rest get affected. In other words, the effect of one changed factor could result in what better options.



Task

Good harvest is the result of the best fertilizer and soil seeds, climate and amount of water given to that crop. What would be the result if any one of the factors is changed, this is termed as 'causal hypothesis'.

Some other Types of Hypothesis

1. **Related to Positive Statements**—Some hypothesis are related to positive statements, e.g., women are more generous than men, rich are more inclined to crime than poor.
2. **Related to Negative Statements**—Here the statement in hypothesis is presented in a negative form, e.g., females are not as generous as men, rich are not involved in crime as compared to poor.
3. **Related to Null Statements**—In this type of hypothesis the statement is neutral and on the basis of research, the statement is accepted or rejected. E.g., There is no difference in the generosity of male and females. There is no genuine difference related to the criminal attitude of rich and poor.
4. **Working Hypothesis**— P.V.Young has named those hypothesis as working hypothesis which may form the base of any research as the beginner's view. Any new researcher may form working hypothesis to start his basic work. But with experience and program, there may be changes made. In some cases, the original hypothesis may be abandoned totally and replaced by a new and better statement of hypothesis. Such hypothesis are temporary or working only, so called as working hypothesis. A good example of replaced hypothesis may be seen in the statement that said that atom is the smallest part of matter and cannot be divided. But later inventions and researchers proved that it can be further fragmented.

3.13 Importance of Hypothesis

Importance of hypothesis in research work has been expressed in many ways. Some wise men compare it with the pole and some give it the place of a light house that guides the ships in the sea and saves them from losing their track. According to Max Weber, with the help of hypothesis, each scientific

research gets the motivation for new questions. Goode and Haute believe that any hypothesis tells us as to what one is actually looking for. They further elaborate that in a good research work, hypothesis formation is the basic and central step.

In this way it is quite clear that the hypothesis is of great importance for any research work. In its absence, it is very difficult to reach any final conclusions. If it is missing the researcher may lose his way too. With the help of hypothesis only he is able to find out the truth and false of any related concept and thus reach the actual results. In the absence of hypothesis, the researcher's work may be compared with a tossing ship without.

Following are some of the important points that clarify the importance of hypothesis :

1. **Determination of the Goal of the Study** – Hypothesis actually decides the goal of the study or research. We can research and collect the facts related to the topic only once the goal is clearly defined. Hypothesis tells us that which of the facts have to be collected and which are useless and have to be left out. Cohen and Nagel, mention that in the absence of hypothesis the research cannot be done properly and results are treated as indefinite and thoughtless work. The conclusions that are derived will never be clear in meaning resulting in just a collection of useless facts.
2. **Providing Suitable Decisions** – Hypothesis helps the researcher in guiding towards the right path and stops him from getting lost. By providing the clear path and direction, the researcher remains concentrated on the main subject or topic. Hypothesis helps the researcher to remain on the main path which is the correct one. Von Dalen believes that hypothesis is like that light in the sky that guides in the correct directions only. P.V. Young mentions that this guidance restricts the researcher to collect excessively the facts and data which later become only useless and not logical for the researcher.
3. **Restricting the Field of Study** – Lundberg writes that due to hypothesis we accept our thoughtfulness but restrict ourselves in the field of research thus making less mistakes due to set and limited field hypothesis which restricts the researcher by limiting the field of research basing it to the topic only, so he concentrates on the specific topic of the research only.
4. **Bringing Definiteness in Study** – Through hypothesis, study can be made definite. Through this researcher remembers that when, where and which information he has to compile. In it there is no possibility of irregularity and disorder.
5. **Helpful in Collection of Facts** – Hypothesis motivates the researcher to compile appropriate facts related to the problem. Initially it may also happen that because of ambiguity, we collect a jungle of facts. But later on from them we have to select some specific facts only. Hypothesis is helpful in this task. M.H. Gopal has written, "Without hypothesis, researcher may collect unnecessary or even waste material and actually important and useful facts may be missed by him."
6. **Helpful in Drawing Conclusions** – Facts are compiled on the basis of hypothesis and on the basis of facts only it is known that whether our hypothesis is true or false. In both the situations we have to do verification which cannot be done due to lack of it. Northrop's view is that, "fact existent in any hypothesis may also be a solution to a problem, whether it is actually a solution, it is the task of investigation."
7. **Helpful in Formulation of Theories** – Peter H. Mann's view is that hypothesis is the link between facts and principles. In words of M.H. Gopal, "expecting a difference between a principle and a hypothesis is more than the quantity, because when hypothesis is proved true and is established then it becomes a part of principle. In this way they are developed from each other".

William George has written, "practically a principle is a detailed hypothesis, it is in comparison to an easy hypothesis is related to more kinds of facts." We start any social research on the basis of

Note

hypothesis. When this is done on the basis of facts, these hypothesis are proved true, they take the form of principles.

Dr. Surendra Singh has described the below mentioned importance of hypothesis:

- (i) Clarifying various questions related to researches.
- (ii) To provide stimulation to the research
- (iii) Directing the judicial system of research while providing it the base.
- (iv) Providing the criterion for evaluation of experimental methods.
- (v) Working in form of an executive equipment for building principle.
- (vi) Helping in finding inference through incorporation method.

3.14 Limitations of Hypothesis

Hypothesis is important in research from the point of view of guidance still if it is not used cautiously it can be a danger also for the study. Its demerits or limitations are listed below:

1. **Full Confidence in Hypothesis** – Many a times researcher instead of considering hypothesis to be his guide compiles the facts in favor of proving it only. In such situation scientific facts end. That is why P.V. Young has written, “A researcher should not start his study with the objective of proving the accuracy of his hypothesis.”
2. **Hypothesis-based Facts** – Initially researcher compiles the facts on the basis of hypothesis only, it is required from him that on the basis of actual facts he brings amendments and changes in his hypothesis. On not doing so, compiled facts may prove harmful and be wasted. In this reference, Fry has written, “compilation of facts should not be done in relation to mere specific facts but in research of an institution or situation, questions should be seen as suggestions.”
3. **Influence of Specific Interests and Emotions** – Many a times a researcher because of his own specific interest or emotion, selects a specific study-subject and adopts a prejudiced attitude towards it, in that case, the study done by him becomes unscientific.
4. **Prestige Point of the Investigator** – Many a times, researcher assumes his hypothesis to be best and correct and attaches his prestige with it. In such situation, he does not want to accept practical facts also, against the hypothesis. This situation is a hurdle in reaching the scientific fact.

It is clear that though hypotheses are useful for research, still precautions must be taken in their use. In this reference, **Westaway** has written appropriately, “hypotheses are those lullabies that sing down the heedless to sleep.” **P.V. Young** has written, “if researcher moves, not towards proving the facts in any special situation based on actual scientific feelings, but towards learning and understanding, then, his hypothesis will not become vested interest and if new facts prove his hypothesis to be false, then, his fame and prestige will not be harmed.”

3.15 Main Difficulties in Formulation of Hypothesis

Building of hypothesis is not an easy task. As per Goode and Hatt, two difficulties may arise under it – related to theoretical framework and related to research technique.

I. Related to theoretical Framework – Many times during building of hypothesis following difficulties may arise related to theoretical framework:

1. **Absence of definite framework** – Many a times situation is such that researcher does not have the knowledge of principles related to the subject, and then he is not able to build appropriate hypotheses. It proves true in reference to new sciences.

- Lack of logical and efficient use of frame**—If theoretical frame-work is available but in hypothesis building, researcher is incapable of using it logically and efficiently, then also correct hypothesis cannot be built.

Note

II. Related to Research Techniques—There is much increase in present scientific knowledge and research methodologies about which it is not necessary for all to have knowledge. Today study and expression of social relations is done in mathematical formulae. In study, help is taken of computer. Hence, it is important that in building of hypothesis, researcher takes care of research techniques also so that time, labour and money are saved in study.

Other than these, some difficulties are as follows:

- Variability of Event**—It is an attribute of social events that they are variable. The situation that is today, will not remain tomorrow. Thoughts, beliefs, psychologies and feeling of humans keep changing hence it is difficult to guess about them. Causes affecting human relations and their mutual relations also keep changing, hence building hypothesis about them is a difficult task.
- Favouritism of Researcher**—One difficulty in hypothesis building is bias or favouritism on the part of researcher also. If he is prejudiced or has an emotional attachment with any event then there is a possibility of the hypothesis built by him to be faulty or unscientific.
- Ethnocentrism**—as compared to others, a person has a sensitive and emotional attachment towards his own group, caste, tribe which is called ethnocentrism. In such situation, person as compared to other societies, groups and cultures considers his society, group and culture to be best. In such situation in hypothesis arrival of bias is natural. P.V. Young has suggested the researcher to keep in mind three things while building hypothesis: a. researcher's sharp vision. b. controlled imagination and creative thinking c. availability of theoretical frame-work and its knowledge.

Hence we may say in words of Kohen, "those who start the study with a blank mind due to lack of previous knowledge about the subject, they are able to obtain scientific achievement with great difficulty. To obtain something we should have previous knowledge about the subject. In lack of any previous knowledge, we are not able to find out that which facts need to be searched and what is relevant for the investigation?" While building hypothesis it is important to keep in mind all the above mentioned things.

3.16 Summary

- Facts are helpful in creating any hypothesis too and should be able to confirm it too. Thus they are multi-oriented also.
- Concept is the only main base, on the basis of which useful hypothesis may be formulated for further studies and researches.
- J.H.Turner has mentioned four main elements of theory—(1) Concepts (2)Variables (3) Statements (4)Formats
- Objective of hypothesis building is to compile the facts related to the subject and to guide the researcher.

3.17 Keywords

- Theory:** theory is logical process of concepts related to subject-object of any subject area, which makes sense of the inter-relations between the facts and provides policy and useful direction in solving the problems related to life.

Note

2. **Fact:** Any social fact is a part of human behaviour (that includes the power to think, feel, react and rationalize things) which from the view of the researcher is an 'object' to study and whose nature is constraint.

3.18 Review Questions

1. Tell the definition and characteristics of social facts.
2. Tell the characteristics and importance of concepts.
3. What are the basic elements of theory?
4. How is a good hypothesis built?

Answers: Self Assessment

- | | |
|------------------------|-------------------|
| 1. Theories | 2. Social science |
| 3. Experience oriented | 4. Transferred |
| 5. Capacity | 6. Theories |

3.19 Further Readings



Books

1. Sociological Research and Statistics – Dr. Ravindranath Mukharji.
2. Samajsastra Shabadkosh – Harikrishan Rawat.

Unit-4: Ethical Issues in Social Research

Notes

CONTENTS

Objectives

Introduction

4.1 Physical and Personal Qualities

4.2 Intellectual Qualities

4.3 Behavioural Qualities

4.4 Qualities Related to Subject of Study

4.5 Qualities Related to Field Work

4.6 Qualities Related to Scientific Spirit

4.7 Summary

4.8 Keywords

4.9 Review Questions

4.10 Further Readings

Objectives

After studying this unit students will be able to:

- Personal qualities of research scholar
- The moral qualities and issues of scholar.

Introduction

Social research is not a simple work and everybody cannot do it. Some bookish knowledge is not enough for research work. Internal and external qualities are important for research. The reason is also clear. Social research is related to social happenings and happenings are complex, changeable, live and individualistic. So their study is more difficult than natural incidents.

Subject- Study if social incidents is in fact study of mankind done by mankind. It means that the problem or Subject a person is researching about, he himself is a part of. That is why it is very difficult for him to be completely unbiased, removed and immune to it. His thoughts, beliefs, opinions and ideology come into his way on every step and revert him.

This is the reason there is always a probability of mistakes in the conclusion of research. To keep himself away from effect of these type of conditions and factors a research scholar has to have special knowledge and capability to reach the exactness of the research. There cannot be any list of qualities of a good Scholar but a few general characteristics can be described. We will discuss these qualities in this chapter.

Notes

4.1 Physical and Personal Qualities

Social research is an academic work. It does not have any concern with the physical qualities of a research scholar – This is a belief of many people. But this is wrong. The success of research work depends on physical qualities too, which will be clear by the following explanations-

1. **Attractive Personality:** A smiling face, good habits and attractive personality and behavior can be instrumental in getting correct and trust worthy facts from an informer. An attractive personality leaves a natural impact on people and a scholar can get benefitted by it and can get solid true and important facts. His success depends on exact information facts and data.
2. **Health:** Good health is very important for a successful scholar. He cannot work sitting on a comfortable chair. He needs to work hard and run around a lot which can be done by a person who maintains good health. A weak and sick person will spend maximum time in his own treatment. In India a scholar has to work even harder because of lack of facilities of transport and communication, low standards of education and lack of facilities for research. Thus a good health is very important. Apart from this good health a part of an attractive personality and help collecting facts.
3. **Persistence:** A successful scholar should be persistent. It is important that he does not lose heart in any situation. One has to face lots of ups and down during research. One has to face so many disappointing situations. So many unnatural incidents create hindrance. During all this a patience and persistence only direct a scholar. Many a times it is seen that one informer cannot take out time to answer questions and sometimes he does not even meet. Even if he gives time he tries to avoid a researcher giving incomplete answers. It is very important to have patience, so persistence is one of the most important qualities of a scholar.
4. **Tolerance:** tolerance is one of the most required quality in a scholar. A scholar can be successful only after going through many difficulties. Sometimes people misbehave with the scholar, comment him and announce in a very clear tone not to be co-operative. If a scholar does not have the tolerance to bear all this, he will have to stop his work midway.



Task

What are physical and personal qualities? Explain.

4.2 Intellectual Qualities

Physical and individual qualities are not enough for a scholar unless he has good intellectual qualities which are as follows:

1. **Creative Imagination:** Imagination of a scholar should be extremely strong. Being intelligent is not enough, unless he has the ability to project the future conditions involved in a research. Without preplanning a successful research is not possible. A person cannot get into the depth of social problems without power of imagination nor he can be practical. Vision and insight both are very important.
2. **Ability to Take Prompt Decision:** A scholar should have the ability to take prompt decision in every situation and problem. He has to work in unknown conditions and if he does not have the ability to take beneficial decisions according to the situations, he cannot succeed. So the decision taking power in any situation without any confusion should be an important quality of scholar.
3. **Statistical Ability:** A social researcher has to play with numbers and categorize facts and make chronological graphs. This is quiet a dull work but is very important for exactness of facts. Thus a researcher should have statistical ability.

Notes



Notes

Spahr and Swenson have considered the ability to keep the exactness of facts, a very important quality of researchers. This quality depends on statistical ability.

4. **Clarity of Thinking:** A scholar should be intelligent and thoughtful. He should have the ability to understand complex situations and to present his views clearly. Without this he cannot critically analyze facts and cannot even present his own views related to the problems and solutions in his report. The clarity of views comes after intense study of the subject.
5. **Logical Ability:** During the course of social research one has to get information from people of different opinions and mental conditions. It is important for a scholar to have strong logical ability so that he can take out conclusions from various information's. Sometimes the respondents ask difficult questions from a researcher. If he is not able to answer logically and skillfully he has to face difficult situation and cannot collect the facts properly.
6. **Intellectual Honesty:** A researcher needs to have intellectual honesty because the incidents he researches generally he himself is a part of it, so whatever opinion he expresses or whatever he concludes his own individual feelings, values or ideas almost always influence him. In this situation his research cannot be devoid of influence of he does not have intellectual honesty. Otherwise he will see only those incidents which are according to his own emotions and would express views which are liked by most people. But if he has intellectual honesty he will not hesitate presenting the realities even if he has to go against the flow and will not hesitate in giving his individual opinion. Intellectual honesty removes the fear of being defame or the fear of cast and community and he can keep himself away from manipulating the facts.

4.3 Behavioural Qualities

Apart from intellectual and physical abilities a successful scholar needs to have behavioural qualities so that he can contact people instill trust in them and attract them towards the goal of his research. It is important that his behaviour and attitude is attractive and effective. Following are the qualities that should be there in him:

1. **Refined Manners:** Etiquettes are the most important qualities in the behaviour of scholar. A refined personality can easily attract people and he can successfully collect information and facts. He should understand this and always be ready to behave in a refined manner. For example in a rural society a scholar should get rid of pompous and formal behaviour and be very friendly and polite manner.
2. **Adaptability of Behaviour:** During the research work a scholar has to contact people of different interests, opinions and occupations and behaving in a similar manner to everybody will not impress all. A serious person will not like childish behavior and inquisitive person will not appreciate serious behavior but a scholar has to get information from both. His behavior should be adaptable to mould himself so that according to the requirement he can deal with different type of people, impress them and collect facts from them.



Did You Know?

Sometimes it happens that during answering a question a respondent starts gossiping, at this time a scholar has to behave intelligently without hurting the person and take out the desired information.

Notes

A scholar who has the ability to be respectful to both, the one who support his views and the one who oppose his views can be a successful research scholar.

3. **Balanced Talk:** The scholar has to talk to respondent while interview of filling up questionnaire. The mode of communication influences the respondents. If a scholar talks in a proud manner and orders the information, it can create irritation in the mind of respondents. He can deny or hide the actual information that is why balance in communication is important. To say something hurtful can prove to be expensive for the scholar.
4. **Alertness:** During the research he has to be extremely alert and careful. He needs to be vigilant that somebody is not moving him from his path by providing wrong information. Sometimes people from influential and selfish group try to pose as well-wishers and push a scholar towards failure by providing wrong information. To keep these type of people at bay and without hurting them being alert should be an important quality of scholar.
5. **Self-control:** Sometimes during the research different adverse situations occur. If a scholar loses his self control the whole research work will go haywire. Sometimes he might have to hear some disrespecting works which can hurt his feelings, emotions and ideals but he should remain in control and continue to find out the truth. He should not be excited because it can take him away from reality in an instance and he can be a subject of criticism. These situations can mar the success of research, so a good scholar should have the ability to self-control.

4.4 Qualities Related to Subject of Study

Apart from these a scholar should have qualities related to subject as follows:

1. **Interest in the Subject:** A scholar can be successful only when he has great interest in the subject. The interest inspires a scholar to work hard and to be sincere and encourages him to be indulged in his work. It is easy to understand the subject if one has interest in it. If the study is difficult even then because of his interest in it a scholar tries to work hard to make it successful.
2. **Mastery over the Subject:** To make any research successful it is important that the subject or problem he is studying, he should have complete knowledge about it, otherwise his collected facts may be incomplete, faulty and useless. For this he has to study all the available literature of the subject. Not having complete information on the subject can make the scholar giving less importance to the points which are important and spend his time, money and labour on less important issues.
3. **Concentration on Problem:** Different issues of social life are so intensely corelated that probability of moving away from the specific. Problem is very high so to concentrate on the problem is very important for the scholar. It happens that few specific attractive and mysterious incidents attract a scholar and he gets entangled in those, loses his concentration and as a result of which the progress of research stops. So the concentration on the main subject is important.

4.5 Qualities Related to Field Work

Research requires going to place of study and collect facts and information. For this it is important to have knowledge of different practical activities these qualities of a scholar must be there –

1. **Knowledge of Methods, Tools and Techniques of Research:** A researcher should have knowledge about various instruments and methods useful for his work. He should know the limitations of methods and the shortcomings of these methods affecting their work. It will help him to chose the best instrument and method and save their time, money and hardwork. It will also help keeping him alert for problems and their solutions in future. For this he should know whether a questionnaire will be suitable or an interview, whether the

sensx method would be possible and which questions should be included to have maximum exactness etc. should be very clear to a scholar.

2. **Understanding of Person, Time and Place:** To suddenly go and meet a person and try to get information would give useless or doubtful results. A scholar should know whom to approach , what time to approach and where to get maximum correct information. He should know that a businessman cannot give information about a plane, during a function people will not talk about their family life and a thief will not talk about his acts near a police station. So to be aware of the person, time and place is an important quality of a research scholar.
3. **Training and Experience:** It is not sufficient to leave a person at the study centre to collect information unless he has experience or is trained for this. On the basis of his training and experience and familiarity with the methods and problems only will take a scholar to his ultimate aim.
4. **Organizational Capacity:** A successful and able scholar should have this ability to organize. Research is not an easy task, it requires a proper organization. Social organizations require more than one person, a scholar should know which worker should be given which task to obtain best result. Inter Disciplinary Approach is being used in most social researches which requires help and corporation from experts of different sciences. A scholar should know how can he get maximum help and corporation for his work, this depends on his organizational capacity.
5. **Resourcefulness:** Modern researchers require different instruments like camera, tape recorder, maps apart from finances. A scholar should have all these and he should know their uses as well. Sometimes he needs to take help from government or non-government officials. it is important that a scholar should be able to approach them, this proves helpful for his work, and ensures the resourcefulness of the scholar.

4.6 Qualities Related to Scientific Spirit

A scholar should have scientific spirit to get success, this is based on following qualities –

1. **Curiosity:** Curiosity is very important for a researcher, he should be curious to know, to unravel the mysteries and should be attracted towards new things, all this helps in research. A research aims for a new information which cannot be fulfilled without a tendency for curiosity.
2. **Objective Point of View:** For scientific research, being objective is important otherwise a scholar will not see the actual incidents in their actual form and maybe biased. Scientific approach is also needed for a true conclusion, without this the truth cannot be verified and the whole process can turn into failure. Thus scientific point of view is important because to find out truth and facts can be possible only by being immune to different people, opinions and emotions, with a scientific approach only.

The above-mentioned explanations make it clear that a successful and good researcher scholar needs to have more than one qualities. It does not mean that all the scholars are equipped with all the qualities and nor it can be defined in any final list, but it can be said that research is not an easy task. It can not be done by just anybody. Experienced, capable, skillful and dedicated people are required for this.

Self Assessment

Fill in the blanks:

1. _____ requires various other resources such as maps, cameras and taperecorders apart from money.

Notes

2. This is important that _____ has approachability to officials.
3. Lack of _____ point of view would mean that the research work is influenced by biased or mythic opinions.

4.7 Summary

- A successful scholar should have different qualities such as intellectual, personal and behavioural.
- Research requires to physically go to the place of study and collect information and facts. For this all the different activities related to this should be there in a scholar.

4.8 Keywords

1. **Social behaviour:** This is a response due to the behaviour of a person or persons.
2. **Intellectual Qualities:** the ability to maintain the originality is the quality of a researcher. It depends on the statistical ability.

4.9 Review Questions

1. Explain moral qualities of a good research scholar.
2. Explain intellectual and behavioural qualities of a research scholar.
3. What are the qualities required for the activities done at the place of study?

Answers: Self Assessment

1. Modern research
2. The research scholar
3. Subjective.

4.10 Further Readings



Books

1. Social research and statistic--Ravindernath Mukherjee.
2. Social thoughts and thinkers--Dr Ganesh Pandey, Arun Pandey, Radha Publication.

Unit-5: Induction and Deduction, Propositions, Syllogism and Logical Fallacies

Notes

CONTENTS

Objectives

Introduction

5.1 Subject: Logical Method

5.2 Deductive Method

5.3 Inductive Method

5.4 Summary

5.5 Keywords

5.6 Review Questions

5.7 Further Readings

Objectives

After studying this unit students will be able to:

- Usage of logical method
- Meaning of induction method
- Knowledge of deduction method.

Introduction

Different study methods have contributed a lot to develop science as a subject. Every science uses different methods to collect trusted and verified information. On the basis of these methods we can explain social facts, predict and control them. Any subject can be called a science when it uses scientific methods.

Maurtin Del and Mone-chesi have clarified method, “ **Method means a steady pattern in which science uses original method to get experienced and empirical knowledge and uses its instruments and practices.**”

5.1 Subject: Logical Method

According to Karl Pearson, “These are the symptoms found in scientific methods, (a) Pure categorization of facts and their interrelation, (b) discovery of scientific laws with the help of creative imagination, (c) Self criticism and to present a challenge for all the scientists of similar opinions”. One or more methods of subject according to their nature can be used to fulfill these aims. We can say that social research and survey can be bifurcated into two categorizes- (1) General Method which is same in all the sciences, whether it is natural, social or general and it has four main steps- (a) to create a hypothesis, (b) to inspect

Notes

facts, collection and writings, (c) to categorize the material thus obtained, (d) scientific conclusion and implementation of general laws. This method is used in scientific studies in every science that is why it is called general method. (2) But because social happenings have a specific nature which requires a specific or particular method. For example, historical method, logical method, comparative method, case study method etc. we will explain few of these methods and basis of research here.

Logical method: initially researchers used this method a lot, on the basis of logic they defined 'method'. According to Cossa, " A method means a logical process which is used to find truth and to show it".

According to logical method there are two methods; Deductive and Inductive.

5.2 Deductive Method

Meaning – We start our studies under this method following certain beliefs and use logic to get conclusion. In this the process of logic is from general to particular.



Notes

Under this process we establish particular truth on the basis of general truth, that means on the basis of general we speculate particular truth, and support it on the basis of logic.

Thus the conclusions which are drawn are followed during subject study. This way under deductive method conclusions are taken out on the basis of original beliefs and thoughts and logic are very important in this. For example, if we accept this truth that man is mortal then on this basis we can draw the conclusion that Dinanath is a mortal because he is a man. Similarly we think that man behaves rationally which means that people want to maximize their satisfaction. On this general belief we use logic and conclude that a particular person will maximize his contentment. This is clear that related to human behaviour and nature whatever general perceptions are, important conclusion can be drawn with the help of deductive method.



Did You Know?

Professor Boulding has named deductive method "a method of intellectual experiment".

Real world is complex that's why it cannot be studied in its real form. Initially we start with simple situations and beliefs and gradually keep adding complex beliefs so that reality can be reached.

Merits of the Method – (1) Simplicity is the main quality because under this complex and difficult work as collecting data and analysis is not done but only simple belief and logic is used to get results. (2) **Certainty and clarity** is the second quality of this method. If beliefs are correct then results are too certain and clear and mistakes can be corrected by logic. (3) **Universality** is another quality which has proven correct in every country and every time because they are based on human nature and behavioural facts. (4) **Impartiality**- conclusions are drawn on the basis of logic and truth so a scholar cannot influence the result by his thoughts and opinions.

Demerits of the Method – (1) It is said that deductive methods are normally removed from the reality which means the basis of belief are normally not exact and the results are not scientific and real but

only intellectual toys. (2) The results by this method are not universal because social conditions do not remain same in different societies and period. Professor A.P. Learner has said that deductive armchair analysis cannot be considered universal.

5.3 Inductive Method

In this method we go from a specific to general, from micro to macro. That means the process of logic is from particular to general. Under this method logically some particular incidents truths are studied and general principals are formed. After this on the basis of experience and practice this general principle is checked. For example, to notice different people dying generally this conclusion is drawn that man is mortal. Similarly when fathers get married to have a step mother in the family it is seen that many children become juvenile criminals. Here the process of logic goes from specific to general. Clearly laws are formed on the basis of experience and is called empirical method. Few people call it historical method because different incidents of the past are studied in sequence and social laws are formed under induction method.

Merit of the Methods—(1)The conclusion drawn with this process are close to reality because this is based on real incidents and facts. (2) The point of view is dynamic because in changed situation whatever new facts and incidents are seen they are considered while deriving conclusions. (3) Conclusions can be checked and rechecked in this because they can be checked by facts or changed facts. (4) This process is complimentary to deduction method which means that conclusions drawn through deduction can be corrected by this method.

Demerits of Method—(1) This is a difficult process because sequence of different specific incident is not easy to find, a special training is required. (2) Conclusions drawn through this process are not exact specially in limited area and where conclusions are derived from few limited data. (3) There is probability of biased conclusion and the researcher can mould the data as he wishes. Statistics and prove anything, this statement is used on this method only.(4) In this method out of two things one is a reason and second is conclusion. for example, if there are both a stepmother and juvenile crime in the family than a stepmother is considered a reason and crime is considered a result. But this is wrong and is done in induction method. Prof Bolding has written “If too things are seen together in some conditions to think that they are related is the most dangerous myth of statistical research.” .

Self Assessment

1. Research work in induction method is done by _____ method of deduction.
2. This _____ is verified on the basis of experience and use.
3. To scientifically check and serialize of _____ events are not easy.

5.4 Summary

- In the beginning scholars used to emphasize logical Methods.
- According to Prof Kosa, method means a logical process which is used to find facts and show them.
- In deduction method on the bases of general facts, specific facts are found and verified by logic.
- Induction method and deduction work best together.

Notes

5.5 Keywords

1. **Deductive Method** – Logic from general to particular.
2. **Inductive Method** – Logic from particular to general.

5.6 Review Questions

1. Describe the negative and positive qualities of deductive method.
2. Analyze the positive and negative qualities of induction method.

Answers: Self Assessment

1. Opposite
2. General principles
3. Particular.

5.7 Further Readings



Books

1. *Principals of Sociology* – Dr. Ganesh Pandey, Arun Pandey, Radha Publications.
2. *Social Research and Statistics* – Ravinder Nath Mukherjee.

Unit-6: Pure and Applied Research

Notes

CONTENTS

Objectives

Introduction

6.1 Subject: Pure Research

6.2 Applied Research

6.3 Summary

6.4 Keywords

6.5 Review Questions

6.6 Further Readings

Objectives

After studying this unit students will be able:

- To know the meaning of pure research,
- To have information of Applied Research.

Introduction

The area of social research is very vast and every aspect of social life comes under it. Social research includes basic principles and laws of social life and events. The research aims for obtaining new and verifying old methods.

6.1 Subject: Pure Research

Pure research can not be done keeping in mind its practical use. Pure research does not mean finding out the reasons and solution of any problem. Pure research develops with Knowledge for Knowledge concepts. When any research is done to seek knowledge and that too with scientific subjectivity and immunity, it is called pure and original research. Formation of policies or its usage is not included in this formation. It does not aim for fulfilling the need to give solutions but to gain knowledge, increase the already available information and to purify the of old information. The willingness to find out truth, to know the mysteries of life and to understand social events are the main aims of a scholar. He is always trying in this direction. The work which is done to obtain new information, and which is used to improve and develop the already existing knowledge with the help for scientific methods is called pure or original research. These are implied in formation of original principles and laws of social life.

Pure social research aims for finding out the reasons and causes of social event. The laws conducting the event and incidents are also studied through these researches. Any event whether it is natural or social occurs according to certain laws and to find out these laws is the sole aim of pure research.

Notes



Notes

Various laws which govern certain natural events are found by natural scientists by pure research.

Sociologists too are trying to find out the reason behind social incidents. It is important to take help of pure research for it.

In the context of social life and incidents, to find out basic principles is the main work of pure research. The research of this kind not only develops knowledge but reinvents old information. It is helpful in determining that in the changed circumstances the old laws and methods are relevant or not. They might require some changes or they may be appropriate. b



Did You Know?

To find out new and to verify old is the main aim of a research.

Pure research contributes a lot in the development of related sciences. This type of research helps in formation of terminology and opinions. Pure research also makes it possible to judge whether the methods are appropriate.

To conclude it can be said that pure research has five steps; first, to gain knowledge, second, to find new laws, third, knowledge of decisive units of social formation, fourth, endorsement of new opinions and fifth appropriateness of research methods.

Some people call this “knowledge for knowledge” concept meaningless in modern era, but it is not correct. There are many scientists even now who are constantly involved in finding the truth, they are dedicated towards this cause. This is to be considered that the knowledge of finding out the truth behind all the events, is useful for human welfare only in the end. The knowledge gained by pure research can be used for Applied research.



Task

What is pure research? Explain.

6.2 Applied Research

Festiger and Kauj have told that facts are collected for any industry or government, and with a consumer point of view and the law maker needs these then this research is called applied research. Horten and Hunt have said that when scientific method is used to get some knowledge which is used to solve general and behavioural problems, it is called applied research. Mrs Young has given stress on the applied method of knowledge. Discovery of knowledge has a certain relation with necessities and welfare of people. A scientist always believes that complete knowledge is useful, whether it is used for drawing conclusion or to implement any activity or behaviour, to form a principle or to apply any art. Principles and behaviour mingle with each other at advanced stages. This shows the importance of applied research.

Applied research is related to behavioral pattern of social life. It is not being used for exactly understanding the social problems but for getting exact information on social welfare, health, social

reforms, religion, education, entertainment. In present time applied research is used for industrial, business, government, communalism and international relations along with other areas such as schedule caste and tribes as well. Applied research involves studies and logical analysis of all these. It helps in understanding social problems and behaviour. We need to take care that applied research does not include social reforms, policies formations, social management and solutions of social problems. These are the areas of work of reformers, leaders, politicians and officials. Applied researcher contributes in their work by correctly depicting different areas of social life, its problems and difficult situations.

Applied research uses only instruments and methods which are used in pure research. The knowledge got by applied research helps solving different problems related to applied life and control social events. The researcher presents certain solutions out of the conclusions and results of their studies which are generally helpful in finding out solutions for problems.

Stoupher has written talking about the importance and usage of applied research that if sociologists have to increase their importance then they need to be successful in applied research. He has also written that applied research contributes in social science in three different ways; (1) what are the social facts useful for which society – by proving it with facts it (2) to find techniques which are useful for pure research (3) to present facts and thoughts which instigate the generalization process.

Pure research finds out principles and laws and applied research collects information about real life. Different principles help in developing understanding of different problems and solutions and applied research helps in finding out their trustworthiness and verifies them.

Applied research contributes a lot in pure research. Facts collected during applied research help in correction and improvements in existing information. These also provide opportunity for their implementation. Applied research makes it clear after studying related perceptions and opinions that upto what level these can be used, and the processes developed for applied research are useful for pure research or not.

The contribution of pure research to applied research is also not less important. Few principles based on pure research are used to solve many applied problems. It helps to get to the bottom of that problem and the real reasons of problems. Pure research helps to find out alternate ways to find solutions. Today govt. and non govt. organizations have accepted the importance of pure research and as a result they have research departments.

To conclude we can say that pure and Applied researches are inter-related and helpful in mutual development. They should constantly work together.

Self Assessment

Fill in the blanks:

1. Applied research is _____ application on social life.
2. Applied research is _____ about all these.
3. The knowledge got by applied research help in _____ social events and solving problems.

6.3 Summary

- There are five aims of pure research –
 - (i) Gaining knowledge.
 - (ii) To find laws.

Notes

- (iii) Knowledge of social decisive units and their active relations.
- (iv) Implementation of new processes.
- (v) Checking of research process.
- Pure and applied research are interrelated to each other. Applied research is related to social life.

6.4 Keywords

1. **Pure Research:** In this study of new facts and events is done. And it is also checked whether old principles and laws are relevant for the present scenario.
2. **Applied Research:** Both applied and pure researches are useful for society. Pure research studies principles of society and applied research studies application of these. Both contribute to the development of each other.

6.5 Review Questions

1. What does pure research means?
2. How pure and applied research are inter-related?

Answers: Self Assessment

1. Relation
2. Study
3. Control

6.6 Further readings



Books

1. Social Research and Statistics – Ravindra Nath Mukherjee
2. Research Procedure – Dr. Ganesh Pandey, Arun Pandey- Radha Publication.

Unit-7: Research Design: Meaning of Research Design, Selecting of Research Design

Notes

CONTENTS

Objectives

Introduction

7.1 Subject: Meaning of Research Design

7.2 Selection of Research Design

7.3 Summary

7.4 Keywords

7.5 Review Questions

7.6 Further Readings

Objectives

After studying this unit students will be able to:

- Define the meaning of research design.
- Explain about how to select research design?

Introduction

Every social research has certain purposes and till the research work is done in an organized manner purpose can not be fulfilled. This plan is research design. This means that research design is created according to the problem and form of social research, so that it can reach a definite direction and the scholar does not deviate. It would be better to understand it even more clearly before going any further.

7.1 Subject: Meaning of Research Design

No research work can be without aim or purpose. The purpose is not developed or clarified during research but it is decided before it is started. On the basis of research to define different aspects of subject a structure is made which is called research design. Mr. Ackoff has explained that "to ascertain a decision before a decision is activated is called design." In this point of view the draft is prepared after a purpose is reached at before it is obtained, this is research design. When this is related to a social event it is called design of social research. It is clear that there are many types and the scholar chooses the best one and when the type is decided, the nature and purpose of research work gets clear. For example if it is clear that the purpose of research is to find out reasons of social event. The research work would be a description only the new laws will be implemented and testing and usage will be more important. Keeping all these in mind a basic structure is created which is called research design.

Notes

Thus we can say that keeping in mind the purpose of research and to bring it under a certain type and to successfully face the conditions of the research, the structure which is formed is called research design.

7.2 Selection of Research Design

A research design requires a well thought plan to be done very carefully, keeping in mind all negative and positive aspects. This helps as a guideline. If the subject is chosen correctly then the scope of success of research increases, so every researcher has to keep certain things in mind in order to select and implement the research work, which are as follows-

1. Preliminary Knowledge about Research Topic: Before starting any research basic knowledge is very important which helps to go further.



Notes

Prof. Park has written that in relation to a research work preliminary knowledge is as important for a scholar as for a doctor the information of a patient's physical conditions.

This preliminary knowledge is important because on the basis of it finally it can be ascertained that the subject is suitable for a researcher or not. On its basis only we can try to assume probable and applied problems of the research. This can be obtained by a scholar by talking to people, to go around in related fields and by studying and reading thoughts of other experts.

2. Precautions in the Selection of the Topic: It's very important to be careful in selection of the topic on the basis of preliminary knowledge, because according to Mr Ogburn, this carefulness in selection specified the contribution of a scholar. He has warned us that this type of topic should not be chosen which is not clear and which is out of the research area and which is difficult to get enough proofs of. While choosing the topic it should be speculated how real the research would be, for example, we know certain feminine psychological reasons but not all; similarly we know a bit about race mixture but that is not enough. These topics should not be chosen because "almost correct" is not acceptable. We should not choose topics which we feel can be influenced by emotions because these facts will not bring a real conclusion. International relation strikes and lock out nationalism, casteism and racism are the type of subjects which are highly influenced by emotions, so these should be considered before selection of a topic.



Did You Know?

During a strike if a researcher asks the number of workers to a union leader, he will tell 15,000 and the mill owner might tell only 300 and in that atmosphere it is difficult to find out who is correct. Thus, it is important to be careful.

3. Precautions in Determining the Scope of Research: In the beginning level extreme carefulness and sensitivity is required. If the area of research is defined then the best and real study methods can be applied to get maximum results. According to experts this alertness is not only important but necessary too. If the area of research is too wide then the sea of research can deviate in its ocean. If the area of research is not clear then the conclusion will also be not clear. For example, if I consider casteism, an area of research then my whole life will be spent trying to get facts about the castesism

and the papers on which I will collect the facts and information will be as many as will be required to cremate my dead body, which means all the corrected facts can cremate the body but the conclusion of research cannot be taken out. So the area of research needs to be limited from the beginning.

4. Necessity for Defining the Units of Research: A researcher should keep in mind that the subject he has chosen, should be define be it very clearly so that there should not be any misconception in the mind of the researcher or other people regarding this. For example, take child marriage. If we make it very clear in the beginning that only girls who will attain puberty will be included in the child marriage, then few people will take till seven years, few others will take ten years and some might take fourteen years and provide information according to this. So the facts will not provide results for correct research. Similarly unemployed "person", community, marital adjustment and even a boy etc. words seem to be very simple but they can make the research unclear. So everybody advices to define all the words and terms very clearly from the beginning. Mrs Young has written, "clearly defined units not only become the basis of inspection of facts but also measure and compare the study work, without clear definition we will only collect garbage in our studies. Unclear and unverified units leads to collection of waste material". Mr. M.C. Elmer has written that whereas possible units should be free from conflicting or varying elements. If we have to know the number of boys of a community we should make it clear in the beginning that up to what age we will consider the category of boys? If we have decided that from an infant to the age 20 all the males will be considered boys, then we need to be very clear in all the probable conditions. For example, if till 20 years of age all the males are the boys then will a married and father of two under twenty years of age will be considered a boy? We need to be careful about all these probable conditions.

5. Understanding of Future Difficulties: Before starting his studies a scholar should gather information about all the problems which can occur during the research. For example, if he finds out beforehand when the people will be available for interview and the problems in coming and going to the field of study then it will save money, time and labour during research work.

6. Selection of Method: Another practical issue which should be taken care of by the scholar is that according to the nature of subject, study methods should be chosen carefully. A few attractive and difficult methods cannot guarantee the correctness of research. For this to choose the best method according to the nature of subject is very important. The method which is correct for one topic cannot be suitable for another. For this chosen method should be speculated according to the usage and suitably improved. Doing this does not require changing the methods during the real research work and the research work continues successfully without any methodological hindrance.

7. Idea about the Accessibility of the Sources of Data: Choosing the correct method does not ensure the success of research work unless the sources of facts and from where the data and proofs related subject, should be sourced, is known to scholar and then only sources are not enough. A scholar should have accessibility of these sources. He should very clearly have the knowledge about accessibility of data. Mr. V.M. Palmer has written that, sometimes research work has to be stopped because of lack of accessibility to the data or a side of the subject remains untouched so to be careful about this from beginning is important.

8. Pilot Study and Pre-testing: According to Mr. Ackoff, to speculate the problems of the research, to choose correct directions, to find out the source of information, to get idea about the specialties of the subject and the duration of study and expenditure, it is not only important but necessary to check the usefulness of study method and manner and to find out the need of improvement pre-testing is extremely beneficial.

9. Time and Cost Estimate: Social research requires lots of money and time. So for a researcher its necessary to get an idea about the boat. It might be possible that due to lack of any of these research work needs to discontinue and be incomplete forever. Sometime it happens that if the time and money is not distributed properly, both are wasted on less important items and further most important subjects and items remains with less money and time. This does not ensure balanced progress of the subject. So a proper budget and time schedule is an important requirement of the research work.

Notes

10. Selection and Training of Personnel: Many trained workers are required for the research work. The success of research up to a limit, depends on the ability and skill of these people. So it's important that these workers are chosen carefully and are trained for the proper use of the nature, purpose, and the method, to collect and check the facts.

11. Research Administration: Before starting any research work the administrative work, for example, which worker would be used for which work, the management of research and other administrative arrangements should be done otherwise a condition of confusion can erupt and stop the research work.

12. To get Oneself Ready: Finally, it is also very important for the research work that the scholar prepares himself well for this. His preparation will depend on his own qualities. But in any condition it will be necessary that the scholar applies a scientific point of view so that on any level his own bias, favouritism opinions, idealism, values, and understanding of right and wrong cannot influence his studies.

Self Assessment

Fill in the blanks:

1. 'Almost correct' facts related to knowledge are not _____ .
2. The psychological facts cannot take us to _____ .
3. The probability and method of _____ facts should be thought of before choosing a subject.

7.3 Summary

- "Before realizing a decision a process to decide is called research design" , Ackoff.
- One should be very careful while choosing the area of research and have the preliminary knowledge about the subject and the need of defining the units of research.

7.4 Keywords

1. **Research Design:** A research design is a format which is made prior to starting the research work.
2. One should be careful in choosing the subject of research design.

7.5 Review Questions

1. Explain research design.
2. How to choose research design?

Answers: Self Assessment

1. Collection
2. Conclusion
3. Trustworthy

7.6 Further Readings



Books

1. Sociology of Education –Tiwari Sharda, Arjun Publishing House.
2. The method of applied research – Dr. Jai Bhagwaan, Friends Publication.

Unit-8: Types of Research Design : Exploratory and Descriptive

Notes

CONTENTS

Objectives

Introduction

8.1 Exploratory or Formulative Research

8.2 Descriptive Research

8.3 Summary

8.4 Keywords

8.5 Review Questions

8.6 Further Readings

Objectives

After studying this unit students will be able to learn:

- Understand the meaning of exploratory research
- Understand the meaning and qualities of descriptive research

Introduction

Social research studies are found to be different on various basis. Few researches are done to get knowledge, few are done for curiosity, few aim for building objectivities while few are done to verify the objectivities. Some research aims for describing an incident, few are done to find out solutions of social problems, few are done to find out effects of social changes and to finally increase the progress the social welfare programs.

According to different aims and reasons there can be different types of social researches-

8.1 Exploratory or Formulative Research

A scholar tries to find out the reason behind any social event so that he can get the principal and applied knowledge about the subject, to study this the type of research which is done is called exploratory or formulative research. The objective of this type of research is to get primary information to form a hypothesis and to format the studies. A scholar named Hansraj has said, "Exploratory research is necessary to create a hypothesis and to get related experience". This type of research make the subject and the reason of the problem. As a result of this all the events can be understood regularly. It also tells about the suitability of the research. For example, if you want to know the reason of the criminal behaviour in adolescents and young, then we can take the help of exploratory research.

To ascertain the success of the research certain conditions are required. In another words these should be taken care of:

Notes

1. Review of Pertinent Literature—It is important to study published or unpublished literature. Without this we will not be able to understand the subject and make the hypothesis. It is important that the related material is studied intensely. It will save time, money and labour.

2. Experience Survey—This means to find out people having related experience, select them, contact them and to get benefit from their experience, this is very important for the research. Sometimes because of lack of education limit of resources and for some other reasons few experienced people cannot realize their experiences. To find out these type of people and to gain from their experience is very important for a research scholar. This information will give him directions.

3. Selection of Proper Respondents—the success of research depends that few people are chosen who can provide proper information which can give a real insight of the studies. They should be chosen from both: direct and indirect methods. For example, if we have to study village panchayat, then in the direct method, Sarpanch, Panch, officials and workers related to village panchayat should be chosen. Through indirect method, people who are not directly related to village panchayat but have important related information, should be chosen. School teachers, government employees, and a few respectable and wise people of the village are these type of people. It will help understand various aspects.

4. Proper Questioning—the success of research depends on the carefulness of obtaining information for proper questioning and the questions should be asked in a manner to get correct information otherwise important information will not be available.

5. Analysis of Insight Stimulating Cases—normally a research scholar has limited information of various aspects of the subject. For this it is important that all the aspects are studied and analyzed intensely. This will provide us an insight which is very important for the success of research.

Different Work of Exploratory Research

These are the following steps of exploratory research:

- (i) To check pre determined hypothesis in context of present conditions.
- (ii) To attract the focus of researcher towards important social problems.
- (iii) To develop new hypothesis for research.
- (iv) To analyze insight inspired events and to develop new areas of study.
- (v) To find out suitability of different research method .
- (vi) To create a base to start research work.
- (vii) To expand limits of science and develop them.
- (viii) To inspire the scholar on different subjects of studies.
- (ix) To give a definite format to the research work and remove uncertainty.

All these steps of exploratory research give basis of a successful research work.



Notes

Celtes and his friends have told that exploratory research is important to get the experience which will be helpful for hypothesis of a definite research.

8.2 Descriptive Research

Descriptive research aims for collection of real facts of any subject or problem and to present a description. There are so many aspects of social life which were not studied in the past. It is important

in this condition that information of different aspects of social life is collected and presented in front of people. The stress is given on collection of information related to the subject is real and trustworthy, otherwise the explanation would be philosophical instead of scientific. If we do not have information about the social life of any group, cast or community, then it is important that real facts are collected through scientific method. Different methods of collection, for example, interview, questionnaire, survey or any other method can be used.



Did You Know?

The purpose of these methods is to collect real information. This type of research requires events to be described in their real form.

Specialties of Descriptive Research

Descriptive research has following specialties:

- (i) Different aspects of a subject or problem is highlighted in this research.
- (ii) If a subject is not studied earlier then descriptive research is considered suitable for this.
- (iii) A hypothesis is not created in this study.
- (iv) Descriptive research has similar steps of scientific methods which means carefully choosing the subject, correct use of methods, respondents are chosen according to directive methods collecting real facts and to analyze conclusions which are unbiased.
- (v) A role of a research scholar in descriptive research is not of a social reformer or predictor but of a scientist or unbiased analyst.

Points to be Considered in Research

These are the important points of descriptive research:

- (i) A subject should be chosen carefully so that all the important and dependable facts could be collected.
- (ii) To give a scientific base to research carefully chosen methods, for collection of truth, are important.
- (iii) It is important for descriptive research to have an objective point of view because there is a probability of favouritism, biases, apprehensions to enter into the field of studies. A research scholar should restrain himself to make his work attractive at the cost of objectivity.
- (iv) Descriptive research is quiet vast, so it is important to be economical in the terms of time and money. Lot of money is required so it should not be used on matters unimportant.

Steps of Descriptive Research

These are the following steps for success of descriptive research work.

1. **Formulating the Objective of the Study** – Aims of research are determined first then they are defined. Basic questions related to research are cleared, this ensures misuse of money, labour and unnecessary collection of facts.

Notes

2. **Selection of Techniques of Data Collection**—To find out different techniques of data collection according to the nature of subject and problem is very important for a scholar to develop his work. Without this verified facts and data cannot be collected.
3. **Selection of Sample**—Each and every unit of the group cannot be studied due to limit of time and resources, so few representative units are chosen using some suitable method. The conclusions drawn are thus applicable on the total population and are quiet trustworthy.
4. **Collection and Scrutiny of Data**—After selecting the unit of study through some directed method, important facts are collected using scientific methods such as interview, survey, questionnaire. These are checked though proper method so that unnecessary data can be excluded.
5. **Analysis of Data**—this means that the facts which are collected are categorized into different groups on the basis of their similarities or differences, they are serialized too. Facts are statistically analyzed. For this a scholar should be well trained and objective.
6. **Presentation of Report**—Here the description and conclusion are presented. The language used should be of a quality which cannot be used in different context.

Self Assessment

Fill in the blanks:

1. To present a description of facts on the basis of real _____ .
2. There are certain aspects _____ social life which have not been studied in the past.
3. To find out facts interview, survey, questionnaire or any other _____ can be used.

Diagnostic Research Design—The main aim of research is to get knowledge and increase it. It also may have the aim to find out the reason of a problem and to present its solutions. This type of research design is called diagnostic research design, in other words a special problem solution—method is called diagnostic research design. This is to remember that a scholar presents the solution—he does not try to solve the problem, to solve a problem is the work of reformers, leaders and administrators, a scholar, through scientific methods, after knowing the reasons of the problem he finds out the solution in the best manner. In diagnostic research design after a complete and detailed study through scientific method, an effort is made to get into the depth of the problem, so that every probable reason can be known. In this the knowledge of the reason is the foremost. Solutions are secondary. The reason of this finding is the immediate need of the solution, a hypothesis is created keeping in mind the probable solution so that the study can be done scientifically.

On the basis of the above description these are the specialties of diagnostic research design-

- (i) Diagnostic research work follows scientific method which has the first step of creting a hypothesis and to manage the studies on its basis.
- (ii) Diagnostic research work is related to problems arising out of social relations and arrangement and to find out the solution of these problems.
- (iii) In this the reasons of the problem are found through scientific method because it is felt that without proper knowledge of the real reasons it is difficult to find solutions.
- (iv) Diagnostic research is related to the finding of the solution to any social problem. This means obtaining pure knowledge is not the purpose but finding a solution is also one of the major task.
- (v) Diagnostic scholar finds out solutions but does not solve the problem. He scientifically gives the direction but to solve the problem is the work of social reformers or administrators etc.

This description compares both, descriptive or diagnostic but still we can present it as – (a) Descriptive research is related to a particular subject or a problem, but diagnostic research is related to social problems. It means diagnostic research studies only problems but descriptive studies and social events due to include only social problems. (b) Descriptive research is not related to any solution directly, whereas the purpose of diagnostic research is to find a problem. (c) In descriptive research events are described, in diagnostic research to find a solution reasons are explored. (d) In descriptive research, due to study of the subject, knowledge is gained whereas in diagnostic research knowledge becomes a means of finding a solution.

8.3 Summary

- According to Celtis, exploratory research is necessary to get the experience which would be helpful to create a hypothesis for a specific research.
- To present a description on the basis of subject and problem is the main purpose of descriptive research design.

8.4 Keywords

1. **Exploratory or Formulative Research Design:** When the purpose of any research is to find out the reason of any social event, then the format related to it is called exploratory research design.
2. **The Reason of Research:** The basic questions related to research are cleared so that unnecessary collection of facts, money and labour can be saved.

8.5 Review Questions

1. Explain the exploratory research design.
2. Explain the qualities of descriptive research design.

Answers: Self Assessment

1. Facts

2. Related

3. Usage

8.6 Further Readings



Books

1. Classical Social Thinking – Agrawal Gopalkrishan, Bhatt Brothers.
2. Social Research and Statistics – Ravindranath Mukherjee.

Unit-9: Types of Research Design: Experimental and Cross-sectional or Comparative

CONTENTS

Objectives

Introduction

9.1 Experimental Research

9.2 Evaluation Research

9.3 Comparative Method

9.4 Use of Comparative Method

9.5 Meaning and Definition of Comparative Method

9.6 Importance of Comparative Method

9.7 Limitations of Comparative Method

9.8 Summary

9.9 Keywords

9.10 Review Questions

9.11 Further Readings

Objectives

After studying this unit students will be able to:

- Understand the meaning of experimental research design
- Know about comparative research or method.

Introduction

Every science utilizes one or more than one research design for its research work. These are termed as methodologies **and these methodologies are the foundation of scientific research**. These methods are fundamentally the same in all types of sciences but these are only modified as per the research objectives. In this way we can say that methods are those procedures which are used to formulate the research work, concepts and analyze the results.

According to Bertrand and team, “scientific methodology is used for assignment and classification of orderliness of nature”. Goode and Hatt have written when basic principles of science are applied in sociology than these are termed as sociological study methodology.

9.1 Experimental Research

Experimental research is also known as explanatory research. According to Chapin, “in sociological research the hypothesis for experimental design includes the control of state through inspection of

human relation". As you know in physical sciences the subject is kept under controlled conditions and studied, similarly the inspection and examination of social happenings in a controlled environment is termed as experimental research. In this type of research some aspects or variables of social happenings are controlled and the remaining variables are examined through new conditions. From such type of research we can find out the effect of newer situations on a particular group, society or any social happening. In this the research is carried out in a controlled environment.



Notes

According to Chapin; "research is an inspection carried out in a controlled state. When inspection is unable to find out the factors responsible for the creation of any problem then it becomes necessary for the researcher make use of experiment".

The same thing has been presented by Mr Bimal Shah, "experiment refers to that part of research in which some variables are controlled where as others are changed and their effect on controlled variables are examined. "In social sciences the importance of experimental research is same as the importance of laboratorial methodology in physical science.

Experimental research is of three types: first, after experiment; second, before-after experiment; and third ex-post fact experiment.

1. After Experiment—In this firstly two groups of similar characteristics and nature are selected. From this one group is known as controlled group and the other group is known as experimental group. No change or alteration is made in controlled group, neither in any of its variables or aspects as well. No effect of new condition is permitted on experimental group. After some time the effect of new condition is measured on the experimental group. If the effect of changes in conditions for the controlled group and experimental group is same then it means that the new factor or condition has no effect on experimental group. But if the effect on experimental group is more than the controlled group then it means that the new factor or condition had an effect. For example, let us take two groups or villages in which child marriage is prevalent. In this one group is taken as experimental group in which the publicity against the child marriage is done. After some time this group is compared to controlled group in which no such publicity against child marriage is done. If we find any difference in the practices of child marriage in these two groups or the decrement in the child marriage in experimental group, than the effect of this new factor i.e. publicity against child marriage would be considered significant.

2. Before-after Experiment—In this process instead of selecting two groups only one group is selected. This group is studied under two different conditions and comparison between before and after is made. The study based upon before and after conditions is used to find out what changes have been made in before and after conditions. The difference in the two states indicated the effect of new conditions. For example, let us take a village and examine the effect of family welfare program. With the help of a schedule we find out to what extend have the villagers accepted the program. For our study we refer before condition as the first state here. Thereafter in this village the people are educated on the advantages of family welfare program by means of radio, television, village social worker, teacher, doctor, nurse. This time period is known as remedial period or second state. After a particular period this village is again examined with the help of previously created schedule. This is considered as after situation or third state. Now comparison can be made in the before and the after state. If now the villagers accept the family welfare program and themselves make use of this program than this would be considered an effect of attempts made during the remedial period or the second state.

3. Ex-Post-fact Experiment—This process is used to study the aspects related to past or any past happening. Past conditions cannot be revised, neither its recreation is possible for researchers. They

Notes

can neither be controlled nor can any changes be made in them. In this condition by use of research process the study of various aspects of ancient records help us to reach some conclusion and find some helpful result. Through comparison of various records the measurement of important results is possible. Through this technique usually two such groups are selected in which one group is that which is used for study and has some historical event associated with it whereas in second group no such event has occurred. Through the comparative study of these groups based on previous conditions is used to find out what were the reasons for the occurrence of that event in that group, what factors were responsible for the occurrence of that event.



Did You Know?

This process is used to find out the factors responsible for the present state or events based upon previous state or event.

It would be reasonable to present an example based on this study here. Let us consider that we need to study the effect of various welfare programs on scheduled tribes/scheduled caste people. For this we need to select some historical facts. We need to find out which people are aware of such welfare programs and who have taken advantage of such programs. Then we need to find out the people who have taken advantage of this program belong to which age group, what educational level they have, they are members of which tribes, what is their source of earning, in which location do they reside. From such type of study we can determine that which particular tribes and from which particular location do the people taking advantage of welfare program belong to. We can also find out that the people who have taken advantage of which program, are they educated or uneducated and to which age group the majority belong. We can also determine that who are the people taking advantage of this program, are they farmers, are they agricultural labourers, are they artisans or are they people who make use of forest resources to earn their livelihood or the labourers working in factories. After some time the same people are examined through the same factors and thereafter with the help of comparative study conclusions are derived.

9.2 Evaluation Research

Today most of the nations are progressing in a planned direction. They are working together in a welfare way. The nations which spend billions and trillions of money on development also want to know what effect these programmes have on the people for which they are made. Today most of the development programmes in the areas of poverty eradication, health, housing and family welfare, crime, child-offence, coordinated village development etc. are done with the objective of measuring the effectiveness of these programmes, to know what similarity exists between the targets set and the results achieved, how far can we move with the desired targets. With the help of such type of research works we can evaluate the success and failure of any development programme. For example, according to a study conducted by Dr. S.C. Dubey on a village named as Shamerpet has said that the group development programmes failed to achieve the public support in the desired level. The programme neglected the human factors and resultantly the villagers did not accept the best schemes designed for them. This is an example of evaluation research. Since the year 1960, the trend towards this type of research has increased in India. For evaluation of the group development programmes, Indian government has set up a permanent body termed as "Programme Evaluation Organization."

According to Williamson, Corp and Dolphin, evaluation research in the real world is one such discovery that helps to evaluate how successful have on the programmes been that have been made for betterment of the people belonging to special group. It can be used to assess the effectiveness of the particular programme. Where there exists a lesser difference between the targets set and the target achieved, the programme is considered more successful. This evaluation is done with the objective

so that the necessary changes can be made in the planned changes so as to make them more effective and successful. This type of research is used to find why the programmes set up with the objective of social changes have not been able to achieve the desired results and what steps should be taken to make them successful. From the above given explanation it is clear that the exploration used for evaluation of the practical programmes aimed towards success and failure of the social direction and transformation is termed as Evaluation Research. This type of research is a type of customary research. This type of research has much of practical usage. But this does not mean that evaluation research has no importance from the view point of genuine research. This type of research makes use of all types of techniques which are used in a genuine or pure research. In this research, for the evaluation of effectiveness of any programme, for understanding the people's opinions, view-points, emotions, etc.



Did You Know?

Many government and non-government organizations in Independent India are engaged in evaluation research. Many researchers are also engaged in such as type of research on an individual level.

Various departments such as Census departments, health department, education department, survey and statistical department make use of such type of evaluation research. In this type of research, care must be taken to ascertain that the study conducted must not be subjective instead of being scientific. Every programme must be evaluated in a correct manner, neither less nor more otherwise the results would be dissatisfactory.



Task

What is meant by evaluation research? Briefly describe.

9.3 Comparative Method

Recently in the areas of social sciences the use of comparative method has been made for the study of social happenings. In the comparative method, same group and the incidents of the same nature occurring in that group are mutually compared and the similarity and dissimilarity between the two is studied. Incidents occurring in a particular society at various time periods and incidents of same nature occurring in various societies at various places are also studied using this technique. For example, the study to examine the effect of industrialization and urbanization in European family and Indian families we need to consider factors such as what new trends have evolved in them, what similarities and differences exist between the changes in the two societies, etc. In the same way if we want to compare the changes between the caste system in the new era and the caste system in the Vedic times then we need to make use of the same technique. In this way, when we want to compare the social incidents occurring in various groups, societies, places, etc. then we need to make use of such technique.

9.4 Use of Comparative Method

Comparative method has been widely used by many researchers in sociology and anthropology. Social and cultural anthropologists have used this method for understanding social and cultural evolution. The names of anthropologists who have use this method such as Morgan, Becofun, Tagart, Henery

Notes

Man, Maclenin, Taylor; Frejor, Levi, Brahul, etc. are worth quoting. Social developmental researchers have used historical and comparative method together. Founder of sociology, "Auguste Compt" has used this method to compare the various stages of social development. In the, "law of Three Stages" he has described and compared the theological or fictitious stage, metaphysical or abstract stage, scientific or positive stage. Harbart Spencer has compared and found out the similarities between society and savyav. On the basis of this he has declared a society as a savyav. He has also compared different societies. Durkheim in his book 'the Rules of Sociological Method' has described the importance of this method. He has compared the rate and factors responsible for suicide in various European nations and presented it in, "The Social Principles of Suicide".

Max Weber has used comparative method on six major religions of the world to demonstrate the mutual relationship between capitalism and protestant religion and suggested that only protestant religion has such financial nature that give rise to modern capitalism. Wislor has divided Africa and America into different cultural regions to compare their cultural aspects. By doing so he wanted to find out the factors responsible for cultural development, expansion and change. Charles Booth from England had used comparative method to study five industrial cities comprising of London, B.S. Rountry, York city, Boule, Wurnet Hurst. In this way, since a long time many social researchers have used this technique to study the similarities and dissimilarities, evolution, development and devastation of various societies, cultures and organizations.



Did You Know?

Framin has said, "The foundation of comparative method is the greatest success of our era"

9.5 Meaning and Definition of Comparative Method

We make use of comparative method in our day-to-day life. We often compare politicians, administrators, teachers, workers and friends and declare them as good or bad, right or wrong, competent or incompetent, etc. Comparative method is used in natural and social sciences and all sciences. We can compare the various nations on the basis of their financial status, life-style, population increase, development, happiness and well-being, We compare rural and urban life and derive so many results and conclusions. According to Radcliff Brown, comparative method can be used to solve two types of problems. (i) The problems that are related to present and (ii) the problems that are related to past or future. Comparative method has also been widely used in research relating to education.

Comparative method not only means that they present the comparison between the incidents happening but they are set up with an aim or motive. In this reference Ginsberg writes, " the task of comparative method is not only of comparison between the two incidents but also giving explanation for those using the comparison made." From the thoughts of Ginsberg it is clear that if in comparative method the incidents were not explained and were aimlessly compared then then method will not be considered successful.

Herskovits has written about comparative method, "In comparative method the developmental sequence of human institutions and beliefs is established by comparing the difference between the human nature."

Comparative method has been used along with the historical and evolutionary development methods because historians and evolutionists have been using this to compare the evolution of modern social, financial, political, cultural and religious institutions with ancient institutions. But in the present time it has discreet existence. By use of this technique, researcher compares various social incidents

and finds out the similarities and dissimilarities between them, derives generic conclusions about them and present generalisations about them. Comparison can be made between various societies, various places or same society at different phases of time. Since it is difficult to control social incidents and therefore in such a situation comparative method has proved useful to compare two aspects or incidents and find out the generic outcomes for them. In brief, it is this method through which we compare two or more facts, incidents or units, by explaining and analysing them we try to figure out a common tendency between them. The use of this method is increasing day-by-day in the field of anthropology, sociology, education and statistics.

9.6 Importance of Comparative Method

Comparative method started being used in the 19th Century, yet this method has been mostly used by experts for comparative and scientific study of social incidents. We can demonstrate the usefulness or importance of this method under various headings:

1. **Usefulness in Hypothesis Testing:** In social research, the formulation and testing of hypothesis is an important stage. By study, these hypotheses are proved and become principle. One major usage of comparative method is the testing of hypothesis and also testing their truthfulness. According to Radcliff Brown, comparative method is the most useful technique in testing of hypothesis. Through this technique various groups, cultures and societies can be easily compared.
2. **For Understanding Factors Related to Work:** Similar to physical sciences, the explanation of factors or reasons for happening of an incident is a difficult task in social science. Several experiments are done to find out the reasons for the incidents in social sciences but it is even more difficult to carry out visible experiments in social sciences as compared to physical sciences. According to Durkheim, comparative method is a correct technique to find out the reasons underlying social incidents in “indefinite experiment technique.”
3. **Useful in Analysis of Statistics:** In the present time, the representation of social incidents in the form of numbers has been increasing and also for their analysis statistical rules, formulae’s, symbols, figures, etc. are being used. For comparison of various incidents percentage and fractions are being used. In this way it is also a good technique for statistical elaboration of social incidents.
4. **Useful in Result Testing:** Comparative method is used for testing the results or outcomes obtained from various studies done on various societies and institutions. This technique is necessary for testing the results of the study of areas of limited scope between different nations.

Comparative method has proved useful for the study of smaller areas and smaller level studies such as various businesses, commercial institutions, rural societies, educational institutions, etc.

5. **To Understand the Direction of Change:** Comparative method evolved with historical and evolutionary method itself because it was necessary to understand the direction of change in the society, culture and institutions. For this purpose they compared the ancient society, culture and institutions with the modern society, culture and institutions and found out the direction and nature of change. Change is itself a comparative fact. The change happening in a situation can only be determined when it is compared with the other incident.
6. **Comprehensive Use of Method:** Comparative method is one such technique that has been used by experts in various areas of social research. This is itself an evidence of its usefulness. Some of the areas in which this technique has been used are given below:

Notes

- (i) **Social Anthropology:** Comparative method is used for the study of various institutions of aboriginal and naïve societies such as family, marriage, relationship, religion, entertainment, finance and political institutions in social anthropology. This technique has been used to study the process of social evolution.
- (ii) **Sociology:** Comparative method has been used to find out the reasons for the occurrence of a social incident, the relationship between those reasons, social status and find the position of social groups.
- (iii) **In the Field of Social-financial Area:** Comparative method is used for the study of relationship between the financial differences, comparative study of urban groups and for the study of behaviour in industrialized societies. Rowtree studied the poverty in York City and compared the outcomes of the study of smaller regions with the bigger regions. Dr. Bowle after 10 years again studied the same regions and presented the comparison between them.

In the modern world, comparative method has been used for study of various areas of social sciences such as family, marriage, crime, urban life, progress, social classes and educational achievements and their inter-relationships. From the analysis and comparison of the results of these studies, the practical use of this method has been proven. In India, Prof. Ghuriye and Kapadia have presented comparative analysis in the areas of family and marriage. In area of Indian education the study of Dr. L.K. Oad and the report of Education Commission are also major achievements of this method. Social sciences must use this technique as much as possible because this is an alternative of experimental method of natural sciences and it would prove much useful in the development of social sciences.

9.7 Limitations of Comparative Method

In spite of being a very important method, the use of comparative method has some problems. Without resolving these problems it would not prove to be beneficial.



Notes

Anthropologist Radcliff Brown has rightly said, "Alone comparative method cannot deliver you anything. Without sowing seeds, nothing can be produced."

From the above statement it is clear that comparative method cannot be used unless and until the difficulties underlying its use have been removed. The main difficulties in its use are as follows:

1. Lack of Hypothesis: For any scientific research, hypothesis is necessary because hypothesis determine the direction of study, direct the study and also decide the limit of the study. In comparative method we see a lack of hypothesis. In this reference, Botomore has written. " In comparative method either we see a lack of hypothesis or else the formulation of hypothesis is not considered necessary."

2. Difficulties in Deciding Units: For using comparative method it is necessary to carefully chose the units between which we want to do comparison. We need to decide upon various aspects such as what will be units, what will be their size and nature, what will be the apt measurement for deciding them and what will be its limits. Because social facts are qualitative facts therefore it is difficult to dertermine their units. For example, when we want to compare an Indian village with an American village but the definition of village varies greatly between the two nations. In America what is considered a village is a city in India. In this way determining the units is a difficult task in comparative method.

3. Various Natures of Units: Many a times it happens that the units we chose for study may seem to be alike in various ways but they may have various differences underlying them. In this reference, Botomore has rightly said, "In study of societies although the units may seem to have similar designs but in reality the units may largely differ." For example, when comparing two families they must be similar in internal as well as external nature." The families that seem to be joint from a wider view must not be single within. Moreover whenever we view any unit separately from its social ground then it may be a misconceived, nation.

4. Problem in Analysis: In comparative method two units are compared. At that time they are not explained in reference to their social status but are discreetly Treated as a unit. In such a situation it becomes difficult to know their real nature. Resultantly, the results and analysis done through comparative method turn to be erroneous and unscientific. For example, in western nations the role of relatives and maternal uncle is not as important as in an Indian marriage.

The errors of this method are as follows: (i) comparison is always between two similar incidents and it is difficult to establish similarity in two incidents, (ii) It is difficult to define comparative units, (iii) It is difficult to compare entire societies and cultures and the study of grotesque incidents is not possible.

Self Assessment

Fill in the blanks:

1. From the _____ and comparison of the results of these studies, the practical use of this method has been proven.
2. In India, Prof. Ghuriye and Kapadia have presented comparative analysis in the areas of _____ .
3. For any scientific research, the existence of _____ is necessary.

9.8 Summary

- According to Chapin; "research is an inspection carried out in a controlled state. When inspection is unable to find out the factors responsible for the creation of any problem then it becomes necessary for a researcher to make use of experiment".
- Comparative method is used for the comparative study of various groups, societies, places and social incidents occurring in any society.

9.9 Keywords

1. **Comparative Method**—It is used to compare various societies or the groups within the same society.
2. **Comparative Method**—In comparative method the developmental sequence of human institutions and beliefs is established by comparing the difference between the human nature.

9.10 Review Questions

1. Explain the meaning and specialities of experimental research design.
2. Explain the importance and usefulness of comparative method design.

Notes

Answers: Self Assessment

1. Analysis
2. Family and marriage
3. Hypothesis

9.11 Further Readings



Books

1. Social survey and research—Vandana Vohra, Radha Publication.
2. Classical social reflection—Agrawal Gopal Krishnan, Bhatt Brothers.

Unit-10: Types of Data and Their Sources

Notes

CONTENTS

Objectives

Introduction

10.1 Data Collection and Primary and Secondary Data

10.2 Sources of Data

10.3 Authenticity and Reliability of Means of Research

10.4 Summary

10.5 Keywords

10.6 Review Questions

10.7 Further Readings

Objectives

After studying this unit students will be able to:

- Understand the data collection in research methodology.
- Understand the sources of data.

Introduction

A researcher does not use the data used in researches arbitrarily; this instead he compiles them with the help of different tools and techniques. For scientific researches this data needs to be authentic and to maintain this authenticity, researcher collects the data objectively. It is clear that for research, it is very necessary to have authentic data and material.

10.1 Data Collection and Primary and Secondary Data

For any survey or research, collection of data is very important. Until the facts related to the research are not collected using the specific techniques, neither results can be made based on research, nor can any type of rules be rendered. Data collection is an important step of the research process. The way a building cannot be constructed without bricks, lime, stone, cement, gravel, wood and iron, in the same way, the work of research cannot be completed without facts. To reach any scientific conclusion and for generalization and principalisation receiving and collecting news, to know quantitative and qualitative things are important. For example, if we want to know, children of which particular field are more criminal in nature than others, in that case, research on children of both fields, their social, economic, political, and religious conditions, their way of living, source of livelihood, process of socialization of children have to done.

Notes



Notes

Research work could move forward on the basis of collected information and figures, some conclusions could be made, generalization could be done. All is information, figures and knowledge comes under the data.

Meaning of Data

For collection of data, researcher needs to have overview of the consciousness. Although it is correct that within the facts all types of information come from informers with the help of different technologies. Only that information is included within the facts that are eligible for overview and can be written. For the elaboration of scientific knowledge, simple looking small-small information's collected on the basis of data practice are very important. This collected information is called as data. Based on this data, scientific results are found and rules are rendered and theories are made.

Data collection is the aim of every science, whether it is physical science or social science. Scientific rules can be rendered only based on properly arranged collection of facts. Relation of work and effect of incident can be known from data collection, relation of cause and effect can be known. In every science efforts are made to know the cause and effects of different incidents. Therefore we can say that progress of science depends on facts. In different words each word move ahead based on scientific facts, and not on the basis of imagination.

In American college dictionary it has been reported to clarify the meaning of data that the event that has actually occurred, is what happened, is given the name data. Here we have to remember that not only tangible incidents of physical science are the basis of data in social science but also intangible incidents such as trust, emotions, mentality or thinking also come under the data.

Types of Data

Data related to every study subject or problem is very different, some data are quantitative while others are qualitative. For study data can be collected with the help of different techniques. Data can be collected through the medium of observation-method, interview, schedule or questionnaire sent by post. Sometimes keeping in mind the nature of study subject some data are also used that are not collected by the researcher or its helpers but they are collected by other researcher for their own study. These types of data are collected from books, reports, scripts, diaries or census report. Therefore data are of two types: **Primary Data** and **Secondary Data**. Collection of primary data first time by researcher and his associates are done on the basis of fieldwork. Those data come under the secondary data that are collected by some other researcher, any institute or group. Whenever any researcher uses the data collected by any other researcher then for him the data collected by others are secondary data because he himself or his associates has not collected the data for the first time. **Now here we will elaborately discuss Primary and Secondary Data.**

1. Primary Data

All those information, collected material and figures that are collected by researcher himself or with the help of his associates for his research are called Primary Data. These data are basically collected on the basis of field work. Robertson and Rite wrote "Those data are primary that are collected for the purpose of solving a particular research-problem ". It is clear that Figures, information and materials collected in relation to institute or research -problem, are called Primary Data.

Smt. P.V. Yang wrote "Primary data means those information and figures that are collected for the first time and the responsibility of which is of the researcher or explorer. Here it is clear that the collections of primary data is by the researcher himself or make it done from his associates under his supervision. These types of materials or data are obtained on the basis of field work.

Because of the following qualities, Primary data are also known as first-hand Data, Field Data and Basic Data. These types of data are collected by the researcher himself or with the help of his associates either by minutely observing the incident or by talking to persons related to research subject, by interviewing, or with the help of schedule or questionnaire sent by post. Since Primary data are collected by the researcher for the first time therefore they are called as Primary Data. Primary data are new and Reliable. Reason for these data to be more reliable is that since the researcher collects them by his own in a controlled way keeping in mind the necessity of reliability of his hypothesis and aim of research .if any researcher wants to study the village-leadership then he has to know some village particulars or some village leaders. After that he has to investigate the different activities of those leaders. Researcher has to collect a lot of information by making contacts with them. He has to investigate what work those leaders have done for public welfare. They come under which age-group, what is their educational qualification, what are the resources of their livelihood, what is their financial status? All these news, information and data are collected by the researcher himself or with the help of his associates. All these collected data are known as Primary Data.

2. Secondary Data

All those information, figures , and data which researcher do not collect himself for his research but which are already available in the published or unpublished form are known as Secondary Data . These include letters, diaries, autobiography, scripts, government reports, census reports, gadgets, documents and records. This means Secondary data are available already which any researcher uses according to his research need. Any researcher or institute had already collected these types of data. According to P.V.Yang " Secondary data are those which are used after receiving from fundamental sources and whose broadcasting officer is different from the person who firstly controlled the data collection . " It is clear that secondary data are those whose collection is not done by the researcher and his associates but who uses the material collected by some other person or institute, for his research. The user of these data is not related to its field collection. In other words whenever any researcher uses the data collected by, other researcher, institute or any government or non-government institute for his own research then those data are the secondary data for him. Here it is better to explain it with the help of an example, if any researcher chooses some data from the material published in the form of 2001 census report and uses for his own research then those data are called as secondary data for him. Secondary data are used in any research when the form of subject is such that it is not necessary to collect all data from the new end and facts related to that subject are already available. Sometimes researcher has to use secondary data due to his limited resources. For using secondary data it is necessary for researcher to be work efficient and understanding. These material are quiet well-diversified. Therefore, researcher has to collect only useful material from this material.

Difference between Primary and Secondary Data

Indeed primary and secondary data are relative. In any research which data is primary and which is secondary, is related to the purpose of research. Data which is primary for one researcher is called as secondary data when used in research by another researcher.

Primary data are believed to be more original in comparison to secondary data, as collection of these is based on the need of research by the researcher himself. This originality is relatively deficient in secondary data.

Notes

Primary data are believed to be more reliable in comparison to secondary data since the researcher collects them objectively by his own or under his guidance keeping in mind the purposes of his research subject or for the testing of his hypothesis by any scientific method. These are such type of data that can be verified by other scientists. Here we should not think that secondary data are cheaper than primary data. It only means to say that primary data are more reliable and practical in comparison to secondary data.

Primary data are new because of first time collection on the basis of field-work. Whereas secondary, data are old as collected under the investigations formerly done. Their superannuation sometimes produces problem in present analysis.

Primary data are used for the first time that is first time collected data is used for the first time. Those data used by the second time are termed as secondary data.

Primary data are collected under the supervision of researcher himself whereas secondary data are collected and used by some others.

Primary data are collected based on the need of research problem by the researcher himself therefore he can easily decide which data is important and which is non-important for his research, which data should be included in the research and which should be excluded. Collector of secondary data has to sometimes remain deprived of collection of some important data which thinking as futile the researcher of primary data has not included in his work.

10.2 Sources of Data

Sources of data means data are collected from which sources or medium.

Special care is needed while choosing the sources of data collection. If these sources are not reliable then complete research work will be useless. Therefore, it is necessary to completely understand the different sources of data collection. Essentially data for research are collected in three ways. Since the subject of social data is essentially a person or a group of persons which we cannot control according to our convenience. Therefore, we can receive information or collect data regarding that in three different ways –

1. We talk to a person personally, discuss it, question directly and know his thoughts and reactions regarding the subject or problem.
2. Observe directly the activity, conduct and behaviour of related person, group and organizations and collect data on the basis of these observations.
3. At the time of research–work use those documents, data or material according to your need that has been collected for another research.

Intelligentsia distributed three sources of data collection in essentially two parts First, primary source and second, secondary source.

I. Primary Source

Data collected from primary source are those fundamental data whose compilation and diffused responsibility lies on the person who collected them. Here we have to understand it properly that it is not necessary that compiler of material collected from primary source is the writer of report. **Smt. P.V.Yang** wrote “Primary sources are those sources which are helpful at the primary stage of data collection. According to **Peter H. Maan** “Primary sources are those sources which provide data at the first time. This means that these data are the original pattern of data presented by people.”

We can explain Primary source in different words as where researcher himself collects the data by contacting research module of his own research-field or universe there it is called the primary source

of data collection. Here he collects the data by directly contacting module-member of his research. The data collected from this type is also called the material collected from primary source because it is collected first time by keeping in mind the particular problem. The responsibility of compilation of this data is of the researcher himself. The researcher himself is responsible for the reliability and usefulness of this material. The researcher has personal attachment in the collection of this material. As a result of this attachment he collects the data fairly to give his study a scientific pattern. It is also possible that because of this attachment he gets affected from prejudices, and collects that type of data which are helpful in establishing his imagination. In that case to keep his research scientific, researcher needs to keep him free from any prejudices.

P.V. Yang distributes the primary source of data collection in two parts: Direct source and indirect source. Under direct Source material is collected with the help of observation, interview and schedule techniques. In direct source, researcher directly connects with the research module. In indirect source, researcher collects the data by not directly connecting with the research module. In Indirect primary source questionnaire, radio or television, telephonic interview, representative techniques are important.

Here we will discuss under primary source of data collection observation, interview, schedule and questionnaire.

Self Assessment

Fill in the blanks:

1. Source of data means data is _____ from which source or medium.
2. Look directly at the conduct, nature and _____ of person related to research-subject.
3. Use documents, facts and material according to your _____.

(1) Observations – Observation comes under the primary source. In this the researcher himself reaches the research place and sees fairly the Incidents, conditions, things, customs, and nature, and watches them indifferently and on the basis of that collects the data. This technique can be used in limited field. And also this type of observation should not be connected to the thinking, trust, emotions and psychology of people since they cannot be studied by observation technique. Observation is of three types – First, Participant Observation; Second, Quasi Participant Observation and Third, Non-Participant Observation. In Participant Observation researcher becomes a member or part of that group or community, which he has to study. By doing this he can gather important information of the group. In Quasi Participant Observation researcher does not become a member of the group for a long time but he comes in close contact with the group on special occasions in order to gather data regarding special occasions. In Non-Participant Observation neither researcher makes contact with the group or people, nor does he become a member of the group. He collects the data in the form of a viewer by watching the circumstances. This technique of data collection is more reliable and dependable.

(2) Interview – In this conversation is made directly with the people associated with the research subject and the necessary data is collected regarding research. This technique is known as interview. In this the researcher can take the help of the Interview Guide. If he wishes he can collect data by free conversation. The persons related to incident or subject can give reliable and dependable information, then also some questions can be asked by the interviewer with the help of which collected material can be investigated.

(3) Schedule – There is a list of schedule questions in which the researcher himself or his associates fills the answers by going to the field and by asking questions to informers. In this method by the medium of schedule an original contact establishes between researcher and informers. With the help of this technique, illiterate persons also get information easily. This is quite a reliable source of receiving information. The main advantage of studying with the help of this technique is that the researchers gets the time to observe the incidents.

Notes

(4) **Questionnaire**—Primary sources are collected with the help of questionnaire though it is not the direct source but indirect source of receiving information. In this technique during study there is an indirect relation between researcher and informer in spite of direct relation. Questionnaire is a list of questions prepared by researcher which he sends to the respondent with the plea to fill and return it on time. This technique is used in that condition when the research field is so broad and vast that it is not possible to collect data by directly contacting all informers. Besides this technique is used for only those respondents who are literate and who can understand questions and answer them without the help of the researcher. The advantage of studying with the help of this technique is that there is a lot of saving of time and money. The main disadvantage of this technique is that the verification of answers received in this is difficult.

II. Secondary Source

Those sources from which secondary data can be obtained are called the secondary source of data collection. According to John Maize, "The construction of secondary sources is on the basis of quotable-heard things and indirect viewers." P.V. Yang writes, "The people using these secondary sources and those collecting them for the first time are different". According to Prof. Peter H Maan, "These are the data obtained at the secondary level. That means they are not the data collected at the first level instead these are the data formed on the basis of original data collected by other people. "It is clear that secondary material is such type of material of data collection, those people who collected it for the first time are different from those who now use it for their research work. From secondary source sometimes such important information can be obtained which are not available from the primary source. In social research secondary sources are not less important as compared to primary source. To find out the truth of primary sources there is a dependency on the data obtained from the secondary sources. Secondary source play an important role in creating the initial background and to determine the direction of research.

Secondary sources of data collection are divided in two parts, First **personal document** and second **public documents**. On discussing about them it will be clear that from which sources researcher can collect the data and use them for his research work.

1. Personal Documents

All the written material comes under the personal document that a person presents about himself or social incidents by understanding them by a special view. In personal documents there can be merger of person's thinking, feelings and principles. Written material available in the form of personal documents can be in the printed or non-printed form. By explaining the meaning of personal documents John Maize has writes, "In his narrow sense, personal document is the description written by a person himself about his own activities, experiences, and belief. " According to Jahoda and her associate writers, "Under the personal documents all those documents are taken which are written by the informers themselves on the basis of their personal life.

Personal documents contribute in understanding the historic background of social incidents happened in persons, in a particular time or in the past.

Although personal documents are individualistic but they are quiet useful in social research. They provide useful material in understanding the social activities. They are quiet important in that view as on the basis of them the way of life, eating habits, nature-pattern, social ideals—rules of people are known at a particular time. Letters, diaries, life-history and memories come under the personal documents. Now we will discuss them here.

(1) **Letters**—A normal person writes letters many times in his life although many letters are personal though they provide much important information. In terms of study historians and biography writers

use letters specially. According to Thomas and Nainki the farmers of Poland firstly uses the letter in their study. Personal letters provide important information in terms of study. They help in understanding the thinking and view of letter writers. Letters are written to our close persons. Therefore, a person expresses his important ideas, emotions, and important incidents of life, experiences, love, hate and his plans in it. Description of political incidents and social life is found in the letters. Things related to intimate side of life is written in letters. The important things related to family stress, marriage relations, sexual imbalance, separation, marriage separation can be known easily through the medium of letters. Since letters are personal and confidential therefore practical and reliable material is obtained from them.

In terms of study their utility is limited. The reason for this is that firstly, it is difficult to attain as it is personal. Secondly, in letters do not get the details of full context of incidents and in addition a lack of pattern is found in describing incidents. Thirdly, incomplete information is found in the letters on the basis of which it is difficult to find out scientific conclusion. Fourthly, if the purpose of writing letter is any convincing work then it will be difficult to find out the reliability of things described in it. Therefore, a bias and partiality is found in the material collected by the letters.

(2) Diary – Many people write their day-to-day incidents in the form of diary. Since diary is completely a confidential document therefore it is a reliable source to know the secret things of the life of a person. John Maze wrote, “Diaries mostly to expose the secrets since on one side they do not have the fear to be exposed in front of public and on the other side incidents and activities are written very clearly in them at the time of their occurrence. The importance of diary as a source of data collection in the social research is automatically gets cleared from this statement of Maze. Secret data are found from it, which is relatively more reliable since the writer accurately depicts the incidents in the diary. He does not write a diary for the purpose of exhibition or publishing. The diaries written in the form of memoirs for the work of great personalities, travel-description, memoirs of prison life, fight or any other phenomenal incidents are very helpful in research work. Right information can be got from the diary since the incidents are not presented distorted in them. This is an important source of getting reliable and confidential data.

Although diary is very important in social research, yet it has some limitations and drawbacks. **Alport** wrote, “In diary incidents are completely accepted and those descriptions of people or conditions of whose existence and character the writer had only a little idea or estimation are mostly forgotten” John Maize says, “ Diaries can tell briefly the dramatic and struggling part of life but there is no proper place for peaceful and happy moments of many months . “ Besides these drawbacks some other drawbacks of data-collection through diaries are. There is no proper sequence of incidents found in them. If the writer has just a latent desire of publishing the diary then there is a sense of writing incidents out of perspective. In that case it is difficult to obtain scientific conclusion on the basis of data gathered by the diary.

(3) Life-History – Life -History is very important as a secondary source of data collection. John Maize wrote, “In real meaning life-history means any descriptive autobiography. In simple meaning it can be used for any life-related material. “In other words we can say that meaning of Life-History is with any type of any life-related material. Basically, there are two forms of life-history, First, Autobiography which a person writes about himself and second, Biography which a person writes about life-related incidents of another person. Normally life-history is written for any person who has gained popularity.

Life-history in the form of autobiography can be written by himself or by some other person. Both these are the important source of secondary data-collection. Life-history of any great person helps in understanding the social, financial, political, cultural, and different types of incidents of his time. From life-histories the social situations and problems of a particular era can be understood properly. In India, life-history of social-reformers has helped a lot to understand and study related to Hindu society and the prevailing evils in it.

Notes



Task

What is personal document? Describe.

The use of life-history has some limitations. Firstly, there is a lack of objectivity in it. Since persons writing the life-history know that it will be published, therefore, they many times hide weak parts, they cannot do the real description of situations and incidents. so that the reliability and objectivity of material received from autobiography gets less . Secondly, It is not possible to investigate the data collected from life-history. Thirdly, in life-history the personality of a person is presented out of perspective. Those writing the life-histories in admiration of any leader or great person present the incidents out of perspective. Fourthly, Incidents, which writer feels important in his view are presented elaborately whereas rest can be presented in brief or can be left. They leave those things which are disrespectful in view of their reference. From this the real condition cannot be known. It is very difficult to find out scientific conclusion on the basis of this type of material.

(4) Memories – Many people write about their traveling, important incidents of life, exciting experiences in the form of memories, or tell to other people from time to time. These memories not only present the article-record of a person’s experience but also illustrate the condition of society of a particular era. The practice of writing the memories of traveling and important incidents is coming from the classics. For example, Columbus, Fahan, Huansang and Maganes wrote some important memories.

2. Public Documents

Public documents are very important as a secondary source of data collection. Keeping in mind the public interest, public documents are prepared by government and non-government organizations. Sometimes data are collected at the personal level and if they are used for public then such type of is material also comes under public documents. Public documents as compared to private documents are more comprehensive, provide more information and are more reliable. Generally they are free from personal partiality. First, published documents and second, unpublished Documents.

1. Published Documents – Many data are collected primarily from time-to-time by government and non-government organizations which are published for public use. When these data are used by other researchers so for them these data become the secondary source of data collection in the form of published documents. Here we discuss some important published public documents.

- (i) **Reports of Research Institutes** – Different research institutes publish reports from time-to-time to present the report of their research work. This material proves to be quite useful for other researchers. Tata Social Science Institute, National Research and Training Institute , Social Science Research Council and National Behavioural Finance Research Institute provided useful research material by publishing their reports from time-to-time .
- (ii) **Publication of Personal Researcher** – Many research students from different fields complete their research work and publish their research symposium. These publications are also the important data of secondary material in public documents.
- (iii) **Reports of Committees and Commissions** – Many government and Non-government committees and commissions publish their reports from time-to-time .Many types of data are collected by theses committees and commissions , for e.g. ,study related data , crime related data , poverty and unemployment related data which are published for public use . Alcohol prohibited inquiry committee, the reports published by National Placement Committee, Planning Committee have proved to be quiet useful. In India Census Reports are the main sources of secondary material. These are much used in social science study. For example,

the study related to Indian combined family by Dr I.P. Desai is based on Census reports. The epic published yearly by the Government of India is the primary source of secondary data collection.

- (iv) **Publications of Commercial Organizations and Councils**—The publications of National Manufacturing Commission, Child-Welfare Commission, Cotton Textile Mill Owner Committee, Financial and Numeric Directorate, Fertilizer unit, Chamber of Commerce are important secondary source of data collection.
- (v) **Publications of International Organizations**—The material published from time-to-time by United Nations Educational, Scientific and Cultural Organization (**UNESCO**), World health Organization (**WHO**), International Labours Organization (**ILO**), International Children Help Fund Organization are the reliable source of data collection.
- (vi) **Letters and Magazines**—Different research letters get published from time-to-time. Many research magazines also came in. Besides this, discussion of day-to-day news gets published in Newspapers. In that many articles and editorials also get printed. Radio and television also provide useful information. Although important data are obtained from these mass communications but these can be used with every caution for research-work. The reliability of such type of data can be investigated.

2. Unpublished Documents—Some material collected by government and non-government organizations are not published so as to maintain secrecy, while some material does not get published due to financial reasons. The important documents related to defense ministry do not get published for the purpose of maintaining their secrecy. Important information is collected from time-to-time by police department, law department, government offices, but they are kept in the form of records or documents, they do not get published. These materials are called records. These unpublished documents are also the important source of secondary material, although permission has to be taken for using these documents. Following sources of secondary material comes under the unpublished documents:

- (i) **Records**—Many types of data and information is collected and kept in the government and non-government organizations. These records are in the form of actions of different committees, organizations, reports of commissions, and the meetings organized from time-to-time. Although this material is confidential, but reliable also at the same time.
- (ii) **Reports of Researcher**—Many researchers prepares important reports on the basis of research work, write research-thesis but most of them is not published. These are also the important source of receiving information and verification of materials.
- (iii) **Scripts**—Some great persons, social reformers, leaders and persons famous in different fields prepare scripts by studying different subjects deeply and by collecting data. They do not get them publish due to some reasons. These contain quiet useful materials. It is very difficult to obtain these scripts for research work. Many times they are kept in the museum, where they can be availed.
- (iv) **Unpublished Folk-Songs, Folk-culture, Inscription, Folk-stories**—These are the important source of secondary data-collection. These are used in many studies by human scholars.

Principal Sources of Statistics of Secondary Data in India

Different departments of Indian Government collect information about Financial and Social life, Industries, agriculture, health, census, labour and publish them. Collection of different types of facts by the government is coming up from the British rule. But after independence the work of collecting information becomes schismatic. In the Act 246 of Indian Constitution there is an instruction for Indian Government to collect data related to safety, railway, banking and currency, census and foreign business. State government also collects data related to agriculture, animal-husbandry, forests,

Notes

education, jail, health and social welfare. In this way both Central and State governments collect and publish data related to different subjects that are useful in both research and practical point of view. In India, the facts collected can be divided in three parts: facts collected by Central Government, facts collected by state government and facts collected by non-government organizations.

(a) Facts Collected by Departments of Central Government

1. **Directorate of Economics and Statistics** – This Directorate works under Agriculture and Food Ministry of Indian Government. This Directorate collects agriculture statistics regarding agriculture, agriculture production, agriculture wages and agriculture development in India and publishes it through the medium of different letters and magazines.
2. **Reserve Bank of India** – Loan, finance, unemployment, poverty, inflation, status of living, per person income and other financial data are collected and published through different reports under finance ministry.
3. **Ministry of Commerce and Industry** – This department also collects and publishes data regarding production and commerce and industry. This ministry publishes information through the medium of 'Indian Trade Journal' weekly magazine.
4. **Ministry of Labour** – This Ministry publishes informations regarding number of labours, labour act, labour protection and labour welfare in Indian Labor Gadget.
5. **Ministry of Railway** – Information regarding Indian Rail Transport is published in **Monthly Railway Statistics**.
6. **Transport Department** – This department collects data related to Indian transport and publishes it in 'Traffic Survey'.
7. **Ministry of Education** – This department publishes data related to literacy, teaching policies, development of education in 'Education in India' (Annual).
8. **Ministry of Information and Broadcasting** – Publishing department of this department does the important work of collecting and publishing data. This department was established in year 1953. This department publishes magazine named Bharat in English and Hindi. Under this the latest data is related to Indian field and public, Census characteristics of India, financial data, cultural activities, health, education, social welfare, mass, field-improvement, cooperation, community development, labour and residence are published. The data and information published by this department are believed to be more reliable.
9. **Central Statistical Organization** – This department is established in year 1951. This department publishes collected articles of different departments of Central Government with a synthetic face. Now Statistical Organization is affiliated with this organization at the state-level. This department has the responsibility of collecting and publishing data at All India level. It publishes data by means of different weekly, monthly, half-yearly letters and magazines.
10. **National Sample Survey Organization** – This department was established in year 1950 by Central Government at the recommendation of Prof. Mahalanobis. At present this organization has become the important source of Indians statistics and Information. This department collects the data by surveying different fields for helping Planning Commission for five-year planning. Through this department the data related to economics of country, residential position, size of family, expenditure patterns, consumption patterns, rural and urban unemployment, rural income, landless agriculture labours are collected and published.
11. **Census Report** – The office of Indian Registrar General under Central Government brings out the census work every tenth year. The data related to census is published in the magazines

'Census of India Report' and 'Census of India Papers'. In Census different data related to population of country such as-age, Number of women-men, literacy, religion, rural-urban population, birth and death-rate, marriage positions, occupation and population of scheduled castes and tribes are collected and published. Latest Census was done in year 2011.

10.3 Authenticity and Reliability of Means of Research

No matter how carefully research tools are undertaken there always remain a doubt whether the information received from them are reliable and authentic or not . The reason for this is that many times the same question can be understood in different meanings by the informers and in that case their answers are also different. It is also possible that the meaning of question has not been understood.



Did You Know?

The tool of any research can be declared reliable and authentic only when the informer understood the same meaning of the question in which meaning it was formatted.

To know the reliability and authenticity of material of research the following methods can be adopted:

1. **Sending again the Questionnaire**—One method to know the reliability of questionnaire is that we again send the questions to the same informers. If answers to both questionnaires will be same then questionnaire is believed to be reliable and if answers different are then it is unrealistic is unreliable. But in between this there comes no difference in the social and mental situations of informers otherwise different answers can be obtained.
2. **Study of Similar Group**—To check the reliability of research the questionnaire can be sent to any other group of having the same qualities. If the answers obtained from both are same then questionnaire is reliable otherwise not.
3. **Use of Sub-Sample**—One method to check the reliability of research is that of which large group we have studied, send questionnaire by selecting a small guidance from them. If there is a lot of similarity between both results then questionnaire can be believed to be reliable.
4. **Use of other Research Methods**—To understand the reliability of research the answers of those questions should be known through interview, schedule and observation methods. If the same answers are obtained from different methods then questionnaire can be believed to be reliable.
5. **Common Experience**—The simplest way to know the reliability of research is that we should check them through our general knowledge. If the answer is against the general and prevalent knowledge, then they are believed to be unreliable.

10.4 Summary

- Facts or figures are the important steps of data collection. The way a building cannot be constructed without bricks, lime, stone, cement, gravel, wood and iron, in the same way, the work of research cannot be completed without facts
- Data are of two types: primary and secondary data.

Notes

- Primary data are collected for the first time by the researcher or his associates on the basis of field work. Those data come under the secondary data which are collected by any other reader, researcher or any other organization.

10.5 Keywords

1. **Data** – Any arranged information related to any incident, on the basis of which conclusions can be made or principle can be checked, are called data. This information is in the form of known or available material, figures or information.
2. **Sources of research** – No matter how carefully research tools are undertaken there always remains a doubt whether the information received from them are reliable and authentic or not.

10.6 Review Questions

1. Tell the importance of figure collection in research process.
2. What is the meaning of data?
3. Which sources comes under the secondary data.
4. Tell the difference between primary and secondary data.

Answers: Self Assessment

1. Collection

2. Activities

3. Need

10.7 Further Readings



Books

1. Sociology Encyclopedia - Harikrishna Rawat.
2. Social Research and Numerology - Ravindra Nath Mukherji.



Accredited with NAAC **A** Grade
12-B Status from UGC



Address: N.H.-9, Delhi Road, Moradabad - 244001, Uttar Pradesh



Admission Helpline No. : 1800-270-1490



Contact No. : +91 9520 942111



Email : university@tmu.ac.in